2001

Student Support Services: the impact the frequency of services has on the retention and graduation rates of white and students of color

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Iowa State University

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Student Support Services: The impact the frequency of services has on the retention and graduation rates of White and students of color

by

Carol Ann Mahan

A dissertation submitted to the graduate faculty in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

Major: Education (Higher Education)

Major Professor: Daniel C. Robinson

Iowa State University

Ames, Iowa

2001
Student Support Services: The impact the frequency of services has on the retention and
graduation rates of White and students of color.

Carol Ann Mahan
Major Professor: Dr. Daniel C. Robinson
Iowa State University

This study was conducted to research the background of the Student Support
Services Program and its capability as a retention program at a predominantly White
institution. The Student Support Services Program was originally funded under Title IV of the
Higher Education Act (HEA) of 1965 as Special Services for Disadvantaged Students. This
name was changed to the current Student Support Services Program in 1972, when the
original programs were transferred from the Office of Economic Opportunity to the Office of
Higher Education Programs.

Very few research studies have been conducted to ascertain why and how Student
Support Services work to retain students, especially students of color, although numerous
statistical data have been gathered throughout the years. Therefore, this study was
conducted specifically to determine if the length of time eligible students spend in the Student
Support Services Program increases their persistence and graduation rates. The population
of the study was comprised of 566 Student Support Services program participants who were
enrolled at Iowa State University from 1983 - 1999. Three major findings indicate that the
number of contact hours has a positive influence on (1) grade point average, (2) total credit
hours attempted, and (3) the propensity to graduate from the institution in a reasonable
amount of time. As an outcome of this study an array of ideas will be generated and
presented for future use by student support services professionals as well as researchers who are interested in conducting further study.
This is to certify that the Doctoral dissertation of

Carol Ann Mahan

has met the dissertation requirements of Iowa State University

Signature was redacted for privacy.

Major Professor

Signature was redacted for privacy.

For the Major Program

Signature was redacted for privacy.

For the Graduate College
DEDICATION

I dedicate this research to my mama, Margie Marie (Martin) Mahan.

I love you dearly and miss you deeply.

Her shared inner strengths, love, and deepest thoughts have enabled me to continue to seek this dream of ours, vicariously.

When she passed away, this dream seemed shattered and many miles away, but a warm breeze at a favorite fishing spot, and the words she instilled in my heart enabled me to stand strong and survive.

Thus, this success is our success!

I also dedicate this work to my beloved nephew, Marten Eugene Mahan, with all my love. May you never give up your dreams or let anyone take them away from you. Marten Eugene Mahan, as the last, Martin-Mahan may you stand strong, become prosperous, and be proud of your African American heritage.
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ABSTRACT

This study was conducted to research the background of the Student Support Services Program and its capability as a retention program at a predominantly White institution. The Student Support Services Program was originally funded under Title IV of the Higher Education Act (HEA) of 1965 as Special Services for Disadvantaged Students. This name was changed to the current Student Support Services Program in 1972, when the original programs were transferred from the Office of Economic Opportunity to the Office of Higher Education Programs.

Very few research studies have been conducted to ascertain why and how Student Support Services work to retain students, especially students of color, although numerous statistical data have gathered throughout the years. Therefore, this study was conducted specifically to determine if the length of time eligible students spend in the Student Support Services Program increases their persistence and graduation rates. The population of the study was comprised of 600 Student Support Services program participants who were enrolled at Iowa State University from 1983 - 1999. Three major findings indicate that the number of contact hours has a positive influence on (1) grade point average, (2) total credit hours attempted, and (3) the propensity to graduate from the institution in a reasonable amount of time. As an outcome of the study, a retention model is presented for future use by student support services professionals as well as researchers who are interested in conducting further study. As an outcome of this study an array of ideas will be generated and presented for future use by student support services professionals as well as researchers who are interested in conducting further study.
CHAPTER 1: INTRODUCTION

The secret of successful retention programs is no secret at all, but a reaffirmation of some of the important foundations of higher education. There is no great secret to successful retention programs, no mystery which requires unraveling. In short, retention is no more than, but certainly no less than, successful retention. Vincent Tinto (not dated)

Background of the Study: Retention Issues

Chistoffel (1986) purported that too many colleges and universities themselves have refused so far to make the kind of institutional commitment necessary to remedy the problem of attrition. It is not simply a matter of finding the financial resources. Rather, it is an issue of institutional reform — a willingness to provide the funding and services that students and the institution need to create an institutional environment in which all students regardless of ethnic background can grow, change and flourish.

Iowa was the first state to accept the terms of the Morrill Land Grant Act of 1862 that established the land-grant university system to offer higher education to all people. Originally, known as one of the "people's colleges" (mainly concerned with agricultural and industrial concerns), it should be noted that the Morrill Act of 1862 was the most significant single piece of federal legislation affecting public higher education in the nineteenth century, but it contributed little to the higher education for African Americans. It was not until the Morrill Act of 1890 that established Black land grant colleges for African Americans in the south and border states where the
“separate but equal” concept existed and provided an immeasurable opportunity for millions of ex-slaves to receive a formal education. “The Land-Grant 11 is a group of peer, land-grant universities that includes Iowa State” (Pounds, 1996, p. 1). According to the currently researcher, it should be noted that these Land-Grant 11 universities are also predominantly White.

Since 1959, the institution has been known as Iowa State University of Science and Technology. Iowa State University (ISU) is accredited by the North Central Association of Colleges and Secondary Schools, as well as appropriate professional organizations and is a member of the Association of American Colleges and Universities. The university opened in 1868 to a preparatory class of entering students, twenty-six of who graduated at the first commencement exercise of 1872. Iowa State’s student population has grown from a few hundred in 1868 too more than 26,845 students in 2000.

According to the 1998-99 Iowa State University’s – It’s a fact-ISU is ranked among “The Top 50 Public National Universities” by U.S. News and World Report, it is designated a Carnegie Foundation Research I university. ISU is shaping its mission for the 21st century, and has set as its aspiration to become the best land-grant university in the nation.

Believing that all students should have equal access to education, Iowa State University (ISU), a coeducational institution from the beginning and has a rich history of equality and excellence. Iowa State's twin commitment to equality and excellence is best shown through its commitment to the concept that all people
should have access to the ideas and knowledge of higher education. Iowa State University strives for excellence in its eight academic colleges: Agriculture, Business, Design, Education, Engineering, Family and Consumer Sciences, Liberal Arts and Sciences, Veterinary Medicine, and in the Graduate College.

Iowa State’s most important purpose is to educate students as part of its goal to become the “best land-grant University” in the nation. According to the November 15, 1995 minutes of the Board of Regents meeting, Iowa State University is working towards strengthening its undergraduate teaching programs, specifically the African American studies program. ISU officials have engaged in a number of new initiatives to address student persistence. Former President Martin Jischke stated that ISU had refocused several responsibilities to the Provost’s Office. Resources were reallocated toward lower division courses, a major scholarship campaign was mounted, and the work of the Center for Teaching Excellence was expanded.

However, with respect to minority student retention, the university embarked on an experiment to engage all employees in an educational exercise called Succeeding with Students, as recognition that it is the whole community that creates the environment in which students learn. The “best Biology Education Success Team, in which from twenty to twenty-five biology students are housed together in classes and residence halls thereby creating a learning community,” according to the Board of Regents meeting in 1995. “Best” is an illustration of a faculty-driven initiative to enhance the success of freshmen. Each college is committed to its teaching function to deliver high quality programs of study leading to bachelors, masters and
doctoral degrees. ISU asserts that they provide individualized support to students that include faculty advising, mentoring, and opportunities to learn hands-on experiences through research or internship, and personal interaction between students and faculty. In addition, each college impresses that students should learn to make informed decisions, pursue new knowledge, and become engaged in activities that enhance their commitment to participate in an increasingly global society.

If these statements are true, then similar programs should also have been mandated and implemented within other department and colleges, such as engineering, business or education to work, specifically with students of color. This should be the case if ISU already knows what works.

According to former President Jischke, (Board of Regents, 1995):

ISU officials are trying to increase minority student retention to 70 percent the university's 6-year graduation rate. In comparing ISU with other land grant universities, an interesting pattern can be seen. Four-year retention rates for ISU are a little low but 6-year graduation rates are on the high side (p. 5).

He also said,

...those comparisons indicate that given the quality of the students at ISU, its graduation rates are competitive nationally. With regard to the 4-year retention rates being a little lower and the 6-year retention rates a little higher than the national average, he said it was partially because family incomes in Iowa are somewhat below the national average. For that and other reasons, many of the students are working... (p. 12)

According to this researcher, there must be a glitch in the system because Iowa State University has had a history of not retaining or graduating its students of color
within six years at Iowa State University to those of the National Collegiate Athletic Association (NCAA) Division I, it appear that overall, they are extremely low. For example, the percentage of completion for Asian/Pacific Islanders at ISU versus NCAA for 1991 was 28.4 vs. 57.0; 1992-21.3 vs. 62.0; 1993-19.2 vs. 63.0; and 1994-12.0 vs. 60.0, respectively. There were differences of nearly 20 percent for 1991, but the rate climbed to nearly 30 percent for the following years. Another example for comparison between ISU and NCAA is that of the Hispanic students: 1991-43.2 vs. 36.0; 1992-53.6 vs. 39.; 1993- 46.7 vs. 41.0; and 1994-54.5 vs. 41.0, respectively. These percentages are directly opposite of those reported for Asian/Pacific Islanders. Apparently, ISU students of Hispanic origin were retained and graduated at a higher rate in ensuring years than other student of color group. Implications suggest that a study should be conducted to determine the cause for such differences in retention rates.

Has Iowa State University (ISU) accepted the broader belief that, in the U.S. each citizen has the right to an equal opportunity for a quality postsecondary education through to graduation and assistance finding suitable employment after graduation? If ISU has done this, then it should follow that this particular higher-educational institution has assumed and accepted the responsibility for protecting that right. Therefore, hypothetically, ISU cannot say "Let someone else handle that problem (i.e., the problem being minority student retention)." They also cannot shift the responsibility to one segment of the institution, the Provost’s Office or perhaps the Office of Minority Student Affairs, or one individual from each of his or her
Table 1. Comparison of graduation rates between sources prepared by Iowa State University and the National Collegiate Athletic Association Division

<table>
<thead>
<tr>
<th>Entry year</th>
<th>Percentage per year</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Entering class that graduated within 4 years</strong></td>
<td></td>
</tr>
<tr>
<td>African American</td>
<td>6.8</td>
</tr>
<tr>
<td>White non Hispanic</td>
<td>22.9</td>
</tr>
<tr>
<td>Hispanic</td>
<td>6.8</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>15.8</td>
</tr>
<tr>
<td><strong>Entering class that graduated within 6 years</strong></td>
<td></td>
</tr>
<tr>
<td>African American</td>
<td>26.3</td>
</tr>
<tr>
<td>White non Hispanic</td>
<td>64.8</td>
</tr>
<tr>
<td>Hispanic</td>
<td>43.2</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>65.8</td>
</tr>
<tr>
<td><strong>Entering class that left within the first year</strong></td>
<td></td>
</tr>
<tr>
<td>African American</td>
<td>38.3</td>
</tr>
<tr>
<td>White non Hispanic</td>
<td>16.4</td>
</tr>
<tr>
<td>Hispanic</td>
<td>15.9</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>13.2</td>
</tr>
</tbody>
</table>

**Public Institution: Entering class that graduated within 6 years**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>African American</td>
<td>30.0</td>
<td>31.0</td>
<td>34.0</td>
<td>36.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White non Hispanic</td>
<td>53.0</td>
<td>54.0</td>
<td>55.0</td>
<td>56.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanic</td>
<td>36.0</td>
<td>39.0</td>
<td>41.0</td>
<td>41.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>57.0</td>
<td>62.0</td>
<td>63.0</td>
<td>60.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Native American</td>
<td>28.0</td>
<td>30.0</td>
<td>33.0</td>
<td>34.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Percentages not provided for Native Americans.
6-year completion rates based on:
a1985-86 freshmen cohorts and includes all students who graduated by August 1991.
b1986-87 freshmen cohorts and includes all students who graduated by August 1992.
c1987-88 freshmen cohorts and includes all students who graduated by August 1993.
d1988-89 freshmen cohorts and includes all students who graduated by August 1994.
respective college, etc. Providing equal educational opportunities, particularly for disadvantaged populations of society, becomes the responsibility of each constituent within the institution. In an article from the *Iowa State Daily* on January 31, 2001, two ISU officials assert that the retention data from first-year students in their second year is strong and that retention is a university-wide effort with colleges and departments working together to keep students in their programs. According to William Crockett, in The Noel Levitz Center for Enrollment Management Retention/Advising Consulting Services (Enhancing the Quality of Student Life and Learning) training manual,

> retention is a university wide responsibility and institutional change results only from a collaborative and participatory effort. Therefore, effective retention strategies must improve campus programs, services, attitudes, and behaviors resulting in equal educational opportunities and experiences for all students. (p. A3)

Access and retention services were once essential components to the federal strategy that ensured an equal educational opportunity for all. The implementation of TRIO programs at many postsecondary institutions across the country such as ISU has helped to retain and graduate first generation, low-income, physically disabled and students of color. These students were retained and graduated from their institutions through the use of the Student Support Services. Student Support Services programs were designed to:

1. Increase college retention and graduation rates for eligible students;
2. Increase the transfer rates of eligible students from 2-year to 4-year institutions; and
3. Foster an institutional climate supportive of the success for low-income and first generation college students and individuals with disabilities. (Higher Education Amendments of 1992 Conference
The program provided services that are clearly outlined in the Department of Education Departments Guidelines and Regulations (EDGAR, 1994). The actual services are listed as follows:

1. Tutorial Services.
2. Mentoring Program involving faculty and upper classmen.
3. Basic Skills Instruction in writing, mathematics, and study skills.
4. Academic advising and assistance in course selection.
5. Exposure to cultural events and academic programs not usually available to disadvantaged students.
6. Activities designed to assist eligible program students in securing admission into graduate and professional programs.
7. Activities designed to assist eligible program students' financial assistance for enrollment in graduate and professional programs.

The Senate Committee on Labor and Human Resources (1991) believed that the design of the TRIO programs as they have evolved and through their widespread support in communities across the nation are essential to the retention and graduation of the students who qualify for program services.

Impact and Results

"There were significant gains in the rates of high school graduation and college completion for ethnic minorities in the 70's" (Wilds & Wilson, 1998, p. 1). Some thought that the 70's earmarked the beginning of the erosion of American prosperity. Iowa State University's few ethnic minorities and White women were being hired into positions of authority. At many institutions, especially in the Midwest, hiring practices changed. The "good-old-boy" system (structure of decision and policymaking in higher education) began to collapse; White men who
traditionally held decision-making positions were retiring. During the 1980s, 1990s and in the year 2000, there has been and continues to be an influx of White women into the “good-old-boy” infrastructure and the mainstream of higher education. In response to affirmative action, ethnic minorities or like internationals were hired but not into decision-making positions. Very few were hired into faculty positions as the data suggests in Figure 1 (see Appendix B: Minority and White Share of Full Professor Positions, by Gender: 1985-1995); many were hired as Directors of TRIO programs, minority student services, and as support service providers usually under the umbrella of a Minority Student Affairs office. As the data suggests there were slight increases in the opportunity for people of color to become full-time administrators in higher education from 1993 to 1995 (refer to Figure 2, Appendix C: Changes in Full-Time Administrators in Higher Education: 1993 to 1995. This “temporary fix” was short-lived or may be still on the rise. The 90’s brought about the erosion of affirmative action with the effects of the Hopwood decision in Texas and California’s Proposition 209. This turn of events proved to be devastating to the higher education of students of color in the U.S.

According to this researcher’s forecast of the labor market and global economy, institutions of higher education must address the challenges of retention. Higher education can adopt new ideas and programs that tackle some of the barriers that reduce the numbers of students of color at these institutions. Higher education has had a challenging role to play in America’s continuous struggle to exist as a leading national global economy.

Brimmer (1995) points out that
America will face its greatest demographic shift by the year 2005; minorities, recent immigrants and White women will comprise 85 percent of the new workers coming into the Labor market. By 2030, Whites will comprise 60.5 percent of the population. By 2050, Whites will barely be a majority—only 52.8 percent. African Americans will be 13.6 percent, Hispanics 24.5 percent and Asian Americans 8.2 percent. (pp. 11-29)

Therefore, today's so-called minorities will be the new majority within the labor force during the new millennium. Chandler (1997) states that the "failure to use the existing and potential skills, education and experience of African American workers alone costs the U.S. more than $100 billion in lost income and productivity each year. The same total annual income amount is lost by not utilizing the Hispanics and other disadvantaged minorities."

According to Kerr (1963), "America's economic vitality depends on the performance of higher education through its contributions to building human capital and accumulated knowledge" (p. 5).

If educational institutions could uphold the basic premise of doing "personal and public good" for the whole, then one could move into the future holding democratic beliefs and values consistent. Equality or equity, both at economic and educational levels, is needed to maintain a multicultural and democratic society. Thus, one (i.e., the American constituent) can continue to keep a "high-level economy" and prosper within the guidelines of a global economy for the new millennium.

In 1994, students from families in the lower-income bracket who attended college rose only 8 percent between 1979 and 1994 (Wilds & Wilson, 1998). This might be interpreted that, within this 16-year timeframe, the gains in earnings from
the full use of present and potential educational achievements for African Americans alone in the United States between 1979 and 1993 went from 4.22 to 4.74. In other words

... while African Americans' educational attainment continues to fall short of that for the population as a whole, many also continue to be employed in jobs well below what their actual education and skills would justify. To a considerable extent, these disparities mirror the effects of past — and present — racial discrimination. (Brimmer, 1995).

Therefore, the poor get poorer, even with an education. If one is concerned based on the preceding statements, simply multiply eight percent to the family incomes (see Table 2). For institutions of higher education to continue to require students of color, who are all from different cultures, to adapt to institutions' "discernible conditions" is unrealistic. The National Institute of Independent Colleges and Universities refers to these conditions or "dominant themes that tend to characterize the campus climate" is in direct contradiction to the basic concept that "...public higher education helps to build a citizens capable of informed choices. It also provides the skilled and the intellectually dynamic workforce needed to sustain a high-level economy" (Chandler, 1997). "How can we possibly have sound 'citizenry', when at this formal level of education and training we are still implementing the purest form of "institutionalized racism" (Taylor, 1990).

Thus, if this future forecast does become a reality, who will the decision-makers be? If minorities do not have access to higher education, American prosperity will collapse. What is the biggest fear of White Americans? Could it be living in a land in which White Americans no longer can maintain an image and economy that has taken well over two hundred years to develop?
Table 2. Annual low-income eligibility requirements, 1992-93

<table>
<thead>
<tr>
<th>Size of family</th>
<th>Income must be less than</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$10,215</td>
</tr>
<tr>
<td>2</td>
<td>$13,785</td>
</tr>
<tr>
<td>3</td>
<td>$17,355</td>
</tr>
<tr>
<td>4</td>
<td>$20,925</td>
</tr>
<tr>
<td>5</td>
<td>$24,495</td>
</tr>
<tr>
<td>6</td>
<td>$28,065</td>
</tr>
<tr>
<td>7</td>
<td>$31,635</td>
</tr>
<tr>
<td>8</td>
<td>$35,205</td>
</tr>
</tbody>
</table>

Source: The low-income eligibility requirements are represented as annual family income levels equal, or lower than, 150% of family income levels established by the U.S. Department of the Census for determining poverty status. The U.S. Department of Health and Human Services in the Federal Register of February 14, 1992, Volume 57, Number 31, pages 5455-5457, published these levels.

Or, is it continuing to embellish the attitudes and concepts that perpetuate “racism”? Has Iowa State University accepted the broader belief that in our country, each citizen has the right to an equal opportunity for a quality postsecondary education through to graduation?

**Significance of the Study**

Are these questions that policy or decision-makers at Iowa State University have addressed? Or, has minority student retention been a strategic planning issue that was discussed, resolved and laid to rest, never to be revisited; although, the problem of not retaining and graduating students of color still exists. How many chief administrators at predominantly White institutions have thought about what the impact of not retaining and graduating students of color may have on the economy and the future of America?
The significance of this study is that it might offer a solution to:

1. Enhance Iowa State University's commitment towards creating a more diverse labor market, not just for White women and becoming a part of the global society;
2. Increase the educational attainment levels of students once the persistence and graduation rates improve;
3. Reverse the effects of current and past racial discrimination, by proving current and future students of color that Iowa State University has a real commitment towards creating a global and culturally diverse university environment - a climate that is truly cultivating a diverse population.

This research provides an alternative way to modify the current retention strategies, so that predominantly White, public institutions and their constituents might become more successful in retaining students of color, disadvantaged, physically disabled, and low-income students.

**Problem Statement**

Institutions of higher education must address the issue and the challenges of retention. Higher education can adopt new ideas and programs that tackle some of the barriers that reduce the numbers of students of color at these institutions.

**Purpose of the Study**

The purpose of the study was to determine if the frequency of services received influenced the retention and graduation rates of the participants in the Student Support Services Program.
It is the contention of this study that, through specific services offered, the Student Support Services Program creates a more conducive learning environment for students with special needs (i.e., students requiring services geared specifically to their retention and graduation from the institution), especially students of color, but also students with disabilities. This more suitable learning environment has a positive impact on the academic performance of participant students and, consequently, on the ability of the university to retain such students.

This study was conducted to provide administrators, faculty, staff and its constituents, at predominantly White institutions, and their surrounding communities, with a comprehensive review of the literature, a successful retention model, the history and basis for the development, implementation, continuation, and a rationale for the institutionalization of the Student Support Services program. It was also conducted to provide different insights on ways to modify current retention strategies, so that, if possible, these institutions and their constituents could become more successful in retaining students of color, as well as those who are first generation, or physically disabled, or of low-income.

Research Questions

The following research questions were the product of a comprehensive review of the literature developed to guide the study:

1. Is there a discrepancy between White and students of color in general with regard to academic performance as measured by cumulative grade point average, total credit hours attempted, and graduation rates?
2. What are the participants’ retention and graduation rates based on the hours of services received from the Student Support Services Program and do these vary between white and students of color?

3. Does participation in the Student Support Services Program have a significant impact on the total number of credit hours attempted among White and students of color?

4. Does participation in the Student Support Services program have a significant impact on student’s cumulative grade point average among White and students of color?

5. How does cumulative grade point average vary by college based on the number of hours of services received from the Student Support Services Program?

Hypotheses

Nine null hypotheses were formulated to answer the research questions:

Research Question 1: Is there a discrepancy between White and students of color in general with regard to academic performance as measured by cumulative grade point average, total credit hours attempted, and graduation rates?

Hypothesis 1: There is no significant difference between White and students of color with regard to cumulative GPA.

Hypothesis 2: There is no significant difference between White and students of color with regard to credit hours attempted.
Hypothesis 3: There is no significant difference between White and students of color with regard to graduation rates.

Research Question 2: What are the participants’ retention and graduation rates based on the hours of services received from the Student Support Services Program and do these vary between white and students of color?

Hypothesis 4: There is no significant correlation between the number of years students are retained at the institution and the number of hours of SSSP services they received and this relationship is consistent when controlling for ethnicity.

Hypothesis 5: There is no significant difference between graduation rates based on the number of hours of services received and this relationship is consistent among White and students of color.

Research Question 3: Does participation in the Student Support Service Program have a significant impact on the total number of credit hours attempted among White and students of color?

Hypothesis 6: There is no significant relationship between the total number of credit hours students attempted and the number of hours of services they received from the Student Support Services program and this relationship is consistent among White and students of color.

Hypothesis 7: There is no significant relationship between the average per semester credit hours students attempted and the number of hours of services they received from the Student Support Services program and this relationship is consistent among White and students of color.
**Research Question 4:** Does participation in the Student Support Services program have a significant impact on student’s cumulative grade point average among White and students of color?

**Hypothesis 8:** There is no significant relationship between the student’s cumulative grade point average and the number of hours of services they received from the Student Support Services program and this relationship is consistent among White and students of color.

Although, not primary to this study Research Question 5 was done to review the organizational structure within the colleges. Within each college there is a Minority Liaison Officer (MLO), the role of the MLO is defined differently within each of the colleges. In some colleges they are recruiters for specific populations or students of color and in other colleges they interact with other constituents within the college to retain and graduate their students of color.

There seems to be a difference of opinion by college on which of the roles, either recruiter or retention specialist is the more effective is retaining and graduating the students of color. Maybe, one should ask within their respective colleges how many students of color were admitted during a certain time frame and how many of those students are still enrolled at different intervals (semesters) later on.

**Research Question 5:** How does cumulative grade point average vary by college based on the number of hours of services received from the Student Support Services Program?

**Hypothesis 9:** There is no correlation between students cumulative grade
point average and the number of hours of services they received the Student Support Services Program when controlling for college enrollment.

**Limitations**

The study was conducted with the following limitations:

1. There were other influences and non-cognitive factors that affected the persistence and graduation rates of the students.
2. The results of this study can only be applicable to the population from which the data were taken.
3. Because very few studies have been conducted on cultivating the campus environment and institutionalized racism, there is no basis for comparison.

**Definition of Terms**

The following terms were defined for use in the study:

*At-Risk:* A student’s inadequate preparation for college. It can also be the result of isolation or exclusion perceived by the student in response to an inhospitable racist campus environment.

*Attrition rate:* The rate at which students leave the institution without graduating from the institution.

*EDGAR:* Acronym for Education Department Guidelines and Regulations.

*First generation college student:* A student who qualifies as first generation if neither of the student’s parents received a baccalaureate degree.

*Campus climate:* The total effect of the environment – institutional and community – which influences the experience of those who, work and study at a college or university.
Institutional Racism: The systematic exclusion (through traditionalism, political conservatism, political liberalism, bureaucracy, and intellectual arrogance from the constituents that comprise the institution or the surrounding community) of people of color from all aspects of their structure, daily operation, and utilization of resources (Taylor, 1990).

Integrate: means to unite together to form a more complex, harmonious, or coordinated entity. It means to organically unify, to form a more perfect entity" (Mays, 1970).

Low-income individual: Individual whose family's taxable income did not exceed 150 percent of the poverty level in the calendar year preceding the year in which the individual participates in the program.

Persistence: The students' ability to stay at the institution and an institution's ability to provide the commitment and services needed to retain that student.


Retention: The early identification of students who have been enrolled at an institution and who are given the assistance they need to persist at that institution through to the completion of an academic program – graduation and assistance with placement either employment or securing admissions to further their education.

Shankerism: The Newark Star Ledger, December 8, 1968 defines “Shankerism as the blind and stubborn holding on to the victories [racism] of the past, regardless of the consequences “(Wright, 1970).”
TRIO: Three initiatives funded under Title IV of the Higher Education Act (HEA) of 1965. In order of creation, they are: (1) Upward Bound (1965); (2) Talent Search (1965); and (3) Special Services for Disadvantaged Students (1968). Now nationally known as TRIO, they were transferred from the Office of Economic Opportunity to the Office of Higher Education Programs.
CHAPTER 2: LITERATURE REVIEW

Introduction

A comprehensive review of the literature was conducted to ascertain the impact of predominantly White institutions on students of color. The review is presented in two parts: (1) Historical Perspective – students of color exclusion from higher education, the U.S. labor market; (2) Link – history of student support services and student support services at Iowa State University and (3) retention/graduation issues, and theoretical and ethical implications.

Historical Perspective

A Brief History of the Exclusion of Students of Color from Higher Education, more specifically at Predominantly White Institutions, is provided in the following subsections. It traces from the earliest founding of private colleges excluding and failing to admit, retain and graduate students of color at predominantly White institutions, to the development of retention programs by the latter, ethical issues, the challenge of change, and the link to present-day programs.

Students of color at predominantly White institutions

According to Henderson (1971), “private colleges were founded on the hope of former slaves becoming full members of the American society or dream. State-supported colleges were founded on the principle that the state was obliged to support something for Negroes which it also supported for Whites, but with the understanding that whatever it supported for Negroes would be inferior…” (p. 630).
Person (1984) noted that “some educational historians believed that higher education for African Americans began more than two hundred years after the founding of Harvard University in 1636” (p. 3). On the other hand, Hughes and Meltzer (1969) assert that, “Harvard did not graduate its first African American until 1870. The first predominantly White colleges in the North to educate African Americans were Wilberforce University in Ohio in 1856 and Lincoln University in Pennsylvania in 1854” (p. 219). However, Bowles and DeCosta (1971) affirm that, “Amherst and Bowdoin graduated the first African Americans in 1826, but did not graduate any additional African Americans prior to the Civil War” (p. 20). According to Franklin (1967), “…a number of African Americans did obtain some education, it was not because the North encouraged admission to their institutions (p. 230).

Franklin (1967) noted, “Except for Oberlin College, Berea College, Franklin and Rutland Colleges very few colleges admitted African Americans on a continuous basis” (pp. 12-14). According to Duboise and Dill (1971), “only twenty-eight (28) African Americans were awarded baccalaureate degrees from American colleges and universities prior to the Civil War” (p. 16). Person (1984) goes on to clarify that “in the south, West Virginia was the first southern state to make ‘a separate but equal’ provision in its constitution for educating African Americans” (p. 16). Three factors contributed to the lack of access or the admissions of African Americans into public higher education institutions. According to Person (1984), they were 1) the traditional negative attitude of the south toward educating African; 2) the opposition from those who wanted to keep African Americans in a subservient status; 3) an insufficient tax base to support educating large numbers of former slaves” (p. 4).
Educational systems have always been viewed as a pipeline to leadership positions and influence in our society and college completion is the leakage point at which large numbers of minority groups drop out of the pipeline (Jones and Watson, 1990; Justiz, Wilson and Bjork, 1994; and Mays, 1970). In the past, as long as the educationally disadvantaged [ethnic minorities] were just a small majority of the population, they held jobs in low-skilled occupations or were unemployed without direct consequences to the economy (Levin, 1986). Ethnic minorities have viewed education as a means to an end in that they need the formal training and education to be able to compete for the better paying jobs. Going to college has been and still is perceived as part of the good life. (Chandler, 1997)

Ethnic minorities were able to enter into the realms of higher education because of the GI Bill. However, they were relegated to attending freedman’s schools or historically Black colleges in the South and segregated schools in the North (Chandler, 1997; Cremin, 1979; Moe, 1989; Wilds & Wilson, 1998). O’Brien and Zudak (1998) note that “Native Americans were not prohibited from attending colleges and universities, in fact they have attended predominantly White institutions for the past 350 years” (p. 6).

One would want to wonder why there is and has always been this waste of human resources. Or should you pay particular attention to the fact that students of color, specifically African Americans and Hispanics, had been systematically excluded from an integrated higher educational pipeline since the middle of the 20th century. According to O’Brien and Zudak (1998), both ethnic groups were limited by legal mandates.

According to Dunston et al. (1983), it was not until the early to mid 1960s that the primary goal was changed to integrate Black students into White university systems. As suggested by psychologists Bandura and Hurston (1961), “integration
ideally represented a process of interaction and exposure out of which models could affect Black student behavior" (p. 4). This process of interaction and exposure or assimilation had already been successfully imposed on the Native American populations.

Chandler (1997) acknowledged that higher education helped to develop strong citizens by creating individuals (through education, interaction and training) who were capable of making sound decisions and choices. Moe (1989) reported, "the dilemma of minority participation in higher education appeared to be twofold. On the one hand, the paucity of minority adults in higher education is clearly a problem if there is to be a more even balance of the races in higher education attainment within the society" (p. 3).

Retention of students of color at predominantly White institutions

According to Fleming (1984), and Willie and Cunnigen (1981), by the end of the 1960s, African American students who were enrolled in higher educational institutions were attending predominantly White college and universities (PWCUs). The United States Department Of Education's Digest of Education Statistics 1997 for U.S. higher education reported that the total minority enrollment was 3,496,174 during the 1995-96 year: 2,849,526 in public higher educational institutions; 1,550,183 in public 2-year institutions, and 646,648 in private higher educational institutions.

According to the proportion of college students of color enrolled in the State of Iowa there is a need to increase all retention efforts at of the institutions of higher education in the state as reflected in Figure 3 (refer to Appendix C: Figure 3). The
graduation rates of African American and Native American students at public PWCUs historically have been and continue to be low when compared to those of White American students (Allen, 1991; Astone & Nunez-Womack, 1990; Carter & Wilson, 1996, 1997; Fleming, 1984; Gose, 1997; Mow & Nettles, 1990; Willie & Cunnigen, 1981)." According to Burr, Burr, and Novak (1999), "colleges and universities do not exist in a vacuum, especially given the current focus on remaining competitive and maintaining a reasonable share of the total student population. Institutions of higher education need students to sustain their economic viability in the student market" (p. 7).

According to Thomas, Farrow, and Martinez (1998) state that "the research on student retention or persistence generally concludes that a number of student- and institution-related factors appear to play a role in determining the likelihood that disadvantaged students will remain in and graduate from college. Among a number of institutional characteristics that are considered important to the retention of students in higher education, researchers have identified one characteristic, the availability of support services, as key to the attainment of this goal" (p. 390).

**Ethical implications: Fear and challenge**

There is evidence throughout the culture that the manifestations of social prejudice, as identified by Gunnar Myrdal (1944) in *An American dilemma*, continue to play an important role in the attitudes exhibited in higher education. Brimmer (1995) postulates that in today's world "millions of White Americans, including White people of great good will and fairness, see their familiar landscape of assured financial security and upward mobility for themselves and their children vanishing"
Chandler (1997) perceives that by not comprehending the giant shifts in the global economy that are undermining America's historic experience and scared by a slow-growth economy, many White Americans are displacing their economic fears onto the very groups that constitute the salvation of their economic future.

Higher education has and will continue to have a challenging role to play in the education of students of color. In an article written by Johnson (1968) entitled: "An alternative to miseducation for the Afro-American people" in the book, What Black educators are saying (Wright, 1968), she cites the keynote speaker, Dr. Wilkerson, as saying: "Education is a dependent inter-acting unit of the whole [not the majority] culture" (p. 198). Johnson clarifies Wilkerson's statement by adding that as:

America has developed throughout the centuries the system has had to redefine itself in order to meet the needs of the mainstream [changed to the majority]. Education is one of the several major societal institutions. (Johnson, 1984, p. 205)

Atwell (1988) made the point that educators needed to re-examine the foundations of higher education and the relationship of education to the development of American society. Nevertheless, the central question for American society is not new it is the same one that drove our forbears to these shores, namely, how can we build a just and productive society? Chandler (1997) reported that with rising tuition costs, financial aid cuts and reduced budgets had, at the very least, postponed the possibility of a college education for poor disadvantaged students.
Campus climate

Does one really understand the impact that a predominantly White institution, with a European-American orientation, has on students of color? Can we comprehend the challenges these students face adapting to “other” students, the campus climate—the environment, institution and community? One might say that being a student of color within a social context and academic setting based on White middle-class values could create multiple barriers for those students. Others would say that these students have grown up within those same contexts so why is it a problem now? They are going to be working in those or similar types of environments.

Chandler (1997) contends that the negative climate at many institutions is reflective of “the increasing negative attitudes of adversaries towards opportunity programs and affirmative action programs. The judiciary and court of public opinion have turned away from the idea of compensatory or “equalized” opportunity based on race or gender. They have done so by denying that these injustices exist and by claiming that the actions designed to level the playing field unfairly tilted against White males.”

It is not the position of this research to debate or rationalize either point of view. Rather, through a comprehensive review of the literature regarding retention of students of color, it is hoped that this history will provide administrators, faculty and staff at predominantly White institutions, an analysis of the frequency and types of support services provided by the Student Support Services (SSS) program, suggestions on how to improve the campus climate, and insight on how to improve
or modify current retention strategies on the Iowa State University campus. The ultimate goal is that they could, if possible, become successful in retaining their students of color.

For institutions of higher education to continue to require students of color, who are all from different cultures, to adapt to institutions’ “discernible conditions” is unrealistic. The National Institute of Independent Colleges and Universities (NIICU) refers to these conditions, or “dominant themes that tend to characterize the campus climate,” as being in direct contradiction to the basic concept that “…public higher education helps to build a citizens capable of informed choices. It also provides the skilled and the intellectually dynamic workforce needed to sustain a high-level economy” (Chandler, 1997, p. 10). How can we possibly have sound “citizenry,” when at this formal level of education and training we are still implementing the purest form of “institutionalized racism” (Taylor, 1986)

Terenzini and Pascarella (1991) state, “the real quality in undergraduate education resides more in an institution’s climate and what it does programmatically than in its stock of human, financial, and educational resources.” They emphasize: “the extent to which institutional structures promote cohesive environments that value the life of the mind and high degrees of student academic and social involvement” (p. 11).

It would appear that educational institutions should focus on student academic and social involvement. Colleges and universities must not alienate and isolate students of color by maintaining environments in which they [ethnic minorities] have feelings of despair, hopelessness – helplessness. However, it’s the
actions that one invokes in society that concern the current researcher. An example in higher education is that ethnic minorities, internationals, and the disabled are admitted and their educational, social, personal, etc., needs are met, but it is not the institution's responsibility to change for them; rather, it is the students' responsibility to graduate from the institution. They have to meet the institution's standards of performance. Generally speaking, the institution does not have to restructure its environment [this does not exclude compliance issues].

**Impact of campus climate and environment on academic persistence**

Research on institutional characteristics that promote retention, student compatibility, academic and social integration and institutional fit Iowa State University’s attrition, retention and graduation rates. The following sections present research findings on the institutional characteristics of students of color.

**Challenge to change**

Chandler (1997) points out that in order for institutions to change their high attrition rates for students of color and the disadvantaged, every college and university president must analyze the strengths and the weaknesses of our society and then serve as gatekeepers to assure that the following goals are carried out to:

1. Recruit the new and traditional student body and not the just the brightest and the best;
2. Foster the values of diversity and inclusion on which the future of America must rest; and
3. To instill equity as a normal condition on their own campuses and not as tolerance measure.

Tinto (1996) asserts that if one is aware that nearly 40 percent of the entering traditional college freshmen in baccalaureate-granting institutions never achieve a
degree, and of the entering non-traditional college freshmen more than 80 percent never achieve a degree and as a committed institution to the retention and graduation of the students of color, disadvantaged and low-income students, then higher educational institutions must implement the guidelines that will create a successful retention program for those targeted groups of students. In *A retention design applied to an equal opportunity program*, Anderson (1978) identifies eleven themes used to coordinate successful retention programs for low income and students of color:

1. Program goals must be endorsed and supported by institution officials and programmatic activities must be consistent with these goals.
2. Retention begins with an ethically conducted recruitment program based upon documented characteristics of persisters.
3. To improve the flow of nontraditional students into colleges, alliances should be formed with feeder high schools and community colleges.
4. It is impossible to orient students to Institutional demands before they have direct experience with those demands.
5. It is important for participants to identify with the equal opportunity program and yet not feel stigmatized by it.
6. The best retention services directly address the areas of greatest student anxiety and frustration.
7. Retention programs take the initiative in promoting and providing services. (The term "initiative" can be made operational by the use of the term "mandatory." We find this term to be proactive rather than inactive; thus,
our tutoring and advising program should be impactful.)

8. In order to ensure program relevance, students should be treated as consumers.

9. Campus support for an equal opportunity program will result if the program accomplishes its objectives and demonstrates its value to the institution.

10. The lifeblood of equal opportunity programs is an effective staff.

11. Program management must provide a developmental perspective.

Ciewell and Ficklen (1986) state that a model for developing a successful and effective retention plan should include the following steps and/or components

1. Have a commitment statement signed by the president of the college or institution;
2. Conduct a thorough analysis of the enrollment attrition and retention rates data (i.e., what the student's needs are—a more personalized needs assessment should be completed on previously identified at risk students of color);
3. Issue a policy statement which includes clear measurable and specific goals that are based on the needs assessments and data base results;
4. Develop programs that are designed to meet these goals;
5. Implement the programs;
6. Hire key quality personnel
7. Conduct continuous and ongoing monitoring and evaluation of the programs and services; and
8. Conduct annual revitalization and/or improvement of programs and services provided.

Link to change

This section discusses non-cognitive factors that affect student success and policies that encourage student retention. Valverde (1986) provided a three-tier typology of retention intervention strategies for low-income students. Type 1 intervention, or zz need-specific intervention, is characterized by those strategies that focus on one or more students' needs. Type II interventions are comprehensive strategies,
grounded in research on high-risk students that consider multiple factors academic adjustment, financial aid, cultural fit, and alienation. Type III interventions, or system solution, are campus-wide institutional interventions, and there is a clear commitment articulated in the mission statement of minority student recruitment and retention goals. Landis (1985) emphasized that the most important aspect of an effective retention program is a supportive and encouraging environment created by and for students to counteract obstacles such as ethnic isolation and alienation.

Iowa State University’s Student Support Services Program utilized Valverde’s (1985) Type II typology of a retention-intervention strategy, through the development of student needs’ assessments and the delivery of comprehensive program services developed to meet the students’ needs. The services were transformed into types of student contact, and it was the intent of this study to determine whether the frequency of those student contacts positively impacted the program participants’ retention at the University and graduation from the institution.

One way institutional presidents can assure that students of color as well as the disadvantaged are retained and graduated from their colleges and universities is by implementing a retention plan that is inclusive of an institutionalized student support services program. According to a Congressionally-mandated national study that was conducted on Student Support Services (S-SS) in 1994, “educational attainment for ethnic minorities has increased over the last thirty-five years” (Carter & Wilson, 1997; American Indian Higher Education Consortium and the Institute for Higher Education Policy, 1996; Hispanic Association of Colleges and Universities, 1989, 1996; Wharton, 1986; Wilds & Wilson, 1998. Nevertheless, African American,
Hispanics and Native American students trail behind White students on all levels of educational participation and completion indicators (Wilds & Wilson, 1998).

Students of color have access to higher education through community colleges only to find themselves caught in a pattern similar to that of the "revolving door syndrome." Nevertheless, the opportunity for transfer into four-year institutions and degree attainment has not improved at four-year institutions (Justiz, Wilson, & Bjork, 1994; Wilson, 1994; Wilson & Melendez, 1986). According to Justiz et al., "to continue to increase minority participation in the twenty-first century the focus should be on the number of students who graduate and the time span in which they take to graduate from the institutions" (p. 14).

At most institutions these programs are at the pulse of retention efforts. Clewell and Ficklen (1986) studied four institutions reputed to have good retention programs and found that offering comprehensive services was one of the common characteristics shared by each institution. Richardson, Simmons and de los Santos (1987) included the provision of comprehensive support services among the 10 principles they suggest institutions could use to increase the retention rates of minorities.

In relation to the 1994 National Study of Student Support Services (SSS) report, there is a still a strong need for support services based on the following facts once enrolled in college, 4-year completion rates are significantly lower for groups traditionally underrepresented in higher education.

1. In any given year, about 1 million 17 year-olds would be eligible for SSS services if enrolled in college.
2. Education as a primary means of lessening economic inequality is particularly important for underrepresented groups. (p. 2)

At Iowa State University, the program was viewed more as a minority program than a retention program. This perception stemmed from the program being housed in the Office of Minority Student Affairs. The funds were typically used to defray the cost of tutoring for ethnic minority students who qualified for the program services and a summer enrichment program for ethnic minorities. There was very little information disseminated throughout the university about the program, so the perception remained the same until the program was moved from the Office of Minority Student Affairs to the Dean of Students Office in 1988. Then the program was relegated to several small corners, in the dark, in the back of a roach ridden basement, that was inaccessible to the physically disabled students.

There is a need for TRIO programs, specifically Student Support Services at Iowa State University to address the environmental, "...social, financial, academic, and cultural barriers to higher education facing low-income students who are often among the first generation in their families to attend college" (Coles, 1998, p. 7).

**Historical Perspectives of TRIO Programs**

Since the Civil Rights Movements of the 1960s and the death of Reverend Dr. Martin Luther King Jr., the United States has been committed to providing equal educational opportunities for all Americans regardless of racial/ethnic background, gender, or economic circumstances, so we say. In support of this commitment Congress established a series of programs designed to help low-income Americans enter and succeed in college.
In 1964, President Johnson signed the Economic Opportunity Act. This legislation gave rise to the Office of Economic Opportunity and its Special Programs for Students from Disadvantaged Backgrounds. The legislation that enabled this new opportunity was Public Law 90-575, the Higher Education Amendments of 1968 (HEA).

Special Services for Disadvantaged Students, administered by the U.S. Department of Education was initiated in 1970, and later became known as Student Support Services (SSS) (Thomas, E.P.; Farrow, E.V.; & Martinez, J, 1998). What follows is a brief synopsis of the history of TRIO programs in the United States, specifically Student Support Services.

The United States began a modest effort to expand access to higher education beyond the traditional pool of wealthy and privileged White youths. This effort marked the first time since the end of World War II that the United States government had made higher education accessibility one of its priorities.

These initiatives were funded under Title IV of the Higher Education Act (HEA) of 1965. Three of the programs were created by the HEA: Upward Bound (1965), Talent Search (1965), and Special Services for Disadvantaged Students (1968). The three programs, which are now nationally known as "TRIO," were transferred from the Office of Economic Opportunity to the Office of Higher Education Programs. In support of this commitment, the U.S. Congress continued to establish more initiatives. They were Educational Opportunity Centers (EOC), the Ronald E. McNair Post-Baccalaureate Achievement Program, Upward Bound Math/Science Program, Gear Up, and Staff and Leadership Training Authority
Throughout the seventies and well into the 80’s these programs provided academic support services for populations traditionally underrepresented in postsecondary education, specifically ethnic minorities.

Iowa State University Student Support Services Program (SSSP)

Iowa State University’s Student Support Services Program received funding for its first Student Support Services grant in 1980. The purposes of Iowa State University’s Student Support Services Program were the same as those stated in the Department of Education Grant Administration and Regulation (EDGAR) handbook in section 646.10.

1. To increase college retention and graduation rates for eligible students;
2. To increase the transfer rates of eligible students from 2-year to 4-year institutions; and
3. To form an institutional climate supportive of the success of low-income, first generation, college students with disabilities.

The 1987-1997 grant proposals were designed to show the extent (in detail) to which the Student Support Services Program would provide necessary services required for eligible students to successfully pursue a postsecondary education. Through the implementation of the proposed program objectives, the program strived to increase student persistence/retention, increase graduation rates and prepare students to enter and succeed in graduate or professional schools.

Goals, process objectives and methods of evaluation

Nine of the 32 objectives of the SSSP are listed as they are applicable to the purposes of the current study. The goals, objectives and methods of evaluation for the SSSP are listed for each of the selected objectives.
Objective 1: One hundred percent (100%) or 350 of the student population who meet the Student Support Services eligibility criteria will be identified, screened, and selected in August, September, and June of each fiscal year, as documented by the intake date in the student files.

Expected outcome: The identification, selection, and enrollment of not less than 350 qualified students into the program. To have eligible students participating in the program throughout the year and have their files contain the required application, contracts, and other applicable data. All students selected will have met the eligibility criteria of low income and/or first generation, and individuals with disabilities and a need for program services.

Objective 3: Eighty five percent (85%) of the program participants who demonstrate a need for tutorial assistance will be provided individual/group tutoring; 60% will receive a letter grade of "C" or higher in the course for which they receive tutoring each academic year.

Method of Evaluation these conditions or “dominant themes that tend to characterize the campus climate” is in direct contradiction to the basic concept that “...public higher education helps to build a citizens capable of informed choices. It also provides the skilled and the intellectually dynamic workforce needed to sustain a high–level economy” (Chandler, 1997). "How can we possibly have sound ‘citizenry’, when at this formal level of education and training we are still implementing the purest form of “institutionalized racism” (Taylor, 1990).

Evaluation methods: Eighty percent (85%) of the students who request tutors will receive services. Tutoring assistance will be evaluated according to the
number of contact hours that tutoring is provided, tutor progress report, student needs assessment reports, student weekly progress notes, and the number of students receiving at least "C" in the course for which he/she receives tutoring.

**Expected Outcome:** Sixty percent (60%) of the students who receive tutoring for at least two (2) hour per week for sixteen (16) weeks in a given course will receive at least a "C" in their course.

**Objective 4:** One hundred percent (100%) of the program participants will participate in a mentoring and peer counseling program during their first academic year to foster a positive institutional climate; 70% of the participants who are experiencing academic difficulty will increase their cumulative grade point averages to a 2.00 on a 4.00 scale.

**Method of Evaluation:** Conduct an accountability review of both the mentoring and peer counseling components, review the mentor's and peer counselor's progress notes, randomly interview at least ten students prior to the inception of the services to assess their perceptions of what they want to receive from their participation in the services and evaluate their perception of the services, after a period of six months, and record the students' progress towards meeting personal and program objectives.

**Expected Outcome:** Seventy percent (70%) of the participants who are experiencing academic difficulty will improve their study habits and their cumulative grade point averages. Documentation of counseling, seminar and/or group sessions with approximately twenty (20) participants in activities previously described. Eighty percent (80%) of the participants will report on an evaluation instrument their ability
to manage daily problems and concerns and the effect of the mentors and peer counselors on those changes.

**Objective 7:** Forty percent (40%) of the program participants who are classified as seniors will participate in activities designed to secure them admission and financial assistance for enrollment in a graduate or professional program; 10% of those participants will enroll in a graduate or professional program.

**Method of Evaluation:** Review the records that show those kinds of information and assistance that was disseminated to the participants. Determine the number and types of schools contacted for catalogs and applications for admission and financial assistance. Evaluate the activities that the students participated in as much as, the Graduate Student Informational and Recruiting Program held in Chicago annually for prospective graduates. Assess the number of referrals made to the Academic Learning Lab to utilize the GRE practice exercises. The number of students who attend the How to apply for Graduate School and the Iowa City pre-med and pre-law conference to learn how to prepare for the LSAT and the MCAT. Record the number of students that attend the minority health and science programs that are held in Ohio and Indiana each summer.

**Expected Outcome:** Each graduating participant (100%) interested in furthering his or her education will receive information and assistance with travel expenses to the graduate student conference. So as to improve his/her opportunities for entering graduate and/or professional school. These students will not be denied enrollment for a lack of information regarding admission policies and financial
responsibility. Participants will broaden their educational aspirations and pursuits through non-classroom activities.

**Objective 8:** One hundred percent (100%) of the program participants will receive a comprehensive needs assessment to determine the extent and level of assistance required. The student and counselor will develop a performance contract with an individualized plan of program and academic support within one week of student’s program entry

*Method of Evaluation:* Staff will have completed assessments of all three hundred fifty (350) students by the end of the academic year. Show what the students’ needs are in order to provide the appropriate supportive services throughout the year in academic advising, peer counseling, tutoring, financial aid and career development. Staff will coordinate all activities with their prospective colleagues (i.e. academic advisers, tutors and mentors (if identified). Counselors, basic skills instructors, tutors and peer counselors must provide the services identified or refer students to appropriate offices for services.

*Expected Outcome:* One hundred percent (100%) of the new participants will complete the needs assessment process and a successful individualized plan of program of support will be developed. The student will show improvement in the areas that a need for support were determined (documentation is required for all aspects – our continued existence and the students depends on it – beat the revolving door syndrome).

**Objective 9:** Eighty-five percent (85%) of the program participants who have a demonstrated need will be provided computer assisted instruction in the
basic skills areas of writing, for (180) participant contact hours; mathematics for (400) participant contact hours; for reading (180) participant contact hours and study skills for (200) participant contact hours. This is an ongoing activity provided throughout the academic year.

Method of Evaluation: Pre-test students in the mathematical and writing skills areas to determine the level of instruction required or to determine special skill needs in basic skill instruction areas. Interview, assess and diagnose individualized needs of each student in academic counseling, personal growth and development, and other areas in order to remove any deficiencies. Review of counselor progress notes, student evaluation of counseling sessions and records of progress towards behavioral goals as contracted. Evaluations will show the number of contacts with students in personal counseling and other sessions.

Expected Outcome: The Student Support Services Program will document four hundred (400) participant contact hours in the basic skills areas to demonstrate student attainment of academic goals at the end of each semester. Staff will document activities that will show the development of students' skills that enhance academic success in basic skills areas and other courses. SSS will have fewer students withdrawing from school for academic reasons and seventy-five percent (75%) of students making academic progress at the end of each year. SSS students will demonstrate competencies in the reading, math, writing skill areas. The students will demonstrate an enhancement of total academic growth that will prepare them for their technical or professional careers. The students will show competency in the areas by making "C" or better in their courses. SSS students who attended at least
a minimum of three instructional sessions will show improvement in one or more of the following areas:

1. writing complete sentences throughout a written composition,
2. identifying all incomplete sentences in an editing task;
3. forming correct paragraphs in a written composition, or
4. organizing information in a written composition.
5. identifying main concepts or ideas in an article.
6. explaining paragraph flow and style.

**Objective 10:** Seventy percent (70%) of the program participants will receive academic advice and assistance in course selection for two hundred participant contact hours through graduation prior to the beginning of the first day of class each semester.

**Method of Evaluation:** Counselors will be given duplicate copies and the original class schedules and final grades will be maintained in the student's file each semester. Establish advising networks with each college in the university. Document that one hundred percent (100%) of the students have appropriate class schedules. Program counselors and students will contact academic advisors to review problematic schedules for the purpose of revision or changes. All schedule changes must be coordinated with academic advising. Activities with the participants' academic advisers must be at least two hundred (200) participant contact hours to ensure that participants will have an appropriate class schedule suited to their ability and background through the academic year.

**Expected Outcome:** Conduct an accountability check of counselor/peer counselor progress notes, student evaluation of sessions, and degree of success for counselors helping students attain behavioral goals set by student and counselor.
Conduct an accountability review of counselor progress notes, student evaluation of activities, and review of attainment of academic goals and program objective. Review all students’ schedules before and after registration to assure students have reasonable schedules. Contact college advisers and classification officers of students when appropriate.

**Objective 11:** One hundred percent (100%) of the participants who have a demonstrated need for counseling will receive counseling in one or more of the following areas: personal, social, environmental, academic, peer, career development and financial for a minimum of four (400) participant contact hours, and that or weakness.

**Method of Evaluation:** Documentation of counseling session for four hundred (400) participant contact hours showing attainment of goals. Show that all participants who are awarded financial aid have received an adequate package by the third week of the fall semester (September 15). Show that a minimum of eighty percent (80%) of the students have filed for aid by February 14.

Students who are experiencing academic difficulty have been matched with their appropriate counselor and peer counselor and that a networking system has been developed between the student, academic advisor and the counselor. Students who are encountering severe personal counseling are referred to the Student Counseling Services and the counselors provide follow-up services between one another.
Conduct an accountability review of counselor progress notes, student evaluation of activities, and review of goals and program objective. Also analyze the Financial Aid Analysis Report showing aid received by student.

To assess changes in study habits, attitudes, and study skills that reflect positive changes in study behavior for students. Conduct an accountability review of workshop content, workshop evaluation, and Habits Inventory for post-testing. Utilize an accountability review of program records to indicate attendance, grades, and participation in the instructional sessions. Determine the number of students earning "C" average or better in courses.

Reviewing students' files for record of attendance, success on exercises, course papers, and grades in freshman composition class. Students will participate in individual or group sessions that will improve their study attitudes and skill-building techniques. The students will score above the minimum (+32) on the Study Habits Inventory. Eighty percent (80%) of the Study Habits Inventory will report positive changes in study behavior and attitude towards academic work. If it is determined by the Counselors and the Project director that a student has a reading or learning disorder those students will be referred to the Academic Learning Lab and Student Counseling for additional assistance. To assess changes in study habits, attitudes, and study skills that reflect positive changes in study behavior for students. Conduct an accountability review of workshop content, workshop evaluation, and Habits Inventory for post-testing. Provide documentation in the student files and on the tracking system of the number and types of contact, areas of weakness, pretest
to determine the extent or degree of the area of concern, posttest to determine if there has been a degree of change.

*Expected Outcome:* That one hundred percent (100%) of the participants who demonstrate a need for program services receive the assistance that they need, 60% show improvement, and that there are not less than 400 participant contact hours accomplished by the counseling staff.

**Objective 12:** Forty percent (40%) of the low-income and first generation or physically disabled Program Participants will receive exposure to cultural and academic (leadership) programs not usually available to disadvantaged students throughout the academic year.

*Method of Evaluation:* Records of all activities offered will be maintained by program. A record of attendance and an evaluation of each activity by participants will determine success of activities. Document the number of and which participants attend an activity.

*Expected Outcome:* A minimum of approximately fifty students will participate in a minimum of two of enrichment programs. Students will submit an evaluation of the activities. The students will also express awareness, satisfaction, and future interest in cultural and educational activities on an evaluation instrument. The Evaluation Plan for the Student Support Services Program at Iowa State University will also include the following:

1. The Student Support Services Advisory committee will evaluate the total project. The committee will consist of students, faculty, and staff. The
evaluation results will be compiled and assessed in the 1993-94 annual performance report.

2. The advisory committee will play a vital role in the future development of the Student Support Services Program. The committee will serve as an effective forum for establishing concrete and realistic recommendations in the following areas: (1) How the Student Support Services Program can become an institutionalized program at Iowa State University - PASS Program. (2) What role should the program play in the retention efforts of the University? given the current proposed student population the program serves. (3) Should there be a vehicle implemented by the institution to route students who have been conditionally admitted into the Student Support Services Program and who qualify for program services. (4) Creating and developing a survey for the University constituency. A key aspect of our approach will be to plan content and format collaboratively with the University constituency. This assures that the program is responsive to the needs of the constituency and promotes a feeling of ownership and commitment. (5) Assistance in publicizing and recruiting students who qualify for program services. (6) Monitoring of the identification and selection process to ensure equal representation. (7) Provide suggestions and implementation of University. (8) Sponsor activities for participants that will increase motivation and desire to complete graduation and pursue graduate school enrollment.
Student Support Services evaluation plan

The Evaluation Plan for the Student Support Services Program at Iowa State University includes the following components and purposes:

1. The objectives of the program will be evaluated by the methods previously listed under the stated objectives. This will result in a process evaluation, which allows for the monitoring of the students' activities in the program.

2. The second phase of the evaluation of outcome objectives will be accomplished by administering the Student Support Services Program Student Evaluation Form to students. The evaluation form will rate the program in five different areas: facilities; counseling and peer counseling services-twelve; tutoring; study skills workshops; and basic instruction. The scale ranges from -2 for "strong disagreement with the statement" to +2 for "strong agreement". A score of zero indicates no opinion. The form will measure students' responses to activities in terms of appropriateness, effectiveness, efficiency, and adequacy. The data will be computer tabulated and printed. The total evaluation project will be conducted by the Student Support Services Advisory Board. The Board, which will consist of students, faculty, and staff, will evaluate the program in terms of attaining goals, objectives, and outcomes. The evaluation results will be compiled and assessed in the annual performance report.

3. University faculty, administrators, and staff will also evaluate the project. All program activities will be evaluated to determine what impact the objectives are having on students' adjustment and performance. A questionnaire will be
used to survey the university faculty and staff. The questionnaire will seek to
determine the degree of knowledge of the program in the area of:

(1) goals of the project;

(2) value and need of project; and

(3) awareness of the kind of services available and suggestions on improving
the project. The results of the questionnaire will be compiled in an
annual evaluation report of the project.

4. The effects of the program's impact on the students will be measured in
several ways by the following reports:

(A) The Freshman Academic Achievement Report. It compares the grade
point averages (G.P.A.) of Student Support Services freshmen and
eligible non-participating freshmen. It also analyzes the success of the
program in enabling freshmen to achieve a cumulative G.P.A. of 2.00 and
success in retaining incoming (new) freshmen.

(B) A Report on the Effects of Student Support Services program on
academic performance. It assesses the effects of this program on
students' academic performance. It is hypothesized that students who
receive a full range of services (counseling, basic study skill instruction,
and tutoring) will perform better academically than those who do not.

(C) Student Support Services Program Report on Retention. It seeks to
determine if the dropout rate for program participants— specifically
freshmen— is less than their eligible, non-participating peers, when they
actively participated in program services and activities. The primary
focus is on the retention rate of incoming freshmen that experience more adjustment problems than other students are. Also, the intent is to retain students longer so that they may graduate.

(D) Student Support Services Program Report on Students' Academic Standing. The purpose is to determine how many students meet the university's minimum requirements for good academic standing and are not placed on probation (Temporary Enrollment).

6. Moreover, the following evaluations are used to evaluate specific program components: Student Peer Tutor Program Evaluation. Each student who receives tutoring will evaluate the quality and quantity of the program's services.

7. A Student Support Services Program Follow-up Survey will be sent to select students who have participated in the Student Support Services Program at Iowa State University since 1984. The survey will determine the academic performance, retention rates, and graduation status of those students we have served but who are no longer using our services. These are students who have graduated, transferred, or are doing well because of the services. The survey results will be included in the follow-up reports.

8. Study Skills Workshop Series Evaluations. Evaluation of each Study Skills workshop will be conducted to determine if there's a relationship between semester G.P.A. and the workshops.
Iowa State University Enrollment Facts

During the period from 1981 to 1991, the total fall term enrollment at Iowa State increased by 1,048 students or 4.3 percent. Despite the fact that enrollment was higher in 1992 than the ten years previous, total enrollment had declined in recent years after peaking 1985. The 1992 enrollment increased slightly due to an increase in transfer student admissions, and a dramatic increase in ethnic and adult student enrollment (Adult Student Services, 1992 and Office of the Registrar, 1992).

Iowa State University serves as a host institution to the Upward Bound, Talent Search and since 1980, the Student Support Services Program (SSSP) provides programs, services, and activities, to eligible students and currently serves three-hundred fifty (350) participants. All program participants are selected based on their academic need; and meeting the eligibility criteria of low-income, first generation, and/or physically disabled.

Geographical Description and Location of Iowa State University

Iowa State University is located in Story County in the central part of Iowa. The university's location provides a unique opportunity for a successful Student Support Services Program with participants coming from rural and urban population in the surrounding communities and states.

Economic characteristics of the state of Iowa

Iowa State University has traditionally enrolled a majority of its students from schools within the state and surrounding areas. In the state of Iowa, farming and manufacturing firms provide much of the economic base. Major agricultural products, such as corn and soybeans, are produced in the region. Employment
opportunities in this part of the state are primarily in the areas of agriculture, manufacturing, and small industry. Most jobs in manufacturing are fairly low-paying production line jobs.

Farm employment has declined by over twenty-nine percent (29%) between 1980 and 1992. Students coming from homes where their parents have been farming were/are financially stressed.

The economic conditions have affected income, educational attainment potential, unemployment longevity and rates. Persistently high youth unemployment rates throughout the tight labor market of the 70's and early 80's are attributable to many factors in the economy. Yet, higher unemployment rates for the economically and/or culturally deprived youth, not only reflect the economy but also directly correlate with the lack of education and/or skill training. Because of these conditions, many of the students in the Student Support Services Program have poor self-concepts and do not set very high goals or expectations for themselves.

Depending upon the student's the family background, hometown geographical location, level of motivation, and academic preparation – all of those noncognitive factors that Wilds, D., and Wilson (1998) purport that "evidence suggests that noncognitive variables may serve as valid indicators of students performance in higher education."

Between 1979 and 1989, the number of workers declined by 144,000. Between 1990 and 1992, the number of Iowa workers has increased by one percent (1%) while unemployment increased by two-tenths of a percent (0.2%) (Department of Employment Services - Labor Market Information Unit, 1992). Iowa's economic
situation has drastically decreased job availability and undergraduate adult student population (age 25 and older) had increased from 5,792, or 22.9 percent, during the Fall Semester 1991.

Data furnished by the Census Data Center of the Iowa Department of Education in 1990 showed that Iowa has 311,943 low-income individuals in a state-wide population of 2,799,410. These low-income individuals represent 11.2% of the total population (Iowa Department of Education, Census Data Center, 1992).

During 1988-1989, Iowa State University awarded $95,357,298 in campus based, state and federal aid. During 1990-1991, the total amount of aid awarded by Iowa State University had decreased to $63,729,561, a reduction of over 33 percent in awarded aid while enrollment increased slightly (Enrollment Services Annual Statistical Report, Fall 1991):

1. The number and percentage of students enrolled or accepted for enrollment at Iowa State University (ISU) who meet the eligibility requirements of the Student Support Services program;

2. The academic and other problems that eligible participants encounter at ISU; and

3. A comparison between program participants and the total enrollment of Iowa State University considering attrition rates, grade point averages, and enrollment in graduate and post-baccalaureate professional programs. Within this section there will be a discussion on the eligibility requirements and the number of low-income, first generation and physically disabled students are enrolled or accepted for enrollment at Iowa State University; the percentage
of the total enrollment represented, grade, or classification, levels. A
description will also be given on how students are recruited to ISU; the
services that are, and are not, available to eligible students; and an
explanation will be given related to why more, or different, activities are
needed at Iowa State University.

Students enrolled or accepted for enrollment at the institution who meet the
eligibility requirements of the Student Support Services Program low-income
participants. The criterion used to identify low-income (LI) students is represented
as being equal to 150% of the family income levels established by the U.S. Bureau
of the Census for determining poverty status. The levels were published by the U.S
Department of Health and Human Services in the Federal Register of February
14, 1991 Volume 57 Number 31, pages 5455-5457. Five hundred thirty-three of the
low-income Iowa State University eligible students were identified as dependent
students, and 2,977 were identified as independent students during that same time
span.

**Minority Student Retention at Iowa State University**

Iowa State University currently uses several different types of programs to
retain and graduate its students of color. The Minority Liaison Officer is the current
model being utilized by each of the colleges.

The Model is a combination of several programs that were currently
operating during the time the data was collected from 1989 to 1995. If
implemented, the model will change the pattern of academic failure, attrition and
improve the academic environment for Iowa State University's students of color, into
a pattern of success, through means of teamwork and team building, networking, and support services. This joint effort has sought to:

1). Change the Environment: (how students view this environment and how the constituents interact with and react to the environment);

2). Change the Action of Students: (by creating a personal relationship with ISU and increasing the points of meaningful contact and positive interaction; thereby making the student a stakeholder; while using the system to support that interaction);

3). Improve the status of the institution (by moving the institution into the new millenium with a "new attitude"one that has a more global perspective of intercultural interaction and communication and a stake in the future economy of the country); and thereby

4). Changing the Results: (from an ISU pattern of failure to one of success).

The purpose of this retention model is not just to merely retain its students, but also enhance the development of students of color and the institution. Within Iowa State University's undergraduate population, students of color (particularly African Americans, Native Americans and Hispanics) lag far behind their White student counterparts. Yet and still the retention rate for Majority students is below the standard for research institutions. This model will focus on students of color; its intent is to become a model that could be used to improve the retention rate and performance of all students.

This model incorporates a different strategy: Not just one of retention and performance, in which the focus is on our ability to retain and graduate students. You see, to stop at a simple retention model is not enough. It doesn’t make any difference, if we focus on the constraints of poor academic preparedness; or bandage the plight of impoverished low-income families with remedies of loan-free grant award financial funding; we still must respond to the shortcomings of our
environment, where so many students of color have been lost, thrown away, destroyed, and disheartened.

Dr. George Jackson's, in his February 2, 1993 paper: "Improving Access, Choice, Persistence and Graduation," that the predominant reasons for retention and graduation problems stems from:

A Lack of Financial Support

A lack of course preparation for a college curriculum in math and science

Inadequate advising about academic and career choices

Low and unrealistic educational aspirations

A lack of faculty and staff involvement

Low expectations from faculty and staff members

Large, impersonal classes during the first year of study.

We also know that from this same report that: many students of color enter ISU with not just one, but several of these barriers (those delineated above), any one of which alone would be more than enough to lower their chances of being successful without an on-going educational, environmental, financial, academic and social support system(s).

Additional problems faced by minority include, but are not limited to, racial isolation or discrimination, a lack of student peers, language barriers, too few minority faculty or staff, and a lack of understanding among majority and minority staff of these special problems.
The Impact

In 1993, Dr. Jackson concluded that approximately 60% of the students of color who enter Iowa State University leave without their degree after five years and seriously in debt. The impact of these facts is the reality of living in an environment where "failure is the norm." A more drastic picture to be painted: one out of every four African American students graduates from the institution. This type of documentation fosters misperceptions that some hold that these students should not have been here in the first place (i.e. academically unqualified); and tragically, many of these students internalize this belief. As such, our faculty and staff have low expectations for these students. Students of color may overcome the belief that they are not qualified to be here, but the idea that somehow they are not welcomed or that they do not belong here, is persistent.

In time, these statistics and the perceptions it fosters will have the impact of discouraging students of color from attending Iowa State University. Look at the Native American student population, when is the last time a recruiter or for that fact the Director of Minority Student Affairs visited the Mesquaki settlement or went to a powwow.

Most students do not succeed because they are not qualified to succeed or lack the potential to succeed, as was evident with the past academic experiences Iowa State University has had with it's academically "at-risk"students of color but also the National Merit and/or George Washington Carver scholars. Students of Color must believe that they can and will succeed. That the environment is inclusive and willing to facilitate their success, assist with their needs and they will have
positive social interactions, and guides (counselors, academic advisors, mentors, etc.).

We can also see how the environment does not cultivate and promote trust; a quality essential to meaningful success. Ethnically diverse faculty and staff have their own burdens to overcome when students are operating under this negative environmental view of ISU. Its key players, then were invisible and/or powerless, serving as mere gatekeepers or minority caretakers, rather than as faculty, administrators, and advisors to be respected, consulted and emulated.

**College environmental factors**

The commission surveyed minority educators one of the findings was “the lack of institutional commitment to minorities, difficulty in gaining the acceptance respect of their colleagues, institutional ethnocentrism that ignores the perspectives and values of other cultures, and being stereotyped and exploited as “minority experts.” The study also indicated that institutional indifference to minority students was a barrier to their completion of college and family responsibilities were often a burden. (Wright, 1970).

These were perceptions that students had before they arrived and were tainted by tales of unbelievable experiences that this is not the place to be while others came with open minds filled with dreams, hopes and desires of success. It is not until after they were here for a while, that the environment changed their minds, victimized by childish prejudices.
Early Identification

The best way to approach retention is to operate along the entire student’s experience. The institution must want to create positive contact between the student and ISU.

Phase One: Early Identification and Inclusion The Goal: Establish a positive personal link

First, is early identification. Students who are “at-risk” must be reached within the first days of the semester. In fact, the summer immediately before the beginning of their first semester. You should focus on establishing and providing for them a positive support system. In effect, we want to create a supportive environment for them to engage and encounter the larger ISU setting. We must transform their association with ISU from an institutional relationship to a personal relationship; free from negative experiences to collaborative ones. This is the first and most important point of contact. The bottom line: we are trying to develop and establish a positive working personal relationship.

Program Component

Establishing and cultivating a personal relationship and commitment with and/or to students of color will by no means be an easy task. What this means is by acknowledging that Iowa State University has had a history of unsuccessfulness in terms of retaining its students of color we can establish the basis for trust and honesty which is extremely important when working with ethnic minorities. You must remember that as a majority population you’re working with well over two hundred years of distrust.
Teambuilding: Identify and assign: each a peer counselor (from the upper-class (preferably someone who has experienced it all and is an effective and honest communicator – and not someone suffering from an identity crisis); culturally sensitive and caring academic advisor; a mentor (from the faculty and staff ranks); and if they qualify; and have a pool of sponsors for student internships and other possible resources of support. A support system and networking team.

Support services program: Institutionalize the current and existing program by adding university monetarial support, at least enough to increase the staff, so that you can have the manpower [peer and professional counselors] that you will need to do the academic monitoring and recording keeping for tracking the students.

Incorporate the Academic Learning Lab and the Tutorial Services under the umbrella of the Student Support Services program, there is at least a grant funding for about $250,000 that can be utilized more positively.

The Associate Deans from each of the colleges, Registrar, Financial Aids Director, Minority Student Affairs Director, Student Support Services Program Director, Academic Learning Lab and Services for Students with disabilities should comprise your strategic planning team. They are your creators of your successful retention model.

They should also work with peer counselors, advisors, mentors, as well as sponsors. Let this networking team know: that they have been selected to interact with the students of color because they can be trusted and the qualities they posses are ones that are needed to create a strong, positive environment that would help cultivate these students. This network that they will be a part of is the model, for the
entire university and community. In fact, what they will be a part of is at the heart of what campuses and universities all around the country are wrestling with. If the job is done well, it could positively influence what happens in the entire national educational community.

Phase Three: Getting Off to a Good Start

Goal: Focus

Immediately establish the promotion of team interaction with the student. Develop projects (like reviewing policies that may adversely affect a certain group of students - will promote interaction and participation. The task of the team is to facilitate the students' effort for maximum academic performance and qualification for the internship. Focus will involve matching the student with the right internship.

Phase Four: Program component

1. Adjustment to new academic environment by working with the team (constituents from the university and community environments)

2. Access to financial aid that meets the students' needs and academic support.

Phase Five: Internship

Goal: a successful internship

After midterms of their junior year, qualified students would begin their internships. The time which the students had been spending before midterms, would have been directed toward acquiring and mastering all the skills and knowledge important for succeeding in this environment. After receiving a good mid term report, successful students would begin their paid internships. Unsuccessful
students would have their internship start times delayed until after finals. They would continue to work Phase two issues.

1. Continue to work with team
2. Meetings with Corporate Sponsors (e.g. regarding internships)
3. Coordination with other university programs.

There are many programs operating throughout the campus; the Integrated Student Retention System program, the early Success Program: An academic seminar for students is examples of programs we will work with.

Begin Public Relations and Outreach

Goal: Team building. Capture the year's activities while promoting program participants

Public Relations.

Phase Five: Evaluation and Feedback

Goal: To assess the impact of the program on our participants

Phase Five: Program Components

Academic Success. A thorough evaluation of the program impact and components, which should include input from program participants, faculty, and peer counselors on how to improve the program for next year.

Summary

This chapter provided a comprehensive review of the literature to ascertain the impact of predominantly White institutions on students of color. A historical perspective was given of exclusion from higher education, global market versus U.S. labor market, retention/graduation issues, and ethical implications; and a link was
made to the history of student support services and student support services at Iowa State University. The next chapter provides a review of the methodology used to carry out the study.
CHAPTER 3: METHODOLOGY

Overview

This study examined the relationship between participation in SSSP and students' academic performance. Specifically, this study tested whether services rendered to students with "special needs" had an impact on students' propensity to be retained by and ultimately graduate from an institution of higher learning. Note that retention is dependent on many factors. This study was only interested in those factors that pertain directly to services rendered by the Student Support Services Program (SSSP) to: (1) Increase college retention and graduation rates for eligible students; and (2) Form an institutional climate supportive of the success of low-income, first generation, college students with disabilities. These services can be categorized as follows: (a) academic, (b) social, (c) personal, and (d) financial. They were subdivided as follows:

1. Increase college retention and graduation rates for eligible students:
   a. Academic
      1) Tutorial services
      2) Basic skills Instruction in writing, mathematics, and study skills; and
      3) Academic advising and assistance in course selection
   b. Career development
      1) Activities designed to assist eligible program students in securing admission into graduate and professional programs.
   c. Personal
      1) Personal counseling
d. Financial

1) Financial aid counseling

2) Activities designed to assist eligible programs student's financial assistance for enrollment in graduate and professional programs.

2. Form an institutional climate supportive of the success of low-income, first generation, college students with disabilities.

a. Mentoring program involving faculty and upperclassmen

b. Peer counseling

c. Exposure to cultural events and academic programs not usually available to them.

Latent in the aggregation of services provided by SSSP is the fostering of an "environment" that is more conducive to learning for special needs students. While this potential benefit of the program is too general in scope to be directly tested by this study, if proven, a positive impact of the program on students' objective academic performance implies that recognizing and making special accommodations for "special needs" students manifests itself in a more comfortable or suitable learning environment.

To the extent that participation in the program is voluntary and the degree to which students take advantage of the services offered by the program is at the students' discretion could lead to potential bias in the results of this study. In other words, one could argue that students seeking such services offered by the program are predisposed with a greater interest in their educational attainment than students not seeking such services.
Consequently, one could also argue that it is not necessarily the impact of the program that yields a positive influence on a student's academic performance but rather students who actively and aggressively participate in the program are predisposed to better academic performance than their sociographic and demographic counterparts who chose not to participate in the program. It is the contention of this study that a simple “interest” in learning is not sufficient to yield objective results in academic performance. Furthermore, SSSP operates to foster students’ interests in learning in conjunction with objective skills to make that interest realized.

**Population of the Study**

The students who were selected for the study came from a population of students who participated in the Student Support Services (SSS) program. To participate in the SSS program, students must qualify based on criteria set forth by the program. This qualifying criterion identifies students with special needs. Thus, all students who participate in SSSP represent the population of potential subjects for this study. The qualifying criteria for the program is as follows:

**Eligibility criteria**

The Student Support Services Program student population annually consisted of 350 students. Based on the criteria for eligible program participants (34 CFR Part 646.3):

1. A citizen or national of the United State;
2. A permanent resident of the United States;
3. Provided evidence from the Immigration and Naturalization Service that he or she is in the United States for other than a temporary purpose with the intention of becoming a citizen or permanent resident; or

4. a. permanent resident of the Territory of the Pacific Islands;
   
b. is enrolled or accepted for enrollment in the next enrollment period at the institution;
   
c. Have a need for academic support as determined by the program, (see form in Appendix A – Conditions Indicating Academic Need) in order to pursue successfully a post-secondary educational program;
   
d. Is at the time of initial selection:
      
1. a low-income individual;
      
2. a first generation college student; or
      
3. physically disabled

Additionally, all eligible program participants will meet the following selection requirements, in accordance with CFR Part 646.4 of the Education Department’s Guidelines and Regulations (EDGAR):

At least two-thirds of the participants will be:

1. Low-income individuals who are first generation college students; or

2. Physically disabled and of that population one third must be low-income.

The remaining individuals will be:

1. Physically disabled

2. Low-income individuals; or

3. First generation (FG) college student.
a. A student qualifies as first generation if neither of the student's parents received a baccalaureate degree.

b. Physically disabled (PH) in reference to disabilities outlined in the Americans with Disabilities Act.

c. A low-income (LI) individual means an individual whose family's taxable income did not exceed 150 percent of the poverty level in the calendar year preceding the year in which the individual participates in the program.

According to the federal guidelines two-thirds of that population had to be low-income and first-generation college students. Thus, the population of the study was comprised of 566 students who met the eligibility criteria: 233 low-income and first generation college students, 27 physically disabled students, 25 low-income students, and 65 first generation students.

Subjects

Five hundred and sixty-six (566) individuals were selected to be included in this study. The specific individuals for whom relevant information was available participated in Student Support Services Program (SSSP) at Iowa State University (ISU) between the years of 1987 and 1995. The study's participants were represented by a diverse mix of demographic and sociographic backgrounds. It is important to note that the students were not randomly selected, but rather were included in this study as a result of participating in SSSP between the aforementioned years. Nevertheless, the qualifying criteria of the program was relatively more partial to certain groups of individuals that included minority students, students with relatively high financial need.
Characteristics of the participants

In general, any undergraduate student who met the eligibility criteria that was set forth in the federal guidelines qualified for program services. Ethnic minorities and low-income students were given high priority for inclusion in the SSSP. It was realized by the Student Support Services (SSS) program's Project Director that these specific populations of students were "at-risk" on the Iowa State University campus. The reasons these students were considered to be "at-risk" were due to several factors: alienation, institutional racism, lack of motivation, lack of knowledge about university's rules, policies and procedures, and low grade point averages. The eligibility criteria were: low-income and first generation, and/or disabled students who were enrolled at Iowa State University and who were in need of: academic, social, personal, environmental, and financial services (see Table 3).

The breakdown and percentage of the total sample (N=566) by ethnicity was: 6 (1.1%) Native Americans; 225 (39.8%) African Americans; 245 (43.3%) White Americans; 40 (7.1%) Asian American or Pacific Islander Americans; 25 (4.4%) Puerto Ricans; and 25 (4.4%) Hispanic Americans. The breakdown by gender was: 282 (49.8%) females and 284 (50.2%) males (see Table 4).

The breakdown by classification of the sample included: 93 freshmen; 78 sophomores; 69 juniors; and 106 seniors. In addition, 225 students had graduated while participating in the program, with 5 of those graduates enrolling in Master's degree programs at ISU. The breakdown of the students by eligibility criteria was: 335 first generation and low-income; 119 first generation; 58 low-income; 22 first generation, low-income and physically disabled; 14 first generation and physically disabled; and 14 first generation and physically disabled; 14 first generation and physically disabled.
Table 3. Number and percentage of undergraduate students who meet the eligibility requirements to participate in SSSP at ISU

<table>
<thead>
<tr>
<th>Eligibility criteria</th>
<th>Low-income</th>
<th>First-generation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of students enrolled</td>
<td>3,049</td>
<td>16,354</td>
</tr>
<tr>
<td>Percentage of total enrollment</td>
<td>15.4%</td>
<td>82.5%</td>
</tr>
</tbody>
</table>

(Sources: Iowa State University's Office Of The Registrar, Office of Student Financial Aid, and Services For Students With Disabilities 1992).

Table 4. Frequency and gender of participants in SSSP at ISU

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percentage</th>
<th>Cumulative percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>282</td>
<td>49.8</td>
<td>49.8</td>
</tr>
<tr>
<td>Male</td>
<td>284</td>
<td>50.2</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>566</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

disabled; 5 physically disabled; 1 learning disabled; and 1 first generation and learning disabled (see Table 5).

Of particular interest for this study were the students of color. These students were of particular interest because their retention and graduation rates at Iowa State University was very low and it appeared that, with the assistance of the services provided by the program, these students were retained and graduated from the institution.
Table 5. Eligibility criteria of the students in the SSSIP at ISU

<table>
<thead>
<tr>
<th>Eligibility criteria</th>
<th>Number</th>
<th>Percentage</th>
<th>Cumulative percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>First generation</td>
<td>119</td>
<td>21.0</td>
<td>21.0</td>
</tr>
<tr>
<td>First generation/low income</td>
<td>335</td>
<td>59.2</td>
<td>80.2</td>
</tr>
<tr>
<td>First generation/low income/physically handicapped</td>
<td>22</td>
<td>3.9</td>
<td>84.1</td>
</tr>
<tr>
<td>Learning disabled/first generation</td>
<td>1</td>
<td>0.2</td>
<td>86.7</td>
</tr>
<tr>
<td>Learning disabled/first generation/low income</td>
<td>1</td>
<td>0.2</td>
<td>86.9</td>
</tr>
<tr>
<td>Low income/physically handicapped</td>
<td>10</td>
<td>5.0</td>
<td>99.1</td>
</tr>
<tr>
<td>Physically handicapped</td>
<td>5</td>
<td>0.9</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>566</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

for universities with comprehensive degree programs and a strong commitment to graduate education and research. Currently, Iowa State is shaping its mission for the 21st century, and has set as its aspiration to become the best land-grant university in the nation.

More than 26,000 students attend Iowa State, an university known for excellence in science and technical fields and the arts and humanities. Iowa State has the largest undergraduate enrollment of any campus in Iowa, and includes students from all 50 states and 112 other countries. As Iowa's land-grant university, Iowa State has a three-part mission in: education, research, and outreach.

Iowa State's nearly 2,000-acre, park-like campus includes old historical buildings, many of which are included in the National Register of Historic Places. Iowa State is located in Ames, Iowa. In 1998, Ames was ranked as the second most

During the Fall semester of 1998, Iowa State's student population was comprised of 25,585 students, of which: 21,427 were undergraduate students; 1,687 minority students; and 2,459 international students from 112 nations. In addition, ISU had 6,058 faculty and staff and operated with a $234,642,000 endowment.

**Variables of the Study**

The data gathered for the study consisted of 49 variables, of which 15 were utilized. Three of those 15 variables were used only for data analysis purposes (i.e., the students' last and first names, and identification numbers) due to reasons of confidentiality; and were reported only in aggregate by defining characteristics. The remaining 12 variables utilized for gathering information about the 566 students were: (1) enrollment date for the institution; (2) ethnicity; (3) gender; (4) program eligibility; (5) entrance date for the program; (6) classification; (7) exit date from the program; (8) total credits attempted; (9) grade point average; (10) college; and (11) hours of program services received; and (12) graduation. An analysis of ethnicity, classification, entry and exit dates, and college, graduation, cumulative grade point average, and the frequency of services were made on the students.

It should be noted that retention is measured based on the number of years a participant was enrolled at Iowa State university and graduation from the institution. The actual enrollment formula was calculated by subtracting the year the participant entered into the university from the last year the student was enrolled at the
university. Also note that a student's level of participation in the Student Support services program was based upon the frequency of services received as measured by the total number of hours the students spent receiving services from the program.

This study examined correlations between the total number of hours the students spent receiving services from the Student Support Services Program and several dependent variables, including credit hours attempted, cumulative grade point average, length of enrollment at the institution and whether the student graduated.

**Data Gathering**

Data to test the null hypotheses of this study were gathered from the Student Support Services Program at Iowa State University and the institution itself between 1983 and 1995. For each student enrolled in SSSP between these years, both primary and secondary information were collected.

The SSSP staff who provided specific services to students supplied primary information. Primary information was taken directly from the service providers' logs and entered into a tracking program specifically designed to track student progress relative to the frequency and type of services rendered. This information consisted of the type of services rendered to participants and the length of time taken to render each service. To the extent that these logs are accurate, the data should provide some insight into the degree and type of contact each student had with SSSP.

The data gathered are longitudinal in that they were tracked across the length of each student's participation in the program during the relevant years, but not necessarily during the students' entire program participation stay or stay at the
university. Thus, the data are inconsistent with regard to the time frame for data collected on each student. Such inconsistencies presented challenges to the findings and, thus, were controlled for during the analysis.

Secondary information, which consisted mainly of demographic information (i.e., ethnicity, gender, age), financial need and academic information (i.e., curriculum, credit hours attempted, cumulative grade point average, whether student graduated), was collected from ISU records. This information was paired with primary information using the students' assigned student identification number. Secondary information was also entered into the tracking program.

Statistical Analysis and Findings

To determine the impact of SSSP on the students' academic performance, this study examined correlations between the frequency of services received from the program (independent variable) and several dependent variables that included credit hours attempted, cumulative grade point average, whether student graduated. Furthermore this study will segment students into specific groups of interest. These groups are based on ethnicity (i.e. White and students of color) and college enrollment.

The variables of interest were of different types. The statistical tests used are dependent upon the type of variables being examined. In general, t-tests were used to test differences between averages across groups, Chi-square tests were used to test differences between proportions across groups, and Pearson correlation or regression were used to test linear relationships. Significance was based on a 95%
degree of confidence for aggregated results, and a 90% degree of confidence for segmented results to account for smaller sample sizes.

**Basic Assumptions**

The following assumptions were made regarding this study:

1. The frequency of contacts a student had with the Student Support Services program positively increased that students' possibility of graduating from the institution.

2. There may have been other factors that affected the persistence and graduation rates of the students, such things as cognitive and non-cognitive factors.

3. Students who receive services are more likely to persist through graduation than students who received few or no services at all.

4. Students who receive more services are likely to attempt, repeat and complete more credits than students who received few or no services at all.
CHAPTER 4: RESULTS

The purpose of the study is to determine if the frequency of services received influenced the retention and graduation rates of the participants in the Student Support Services Program.

The researcher acknowledges that other factors or keys to retention exist, such as meeting financial need, the institutions ability to positively impact both the cognitive and non-cognitive factors that influence students of color, the institution's ability to eliminate institutionalized racism and other barriers for students of color are not directly tested in this study. This chapter presents the results of study according to the research questions and hypotheses.

Research Questions

Research Question 1: Is there a discrepancy between White and students of color in general with regard to academic performance as measured by cumulative grade point average, total credit hours attempted, and graduation rates?

To test the following hypothesis pertaining to research question 1, a sample of students were selected to represent the control group. This is a group of students who qualified to participate in SSSP, but did not receive any of the services offered. Hypothesis 1, 2, and 3 are expected to show that a gap exists between White and students of color with regard to retention and graduation rates. Subsequent hypothesis and corresponding statistics tests the role of SSSP in reducing this gap.
**Hypothesis 1:** There is no significant difference between White and students of color with regard to cumulative GPA.

As shown in Table 6, there is a significant difference between White and students of color with regard to cumulative grade point average. A t-test was conducted at the $=0.05$ level of significance and hypothesis 1 was rejected at the .00 level of significance.

Table 6. Group statistics and independent samples t-test for students who qualified but did not participate in SSSP vs. students who qualified and participated by ethnicity

<table>
<thead>
<tr>
<th>Group</th>
<th>Ethnicity</th>
<th>N</th>
<th>Cumulative Grade Point Average</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>60</td>
<td>2.6555</td>
<td>.6226</td>
<td>8.038E-02</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Students of color</td>
<td>105</td>
<td>2.1459</td>
<td>.6404</td>
<td>6.249E-02</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Levene's Test for Equality of Variances  
t-test for Equality of Means

<table>
<thead>
<tr>
<th>Equal variances assumed</th>
<th>F</th>
<th>Sig.</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
<th>Mean Difference</th>
<th>Std. Error Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.207</td>
<td>.650</td>
<td>4.967</td>
<td>163</td>
<td>.000**</td>
<td>.5096</td>
<td>.1026</td>
</tr>
<tr>
<td>Equal variances not assumed</td>
<td>5.005</td>
<td>125.810</td>
<td>.000**</td>
<td>.5096</td>
<td>.1018</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Correlation is significant at the $\alpha=0.05$ level (2-tailed).
** Correlation is significant at the $\alpha=0.01$ level (2-tailed).

**Hypothesis 2:** There is no significant difference between White and students of color with regard to credit hours attempted.

As shown in Table 7, there is a significant difference between White and students of color with regard to the on average per year credit hours attempted. A t-test was conducted at the .05 level of significance and hypothesis 2 was rejected at the .00 level of significance.
Table 7. Group statistics and independent samples t-test for students who qualified but did not participate in SSSP vs. students who qualified and participated by ethnicity

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>N</th>
<th>Annual Credit Hours Attempted</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>46</td>
<td>28.0382</td>
<td>7.7107</td>
<td>1.1369</td>
</tr>
<tr>
<td>Students of color</td>
<td>87</td>
<td>23.0179</td>
<td>6.2676</td>
<td>.6720</td>
</tr>
</tbody>
</table>

Independent Levene's Test for Equality of Variances t-test for Equality of Means

<table>
<thead>
<tr>
<th></th>
<th>F</th>
<th>Sig.</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
<th>Mean Difference</th>
<th>Std. Error Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equal variances</td>
<td>.333</td>
<td>.565</td>
<td>4.051</td>
<td>131</td>
<td>.000**</td>
<td>5.0203</td>
<td>1.2393</td>
</tr>
<tr>
<td>assumed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equal variances</td>
<td>3.802</td>
<td>.000**</td>
<td>77.015</td>
<td></td>
<td></td>
<td>5.0203</td>
<td>1.3206</td>
</tr>
<tr>
<td>Not assumed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Correlation is significant at the α=0.05 level (2-tailed).

** Correlation is significant at the α=0.01 level (2-tailed).

As shown in Table 8, there is no significant difference between White and students of color with regard to the total credit hours attempted. A t-test was conducted utilizing a control group of participant who qualified for program services but did not participate in the program. The t-test was ran at the .05 level of significance and the results failed to reject at the .236 and .253 levels of significance.

Hypothesis 3: There is no significant difference between White and students of color with regard to graduation rates.

As shown in Table 9, there is a significant difference between White and students of color with regard to graduation rates. A chi-square test was conducted at the .05 level of significance and hypothesis 3 was rejected at the .002 level of significance.
Table 8. Group statistics and independent samples t-test for students who qualified but did not participate in SSSP vs. students who qualified and participated by ethnicity

<table>
<thead>
<tr>
<th>Group</th>
<th>Ethnicity</th>
<th>N</th>
<th>Total Credit Hours Attempted</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>Students of color</td>
<td>46</td>
<td>99.7283</td>
<td>39.0360</td>
<td>5.7555</td>
</tr>
<tr>
<td></td>
<td></td>
<td>87</td>
<td>90.8621</td>
<td>44.0156</td>
<td>4.7190</td>
</tr>
</tbody>
</table>

Independent

<table>
<thead>
<tr>
<th>Levene's Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
<td>Sig.</td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td>4.392</td>
</tr>
<tr>
<td>Equal variances Not assumed</td>
<td>1.191</td>
</tr>
</tbody>
</table>

* Correlation is significant at the α=0.05 level (2-tailed).
** Correlation is significant at the α=0.01 level (2-tailed).

Table 9. Group statistics and chi-square test for students who qualified but did not participate in SSSP vs. students who qualified and participated by ethnicity

<table>
<thead>
<tr>
<th>Group</th>
<th>Ethnic Background</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did not graduate</td>
<td>White</td>
</tr>
<tr>
<td>Count</td>
<td>15</td>
</tr>
<tr>
<td>% within Ethnic Background</td>
<td>24.2%</td>
</tr>
</tbody>
</table>

Graduated

| Count       | 47    | 56       |
| % within Ethnic Background | 75.8% | 51.4% |

Chi-Square Tests

<table>
<thead>
<tr>
<th>Value</th>
<th>Df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>9.847</td>
<td>1</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>9.790</td>
<td>1</td>
</tr>
</tbody>
</table>

N of Valid Cases: 171

b 0 cells (.0%) have expected count less than 5. The minimum expected count is 24.65.

* Correlation is significant at the α=0.05 level (2-tailed).
** Correlation is significant at the α=0.01 level (2-tailed).
**Research Question 2:** What are the participants' retention and graduation rates based on the hours of services received from the Student Support Services Program and do these vary between white and students of color?

**Hypothesis 4:** There is no significant correlation between the number of years students are retained at the institution and the number of hours of SSSP services they received and this relationship is consistent when controlling for ethnicity.

As shown in Table 10, there is no significant correlation between the number of years students are retained at the institution and the number of hours of Student Support Services the participants received and this relationship is consistent when controlling for ethnicity. A Pearson correlation was conducted at the .05 level of significance and the following results were gathered. Hypothesis 4 failed to reject at the .967 level of significance.

**Hypothesis 5:** There is no significant difference between graduation rates based on the number of hours of services received and this relationship is consistent among White and students of color.

As shown in Table 11, there is no significant difference between graduation rates based on the number of hours of services received and this relationship is consistent among White and students of color. A t-test was conducted at the .05 level of significance and the following results were gathered. Hypothesis 5 was rejected at the .022 level of significance.

**Research Question 3:** Does participation in the Student Support Services Program have a significant impact on the total number of credit hours attempted among White and students of color?
Hypothesis 6: There is no significant relationship between the total number of credit hours students attempted and the number of hours of services they received from the Student Support Services program and this relationship is consistent among White and students of color.

Table 10. Pearson correlation for relationship between retention of program participants and time in hours receiving SSSP services for all students and by ethnicity

<table>
<thead>
<tr>
<th></th>
<th>Time in hours receiving SSSP services and length of time enrolled at the university</th>
</tr>
</thead>
<tbody>
<tr>
<td>All students</td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.067</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.280</td>
</tr>
<tr>
<td>N</td>
<td>260</td>
</tr>
<tr>
<td>White</td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>-.004**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.967</td>
</tr>
<tr>
<td>N</td>
<td>116</td>
</tr>
<tr>
<td>Students of color</td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.022*</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.807</td>
</tr>
<tr>
<td>N</td>
<td>126</td>
</tr>
</tbody>
</table>

* Correlation is significant at the α=0.05 level (2-tailed).
** Correlation is significant at the α=0.01 level (2-tailed).

As shown in Table 12, there is no significant relationship between the total number of credit hours students attempted per year and the number of hours of services they received from the Student Support Services program and this relationship is consistent among White and students of color. A Pearson correlation was conducted at the .05 level of significance. The results of the test revealed that there was a .048 level of significance for all students. Hypothesis 6 was rejected.
Table 11. Group statistics and independent samples t-test for participants across the category of graduation rates when measured by time in hours receiving services for all students and by ethnicity

<table>
<thead>
<tr>
<th>Group</th>
<th>Did participant graduate</th>
<th>N</th>
<th>Mean Time in hours receiving SSSP services</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>All students</td>
<td>Did not graduate</td>
<td>114</td>
<td>11.4642</td>
<td>13.6747</td>
<td>1.2808</td>
</tr>
<tr>
<td></td>
<td>Graduated</td>
<td>214</td>
<td>15.5759</td>
<td>15.9260</td>
<td>1.0887</td>
</tr>
<tr>
<td>White</td>
<td>Did not graduate</td>
<td>40</td>
<td>16.4213</td>
<td>15.9761</td>
<td>2.5260</td>
</tr>
<tr>
<td></td>
<td>Graduated</td>
<td>98</td>
<td>14.1476</td>
<td>16.0492</td>
<td>1.6212</td>
</tr>
<tr>
<td>Non-white</td>
<td>Did not graduate</td>
<td>49</td>
<td>11.3553</td>
<td>13.0203</td>
<td>1.8600</td>
</tr>
<tr>
<td></td>
<td>Graduated</td>
<td>115</td>
<td>16.8764</td>
<td>15.8262</td>
<td>1.4758</td>
</tr>
</tbody>
</table>

Independent

<table>
<thead>
<tr>
<th>Levene's Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
</tr>
</thead>
<tbody>
<tr>
<td>F   Sig.</td>
<td>t   df</td>
</tr>
<tr>
<td>All students</td>
<td></td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td>8.099 .005</td>
</tr>
<tr>
<td>Equal variances not assumed</td>
<td>-2.446 262.567</td>
</tr>
<tr>
<td>White</td>
<td></td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td>.000 .995</td>
</tr>
<tr>
<td>Equal variances not assumed</td>
<td>.758 72.781</td>
</tr>
<tr>
<td>Students of color</td>
<td></td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td>5.365 .022</td>
</tr>
<tr>
<td>Equal variances not assumed</td>
<td>-2.325 109.230</td>
</tr>
</tbody>
</table>

* Correlation is significant at the α=0.05 level (2-tailed).
** Correlation is significant at the α=0.01 level (2-tailed).

**Hypothesis 7:** There is no significant relationship between the average per year credit hours students attempted and the number of hours of services they received from the Student Support Services program and this relationship is consistent among White and students of color.
As shown in Table 12, there is no significant relationship between the total credit hours students attempted during enrollment and the number of hours of services they received from the Student Support Services program and this relationship is consistent among White and students of color. A Pearson correlation was conducted at the .05 level of significance. The results of the test revealed that there was a .650 level of significance for all students. Therefore, hypothesis 7 failed to reject.

**Research Question 4:** Does participation in the Student Support Services program have a significant impact on student’s cumulative grade point average among White and students of color?

**Hypothesis 8:** There is no significant relationship between the student’s cumulative grade point average and the number of hours of services they received from the Student Support Services program and this relationship is consistent among White and students of color.

As shown in Table 13, there is a significant relationship between the student’s cumulative grade point average and the number of hours of services they received from the Student Support Services program and this relationship is consistent among White and students of color. A Pearson correlation was conducted at the .05 level of significance. The results of the test revealed that there was a .041 level of significance for all students. Therefore, hypothesis 8 was rejected for all students. At a .890 level of significance. Therefore the hypothesis was rejected at the .03 level of significance for students of color.
Table 12. Pearson correlation for relationship between average credit hours attempted per year and total credit hours attempted and time in hours receiving SSSP services for all students and by ethnicity

<table>
<thead>
<tr>
<th>All students</th>
<th>Time in hours receiving SSSP services</th>
<th>Average hours attempted per year</th>
<th>Total hours attempted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time in hours receiving SSSP services Pearson Correlation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.123</td>
<td>.048*</td>
<td>.069</td>
</tr>
<tr>
<td>N</td>
<td>260</td>
<td>260</td>
<td></td>
</tr>
<tr>
<td>Average hours attempted per year Pearson Correlation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.123</td>
<td>.048*</td>
<td>.000</td>
</tr>
<tr>
<td>N</td>
<td>260</td>
<td>485</td>
<td></td>
</tr>
<tr>
<td>Total hours attempted Pearson Correlation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.113</td>
<td>.400</td>
<td>.000</td>
</tr>
<tr>
<td>N</td>
<td>260</td>
<td>485</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>260</td>
<td>485</td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.113</td>
<td>.400</td>
<td>.000</td>
</tr>
<tr>
<td>N</td>
<td>260</td>
<td>485</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>White</th>
<th>Time in hours receiving SSSP services</th>
<th>Average hours attempted per year</th>
<th>Total hours attempted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time in hours receiving SSSP services Pearson Correlation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>-.010**</td>
<td>.918</td>
<td>.650</td>
</tr>
<tr>
<td>N</td>
<td>116</td>
<td>116</td>
<td></td>
</tr>
<tr>
<td>Average hours attempted per year Pearson Correlation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>-.010**</td>
<td>.918</td>
<td>.293</td>
</tr>
<tr>
<td>N</td>
<td>116</td>
<td>116</td>
<td></td>
</tr>
<tr>
<td>Total hours attempted Pearson Correlation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>-.043*</td>
<td>.650</td>
<td>.000**</td>
</tr>
<tr>
<td>N</td>
<td>116</td>
<td>202</td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>-.043*</td>
<td>.293</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>116</td>
<td>202</td>
<td></td>
</tr>
</tbody>
</table>
TABLE 12. CONTINUED

Students of color

<table>
<thead>
<tr>
<th>Time in hours receiving SSSP services</th>
<th>Average hours attempted per year</th>
<th>Total hours attempted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson</td>
<td>.166</td>
<td>.119</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.064</td>
<td>.185</td>
</tr>
<tr>
<td>N</td>
<td>126</td>
<td>126</td>
</tr>
<tr>
<td>Average hours attempted per year</td>
<td>Pearson</td>
<td>.166</td>
</tr>
<tr>
<td>Correlation</td>
<td>.064</td>
<td>.000**</td>
</tr>
<tr>
<td>N</td>
<td>126</td>
<td>257</td>
</tr>
<tr>
<td>Total hours attempted</td>
<td>Pearson</td>
<td>.119</td>
</tr>
<tr>
<td>Correlation</td>
<td>.185</td>
<td>.000**</td>
</tr>
<tr>
<td>N</td>
<td>126</td>
<td>257</td>
</tr>
</tbody>
</table>

* Correlation is significant at the α=0.05 level (2-tailed).
** Correlation is significant at the α=0.01 level (2-tailed).

Research Question 5: How does cumulative grade point average vary by college based on the number of hours of services received from the Student Support Services Program?

Hypothesis 9: There is no correlation between students cumulative grade point average and the number of hours of services they received the Student Support Services Program when controlling for college enrollment.

As shown in Table 14, there is no correlation between students cumulative grade point average vary by college enrollment based on the number of hours of services received among White and students of color at a .05 level of significance. Hypothesis 9 is accepted.
Table 13. Pearson correlation for relationship between cumulative grade point average and time in hours receiving SSSP services for all students and by ethnicity

<table>
<thead>
<tr>
<th></th>
<th>Time in hours receiving SSSP services</th>
<th>Cumulative grade point average</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All students</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time in hours</td>
<td>Pearson</td>
<td>.114</td>
</tr>
<tr>
<td>receiving SSSP</td>
<td>Sig. (2-tailed)</td>
<td>.041</td>
</tr>
<tr>
<td>services</td>
<td>N</td>
<td>323</td>
</tr>
<tr>
<td>Cumulative grade</td>
<td>Pearson</td>
<td>.114</td>
</tr>
<tr>
<td>point average</td>
<td>Sig. (2-tailed)</td>
<td>.041</td>
</tr>
<tr>
<td>Correlation</td>
<td>N</td>
<td>323</td>
</tr>
<tr>
<td><strong>White</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time in hours</td>
<td>Pearson</td>
<td>-.012</td>
</tr>
<tr>
<td>receiving SSSP</td>
<td>Sig. (2-tailed)</td>
<td>.890</td>
</tr>
<tr>
<td>services</td>
<td>N</td>
<td>138</td>
</tr>
<tr>
<td>Cumulative grade</td>
<td>Pearson</td>
<td>-.012</td>
</tr>
<tr>
<td>point average</td>
<td>Sig. (2-tailed)</td>
<td>.890</td>
</tr>
<tr>
<td>Correlation</td>
<td>N</td>
<td>138</td>
</tr>
<tr>
<td><strong>Students of color</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time in hours</td>
<td>Pearson</td>
<td>.164</td>
</tr>
<tr>
<td>receiving SSSP</td>
<td>Sig. (2-tailed)</td>
<td>.037</td>
</tr>
<tr>
<td>services</td>
<td>N</td>
<td>162</td>
</tr>
<tr>
<td>Cumulative grade</td>
<td>Pearson</td>
<td>.164</td>
</tr>
<tr>
<td>point average</td>
<td>Sig. (2-tailed)</td>
<td>.037</td>
</tr>
<tr>
<td>Correlation</td>
<td>N</td>
<td>162</td>
</tr>
</tbody>
</table>

* Correlation is significant at the \( \alpha=0.05 \) level (2-tailed).

** Correlation is significant at the \( \alpha=0.01 \) level (2-tailed).
Table 14. Pearson correlation for relationship between cumulative grade point average and time in hours receiving SSSP services for all students and by ethnicity

<table>
<thead>
<tr>
<th>College</th>
<th>Correlation between time in hours receiving services and Last cumulative GPA</th>
</tr>
</thead>
</table>
| Agricultural                   | Pearson Correlation .023  
|                                | Sig. (2-tailed) .933  
|                                | N 16  |
| Ag Engineering                | Pearson Correlation .801  
|                                | Sig. (2-tailed) .408  
|                                | N 3  |
| Design                         | Pearson Correlation -.307  
|                                | Sig. (2-tailed) .230  
|                                | N 17  |
| Education                      | Pearson Correlation .184  
|                                | Sig. (2-tailed) .359  
|                                | N 27  |
| Engineering                    | Pearson Correlation .039  
|                                | Sig. (2-tailed) .788  
|                                | N 51  |
| Family & Consumer Sciences     | Pearson Correlation -.007  
|                                | Sig. (2-tailed) .969  
|                                | N 33  |
| Business Administration        | Pearson Correlation .269  
|                                | Sig. (2-tailed) .130  
|                                | N 33  |
| Sciences and Humanities        | Pearson Correlation .055  
|                                | Sig. (2-tailed) .565  
|                                | N 113  |

* Correlation is significant at the α=0.05 level (2-tailed).
** Correlation is significant at the α=0.01 level (2-tailed).
Summary

Research Question 1: Is there a discrepancy between White and students of color in general with regard to academic performance as measured by cumulative grade point average, total credit hours attempted, and graduation rates?

H-1 There is a significant difference between White and students of color with regard to cumulative grade point average. A t-test was conducted at the .05 level of significance and hypothesis 1 was rejected at the .00 level of significance.

H-2 There is a significant difference between White and students of color with regard to the on average per year credit hours attempted. A t-test was conducted at the .05 level of significance and hypothesis 2 was rejected at the .00 level of significance.

H-2 There is no significant difference between White and students of color with regard to the total credit hours attempted. A t-test was conducted utilizing a control group of participant who qualified for program services but did not participate in the program. The t-test was ran at the .05 level of significance and the results failed to reject at the 236 and .253 levels of significance.

Research Question 2: What are the participants’ retention and graduation rates based on the hours of services received from the Student Support Services Program and do these vary between white and students of color?

H-3 There is a significant difference between White and students of color with regard to graduation rates. A chi-square test was conducted at the .05 level of significance and hypothesis 3 was rejected at the .002 level of significance.

H-4 There is no significant correlation between the number of years students are retained at the institution and the number of hours of Student Support Services the participants received and this relationship is consistent when controlling for ethnicity. A Pearson correlation was conducted at the .05 level of significance and the following results were gathered. Hypothesis 4 was accepted at the .967 level of significance. It should be clearly understood that the Student Support Services program had no direct impact on the length of time a participant white or students of color was enrolled at Iowa State University.
H-5 There is no significant difference between graduation rates based on the number of hours of services received and this relationship is consistent among White and students of color. A t-test was conducted at the .05 level of significance and the following results were gathered. Hypothesis 5 was rejected at the .022 level of significance. It should be clearly understood that the Student Support Services program had a direct impact on the graduation rates of its' participants who were students of color based upon the number of hours of services they received from the program.

Research Question 3: Does participation in the Student Support Services Program have a significant impact on the total number of credit hours attempted among White and students of color?

H-6 There is no significant relationship between the total number of credit hours students attempted per year and the number of hours of services they received from the Student Support Services program and this relationship is consistent among White and students of color. A Pearson correlation was conducted at the .05 level of significance. The results of the test revealed that there was a .048 level of significance for all students. Therefore, in Hypothesis 6 there was a significant relationship between the total number of credit hours students attempted per year and the number of hours of services the participants received from the program and the test conducted rejected the hypothesis. On average hours per year for all students but not by ethnicity.

H-7 There is no significant relationship between the total credit hours students attempted during enrollment and the number of hours of services they received from the Student Support Services program and this relationship is consistent among White and students of color. A Pearson correlation was conducted at the .05 level of significance. The results of the test revealed that there was a .650 level of significance for all students. Therefore, hypothesis 7 was accepted.

Research Question 4: Does participation in the Student Support Services program have a significant impact on student's cumulative grade point average among White and students of color?
H-8 There is a significant relationship between the student’s cumulative grade point average and the number of hours of services they received from the Student Support Services program and this relationship is consistent among White and students of color. Pearson correlation was conducted at the .05 level of significance. The results of the test revealed that there was a .041 level of significance for all students. Therefore, hypothesis 8 was rejected for all students; .890 failed to reject, accepted; .037 rejected for students of color.

Research Question 5: How does cumulative grade point average vary by college based on the number of hours of services received from the Student Support Services Program?

H-9 There is no correlation between students cumulative grade point average vary by college enrollment based on the number of hours of services received among White and students of color at a .05 level of significance. Hypothesis 9 is accepted. The Student Support Services program did not have any significant impact for any one college and the time in hours receiving services did not vary the last cumulative grade point average.

Four of the five research questions tested for the purpose of this study had significant results. It was found that students of color may in fact require additional services to be retained at an institution of higher learning (Research Question 2). It was also found that participants’ retention/graduation rates based on the time and hours spent receiving SPSS had a positive impact on students' likelihood to graduate (Research Question 1). There was also a significant impact on retention and graduation rates of program participants based upon the total number of credit hours attempted (Research Question 3). Finally, there was a significant difference at the $\alpha=0.01$ level between retention and graduation rates of students who receive program services based on cumulative grade point average (Research Question 4).
Of the nine hypotheses tested, seven were significant (1, 2, 3, 4, 5, 6, and 7) and the remaining two were not significant (8 and 9). There was a significant difference between the participants across the categories of the variable ethnicity when measured by cumulative grade point average and total credits attempted, and between the participants across the category of the variable ethnicity when measured by total credits attempted.

The next chapter summarizes the research, provides conclusions based on the literature, and recommendations for practice and future research.
CHAPTER 5: SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

Institutions of higher education must address the issue and the challenges of retention. Higher education can adopt new ideas and programs that tackle some of the barriers that reduce the numbers of students of color at these institutions. The purpose of the study was to investigate the impact of participation in the student support services program on the academic performance and retention of students. This study was conducted to determine if the length of time eligible students spend in the Student Support Services Program increases their persistence and graduation rates.

This study was conducted to provide administrators, faculty, staff and its constituents, at predominantly White institutions, and their surrounding communities, with a comprehensive review of the literature, a successful retention model, the history and basis for the development, implementation, continuation, and a rationale for the institutionalization of the Student Support Services program. It was also conducted to provide different insights on ways to modify current retention strategies, so that, if possible, these institutions and their constituents could become more successful in retaining students of color, as well as those who are first generation, or physically disabled, or of low-income.

Findings

Four of the five research questions tested for the purpose of this study had significant results. It was found that students of color may in fact require additional services to be retained at an institution of higher learning (Research Question 2). It
was also found that participants' retention/graduation rates based on the time and
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graduate (Research Question1). There was also a significant impact on retention
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Conclusions

Few research studies have addressed the retention and graduation of students of color at predominantly White institutions, especially those that focus on issues of ethnicity, and noncognitive factors that affect success. Furthermore, it is believed that the Student Support Services at Iowa State University should be institutionalized. This means that the institution should match funding dollars to expand the program because this study, in particular, has proven that students of color can be retained and graduated from predominantly White institutions through the use of program services.

Limitations

The results of this study apply to Iowa State University and should be considered a single study. The study gathered data from the time period, 1989-1995, and the students served; therefore, the information, programs, retention model, and results of this study may be applicable only apply to this time period and the students who were served.

Recommendations

The following recommendations for practice and future research are made based on the study:

Recommendations for practice

1. Funding dollars should be matched to expand program services within the colleges.
2. Although research question five and the results were accepted there is a strong implication there that the colleges that are having difficulty maintaining
their students of color population should develop and provide programs and services close to those outline in the objectives of the Student Support Services program.

3. The programs should be geared towards a consistent level of involvement and providing various activities that would create a sense of belongingness to the students of color enrolled in the various departments at Iowa State University.

4. The minority liaisons from each of the colleges should be trained by the director of Student Support Services, or sent to the training seminars provided by either the U.S. Department of Education through its Student Services program wherein TRIO program developers show trainees how to help students succeed.

5. There are implications for in-service training and professional development with the Minority Liaison Officers and the counseling support staff of the Student Support Services Program to share on the various strategies used to improve student participation in terms of the frequency in which the students of color utilize services.

6. It is of extreme importance that the Minority Liaisons make immediate contact with students of color upon their arrival to the institution and that they develop a very strong mentoring relationship with the students of color.

7. The Minority Liaison should prior to the arrival of the students of color complete an assessment of these students academic preparation and
background so that they have some idea of what services they need as they arrive at the institution.

8. Although it was not the focus of this study previous site visits completed by the Department of Education on the Student Support Services program addressed the need for providing tutorial services, especially to students of color in which the tutors are taught to teach not just tutor.

9. Minority liaisons should attend the National Convention at Washington, DC, yearly to keep abreast of recent trends as well as network with others in the field.

10. Early identification, intervention, needs assessment of the students must be done in order to bring about success.

11. Retention research has important implications for educational policy and planning decisions, thus the findings study could provide useful information for the University President not only to review and analyze but also to implement the suggested Student Support Services guidelines based on this study, which ties in learning communities, internship, and placement as integral components of the university environment to show institutional commitment to the retention and graduation of students of color.

Implications for the practice

1. Student Support Services should be moved from the Dean of Students Office (Student Services) to the Academic Affairs area. The rationale behind this is twofold. One is that the more a student has contact with faculty members from within their various colleges and departments the more likely they
are to graduate from the institution in their respective majors. Remember, that on of the keys to graduation for students of color is participation in the institutional and academic environments. This study has proven that the more supportive contacts that students of color have within the program the more likely they are to graduate from the institution. The second is that in our efforts to create a positive, professional working environment (this goes back to the concept that the area of student services must interact and perform in a certain manner in order to be accepted by the total institutional and the academic community/environment, our perceptions of how we should effectively operate the student services areas). It still appears that within the Minority Liaison model there have been certain limitations set on exactly what the Coordinators can do within each of the colleges. It doesn't appear to show that they have any authority or ability to change policies or reverse decisions that may have an adverse impact on specific populations. Remember, that retention is the responsibility of the entire institution and each of the College Deans are responsible for their retention rates within their respective college.

3. Minority Liaison Officers should concentrate on the actual retention of their student of color population. Recruitment is the responsibility of the Admissions Office. Freeing the MLO's time to focus on the retention of the students of color currently enrolled in the college and it would also give them time to assess the needs of the incoming freshmen student prior to their arrival to the campus.

4. There should be included in the New Student Orientation process a session of
the academic rigors of the institution; some type of mock lecture given for fifteen minutes and students are asked to take notes and to identify the major points that the lecturer covered. Just as a teaser to let the students know that its okay to ask for assistance or academic support and to show the students that it sometimes is not always easy to be successful and give them a list of where they can receive support services from.

5. The Student Support Services program receives training from the Department of Education each year. It would be helpful if the institution sent the MLO's and/or constituents to these training programs, so that they can keep current on working with students of color and the disadvantaged, and meeting their needs.

6. Each of the MLO's should work closely with the academic advisers from within each of their colleges to assure that there is intrusive advising being done with students of color and those students who are experiencing academic difficulty.

7. A closer look or a research study should be conducted on what is making the Learning communities so success and why the Simmer Enrichment Program seemed not to succeed or be effective when working with students of color.

8. Review or revisit the idea of institutionalizing the Student Support Services Program and assess the amount of money that can be saved or generated in Terms of retaining and graduating students of color.

**Recommendations for future research**

1. Further research should be done to investigate issues of ethnicity as well as noncognitive factors that might influence retention and graduation of students of color.
2. The following plan should be carried out and results analyzed to be used to develop a framework for ensuring success of student support services programs of the new millennium. It incorporates learning communities, internship, and placement as integral components of the university environment to show institutional commitment to the retention and graduation of students of color.
APPENDIX A: STUDENT SUPPORT SERVICES FORMS

NAME ___________________________ SS# ____________________ DATE __/__/__
STAFF ________________________________

CONDITIONS INDICATING ACADEMIC NEED

(Circle the letters that apply for this student.)

A. High School GPA below 3.00
B. ACT composite score below the mean for ISU undergrads
C. Individual ACT score 2 or more points below ISU mean
D. Admitted to ISU on academic probation
E. Placed on or continued on academic probation
F. Cumulative college GPA below 2.00
G. Instructor reports show current performance is below "C" level
H. Physical disability interfering with academic activities
I. Diagnosed learning disability
J. Counseling assessment shows academic skills below average
K. Personal situations interfering with decision-making related to educational and/or career planning
L. Personal or other problems interfering with academic motivation or resulting in neglect of basic educational responsibilities
M. Choice of highly competitive academic track leading to entrance into graduate or professional studies
N. Nontraditional student—(returning student, adult learner)
O. "Transfer Shock"—GPA below 3.00
P. English is not first language
ACTION PLAN FOR ACADEMIC RECOVERY

My current academic situation

Total credits earned:
Total quality points deficient:
Cumulative GPA:
Last term's GPA:
Drops remaining:
Credits of designated repeats remaining:
Catalog using: 1985-87  1987-89  1989-91

Projected career goals & aspirations

Please carefully analyze all factors that contributed to your current academic difficulty.

<table>
<thead>
<tr>
<th>FACTOR</th>
<th>Is this a 1-term or an on-going problem?</th>
<th>Was this something you could control?</th>
<th>PROPOSED SOLUTION</th>
</tr>
</thead>
</table>


**SEMESTER PLANNING SHEET**

According to my specific academic needs, I will complete the following activities by the date assigned. I agree to the completion dates on this form.

Student's Signature ___________________________ Staff Member Signature ___________________________

<table>
<thead>
<tr>
<th>( ) Assignments Activity</th>
<th>Date to be Completed</th>
<th>Date Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>__________</td>
<td>Initial Interview:</td>
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<tr>
<td>__________</td>
<td>Learning Skills Assessment:</td>
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<tr>
<td>__________</td>
<td>Mid-term Interview:</td>
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<tr>
<td>__________</td>
<td>Pre-Finals Interview:</td>
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<tr>
<td>__________</td>
<td>Tutoring: (Subjects)</td>
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<tr>
<td>Week 1</td>
<td>Week 2</td>
<td>Week 3</td>
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</table>

**Assignments Activity**

- Learning Skills Workshop
- DVST Courses
- Learning Skills Lab Activities
- Career Planning and Placement

**Scheduled Appointments**

- College Academic Advisor
- College Mentor

**Referrals**

- Date to be Completed
- Date Completed

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STUDENT SUPPORT SERVICES PROGRAM
Iowa State University

NEEDS ASSESSMENT PROFILE

Intake Information

Name: ___________________________ Phone No. __________________

SSN: _______________ Semester: ___________ Staff: ______

Local Address: ____________________________________________

Permanent Address: _______________________________________

Current ISU Academic Information

College: _____________ Major: __________ Classification: ______

Cum GPA: __________ Sem GPA : __________ On TE: ( ) Y ( ) N

Advisor Name/Phone Number: __________________________________

Previous Educational Record

High School Rank: ______________ Transfer Credits: ___________


SSSP Information and Counselor Impressions

Eligibility Category: FG LI FG/LI PH LD Not Elig

Academic Strengths:

Academic Weaknesses:
Financial Status:

Anticipated Needs:

Job/Career Goals:

Interests/Hobbies:

Personal Concerns:

Interpersonal Skills:

Recommendations:
NEEDS ASSESSMENT SURVEY

NAME: ______________________
SSN: ______________________
MAJOR/YEAR: ________________
DATE: ______________________

INSTRUCTIONS

Each statement or item has two sets of answers, one stating whether you feel you have a need or not, and the other stating whether you feel that need is being met. It is important that you fill out both sets of answers, as in the example below:

<table>
<thead>
<tr>
<th>I need</th>
<th>Level of Need</th>
<th>Need Is</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>None</td>
<td>Weak</td>
</tr>
<tr>
<td>To become a better student</td>
<td>0 0 8 0</td>
<td>8 0 0 0</td>
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</tbody>
</table>

If you feel you have a moderate need to become a better student, fill in the oval marked "moderate." If you feel the need is being met, fill in the oval marked "being met." Mark only one oval in the "level of need" column and one in the "need is" column. If you are undecided, fill in the oval which you feel applies most of the time.
### Academic Needs

<table>
<thead>
<tr>
<th>Need</th>
<th>None</th>
<th>Weak</th>
<th>Moderate</th>
<th>Strong</th>
<th>Being Met</th>
<th>Partially Met</th>
<th>Not Being Met</th>
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<tbody>
<tr>
<td>1. To become a better student.</td>
<td>0</td>
<td>0</td>
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<tr>
<td>2. To better understand my teachers.</td>
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<td>3. To get along better with teachers.</td>
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<td>4. To get along better with other students.</td>
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<td>5. To better understand my standardized test scores.</td>
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<td>6. To understand what I can realistically achieve.</td>
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<td>7. To select more courses by myself.</td>
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<td>8. To receive help in selecting courses.</td>
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<td>9. To know more about graduation requirements.</td>
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<td>10. To find courses appropriate to my needs.</td>
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<td>11. To find courses relevant to my future.</td>
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<td>12. To improve my listening skills.</td>
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<td>13. To improve my study habits.</td>
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<td>15. To improve my reading skills.</td>
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<td>16. To improve my writing skills.</td>
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<td>17. To improve my science skills.</td>
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<td>19. To improve my note taking skills.</td>
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<td>Strong</td>
<td>Being Met</td>
<td>Partially Being Met</td>
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<td>1. To know how education affects career goals.</td>
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<td>5. To know of educational options after graduation.</td>
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<td>6. To find career training in my interest areas.</td>
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<td>7. To meet people working in my interest areas.</td>
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<td>8. To get on-the-job experience in my interest areas.</td>
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<td>9. To know about jobs that interest me.</td>
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<td>10. To gain actual on-the-job experience.</td>
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<td>12. To be prepared for careers I am interested in.</td>
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<td>13. To know how my courses fit into my career plans.</td>
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<td>14. To know how people affect my career plan.</td>
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<td>15. To develop a flexible career plan.</td>
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<tr>
<td>16. To talk to a counselor about career plans.</td>
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<td>17. To have my parents involved in my career plans.</td>
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<td>18. To know about jobs in my high interest areas.</td>
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<td>19. To know of alternate career paths.</td>
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<td>20. To gain career-oriented job experience.</td>
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<tr>
<td>1. To understand, accept, and like myself better.</td>
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<td>2. To develop confidence in myself.</td>
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<td>3. To understand how my feelings affect my behavior.</td>
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<td>4. To be more accepting of my physical appearance.</td>
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<td>5. To be a better listener.</td>
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<td>6. To respond better to others.</td>
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<td>7. To understand people older than I am.</td>
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<td>8. To become more accepting of others.</td>
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<td>9. To build trusting relationships with others.</td>
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<td>10. To talk to someone when I have problems.</td>
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<td>11. To talk to a counselor about personal concerns.</td>
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<td>12. To understand my religious beliefs.</td>
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<td>13. To understand more about sex and love.</td>
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<td>14. To understand more about drugs and alcohol.</td>
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<td>15. To understand changing sex roles.</td>
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<td>16. To know how to assess and evaluate my goals.</td>
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<td>17. To learn to better adapt to a changing world.</td>
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<td>19. To get help in guidance or counseling.</td>
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</tbody>
</table>
### Decision and Assertion Needs

<table>
<thead>
<tr>
<th>Level of Need</th>
<th>None</th>
<th>Weak</th>
<th>Moderate</th>
<th>Strong</th>
<th>Being Met</th>
<th>Partially Being Met</th>
<th>Not Being Met</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. To set my goals in life.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2. To learn to tell others how I feel.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3. To state my own point of view.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4. To know how to get along with my family.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5. To get along with members of the other sex.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>6. To develop friendships with both sexes.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>7. To become more tolerant of other persons.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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</tr>
<tr>
<td>8. To learn how to make decisions.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>9. To know my personal strengths and weaknesses.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>10. To know what factors influence my decisions.</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<td>0</td>
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</table>

### Financial Needs

<table>
<thead>
<tr>
<th>Level of Need</th>
<th>None</th>
<th>Weak</th>
<th>Moderate</th>
<th>Strong</th>
<th>Being Met</th>
<th>Partially Being Met</th>
<th>Not Being Met</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. To know about educational financial aid.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2. To know what jobs are available locally.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3. To know where to start looking for a job.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4. To obtain part-time and/or summer work.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5. To understand my financial needs.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
LIST OF SELF VERBALIZATIONS

The list below contains some common thoughts and worries which many test anxious people have. Check those which you can identify with the most. Feel free to add statements which more accurately reflect what usually goes on in your head.

A. WORRY ABOUT PERFORMANCE

___ I should have studied more...I'll never get through.
___ I just want to finish and get out of here and hope for the best.
___ I don't know anything...what's the matter with me.
___ My mind's blank...I'll never get this one right...I must be stupid.
___ I can't figure out what I want...no way I'll do well on this test.
___ I can't remember a thing...this always happens to me...I never do well.
___ Only 10 minutes...there's so many questions...I'll never get through.
___ I just can't think...why did I ever take this course.
___ It's no use...might as well give up.
___ I knew this stuff yesterday...what's wrong with me.
___ My mind's a blank...I'm just not cut out for college.
___ I HAVE to get an A...smart people always get A's.
___ This stuff is easy...I should get them all right.
___ This is terrible, absolutely the worst test I've ever had.
___ I'm just a no good, terrible, stupid and worthless person.

B. WORRY ABOUT BODILY REACTIONS

___ I'm sick...I'll never get through.
___ I'm sweating all over...it's really hot in here.
___ My hands are shaking...can't even hold the lousy pen.
___ My stomach's going crazy...churning and jumpy all over.
___ Here it comes...I'm getting really tense this time...normal people just don't get like this.
EXHIBIT I

PROFILE OF "AT RISK" STUDENT

College: Engineering

Jones, Use
Route 66
USA, NY 20249

Phone Number (000) 000-0000
Soc. Sec. No 000-00-0000

High School Any School Street Any Street
City Any City State Any State Zip 11111
Student has been: Admitted Fall 1987

Status (Admitted) Freshman Transfer
High School Rank 340/653 (53%ile) TOEFL Score ___
ACT 10 10 12 15 12 SAT __/____
Eng Math S.Science Nat. Science Composite Verbal/ Math
(Grade F F F F )

English Math Natural Science Foreign

C.P. Engl AlgI D. D Biol B. B Span ___
C. D. C. B GE D. C Chem _________ Frnch ___
B. D Alg II _______ Phys _________ Germ _______
_______ Trig _________ _________ Latn _______
_______ Calc _________ _________ _________

(2.00 GPA) (1.25 GPA) (3.00 GPA) (CUM. GPA 1.91)

REMARKS: V.S.P. NAT/ACH. SEMI-FINALIST NAT/ACH. COMMENDED
(SUMMER ENRICHMENT PROGRAM ONLY)

First Generation
Non-College Preparatory
High Financial Need
No Family Financial Support
Good Leadership Skills
Extracurricular Activities
STUDY-HABITS INVENTORY

Directions: The following is a list of statements of situations, habits, and conditions which affect the use of study time and consequent success in school work and study. You are asked to state your habits with regard to these items, not in accordance with what you think you should or should not do, or what you see others do, but in accordance with what you, yourself, are in the habit of doing. Please answer all questions.

After each statement you will find three columns. Place a check mark in the column which you feel most nearly describes the truth of the statement in your own case now. If the statement is rarely or never true in your own case, make a check mark in Column 1; if the statement is sometimes true, make a check mark in Column 2; if the statement is often or always true, make a check mark in Column 3.

### A. Reading and Note-taking Techniques

<table>
<thead>
<tr>
<th>Statement</th>
<th>Rarely or Never</th>
<th>Sometimes</th>
<th>Often or Always</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I have to re-read material several times —the words don't have much meaning the first time I go over them.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>2. I have trouble picking out the important points in material read or studied; tend to take down material which turns out to be unimportant.</td>
<td></td>
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<tr>
<td>3. I go back and recite to myself the material studied—rechecking any points I find doubtful.</td>
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<td></td>
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<tr>
<td>4. I pronounce the words to myself as I read.</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>5. I miss important points in the lecture while copying down notes on something which has gone before.</td>
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</tr>
</tbody>
</table>

### B. Habits of Concentration

<table>
<thead>
<tr>
<th>Statement</th>
<th>Rarely or Never</th>
<th>Sometimes</th>
<th>Often or Always</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>6. I find it hard to keep my mind on what I am studying—don't know what I have been reading about when I get through.</td>
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</tbody>
</table>
### C. Distribution of Time and Social Relationships in Study

1. My time is unwisely distributed; I spend too much time on some things and not enough on others.

2. My periods of study are interrupted by outside interference such as telephone calls, visitors, and distracting noises.

3. I find it hard to force myself to finish work by a certain time; under pressure, work is unfinished, inferior, or not in on time.

4. I study with others rather than by myself.

5. My enjoyment of loafing, "bull sessions," or "chewing the fat," interferes with my study.

6. I spend too much time reading fiction, going to shows, etc., for the good of my school work.

7. Too much social life interferes with my school success—dances, dates, and trips.

### D. General Habits and Attitudes of Work

1. I get "fussed" and nervous on examinations; blow up and can't do myself justice or tell what I know.

2. I plan out in my mind the answer to a subjective or essay-type examination question before stating to write the answer.

3. I try to get each point as I go over it, rather than to go on at the time and then go back later to clear up doubtful points.

4. I try to carry over and relate material learned in one course to that learned in others.

5. I try to summarize, classify, and systematize the facts learned, associating them with previously learned material and facts.

6. I am conscious that I have been out of school too long, or took basic subjects too long ago.

7. I try to do some "over-learning," working beyond the point of immediate memory or recall.

8. I try to get my examination papers and turn them in before time is called on the examination.

9. I try to get each point as I go over it, rather than to go on at the time and then go back later to clear up doubtful points.

10. I try to carry over and relate material learned in one course to that learned in others.

11. I try to summarize, classify, and systematize the facts learned, associating them with previously learned material and facts.

12. I am conscious that I have been out of school too long, or took basic subjects too long ago.

13. I try to do some "over-learning," working beyond the point of immediate memory or recall.

14. I try to get my examination papers and turn them in before time is called on the examination.

15. I try to get each point as I go over it, rather than to go on at the time and then go back later to clear up doubtful points.

16. I try to carry over and relate material learned in one course to that learned in others.

17. I try to summarize, classify, and systematize the facts learned, associating them with previously learned material and facts.

18. I am conscious that I have been out of school too long, or took basic subjects too long ago.

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20. I try to get my examination papers and turn them in before time is called on the examination.

21. I try to get each point as I go over it, rather than to go on at the time and then go back later to clear up doubtful points.

22. I try to carry over and relate material learned in one course to that learned in others.

23. I try to summarize, classify, and systematize the facts learned, associating them with previously learned material and facts.

24. I am conscious that I have been out of school too long, or took basic subjects too long ago.

25. I try to do some "over-learning," working beyond the point of immediate memory or recall.

26. I find myself too tired, sleepy, and listless to study efficiently.

27. I have to study where I can smoke—must "go out and have a smoke" when working at the library, etc.

28. My enjoyment of loafing, "bull sessions," or "chewing the fat," interferes with my study.

29. I spend too much time reading fiction, going to shows, etc., for the good of my school work.

30. Too much social life interferes with my school success—dances, dates, and trips.

### Second, score the various study items. The scoring key, together with directions, is located on page 33. Find out the score value of your answer for each item and write it in its appropriate space in the Inventory. All scores with positive signs; add all scores with negative signs; then subtract the smaller sum from the larger and give the difference the sign of the larger sum. Do not, however, place too much dependence on this to score, since you may have a high positive total score and still have one or two poor habits which are indicated by large negative numbers. If your total score is below a plus 30, which is the average for a large group of freshmen, you certainly need to examine your individual scores with great care.

### Third, determine which habits need to be improved. Encircle all the items in the Inventory which received a negative sign. Each indicates a habit which is associated with poor academic achievement. Carefully study the directions before encircling the items.
The purpose of the CBI is to encourage you to respond to the following statement: "My verbal and non-verbal communicative behavior conveys the following messages to people." Your responses should reflect your dominant images that others seem to have of you as a person. Circle the number on the line that best reflects those images.

<table>
<thead>
<tr>
<th>I AM A PERSON WHO CONVEYS...</th>
<th>Aloofness Coldness</th>
<th>Careless appearance</th>
<th>Unhappy disposition</th>
<th>Insincerity Artificiality</th>
<th>Eagerness to talk with others</th>
<th>Confidence in behavior</th>
<th>No interest in listening</th>
<th>Primary concern for other</th>
<th>Difficulty in expressing ideas and feelings</th>
<th>Lack of awareness of what is happening</th>
<th>Ease in making other people comfortable</th>
<th>That I talk too much</th>
<th>That I talk too little</th>
<th>That I am not an intelligent person</th>
<th>Dullness Apathy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal warmth</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
<td></td>
<td></td>
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<tr>
<td>Neat Appearance</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
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<tr>
<td>Cheerful disposition</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
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<tr>
<td>Sincerity</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
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<tr>
<td>Genuineness</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Reluctancy to talk with others</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
<td></td>
<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Insecurity in behavior</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
<td></td>
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<td></td>
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<tr>
<td>Desire to listen</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
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<tr>
<td>Primary concern for self</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
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<td></td>
</tr>
<tr>
<td>Ability to express ideas and feelings</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
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<td></td>
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<tr>
<td>Awareness of what is happening</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
<td></td>
<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Difficulty in making other people comfortable</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>That I talk too much</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
<td></td>
<td></td>
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<tr>
<td>That I am not an intelligent person</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
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<tr>
<td>Excitement Enthusiasm</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
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</tbody>
</table>
Many people feel varying degrees of discomfort in handling interpersonal situations requiring them to assert themselves in some way.

Please indicate your degree of discomfort in the space provided before each situation. Use the following scale to indicate degree of discomfort. For example, if you feel a little discomfort when complimenting a friend, mark "2" in the space before the situation described.

Discomfort Scale

1 - none
2 - a little
3 - a fair amount
4 - much
5 - very much

Then go over the list a second time and indicate after each item the probability or chance of your displaying the behavior in a situation. For example, if you rarely apologize when you are at fault, you would mark a "4" after that item. Use the following scale to indicate response probability.

Response Probability:

1 - always do it
2 - usually do it
3 - do it about half the time
4 - rarely do it
5 - never do it
<table>
<thead>
<tr>
<th>Degree of Discomfort</th>
<th>Situation</th>
<th>Response Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Refusing a request to borrow something you value (homework, car, money, etc.)</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Complimenting a friend</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Asking a favor of someone</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Resisting sales pressure</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Apologizing when you are at fault</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Refusing a request for a meeting or date</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Admitting fear and requesting consideration</td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Telling a person who is very close to you that something he/she says or does bothers you</td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Asking for a raise (job allowance)</td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Turning off a talkative friend</td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>Requesting a date with a person</td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>Admitting confusion about a point under discussion and asking for clarification</td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>Applying for a job</td>
<td></td>
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<tr>
<td>14.</td>
<td>Requesting expected service when it is not forthcoming e.g., in a restaurant, store, etc.</td>
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<tr>
<td>15.</td>
<td>Discussing openly with a person his/her criticism of your behavior</td>
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<tr>
<td>16.</td>
<td>Returning defective items to a store</td>
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<tr>
<td>17.</td>
<td>Expressing an opinion that differs from that of the person you are talking to</td>
<td></td>
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<tr>
<td>18.</td>
<td>Resisting sexual overtures when you are not interested</td>
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<tr>
<td>19.</td>
<td>Telling someone good news about yourself</td>
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<td>20.</td>
<td>Resisting pressure to drink or smoke pot</td>
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<td>21.</td>
<td>Quitting a job</td>
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<tr>
<td>22.</td>
<td>Discussing openly with a person his/her criticism of your work</td>
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<tr>
<td>23.</td>
<td>Requesting the return of borrowed items</td>
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<tr>
<td>24.</td>
<td>Receiving compliments</td>
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<tr>
<td>25.</td>
<td>Continuing to converse with someone who disagrees with you</td>
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</tbody>
</table>

As a final step, indicate the situations you would like to handle more assertively by circling the item number.
LIST OF SELF VERBALIZATIONS

The list below contains some common thoughts and worries which many test anxious people have. Check those which you can identify with the most. Feel free to add statements which more accurately reflect what usually goes on in your head.

A. WORRY ABOUT PERFORMANCE

_____ I should have studied more...I'll never get through.
_____ I just want to finish and get out of here and hope for the best.
_____ I don't know anything...what's the matter with me.
_____ My mind's blank...I'll never get this one right...I must be stupid.
_____ I can't figure out what he wants...no way I'll do well on this test.
_____ I can't remember a thing...this always happens to me...I never do well.
_____ Only 10 minutes...there's so many questions...I'll never get through.
_____ I just can't think...why did I ever take this course.
_____ It's no use...might as well give up.
_____ I knew this stuff yesterday...what's wrong with me.
_____ My mind's a blank...I'm just not cut out for college.
_____ I HAVE to get an A...smart people always get A's.
_____ This stuff is easy...I should get them all right.
_____ This is terrible, absolutely the worst test I've ever had.
_____ I'm just a no good, terrible, stupid and worthless person.

B. WORRY ABOUT BODILY REACTIONS

_____ I'm sick...I'll never get through.
_____ I'm sweating all over...it's really hot in here.
_____ My hands are shaking...can't even hold the lousy pen.
_____ My stomach's going crazy...churning and jumpy all over.
_____ Here it comes...I'm getting really tense this time...normal people just don't get like this.
C. WORRY ABOUT HOW OTHERS ARE DOING

I know everyone's doing better than I am.
I must be the dumbest person in the whole class.
I'm going to be the last one done again... I must really be stupid.
No one else seems to be having trouble... I am the only one.

D. WORRY ABOUT POSSIBLE NEGATIVE OUTCOMES

If I fail this test, I'll
flunk the course
be kicked out of school
never get into graduate school
have to get A's on the midterm and final
have to go to summer school
never get a good job
never graduate on time
never get the kind of job I want

If I fail this test, my family and friends will really be disappointed in me... I'll never be able to face them.

If I fail, everyone will think I'm stupid... I'll really be embarrassed. Everyone will think I'm no good and not cut out for college.
**KEEP DAILY CONTACT LOG**

**INSTRUCTIONS:** The purpose of this log is to record and document your student contact. Coding categories are listed below. Put an "X" in the blocks that apply; leave the other boxes blank. Record the total time spent with that student each day in the final block on page 9.

<table>
<thead>
<tr>
<th>STUDENT NUMBER</th>
<th>SOCIAL SECURITY NUMBER</th>
<th>TYPE OF PARTICIPANT</th>
<th>NOTATION</th>
<th>TUTORING</th>
<th>BASIC SKILLS</th>
<th>STUDY SKILLS</th>
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</thead>
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</table>

**CODING CATEGORIES:**

**TYPE OF PARTICIPANT:** Disabled (P = physical disability; L = learning disability); FG = first-generation; LI = low income; RACE coded as follows: 1 = Asian Indian; 2 = Black; 3 = White; 4 = Asian or Pacific Islander; 5 = Puerto Rican; 6 = Hispanic; 7 = Not Used; 8 = Prefer not to indicate; SEX coded as follows: 1 = Male; 2 = Female.

**INTAKE (GOAL 450 STUDENTS):** MA = Needs Assessment; A = Application; TF = Tutoring form; RI = Release of Information; C-TE = Contract-Temporary Enrollment; C-TK = Contract-Transfer Contract; AAB = Academic Background; IV = Income Verification; DP = Diagnostic Prescription; Q = Qualifying

**TUTORING (GOAL 450 HOURS):** G = Group; I = Individual

**BASIC SKILLS (GOAL 480 HOURS):** R = Reading (180 hours); W = Writing (180 hours); M = Math (270 hours); C = Chemistry (180 hours); B = Biology (180 hours)

**STUDY SKILLS (GOAL 200 HOURS):** 18R = Textbook reading; NT = Note Taking; LS = Listening Skills; TM = Time Management; O = Organization; TP-O = Test Preparation-Objective; TP-E = Test Preparation-Essay; TP-C = Test Preparation-Concentration; PS = Problem Solving; TS = Thinking Skills; DK = Decision Making; CS = Comprehension Skills.
**ACADEMIC (Goal: 600 Hours)**:  
P = Preregistration (touchstone registration);  
CS = Course Selection;  
GC = Grade Point Calculations;  
ASP = Academic Standards and Policies;  
TE = Temporary Enrollment;  
GR = Graduation Requirements;  
SAP = Satisfactory Academic Progress;  
COP = Cumulative Deficiency Points;  
D = Drops;  
DA = Degree Audits;  
AR = Academic Reinstatement;  
AC = Advisor Contact;  
H = Midterms;  
T = Transfers;  
CA(SEP) = Conditional Adults (SEP)  

**PERSONAL (Goal: 400 Hours)**:  
IC = Interpersonal Communications;  
A = Assertiveness;  
IR = Interpersonal Relationships;  
OA = Drugs and Alcohol;  
PH = Personal Health;  
H = Hygiene;  
V = Verbalizations;  
HP = Human Potential Skills;  
G = Goals;  
A = Attitudes;  
SA = Self-awareness;  
SH = Stress Management;  
P = Personal Skills  

**CAREER (Goal: 450 Hours)**:  
CI = Career Information;  
C = Choices;  
V = Values;  
A = Abilities;  
JF = Job Interviews;  
JO = Job Opportunities;  
OJT = On the Job Training;  
C = Coops;  
I = Internships;  
R = Resumes;  
A = Application;  
CM = Choosing a Major;  
LRG = Long Range Goals;  
SRG = Short Range Goals;  
JH = Job Hunting;  
AL = Application Letters;  
RL = Rejection Letters;  
GP = Group Presentations;  
W = Workshops
Interpretation

MODIFIED LEARNING STYLE SURVEY

<table>
<thead>
<tr>
<th>Learning Style</th>
<th>Element Items</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Structure</strong></td>
<td>Items 2, 5, 8, 10</td>
<td>High Structure</td>
</tr>
<tr>
<td></td>
<td>Items 1, 3, 4</td>
<td>Low Structure</td>
</tr>
<tr>
<td><strong>2. Perceptual Strength</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a) <strong>Visual</strong></td>
<td>Items 7, 9</td>
<td>Visual</td>
</tr>
<tr>
<td>(b) <strong>Auditory</strong></td>
<td>Items 6, 9</td>
<td>Auditory</td>
</tr>
</tbody>
</table>
MODIFIED LEARNING STYLE SURVEY

Directions: Respond to the following questions with "yes" or "no". Give your immediate or first reaction to each question.

1. I remember faces better than names.  
2. I like experiences to be planned and structured.  
3. I mostly make decisions based on objective facts rather than feelings.  
4. Given basic facts, I am good at developing general concepts.  
5. I prefer to have deadlines when I work.  
6. The things I remember best are the things that I hear.  
7. The things I remember best are the things I see or read.  
8. If I have a lot of tasks, I enjoy making a list with priorities before beginning.  
9. If someone tells me detailed directions, I need to write them down to remember.  
10. I like others to outline very carefully what they want me to do.
APPENDIX B: FIGURE 1

Minority and White Share of Full Professor Positions, by Gender: 1985 and 1995

1985

White Women 10.5%
White Men 82.3%
Men of Color 6.1%
Women of Color 1.1%

1995

White Women 15.8%
White Men 74.6%
Men of Color 7.6%
Women of Color 2.1%

Changes in Full-Time Administrators in Higher Education: 1993 to 1995

APPENDIX D: FIGURE 3

Proportion of College Students Who Are Minority-Group Members, Fall 1996

Source:
The Chronicle online; Almanac
The responsibilities of the Deans and faculties of each college include:

- Culture management
- Achievement strategies
- Faculty recruitment and tenure for minorities and women
- Learning assistance for students
- Curriculum reform
- Student achievement
- Teaching and learning
- Increasing diversity
- The development of higher expectations for students
- Constant improvement of campus climate
APPENDIX F: MINORITY LIAISON COORDINATOR POSITION DESCRIPTION
THE MINORITY RETENTION AND GRADUATION PROGRAM. 
POSITION DESCRIPTION

PROGRAM:

The Minority Retention and Graduation Program is a cooperative venture between Iowa State University's Division of Student Affairs and the Office of the Provost.

PURPOSE:

To assist minority students in making a successful transition from secondary education to post-secondary education by: a) increasing faculty, staff and minority student involvement, b) reducing barriers to participation, c) helping minority students meet high expectations, and d) improving the learning environment.

POSITION:

Minority Liaison Coordinator

BASIC FUNCTION:

The Minority Liaison Coordinator will provide leadership in the development, implementation and coordination of educational, cultural and social activities for minority students enrolled in the College of Liberal Arts and Sciences. The coordinator will work with students, faculty and staff members to create a college environment more conducive for successful minority enrollment, retention, graduation and placement. This individual will coordinate all such activities and functions with consultation and concurrence from the Dean of the College of Liberal Arts and Sciences and the Office of Minority Student Affairs.

DUTIES AND RESPONSIBILITIES:

1. Identify all minority students in the College of Liberal Arts and Sciences.

2. Hold high expectations for minority students and communicate same to all members of the College of Liberal Arts and Sciences.

3. Establish a genuine, open relationship with minority students.

4. Develop a Personal Assessment Profile of each student's academic, social and cultural experiences.

5. During the first year of enrollment, work with the students' advisers and teachers to formulate a course of study that maximizes the talents of minority students and minimizes their limitations, thus enhancing the successful completion of the first year.
6. Encourage minority students to consider a course of study in depth and to explore all options fully before making a career choice.

7. Assist teachers and advisers in discovering the positive qualities of minority students and encouraging them to help such students develop their qualities.

8. Through group sessions, encourage minority students to maximize their individual abilities.

9. Take preventative action when possible thereby eliminating the need for punitive action.

10. Help minority students recognize their own responsibilities for achieving their goals and needs.

11. Counsel minority students who are on work/study. Assist them in adjusting to their work responsibilities without neglecting their studies.

12. As a Minority Liaison Coordinator, convey a belief in the abilities of minority students enabling them to feel independent, productive and full of self worth.

13. Provide guidance and counseling services to minority students who are at risk of dropping out before they make the decision not to return to school.

14. Through seminar sessions, attempt to understand what it means to a minority student to fail their first semester.

15. Challenge minority students without destroying their initiative.

16. Follow up on the progress of successful and unsuccessful minority students by working through their academic advisers and instructors.

17. Assist minority students in dealing with stress.

18. Become knowledgeable about scholarships and loans for minority students.

19. Develop a data base of instructors and teachers who can best maximize the talents of minority students.

20. Monitor student progress.

INTERACT WITH THE FOLLOWING COMMITTEES:

1. College Academic Standards Committees

2. Financial Aid Committee

3. Orientation Committee

4. Admissions Committee
5. All University Placement Committees
6. The Summer Enrichment Program (SEP) Committee
7. The Social and Cultural Committee of Minority Student Affairs

RELATIONSHIPS:

The Minority Liaison Coordinator should maintain the following on-going relationships for the purpose of expanding supportive services for minority students:

1. Deans, directors and department heads
2. Academic faculty and staff
3. Student leaders and student organizations
4. Parents
5. Community and community organizations

All of the above relationships should be developed and nurtured for the purpose of promoting effective communication which is necessary and desirable for the successful accomplishment of the goals and objectives of this position.

MEASUREMENT OF PERFORMANCE:

The performance of the Minority Liaison Coordinator will be measured by the degree of involvement this person demonstrates while performing the outlined duties and responsibilities. The Dean of the College and the Assistant Vice President for Student Affairs along with Academic Affairs will review the effectiveness of the performance of the coordinator through continual informal consultation as well as through formal, yearly performance appraisals.

NOTE: This is not a program of remediation — no standards are to be lowered; but all efforts are to be increased.
BIBLIOGRAPHY


Burr, P., Burr, R. & Novak, L.(1999). Student retention is more complicated than merely keeping the students you have today: Toward a "seamless retention theory". Journal of College Student Retention, vol 1 (3239-253)


*Higher Education Amendments of 1992 Conference Report* to accompany S.1150. Chapter 1, Federal TRIO Programs, section 402D.


ACKNOWLEDGEMENTS

I am grateful and indebted to my major professor, Dr. Dan Robinson, who has not only guided me through my program study but also acted as my advocate during difficult challenges. He has been a strong shoulder on which to lean on when I’ve needed it most. And, he has been a bright source of enlightenment and encouragement as well.

I am thankful to Dr. Larry Ebbers for his persistence to see me through to a successful conclusion. I thank him for his support and belief in me.

Thanks also to Drs. Mack Shelley, Lenola Allen-Sommerville, and George Jackson for their support of this research.

I am very grateful to Stefanie Whitfield for her valuable assistance with the statistics and to Pat Hahn, my editor. The efforts of these lovely women has made a difference in the overall quality of this written dissertation.

To one of my best friends, Dr. J. Winston Black Jr. without his shelter, support and kindness, I don’t know if I would have been able to accomplish this major life tasks. So, with all my love and appreciation thank you.

Finally, and most importantly, this research would not have been possible without my memorable experiences with the hundreds of students over the years in Iowa State University's Student Support Services Program. From them I have memories that will last more than one lifetime.