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The effectiveness of two types of academic support services on the academic performance of black undergraduate students

Bill Jon Wells

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To the Graduate Council:

I am submitting herewith a dissertation written by Bill Jon Wells entitled "The effectiveness of two types of academic support services on the academic performance of black undergraduate students." I have examined the final electronic copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Education, with a major in Educational Psychology.

Howard F. Aldmon, Major Professor

We have read this dissertation and recommend its acceptance:

Accepted for the Council:

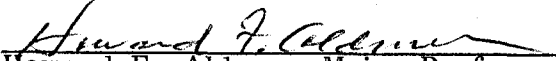
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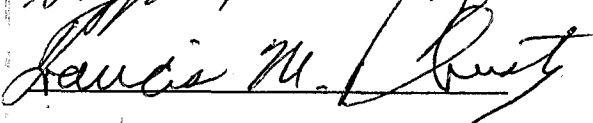
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Howard F. Aldmon, Major Professor


Luther M. Kindall, Major Professor

We have read this dissertation
and recommend its acceptance:

Accepted for the Council:


The Graduate School

THE EFFECTIVENESS OF TWO TYPES OF ACADEMIC SUPPORT SERVICES
ON THE ACADEMIC PERFORMANCE OF
BLACK UNDERGRADUATE STUDENTS

A Dissertation
Presented for the
Doctor of Education
Degree

The University of Tennessee, Knoxville

Bill Jon Wells

June 1984

DEDICATION

I sincerely dedicate this dissertation to my mother, Margaret Greene, to my brothers, Jackie and Bobby, and to my sister, Jerrie. I also dedicate this dissertation in memory of my step-father, Ulysses Greene, and grandparents, Roddie and Jessie Miller.

ACKNOWLEDGMENT

The author wishes to express his sincere thanks and appreciation to Committee Co-Chairman, Dr. Howard F. Aldmon, for his guidance, constructive criticism and for all the special time and considerations he allowed me. A special note of thanks and gratitude is extended to my long term "Old School" friend, faculty advisor, and Committee Co-Chairman, Dr. Luther M. Kindall, for the support and prudent advise he afforded me during the completion of this project. The author wishes to personally thank the rest of his fine and capable committee members, Dr. Siegfried C. Dietz and Dr. Francis M. Trusty, for their cooperation, assistance and confidence in me.

The author would also like to express his thanks and gratitude to the following people without whom this research could not have been completed: Dr. William Byas, former Dean of Student Developmental Services, Dr. James Caraway, Director of the Educational Advancement Program, Ms. Jane Redmond, Director of the Black Cultural Center, Mr. Fred Brown, Director of the Office of Black Minority Engineering, Mr. Robert Netherland and Dr. Glenn Smith.

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ABSTRACT

The purpose of this study was to assess the effectiveness of two academic support programs on the academic performance of black undergraduate students. Data were collected, analyzed and evaluated on 89 participants representing two treatment groups and one control group. The participants were freshmen and sophomores enrolled in The University of Tennessee, Knoxville (UTK), Black Cultural Center (BCC) and the Educational Advancement Program (EAP). The study was conducted in the 1981-82 academic school year.

Two specific hypotheses were generated. It was hypothesized that students enrolled in the BCC and EAP would achieve significantly greater GPA mean gain scores than nonenrolled (control group) students. The null hypothesis was that there would be no significant difference in cumulative GPA mean gain scores performed between the two treatment groups.

Data analysis showed that the alternative hypothesis was rejected. The null hypothesis of "no significant difference" was supported. A closer examination of data on group performance within the two treatment groups revealed the following: (1) sixty-one percent of the students receiving tutoring at the BCC achieved letter grades of "C" (2.0 and above) "C+" (2.5) to "A" (4.0) in regular classroom courses, and (2) students enrolled in the EAP performed quite well. Seventy percent of the EAP students achieved similar GPA results for which tutoring had been rendered. Students enrolled in the BCC identified chemistry, engineering, math and biology most often as the subject

areas in which they needed academic assistance. Students enrolled in the EAP identified the subject areas of math, biology, chemistry, and English.

The study specifically contributed to the existing body of literature in two ways. First, it offered an opportunity to investigate the academic performance of students who were performing successfully (2.0 and above) in their course work as well as students who were not performing adequately in their course work. Second, it offered an opportunity to focus on the unique characteristics and services of the BCC and EAP.

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CHAPTER I

INTRODUCTION

Prior to the 1960s, most black students, particularly those who resided in the South, attended black segregated institutions of higher education. However, during the last decade and a half, due to the enforcement of desegregation laws, open admission policies, and the recruitment of black students to these campuses, a significant increase in black enrollment at predominately white institutions has occurred. Burbach and Thompson (1975) found these students matriculated at colleges and universities throughout the United States with high ambitions and aspirations, but on predominately white campuses, suffered from social, personal, and academic problems. Also, many of these students withdrew or discontinued their education in greater numbers than their white counterparts (Peterson, 1973). Burbach and Thompson concluded that because of academic deficiencies and a lack of social life, a majority of black college students did not reach their educational objectives.

University officials and faculty members began to initiate various types of remedial and tutorial programs to help the academically high risk students, particularly black and other minority students, overcome inadequate academic skills and campus social life and to improve the retention among these students. In 1968 President Lyndon Johnson's top priority in American Higher Education was to insure that ". . . in America there must be no economic or racial barrier to higher

education; every qualified young person must have all of the education he wants and can absorb." According to Harold Howe, Johnson's Commissioner of Education, this priority was "the largest package of higher education legislation ever considered by any Congress." Included in this priority was the provision of Head Start, the Teacher Corps, Upward Bound, a new stay-in school program for potential high school dropouts, adult basic education classes, Partnership for Learning and Earning program, the Educational Opportunity Act of 1968, new programs for tutoring, counseling, and special services for disadvantaged youths and students. Plans to eliminate segregation in the northern states were introduced by the Department of Health, Education and Welfare in support of the Johnson Administration and national pressure (Wilson, 1969).

During the late 1960s there was a proliferation of programs and services which sought out intelligent high school dropouts and provided them with tutorial and learning instructions, scholarships, and financial aid in order that they may attend college. Wilson (1969) found that in the 1960s several white universities and colleges sought out and admitted "high risk" students. Some of these institutions' recruitment programs of students from low economic family levels were financed by the Rockefeller Foundation. However, the majority of predominately white institutions involved in programs for "high risk" students were in the North. Only seven white institutions located in the South participated in the recruitment of "high risk" disadvantaged minority students. Wilson concluded that the ideal of Black Power and white

help was often in conflict for most black students admitted to a white college. "Neither absorption into the prevailing middle-class culture nor withdrawal into a separate black society seemed fully acceptable or even fully possible" (Wilson, 1969).

With reduced federal and state spending and other related budget cuts in higher education, academic support services from which many low-income and high risk students benefited during the 1960s and 1970s will be different during the 1980s (Turner, 1980). It was estimated that for fiscal years 1981 through 1984, higher education will lose \$6.5 billion dollars in federal spending (Chronicle of Higher Education, May 26, 1982, p. 7). Pell Grants, which more than one million low-income and middle-income students utilize, were projected to be reduced in fiscal year 1982 by one billion dollars (Neilsen & Polishook, 1982). Some educators, federal and state officials have already advocated the curtailment of many of these programs and services and contend that only the best of high school students should be granted admission to private and public institutions of higher education throughout the country.

Although the literature does not give an exact percentage of black students who could benefit from academic support services, Thomas (1980) found that 70% of the country's more than one million black students attended predominately white universities, but only 3 out of 10 graduated from these institutions. Thomas' research found that a major reason for black college students not graduating from these institutions was because of a lack of campus social life and being academically

unprepared. However, Luther Foster, former president of Tuskegee Institute, recently stated that ". . . a lot of white colleges are letting blacks in but they are not graduating them. It is not just because they are not able to do good work. The concern for graduation is not as great in some of the white colleges as it is at the black colleges" ("The Black College: The Price of Excellence," 1979, p. 29). In essence, it is one thing to accept an increased enrollment of black students into white institutions of higher education, but it is quite another matter to ensure their successful completion of a bonafide degree program.

Because of the problems facing higher education and particularly academic support programs and services, the current investigation attempted to determine the effectiveness of two academic support programs which served a large number of black undergraduate students. In contrast to most studies on academic support services, the current investigation focused on black students who were doing successful academic work (2.0 and above) as well as students who were doing below-average academic work. The present study differs from other investigations of academic support services because the participants in this study were admitted to the University of Tennessee, Knoxville, through the regular admission program; no special admission alternative designed for high risk or disadvantaged students was necessary.

Purpose of the Study

The primary purpose of the study was to compare the effectiveness of two types of academic support services on the performance of black UTK undergraduate students who used the services and to compare their performance with black UTK students not enrolled in the programs. More specifically, the study was designed to determine the validity of the assumption that providing students with academic support services should increase their overall grade point averages, particularly in courses for which tutoring and academic assistance were being rendered.

Additional questions this study sought to answer included:

1. What were the features of the two academic support services of this study?
2. What were the characteristics of the students?
3. What types of academic support services offered by the two programs were most utilized or requested?

Contribution of the Study

This study will hopefully answer the question of whether academic support services make a difference in the retention and graduation of black students enrolled at a predominately white university. The researcher also hopes that this study will provide understanding about the needs of students enrolled in academic support services.

Assumptions and Limitations of the Study

The basic assumption and limitations of this study included:

1. The study was limited to a relatively heterogeneous UTK black undergraduate population.
2. Generalizations of the results of the study were restricted to the experimentally accessible population.
3. Participants enrolled in the BCC and EAP were highly motivated to succeed in class assignments.

Definition of Terms

To conduct this study effectively, the writer deemed it necessary to define the following terms:

Tutorial Service. Academic assistance rendered to students in courses in which they may be experiencing difficulty.

Skill Building Service. Programmed mini-courses designed to enhance the individual's academic skills in various subject areas.

Academic Counseling Service. A service to assist individuals in exploring their educational goals, academic program, and course of study as well as to help individuals with learning difficulties and poor study habits.

Academic Advisement Service. A service designed to disseminate information pertaining to the student's educational curriculum.

Academic Support Service. One or more of the above academic services available to students.

Self-Selected or Self-Enrolled Experimental Group. A group of participants who volunteer, are self-selected, or seek exposure to treatment.

Nonenrolled Experimental Group. A control group which consists of participants who do not seek exposure to treatment.

Major Hypotheses

In this investigation comparing nonenrolled and self-enrolled students of the University of Tennessee, Knoxville, Black Cultural Center (BCC) and the Educational Advancement Program (EAP), the following hypotheses were tested:

Hypothesis 1: Black UTK students enrolled in the academic support services of the BCC and EAP, will demonstrate a significant increase in cumulative GPA mean gain scores over nonenrolled black UTK students.

Hypothesis 2: There will be no significant differences in the rate of increase or decrease of GPA mean gain scores between black students enrolled in the academic support services of the BCC and black students enrolled in the academic support services of the EAP.

The hypotheses were tested at the .05 level of confidence.

Empirical Rationale of the Study

The rationale for the first hypothesis was based on the following assumptions:

Students enrolled in academic support programs at the EAP and BCC are usually self-referred. Many of these students are highly motivated by their desire to learn. These students are self-disciplined, and they seek to gain a competitive edge on the rigors of challenging

course work. Nonenrolled students may not be as highly motivated to achieve academically.

The rationale for the second hypothesis was based on the following assumptions:

Although the eligibility for enrollment differs between the academic support services of the BCC and EAP, any student regardless of economic or academic status may enroll in the academic programs provided by the BCC. Students must be classified economically or academically high risk and must meet certain specific federal/state criteria to enroll in the EAP. Nevertheless, there are similarities between the two programs. Both programs provide students with worthwhile tutorial instruction and information on how to study and prepare course work. Students are also provided with academic skill-building services, advisement, and formal and informal learning skills congruent with regular classroom instructions. Consequently, no significant differences in cumulative grade point average (GPA) mean gain scores should occur between the two groups.

Organization of the Study

Chapter I includes an introduction to the study, statement of the problem, contribution of the study, limitations and assumptions of the study, definition of terms, major hypotheses, empirical rationale of the study, and organization of the study. A review of literature related to the study followed by implications of the literature and a summary are presented in Chapter II. Chapter III presents the methodology and procedures. The results and discussion of the results are presented in

Chapter IV. A summary, findings, concluding statements pertaining to the results, and recommendations for future research are presented in Chapter V.

CHAPTER II

REVIEW OF RELATED LITERATURE

Historical Considerations

The following areas provide the historical considerations for this study. They are: (1) research pertaining to academic support services during the 1960s, 1970s, and 1980s, (2) research investigations which give an overview of the tutorial and other related academic assistance provided for high-risk students, (3) a review of literature on the impact of college environment on black and white students, (4) research related to the implementation of academic support services for disadvantaged students, (5) the role and duties of professional and paraprofessional staff in academic support services, and (6) the admission concerns of minority students.

Academic Support Services
in the 1960s and 1970s

According to research (Yates, 1983; U.S. Census Bureau, 1973), black student enrollment between the years 1967 and 1972 increased from 370,000 to 720,000 at colleges and universities throughout America. Much of this increase in black college student enrollment was taking place at predominately white institutions.

Sedlacek and Webster (1978) conducted a national survey of the admission and retention of minority students and found that black freshmen enrollment had increased from 3% in 1969 to 5% in 1976 with a decrease of 6% in 1973. They also reported that more special programs

for disadvantaged students were found among private colleges. Sedlacek and Webster also found that a larger percentage of black and other minority students were retained by private colleges. The greatest gains in black college student enrollment occurred from 1969 to 1975 in the middle and western states. The enrollment of black students at colleges and universities located in the middle states increased from 6 to 13%. The western area states showed a 5 to 6% increase in enrollment of black college students. With a 6% increase in black college student enrollment, the southern states made the most steady gains (Sedlacek & Webster, 1975; U.S. Office of Education, 1975).

As black enrollment increased at predominately white institutions, so did the concerns and attitudes of the academic community, politicians, and citizens (Johnson, 1975). Yates, Collins, and Boykins (1973) found that the most frequently asked question about the increased enrollment of black students at the University of Michigan in 1968 was: "How well do or can black students perform in those universities?" As Yates et al. claimed, such a question may have been of real concern to some people, but more often it implied that blacks were academically unprepared to succeed at predominately white institutions. Some people feared that admitting a larger number of black students would erode the credibility and reputation of the university.

In contrast to the prevailing view that an increased enrollment of black students would lower the academic standards at colleges and universities, Yates and his associates found that at the University of Michigan, black students' concerns were "realistic and legitimate."

These students wanted to reach their full academic potential and have the opportunity to learn and develop the skills needed for personal and community survival. These students did not want to be penalized for having technically inadequate scholastic preparation, which is associated with most inner-city high schools.

During the 1960s and mid-1970s the recruitment and selection of minority students, particularly blacks on predominately white campuses, was a big issue (Webster & Sedlacek, 1978). Although this period was marked with student unrest, the Vietnam conflict, and civil rights demonstrations, legislators at both the state and federal levels continued their support for funding of programs on these campuses. However, Webster and Sedlacek noted that during the mid and late 70s many colleges and universities either dropped or reduced their campaign to recruit and admit minority students. As enrollment of students (black and white) declined, there was less enforcement of governmental regulations on the admission of black students to predominately white institutions of higher education. Instead, college and university officials gave their attention to other priorities, e.g., reverse discrimination lawsuits, handicap students, and student retention among minorities.

In the February 3, 1983, edition of the Chronicle of Higher Education, the Ford Commission reported:

minority group(s) representation in the country's colleges and universities had increased substantially between the mid-1960's and mid-1970's as a result of the Civil Rights Movement, the Civil Rights Act of 1964, and the initiation of several social programs aimed at increasing minority-group enrollment. But since the mid-1970's few gains have been made. (p. 1).

Academic Support Services for the 1980s

Turner (1980) conducted a survey and interviewed administrators, faculty, staff and students from five different education institutions in California. Turner concluded from his research that the social events the university community experienced in the 1960s and early 1970s will be different in the 1980s. According to Turner, some educators have already discussed doing away with open admission programs and tuition-free education from which many minority and low-income students benefited. The numerous minority faculty and staff hired during the late 1960s and 1970s most likely will be the first to be terminated due to inevitable budget cuts. Turner contended that such action will have a profound effect on minority retention and enrollment. The importance of minority faculty and staff is that they serve as positive role models for these students.

An article in the February 17, 1982, edition of The Chronicle of Higher Education stated:

President Reagan has recommended chopping 45% in fiscal 1983 from the budget of several programs designed to encourage disadvantaged students to attend college and remain there. He also would trim \$10 million from the \$150.2 million that Congress agreed to spend for the programs this year.

The article further stated:

Under the President's \$82-million request for the programs in fiscal 1983, no money would be available for the Educational Opportunity Centers and the Talent Search Programs, which provided disadvantaged and high risk students with counseling opportunities. (pp. 22, 23)

With the curtailment and reductions of these programs, many high risk students will find it difficult to remain academically up to standard.

The Bryson and Bordo (1979) investigation concluded that the nature of funding is an important factor in special educational programs. Institutions showing a decline in black enrollment were usually financing their academic support programs with regular institutional funds whereas institutions showing an increase in black enrollment were often receiving external financial support. Bryson and Bordo's research was conducted over a five-year period and published in 1975.

Tutorial Service for the High Risk Student

Studies by Choi and Malak (1975) and Lacy (1979) found that students labeled "high risk" or "marginal" have been considered academically inferior. The most common evaluation of these students is that they should have never been admitted to college in the first place. Others have claimed that "these students are lazy" or "do not have the ability to perform in institutions of higher education."

Past studies by Wilson (1972) revealed that no single factor has been declared the cause of academic failure. Instead, a melange of academic deficiencies, cultural disadvantages, and inappropriate majors have been characteristic of unsuccessful college students. Most students need administrative policies which encourage achievement rather than defeatism. Examples of such policies include: (1) alternative grading systems, (2) competency-based curricular models, and (3) special remedial and tutorial programs (Choi & Malak, 1975).

Research by Wagner and McKenzie (1980) showed that providing academic support services is essential for the success of disadvantaged undergraduate students. Educators, according to Wagner and

McKenzie, have called for new types of programming services which effectively address the needs of different cultural and socioeconomic groups. Wagner and McKenzie were able to show that disadvantaged students (high risk academically) benefited from the use of academic support services. Eighteen students who had been admitted to Temple University in Philadelphia through a special admissions program improved their problem-solving, interpersonal skills and writing skills in their first semester. Wagner and McKenzie highly recommended that the university assume a responsibility to provide academic support services to special admissions and high risk students.

An investigation by Hart and Keller (1980) and Jenkins and Guthrie (1979) confirmed the need for academic tutorial programs. Hart and Keller examined first-year students' perceptions of their academic performance. All 375 first-term freshmen living on the main campus of Miami University who earned less than a "C" average (2.0) were asked to identify the factors which they perceived as having contributed to their poor academic performance. A moderate percentage of both men and women claimed the lack of motivation as the reason for poor grades. However, a larger percentage of women and men considered the following to be major reasons for their poor performance: (1) unstimulating instructors, (2) classes too large to give personal attention, (3) failure of examinations to measure student's knowledge, and (4) failure to discuss academic difficulties with course instructors. Hart and Keller suggested from their research that close cooperation among persons working in academic support services is needed in order to bring about retention among academically deficient and high risk students.

Of 198 students enrolled in developmental skills for educationally disadvantaged freshmen at Southern Illinois University, 171 responded to a questionnaire on the use or nonuse of an optional tutorial program. Those who used the program were asked to rate its helpfulness, while those who did not were asked to indicate which of the 11 reasons were responsible for their nonparticipation. Only 23% of the respondents had used tutorial services, but 80% of these rated the tutors as helpful. Most students cited "received help from friends or instructors," and "didn't need any help" as reasons for not using academic services (Keiner, 1978).

Baranchik and Ladas (1979) conducted two studies in which they investigated the effects of academic support services on freshmen and advanced-standing students enrolled in remedial mathematics, the sciences, reading and writing at Hunter College. In one study completed in the fall of 1975, a stepwise discriminate analysis compared the retention/nonretention of eligible students who did not participate in remediation. In another study, 300 students who entered school in the fall of 1974 were divided into two groups: those who passed and those who did not pass or did not take remedial courses.

Baranchik and Ladas found in the first study that taking required remediation was positively related to retention for freshmen, but not for advanced-standing students. The second study showed that passing a mathematic remediation course was the most significant factor in retention of freshmen. The freshmen who passed remediation courses in

mathematics, sciences, and writing had significantly higher grade point averages than those who did not.

College Environment

Equally important on the impact of college success is college environment (Aulston, 1972), perceived isolationism (Wessell, Engle & Smidschens, 1978), and the provision of tutorial and academic support services (Carroll & Thompson, 1980; Kuh, 1980). Research by Astin (1978) found students in general reported relatively high satisfaction with their college environment. Women tended to be slightly more satisfied than men with their college experience, and whites tended to be somewhat more satisfied than blacks.

Academic selectivity, prestige, and institutional size were found to be the most important institutional characteristics affecting student satisfaction. Astin accentuated the importance of classroom instruction, variety in curriculum, and quality of a science program associated with student satisfaction. Involvement in various activities during the undergraduate years led to college student satisfaction. The majority of black students who attended predominately white colleges reported less emphasis on social life than white students. Dissatisfaction with college friendship was greatest among blacks, Jews and students with financial concerns.

Robertson (1980) found, contrary to most studies on black student satisfaction at predominately white colleges, that black students were as satisfied as white. According to Robertson, black student satisfaction

at predominately white universities in the "deep south" may not be as low as some observers have suggested. A study of undergraduate black and white students at the University of Mississippi revealed that black student satisfaction was significantly lower than that of white students only with respect to the University's system of reward. That is, black students felt they had to work too hard to make satisfactory grades. These students' dissatisfaction in this area may have been due to unrealistic expectations of college life. Also, students who have poor academic backgrounds tend to report dissatisfaction with the university reward system.

Robertson conceded his present study was too limited to make generalizations, but he did suggest additional studies of black student satisfaction which could be quite valuable. Robertson postulated that when black and white student satisfaction has been assessed in a sufficiently large number of institutions, the knowledge of student satisfaction may advance to the level where generalizations and predictions can be made.

Astin (1978) believes these findings suggest a number of questions for further research:

Does interacting with faculty result in greater satisfaction with faculty? Does heavy involvement in academic pursuit lead students to be more satisfied with the quality of instructions, or does good teaching motivate students to study hard? Does involvement in student government make students more critical of their institutions, or does dissatisfaction lead students to become more involved?

Although these questions cannot be fully resolved without further research, Astin recommended that students' general satisfaction with

their undergraduate experience be enhanced by more direct involvement in various aspects of the college experience. In order to get students, particularly black students, more involved with campus life, Turner (1980) suggested the promotion of student participation in student-initiated activities. These activities include black student unions, peer group associations, fraternities and sororities, and the promotion of institutionally supported academic services.

The Value of Orientation

A vital and necessary component of support services is orientation. Students should be well-oriented about campus life. Turner (1980) found that students who knew what to expect and who have been fully oriented are in a much better position than those students who do not participate in orientation. Turner suggested that orientation should continue throughout the freshman's first year. The initial one-to-two weeks orientation is not enough time to allow "culture shock" freshmen to absorb information they have received during their initial orientation sessions.

A study by Maynard (1980) found that black and other minority students are often overwhelmed and lost on large, predominately white university campuses. Through proper orientation and other support services, black and minority students become well-motivated, assertive, responsible, and articulate in dealing with the university system. As Turner documented, an important aspect of orientation is that it helps students learn about campus life and the bureaucratic system of the

university. As Maynard's research pointed out, once these students are admitted to the system, they are expected to pass through predesignated stages in the curriculum that lead to a defined point of exit from the system in a reasonable time frame.

Students who make it through the system are expected to be different when they leave. Maynard concluded that students who do not "play the game" (conform to the norm of student behavior in dress, life style, and communication patterns) are usually pressured out of the system or asked to leave. In either case, this action has a profound effect upon the academic performance of the nonconforming students. Maynard recommended the use of orientation, prevention programs, individualized skill laboratories, and developmental programs which can assist both the students and university to adapt to each other's needs.

The Admission Concerns of Minority Students: Pro and Con

Research by Grant (1976) indicated a major concern of black students seeking quality higher education was the admission requirement. The Educational Testing Service (1972) reported that vigorous competition among students to enter colleges and universities, particularly highly selective institutions, has been going on for the past 25 years. During this period, Scholastic Aptitude Test (SAT) scores were useful and important factors in the resolution of this competition. Now, for a number of reasons the competition has slacked, and individual selection is increasingly based on a broader spectrum of personal attributes.

A seven-year study on the retention and admission of minority students at 110 predominately white colleges and universities by Sedlacek and Webster (1978) found the following criteria: (1) ACT (52%) and SAT (62%), (2) high school rank (60%), and (3) high school grade point average (62%). Sedlacek and Webster found other criteria which included: (4) CEEB Achievement tests (10%), (5) extracurricular activities (5%), and interviews (2%). Eight percent of the schools in this study had open admissions in 1976 (requiring only a high school diploma or its equivalent for entry), which compared to 13% in 1975, 8% in 1974, 16% in 1973 and 1972, 12% in 1971 and 1970, and 10% in 1969. According to Sedlacek and Webster, the GPA mean score utilized by the institutions in their study were "2.77 in 1976, 2.48 in 1975, 2.29 in 1974, 2.90 in 1973, 2.77 in 1972, 3.17 in 1971, 3.32 in 1970, and 2.05 in 1969." Sedlacek and Webster concluded that colleges and universities have continued to increase admission criteria since 1976.

Over the years there has been much criticism and controversy over standardized testing in schools and other settings. This criticism ranges over the construction, the publication, the sale, and above all, the use of the tests. The tensions created by the upsurge of testing and its criticism have been felt by teachers, counselors, students, parents, school administrators, and even test experts themselves. Even though researchers (Carroll & Thompson, 1979; Green & Farquhar, 1965; Boyd, 1977) have consistently shown that tests have built-in biases which affect the validity of their predictive ability when administered to black students, Grant (1976) found that universities

and colleges which wish to limit their enrollment require a prescribed minimum score on standardized achievement tests.

Despite these findings, Cleary and Hilton (1968), Cole and Hanson (1973), and Grant (1976) found that many institutions of higher education continue to administer standardized achievement tests to black students. Consequently, only a few black students are admitted to college on a nonprobationary basis. Students who are born and reared in impoverished environments or who are culturally different are penalized because their experiences limit their effectiveness in test situations. In this regard, a student who is from a middle-class family has a better chance of scoring well than a student from a lower-class home because he/she is generally encouraged to develop verbal abilities and to read critically. Thus, SAT and ACT tests used in selecting students for college have been the target of much criticism (Peter & Shertzer, 1974). Bloom (1964) has estimated that insecurity and an impoverished background can cut 10 I.Q. points from a child's test performance by age four and another 10 points by age 17. Most test experts (Ebel, 1970; Crombach, 1970; Educational Testing Service, 1972) admit that students with impoverished or disadvantaged backgrounds do poorly on tests. They do not advocate that standardized testing be abandoned; they state that the conditions of society must improve for such children and adults (Peter & Shertzer, 1974). Ebel suggested that if the use of educational tests were abandoned, the encouragement and reward of individual efforts would be made more difficult. Crombach identified four fundamental purposes of testing;

they are: (1) prediction--tests given to obtain a measure of ability, achievement, and one or more characteristics that will offer a solid basis upon which individuals can make a decision; (2) selection--tests used by institutions such as colleges, businesses, and industries to accept some individuals and reject others; (3) classification--involves deciding which of the many groups or assignments in which a person can participate; and (4) evaluation--tests used to assess and evaluate programs, methods, treatment and scientific experiments.

Most social scientists believe educators as well as the public must take a more objective look at standardized testing. Although some test experts believe that standardized testing has some merit, for the most part it has had a negative effect for most blacks and other minorities subjected to this kind of testing. Educational testing is big business. Robert Green (1978), Dean of Urban Development at Michigan State University, revealed that the standardized testing industry made more than \$100 million in 1977 by selling its tests to schools and convincing school administrators that test results are valid indicators of learning ability and future educational success. It is the personal belief of the writer that the problems associated with the various types of standardized tests do not lie with the administration of these tests to minorities but, more importantly, with the way these tests are used.

Grant believed "if significant numbers of competent blacks are to be admitted and accepted in major universities throughout the nation, strong revisions must be made in traditional admission procedures." Grant made the following recommendations: (1) recognition must be

given to the fact that most admission requirements were established without consideration for cultural differences of minority groups, (2) alternative criteria should be used which consider other aspects of academic preparation and educational potential, and (3) the expected level of success of all students should be based on the student's total cultural, social, and academic experience instead of on "acceptable deficiencies," e.g., low SAT scores and poor high school grade point averages.

National surveys conducted by Boyd (1979) in 1973, 1975, and 1977 of about 800 black undergraduate students at forty predominately white universities revealed the following results. First, in comparison to 1973, black college students in 1977 had better academic preparation. Second, they demonstrated less racial hostility and were enrolled in more challenging majors. Third, their grade point averages and educational aspirations were higher if enrolled at private colleges than at public institutions. Fourth, because of poorer college preparation, far smaller proportions of residential students, and continued racial discrimination in the West, the black educational experience was less positive. In conclusion, Boyd found that academic preparation of blacks for college education improved during the period, and almost twice as many blacks had GPA's of B- or higher in 1977 than in 1973.

The Implementation of Academic Support Services for Minority and Disadvantaged Students

Haynes (1981) listed the following factors and categories, which administrators need to consider before developing services for disadvantaged students.

Academic Program. Establish small classes with specifically trained personnel. Employ a variety of teaching approaches to meet the diverse needs of the individual. Design an academic assistance program which utilizes peer, paraprofessional, and faculty involvement. For entering freshmen, provide orientation, life management, and study skills. Evaluate students and the academic program on a regular basis.

Community Involvement. Encourage students, interested educators, and administrators in community participation. They could serve in the development of an advisory board. Members of the community could serve as role models for students. Community members could also serve as resource persons.

Counseling. Employ professional, capable graduate/peer and faculty counselors who are able to assist students in a variety of ways.

Financial Aid. Effect flexible policies which consider the total need and resources of the student. Design a program which will help students to complete the necessary aid forms, and advise students of their total financial aid package.

Institutional Commitment. Establish special policies which recognize and meet the special needs of individuals.

Program Evaluation. Implement goals and objectives of program in stated terms which can be observed and measured.

Recruitment. Encourage students and community groups in recruitment. Recruit students who show potential and motivation.

Student Selection. Give careful consideration to the potential candidates' previous academic history, interest, and motivation. Require a personal interview and letters of recommendation. Expect candidates to accept responsibility for their success or failure in light of "realistic" factors.

While this list of factors may not answer all the questions that could be raised about academic support programs for disadvantaged college students, Hayne's data pointed out that it is valuable for newly assigned program directors. He also recommended this guide for administrators who want to strengthen current programs.

A study investigating some of the organizational issues and problems of academic support programs at four colleges found the following results in three major areas: (1) the problem of coordinating an array of services and programs to assist students was a major concern, (2) most of these programs were developed with external funds, and (3) the programs were shaped by the interest of the funding agency (Smith, 1980). Academic support services on a small scale were found to be helpful to many students. However, doubt was expressed concerning the effectiveness of these programs on a large scale even if expansion were fiscally possible. Smith believed that universities must have extremely effective academic support programs to assist students. Smith suggested that while the four campuses

investigated in his study do not represent a true statistical cross-section of urban higher education, they do represent some interesting observations pertaining to academic support programs.

Implications of the Literature

Research findings suggested academic support services had their greatest influence on American higher education during the late 1960s and early 1970. As predominately white colleges and universities began to experience an increase in black and minority student enrollment, there was a need to develop and provide these students with academic support services. Providing inadequately prepared students with academic support services allowed many students to improve in their study and learning skills. Students were able to gain a better understanding of their course work. The colleges and universities were then able to retain and graduate students who otherwise would have dropped out because of poor grades or would have been academically dismissed from the university. The literature further indicated that black and minority students who are attending predominately white universities frequently have a problem adjusting to their environment. Research showed that college students who are satisfied with their overall campus life tend to achieve better grades than students dissatisfied with their campus life (Astin, 1978).

The mid-1970s and early 1980s saw a reduction in funding of academic support programs. This trend at institutions of higher education was due in part to high retrenchment and smaller enrollment

of full-time students. Curtailment of these programs suggested that many educators believed that only the best qualified high school students should gain entrance to institutions of higher education.

Summary

There appears to be verification in the literature that students who enroll in academic support programs generally benefit from these services. Because of recent budget cuts, retrenchment, and a decline in college students in higher education, the 1980s will continue to witness a reduction of these services. Some educators are hopeful that university policies and legislative mandates will, at least on a minimum scale, continue these programs and services.

Research has shown that most college dropouts have the intellectual ability to complete college work. They often discontinue their studies, however, because of personal, social and economic problems (Foster, 1979).

In contrast to the studies reviewed, the current study differs in that it focused on black students who were doing successful (2.0 and above) academic work as well as students doing average (2.0) and below average (less than 2.0) academic work. In addition, the current study differs from other academic support investigations because the participants in this study were not admitted to the University of Tennessee, Knoxville, through a special admissions program designed for high risk or disadvantaged students.

CHAPTER III

METHODOLOGY AND PROCEDURES

The purpose of this study was to investigate the effectiveness of two types of academic support services on the performance of black undergraduate students enrolled at the University of Tennessee, Knoxville, who used these services. The study further compared their performance with black undergraduate UTK students not enrolled in these programs. This study was conducted as a quasi-experimental design [intact nonequivalent control group (self-selected version)] utilizing three intact groups (Campbell & Stanley, 1963; Huck, Cormier & Bounds, 1974). The study was conducted in the 1981-82 academic school year.

Hypothesis 1: Black UTK students enrolled in the academic support services of the Black Cultural Center (BCC or treatment group 1) and the Educational Advancement Program (EAP or treatment group 2) will demonstrate a significant increase in cumulative GPA mean gain scores over nonenrolled black UTK students (control group or treatment group 3).

Hypothesis 2: There will be no significant differences between the cumulative GPA mean gain scores of black students enrolled in the BCC and black students enrolled in academic support programs of the EAP.

Additional questions this study sought to answer included:

1. What were the primary features of the two academic support services in this study?
2. What were the characteristics of the participants in the study?
3. What type of academic support services were most requested and utilized by students?

Participants and Setting

Participants in this study were freshmen and sophomores ranging in age from 17 to 22. Treatment group 1 consisted of 26 black undergraduate students (21 females and 5 males) who self-selected the academic support services of the BCC for the Winter Quarter of 1982. Treatment group 2 consisted of 34 black undergraduate students (25 females and 9 males) who self-selected the academic support services of the EAP for the Winter Quarter of 1982. The control group included 28 UTK black undergraduate students (9 females and 19 males) nonenrolled in academic support services.

At the time of this study it was estimated that 70% of the students enrolled in the EAP were white. Black students made up 30% of the total EAP enrollment. In contrast, 90% of the students enrolled for services at the BCC were black. White students made up 10% of the total BCC enrollment.

The University of Tennessee, Knoxville, has a moderate admissions policy which generally attracts a heterogeneous black and white student population. None of the participants in this study were admitted to UTK through a special admissions program designed especially for high

risk students. Geographically 95% of the sample population came from Tennessee. The remaining 5% of the population represented other geographical areas (primarily northern and southeastern states).

The two academic support programs are located on the UTK campus. They are basically designed to assist students who may be experiencing some type of academic deficiency. The EAP also assists students with low (less than 17) ACT scores. Students may request additional services relating to social and personal consultation. The fact that students were willing to seek out academic services indicated considerable motivation for academic self-improvement and suggested that the participants might benefit from the requested services.

Because a majority of students enrolled in the two treatment groups represented disciplines in engineering and the "hard sciences," the control group represented an intact group of engineering and chemistry students enrolled in similar math, chemistry, biology, English, and computer science courses.

Design of Study

This study was conducted as a quasi-experimental design (intact nonequivalent control group self-selected version). There are several reasons which underline the use of this design. According to Huck, Cormier & Bounds (1974), they are:

1. Quasi-experimental designs allow researchers to investigate studies when true experimental designs are not possible or feasible.
2. Even though researchers who employ this type of design do not have total experimental control, they can control one of the

following: which intact group receives treatment, when treatment is applied, and when observation is made.

3. Quasi-experimental designs have greater control over external than internal threats to validity. For example, Huck, Cormier & Bounds (1974) found that participant reactivity was less frequent when researchers used the quasi-experimental design with intact or naturally assembled groups. In contrast, true experimental designs select participants who are randomly assigned to comparison groups. Thus, participants are likely to be more "reactive" and more aware of the purposes of the research.

An intact nonequivalent control group (self-selected) design is similar to the pretest-posttest design except that participants are not randomly assigned to groups. The participants in this experimental design volunteered for treatment or sought exposure to treatment whereas the control group did not seek out treatment. In the case of the current study, the participants in treatment groups 1 and 2 are self-selected who sought help from academic support services whereas the control group participants did not seek academic support service help.

Statistical Techniques and Rationale

To test the hypotheses governing this investigation, the following statistical techniques were formulated. Mean gain scores were calculated for each comparison group, and the parametric independent samples t-test was computed to compare for significant differences between mean gain scores. Gain scores were calculated by subtracting

each participant's pretest score from his/her posttest score. The test for significance selected for the t-test was at .05 level.

According to Campbell and Stanley (1963) and Huck et al. (1974), the use of gain scores and the independent samples t-test is best considered when comparing groups that have an unequal number of scores. Since the three groups in the study did not contain the same number of participants, the writer was obligated to test for the assumption of homogeneity of variance by calculating the F value. These statistical techniques are most appropriately applied when conducting research involving intact nonequivalent control groups.

The two hypotheses in the study called for a one-tailed test and a two-tailed test. For example, hypothesis 1 was tested for a significant increase (one direction or greater) resulting in a one-tailed or one-directional test. Hypothesis 2 was tested for significant differences in either direction (i.e., increase and decrease or greater and less) resulting in a two-tailed or two-directional test. The UTK Statistical Analysis System (SAS) programming was used for the computation of results. The results of the statistical tests and analyses were computed in tables. Percentages were used in analyzing participant's cumulative GPA mean gain scores and demographic data.

Procedure

A letter soliciting the permission to conduct this research was sent to the Dean of Student Development Services. Enclosed with the letter was a prospectus detailing the study. With the approval of the study the investigator met individually with each director and coordinator of

the respective offices from which these data originated. At each meeting the hypotheses and variables governing the study were discussed. All data collected and received pertaining to the identification of the participants were guaranteed to be held in the strictest confidence, and no references to their identification in the study were to be made.

To determine the effects of treatment, preexperimental cumulative GPA mean scores were obtained from both treatment groups and the control group. Preexperimental treatment cumulative GPA mean scores for group 1 and group 2 were obtained at the beginning of the 1982 Winter Quarter. The cumulative GPA mean score for control group 3 was obtained during the first week of the 1982 Winter Quarter. The postexperimental treatment cumulative GPA scores were obtained for treatment groups 1 and 2 at the end of the 1982 Winter Quarter. The second set of cumulative GPA mean scores for control group 3 was also collected at the end of the 1982 Winter Quarter.

The effectiveness of the two academic support services was assessed through comparing the treatment and control groups on the following observations: (1) final cumulative GPA mean gain scores for the 1982 Winter Quarter, (2) GPA scores achieved and performed in participants' tutored courses, (3) examination of progress reports, and (4) personal feedback from staff and students. Data were collected through formal and informal discussions with academic support staff, administrators and students. Demographic information, GPA performance, academic support services requested or received, progress

reports and related assessment were collected from the students' files. These data were provided by the Offices of Student Development Services, Black Cultural Center, Educational Advancement Program, Black Minority Engineering and the Office of Student Data Analysis and Informed Consent.

Treatment

Although the academic support services provided by the two treatment groups differed, there were some similarities. Participants in both groups self-selected the services of the two academic support programs. Both treatment groups received tutorial and other related academic assistance lasting a minimum of one full quarter. Participants in both programs received a combination of tutoring, counseling, advisement, and programmed learning skills instructions. Professional and student/peer and graduate assistants were utilized in providing academic assistance in both groups. Participants in both treatment groups received progress reviews throughout the quarter from their respective advisors. Finally, the goals and mission of the two academic support services are similar. Both programs provide a number of approaches and strategies to help prepare students to adequately perform in course work. In addition, both programs provide services to assist with the myriad needs and projected needs of the students they serve.

Differences between the two treatment groups will be discussed. In treatment group 1 there were no specific criteria for enrollment whereas students in treatment group 2 had to meet certain federal/state

criteria and be classified economically and/or academically high risk. Participants in treatment group 1 received structured tutoring for regular classroom assignments. In contrast, participants in treatment group 2 received tutoring for basic skill classes and regular classroom courses on an individual basis. Also, they received a less structured tutoring format, and they were on a self-paced learning schedule. Participants enrolled in treatment group 1 were provided academic assistance in courses in chemistry, engineering, and math to biology and French. Students enrolled in treatment group 2 were provided academic assistance in five major areas (not exclusively) which included: (1) math, (2) English, (3) biology, (4) educational psychology, and (5) reading. Even though both programs were open to UTK students, the BCC served a majority of black students. The EAP consisted of a majority of white students.

This chapter has described the participants and setting, the design of study, and statistical techniques and rationale used in collecting and analyzing results. The next chapter presents the results.

CHAPTER IV

RESULTS AND DISCUSSION

Introduction

Specifically, this study sought to determine if any significant differences existed between the cumulative GPA mean gain scores of students enrolled in the academic support services of the BCC, EAP and a control group. The study was a quasi-experimental investigation utilizing three intact groups. The research was conducted in the 1981-82 academic school year. The hypotheses tested were:

H₁: Black students enrolled in the BCC and EAP will demonstrate a significant increase in GPA mean gain scores over nonenrolled black UTK students.

H₂: There will be no significant difference between the cumulative GPA mean gain scores of black students enrolled in the academic support services of the EAP and BCC.

To test the hypotheses governing this research for each set of data, the mean, mean difference, variance, standard deviation, and independent samples t-test were computed and analyzed. The test for significance selected for the t-test was at the .05 level. Grade point average was calculated according to the way the University of Tennessee, Knoxville, calculates GPA. First, all noncredit grade symbols (i.e., N, I, and W) were excluded from calculations; second, the following scale was incorporated: A = 4.0, B = 3.0, C = 2.0, D = 1.0, and F = 0.0. The results of each hypothesis tested are reported in numerical sequence.

The first comparison was to test whether the sample data supported the assumption of homogeneous variance. This was done by calculating the F value. If the calculated F value is greater than the table critical F value, then there is a significant difference. Thus, the null hypothesis will be rejected. Otherwise, if the critical F value is greater than the calculated F value, then the sample means do not differ significantly from one another. In this regard, the null hypothesis will be accepted.

The first hypothesis comparison was to compute the independent samples t -test and mean gain scores. The independent samples t -test would determine if the GPA mean gain scores achieved by the two treatment groups were significantly greater than the scores of the control group. Statistically greater GPA mean gain scores would suggest that students benefited substantially from treatment. In this case the alternative hypothesis will be supported. Relatively identical GPA mean gain scores would indicate that the treatment groups did not differ significantly from the control group. The researcher would reject the alternative hypothesis.

The second hypothesis comparison was to determine if a significant difference in cumulative GPA mean gain scores existed between the two treatment groups. A second independent t -test and mean gain scores were calculated for this purpose. The significance of the cumulative GPA mean gain value compared between the two treatment groups would indicate whether the assumption of the second hypothesis was justified.

Data Analysis

Table 1 indicates the test for the assumption of homogeneity of variance between the two treatment and control groups. The initial Fall Quarter cumulative GPA mean score for group 1 was 2.08; the initial cumulative GPA mean score for group 2 was 2.14; and the initial cumulative GPA mean score for group 3 was 2.30. Although the initial cumulative GPA mean score for group 3 was somewhat greater than the two treatment groups, the critical F value on the groups' variances revealed that these differences were not significantly greater at the .05 level. Also, the slightly greater initial cumulative GPA mean score of group 2 was not significantly greater at .05 level than group 1. The implication is homogeneity of variance in cumulative GPA mean scores between groups.

Table 1

Test for the Assumption of Homogeneity of Variance Mean, Variance, and Result of Test of Significance Between GPA Means and Variance of Two Treatment Groups and a Control Group

| <u>N</u> | <u>M</u> | Var | <u>F</u> * | <u>t</u> -Ratio** |
|----------|----------|--------|------------|-------------------|
| 26 | 2.08 | 1.0548 | 3.40 | 0.2965 |
| 34 | 2.14 | 1.0560 | 3.28 | 0.2961 |
| 29 | 2.30 | 1.0607 | 3.35 | 0.2936 |

*F-test-test the homogeneity of the variance.

**Independent t-test significance of difference between mean.

Table 2 represents the summary data for the analysis of the initial and final cumulative GPA mean gain scores to test hypothesis 1. Analysis of final Winter Quarter cumulative GPA mean gain scores performed by group 1 was 2.15. For group 1 this resulted in a mean gain increase of 0.07. The final cumulative GPA mean gain score for group 2 was 2.02. Group 2 performed a mean gain decrease of -0.12. The final cumulative GPA mean gain score for group 3 was 0.11. Although groups 1 and 3 recorded an increase of 0.07 and 0.11, respectively, these mean gain increases were not significantly different ($t = 0.2877$, $p > .05$). The summary data of the independent samples t -test to test hypothesis 1 indicated no significant differences between the mean gain scores for group 1, group 2 and group 3. Therefore, hypothesis 1 was rejected.

Table 2

Table Summary of Between Group Initial and Final Mean Gain Scores and t -Ratios

| | Initial GPA | Final GPA | Gain Score | | | |
|-------------------|-------------|-----------|------------|-----------|-------|-----------------|
| | <u>M</u> | <u>M</u> | <u>M</u> | <u>SD</u> | Var | <u>t</u> -Ratio |
| Group 1 (BCC) | 2.08 | 2.15 | 0.07 | 0.47 | 0.225 | 1.0739* |
| Group 2 (EAP) | 2.14 | 2.02 | -0.12 | 0.86 | 0.755 | 1.3038* |
| Group 3 (Control) | 2.30 | 2.41 | 0.11 | 0.48 | 0.237 | 1.2500* |

* $p > .05$.

The data presented in Table 3 ($\underline{t} = 0.3225$, $\underline{p} > .05$) indicate no significant differences between the mean gain scores for group 1 (0.07) and group 2 (-0.12). Hypothesis 2 was supported.

Table 3

Table Summary of Between Group Initial and Final Mean Gain Scores and \underline{t} -Ratios (Treatment Groups)

| | Initial GPA | Final GPA | Gain Score | | | |
|---------|-------------|-----------|------------|-----------|-------|-----------------|
| | <u>M</u> | <u>M</u> | <u>M</u> | <u>SD</u> | Var | <u>t</u> -Ratio |
| Group 1 | 2.08 | 2.15 | 0.07 | 0.47 | 0.225 | 1.0739* |
| Group 2 | 2.14 | 2.02 | -0.12 | 0.86 | 0.755 | 1.3038* |

* $\underline{p} > .05$.

The results of the present study must be interpreted cautiously. While the investigator rejected the alternative hypothesis (H_1) ($\underline{t} = 0.2877$, $\underline{p} > .05$) and failed to reject the null hypothesis (H_2) ($\underline{t} = 0.3225$, $\underline{p} > .05$) in this study, a closer examination of the other data collected not shown in a table on group performance within the two treatment groups reveals the following: (1) 61% of the students receiving tutoring at the BCC (group 1) achieved letter grades of "C" (2.0) and above "C+" (2.5) to "A" (4.0) in regular classroom courses; (2) likewise, data on group performance of students enrolled in the EAP (group 2) showed that 70% of the students achieved similar GPA results for regular and basic skill courses for which tutoring had been given; (3) interestingly, students enrolled in the BCC identified

chemistry, engineering, math and biology most often as the subject areas in which they needed academic assistance and tutoring. Students enrolled in the EAP identified the subject areas of math, biology, chemistry, and English. Students enrolled in the control group were enrolled in similar regular course work as the two treatment groups and received similar grade point averages; and (4) data showed that 39% of the students in group 1 and 30% of the students in group 2 performed less adequately in tutored course work. They received letter grades below "C" in tutored courses.

Efforts were made to determine why some students did not perform adequately in their course work. Some plausible explanations to this unexpected outcome may lie in several answers. First, although a majority of students in both programs appeared highly motivated to succeed in their educational development (as evidenced by their progress reports, participation in services, and informal discussion with staff and students), there were some students in both programs who perhaps could have benefited from more intense counseling and additional tutorial services. Second, the reduction in cumulative GPA mean gain scores for students enrolled in the EAP during the Winter Quarter suggests a need for better understanding the role of academic support services in student achievement. Unfortunately, because of limited funds and resources available to the EAP and BCC programs, they are not able to identify and provide appropriate academic assistance in every course to every student. Third, students enrolled in the EAP are on a self-paced schedule, and this may have influenced their GPA

outcome for tutored courses. Fourth, reasons given most frequently by students who did not perform adequately in courses fell into one of the following categories: "class pace (regular classes) was too fast," "missed classes due to health problems," and "lack of interest in class assignments."

Relationship of Findings to Other Research: Academic Support Services

The hypotheses presented in the present study on academic support services are similar in construct to Tarpey and Harris (1979); Baranchick and Ladas (1980), and Sedlacek and Webster (1978). Essentially, those researchers contend that students enrolled in academic support services generally improved in retention and grade point average, particularly academically deficient students. A research outcome by Eddins (1976), Hart and Keller (1980), and Keates (1982) has shown a cause and effect relationship between students enrolled in academic support services and an increase in their grade point averages. Students with such academic deficiencies are generally provided with a combination of academic skills concurrent with regular classroom courses, intense counseling and advising (Remes & Jones, 1980).

In addition, Aulston (1972), Astin (1978), Wessell, Engle, and Smidchens (1978) have demonstrated that college environment plays an important role in relation to academic success of a college student. Jones (1978) found that a student's choice of college did not appear to have been influenced by friends, teachers or counselors, but instead

by the quality and reputation of the institution. Those findings, including the above research, would suggest the following outcomes: (1) students enrolled in academic support services will significantly improve their cumulative GPA, and (2) students receiving academic support services should achieve significantly greater cumulative GPA scores than nonenrolled students.

Those suggested outcomes were in part supported by the present study. The alternative hypothesis was not supported while the null hypothesis was supported. Although the research design of this study was similar in construct to Tarpey and Harris, there were methodological differences. Tarpey and Harris assigned participants to one of three groups. Two treatment groups consisted of 31 students each who received communication skill training, and there was one nontreatment control group with 31 students. Before and after the course, all students' GPAs were obtained at the end of the academic term.

As in the present study, Tarpey and Harris found no statistically significant differences in precourse GPAs between students enrolled in the three groups. However, unlike the present study, Tarpey and Harris found that the two treatment groups achieved significantly greater postcourse GPA scores than the nontreatment group. The differences in research design between the two studies may have influenced the difference in results of the alternative hypothesis of this study. The Tarpey and Harris study was a true experimental design with random sampling. The current study was a quasi-experimental design with intact or natural assemble groups.

The feasibility of utilizing a true experimental design for this study would not have been appropriate because the study investigated the effectiveness of two academic support programs on the academic performance of students who had self-selected these services. Most statistical experts, including Stanley and Campbell (1963) and Huck, Cormier and Bounds (1974), agree that when a true experimental design is not feasible, it is appropriate to utilize the quasi-experimental design. Overall, in relationship to other research in this domain, the current study supports in part findings of previous studies.

Positive Aspects of the Study

The most positive aspect of the study was to investigate the academic performance of black undergraduate students enrolled in academic support services and programs who were engaged in successful (2.0 and above) classroom work. As has been previously stated, most similar studies focused on black students classified as high risk or disadvantaged. These studies would lead one to conclude that only high risk or disadvantaged students benefit from the services provided by these programs. Another assumption one might make from the literature is that black students are ill-prepared for the rigors of academic pursuit at predominately white institutions. Although there may be some basis for these assumptions, the present study produced evidence which showed that both high risk students and students in good academic standing were enrolled in academic support services. Another positive aspect of this study, as compared to past studies, was the enrollment of most of the participants in challenging disciplines such

as engineering, chemistry, computer science, business administration, and biology. A positive aspect of the study was to highlight the unique features of two important academic support services available to UTK students.

The primary implication of the study was that the two academic support services provided programs in an attempt to meet the academic needs of their students. This growing need for such services is the direct result of recent increases in college admission standards and the diverse backgrounds of today's college students (Grant, 1976; Cole & Hanson, 1973; Cleary, 1968). Many students, particularly black and other minority students, enter college with various types of problems. Too, the students are expected to produce good grades and maintain relatively high scholastic standards. For many of these students these expectations are difficult to achieve. Providing the students with help from competent staff personnel as well as professional, paraprofessional, and peer assistance can reduce the magnitude of some of the problems and anxieties they face on entering college. With assistance and support many of them will realize their ultimate educational goal, which is to make good grades and graduate.

A second major implication of the study involves the importance of the relationship between students enrolled in academic support programs and their advisors and tutors. Both programs in this study had been successful in initiating services in which advisors and tutors become very involved with the students' course work. Staff members of the BCC and EAP had been successful in working with other academic

departments, faculty members, and administrators in assisting students to overcome various academic and social barriers. Blustein (1981) points out that it is not unusual for advisors, tutors, and other support staff to become directly involved with the students' total educational development. This usually requires the staff member to be involved with various aspects of students' personal and vocational development. In addition, staff are sometimes called upon to act as race-relation persons and consultants. Blustein and Haettenchwiller (1981) found that members of an academic support staff had a job description which encompassed much of the profession's skills and competencies.

The final implication of the present study is that use of traditional academic measures, GPA, credit hours, and retention shows that the performance of students enrolled in the BCC and EAP was acceptable for the Winter Quarter of 1982. Both groups achieved cumulative GPAs of over 2.0; more than 60% of students enrolled in the BCC and 70% in the EAP achieved GPAs of 2.0 and above in tutored courses. In addition, data showed no significant drop-out rate from academic support services among students enrolled in both programs.

CHAPTER V

FINDINGS AND RECOMMENDATIONS

The purpose of this study was to determine the effectiveness of academic support services on the academic performance of students enrolled in the BCC and EAP. Specifically, this study sought to determine if the provision of academic support services resulted in significant increases in students' cumulative GPA mean gain scores and to determine if any significant differences existed in the increase or decrease in cumulative GPA mean gain scores between students enrolled in the BCC, EAP and a control group. An alternative hypothesis and a null hypothesis were specifically generated. The alternative hypothesis was that students enrolled in the academic support services of the BCC and EAP would demonstrate a significant increase in cumulative GPA mean gain scores over nonenrolled students. The null hypothesis was that there would be no significant differences in GPA performance between students enrolled in the academic support services of the BCC and EAP. Additional questions this study sought to answer included:

1. What were the features of the academic support services in this study?
2. What were the characteristics of the students?
3. What type of academic support services were most utilized or requested by students?

The setting for this study originated at the University of Tennessee, Knoxville, Black Cultural Center and Educational Advance-

ment Program. The research was conducted in the 1981-82 academic school year.

Statistical Analysis

To test the hypotheses governing this study the independent samples t-test was computed in three separate comparisons to analyze the data. Mean gain scores were obtained from each comparison group. Mean gain scores were obtained by subtracting each participant's pretest score from his/her posttest score. Hypotheses were tested at the .05 level of significance. The first hypothesis was whether black students enrolled in the BCC and EAP would demonstrate significantly greater cumulative GPA mean gain scores than nonenrolled students. The second hypothesis was to determine if a significant difference existed in the increase or decrease of cumulative GPA mean gain scores between students enrolled in the two treatment groups. The data on 89 black undergraduate students representing two treatment groups and a control group were collected, analyzed and evaluated.

Findings

Statistical analyses of data pertaining to the two treatment groups would demonstrate significantly greater cumulative GPA mean gain scores than the control group was rejected. Statistical analyses of the data showed no significant differences in the increase or decrease between the two treatment groups and caused the investigator to fail to reject the null hypothesis (H_2). However, caution is advised in interpreting the lack of statistical significance of data of the major

hypothesis (H_1). The BCC and EAP provided programs to students with academic deficiencies and students who needed "brush up" tutorial services. Students enrolled in the BCC and EAP achieved cumulative GPA mean scores of 2.0; and more than 60% of students in both programs achieved GPAs of 2.0 and above in tutored courses. Reasons given by students who did not perform adequately in their course work fell into one of the following categories: (1) "class pace was too fast," (2) "missed classes due to health," and (3) "lack of interest in class assignments."

Interestingly, unlike most academic support service programs which provide some type of advisement or tutorial services, the BCC and EAP had several unique features. First, both programs provided students with academic assistance in an attempt to insure that they performed adequately in their course work. One of the main criticisms of colleges and universities with liberal or open admission policies was that many unprepared students were admitted to these campuses only to be later dismissed because of poor grades. Second, students in both programs received intense counseling and advisement on how to study, and they were exposed to a variety of learning techniques. Third, the academic support staff of the BCC and EAP acted as student advocates in that they worked closely with other educational departments and university units, e.g., housing, financial aid and career planning/placement. Fourth, students in both programs were encouraged to take an active role in their responsibilities to develop the skills and attitudes necessary for successful college matriculation. Although the research

did not significantly support the contributions of the BCC and EAP, informal observation of student participation suggested the programs provided positive benefits to students.

The participants in the study were enrolled at UTK during the 1981-82 academic school year. Geographically, 95% of them were from Tennessee. The remaining 5% of the participants were from other southeastern and northern states. All participants in the study were admitted to UTK through the regular admission program. Interestingly, the participants in the study represented a heterogeneous black student (undergraduate) population. The participants were traditional age students.

Students enrolled in the BCC most often requested tutorial assistance for the following courses: engineering, chemistry, math and biology. Students enrolled in the EAP requested the most tutorial assistance in the subject areas as students enrolled in the BCC. However, students enrolled in the EAP requested additional tutorial services in English, and basic skills courses.

Recommendations

In light of recent budget cuts and reduced funding of programs and services which have hit the nation's colleges and universities, further efforts to provide students with additional academic support services should be generated by the university community. Perhaps providing information about the goals, objectives and achievements of these programs would enlighten administrators, faculty, and students who otherwise might be skeptical or misinformed about the quality of

these services and the necessity of promoting them. In essence; improving the future of academic support programs, especially those services provided by the BCC and EAP, includes the following recommendations:

1. The stigma associated with students receiving tutorial or remedial services must be eradicated. Perhaps by changing the name of the tutorial or remedial services to "developmental studies" might alleviate this stigma.
2. Staff members of the BCC and EAP should continue their dialogue with other academic staff regarding programs, services, and research possibilities.
3. Adding UT faculty and staff as resource persons or consultants to these programs is highly recommended.
4. Better funding of the BCC and EAP would provide students with additional tutorial services, academic assistance and improved physical facilities.

Suggestions for Future Research

The following three suggestions for future research are offered:

1. Further studies attempting to assess the effects of academic support services on the performance of students should be conducted under conditions that would allow for a true experimental study. That is, further studies would need conditions which would allow for appropriate experimental controls and the random assignment of participants.

2. The findings of no significant relationship between students enrolled in the BCC, EAP and control group should be thoroughly investigated. An indepth comparative study of students who succeed with support services and those who succeed without such services is needed.
3. The study, furthermore, needs to be replicated to include all students (black and white) who utilize the academic support services of the BCC and EAP. This would determine if a significant relationship existed for all students receiving academic assistance. Also, the study needs to be conducted over a longer period of time, e.g., one full academic school year.

In this assessment no attempt was made to investigate such variables as test anxiety, interaction with professors, and other related variables which may have profound effects on students' academic performance and retention.

The study specifically contributed to the existing body of literature in two ways. First, it offered an opportunity to investigate the academic performance of students who were performing successfully (2.0 and above) in their course work as well as students who were not performing adequately in their course work. Second, it offered an opportunity to focus on the unique characteristics and services of the BCC and EAP.

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APPENDIX

INFORMED CONSENT

This is a study on the academic performance of black students who may or may not use academic support services. All data collected and received will be coded and no references to the identity of the participants in this study will be referred.

VITA

Bill Jon Wells received his Bachelor of Science degree from Tennessee State University in 1967. After completing his undergraduate degree program, he was employed by the State of California, Department of Human Resource Development. In 1976, he returned to Tennessee State University to complete his graduate studies in Guidance and Counseling where he was awarded his Master of Science degree in 1978. While attending Tennessee State University, Mr. Wells was on the staff employed as an assistance director of residence halls. A Vietnam veteran, Mr. Wells was admitted to the doctoral program in Spring Quarter, 1979. Upon completing his doctoral requirements with a major in Educational Psychology, Mr. Wells plans to accept a faculty teaching appointment with Tennessee State University.