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ABSTRACT

The TRIO/Special Services program at the University of Minnesota's General College (GC) is described, and 1981-1982 program evaluation results are examined. Federally-supported TRIO programs (also including Education Opportunity Centers, Talent Search, and Upward Bound programs) provide support services for disadvantaged college students. The GC's Special Services program, designed to help prevent attrition among nontraditional freshmen, has four components: an integrated course of study, including help with study skills, career planning, writing, math, and stress management; educational, vocational, and personal counseling; individual tutorial services; and a summer institute. During the 1981-1982 academic year, TRIO services were utilized by 252 students. Survey results indicate that TRIO students, compared to new GC students, were older, received a higher percent of financial aid, and included more minorities and disabled students. A higher percentage of the new TRIO students stayed in school and completed a higher proportion of credits than a similar low-income comparison group who did not receive special services. New TRIO students also maintained grade point averages similar to, or higher than, the comparison group and ended the year with higher self-esteem than the control group. A followup of second-year TRIO students revealed more TRIO students attending each quarter than control group students, but no notable differences in grades, credit completion, and overall retention for the two groups. Case studies of two TRIO students, course evaluations, a brief description of the summer institute, and a special evaluation of sign language classes and hearing impaired students are included. (SW)

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University of Minnesota
TRIO/Special Services
Program
Evaluation

Final Report
1981 - 1982

Sherry Read
University of Minnesota
General College

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Foreword

Buckminster Fuller uses an analogy of earth as a spaceship, traveling through time and space toward a specific destination. He presents the notion that, like spaceships in science fiction, the travelers on earth were put to sleep for the duration of the voyage. The method used to awaken the earthlings is that one person will wake first, and that person will awaken others who will awaken others, so that when earth arrives, everyone will be awake.

Consider the consequences if the one earthling we fail to wake up happens to be the only one who knows how to land the ship. The TRIO program is about waking up those travelers put further to sleep by traditional education and those who have barriers to success. This evaluation describes the TRIO Special Services Program at General College and examines how well it has met its goals. Let us hope for a skillful pilot.

Sherry Read
General College
October 8, 1982

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Executive Summary

Introduction

The national TRIO program was funded in 1968 as a part of the Federal Higher Education Amendment. This legislation provided for support services in post secondary institutions to facilitate the educational progress of "disadvantaged" young people. In this context, disadvantaged students were defined as those from families within the national poverty criteria or the physically handicapped. Through the course of program development, disadvantaged has come to mean people who are members of groups which are currently, and have historically been, underrepresented in post secondary education.

The national TRIO program is comprised of four separate programs serving unique populations:

- 1) Upward Bound, which aids high school students from poverty backgrounds with academic needs in the pursuit of higher education;
- 2) Talent Search, a counseling and information service for college-bound low income students;
- 3) Special Services, for non-traditional college students, usually including specially staffed programs such as counseling, remedial study and ethnic activities; and,
- 4) Educational Opportunity Centers, which incorporate activities available in the other three programs within a large scale, community based center for low income adults.

The TRIO Special Services Program at the University of Minnesota, General College, is a special services program. It is the subject of the following evaluation.

National Special Services Evaluation and Literature Review

The most recent evaluation of special services programs was conducted in 1981 by Systems Development Corporation, Santa Monica, California. The key findings concerning program impact were:

- Students who receive a full range of services are more likely to stay in school for their freshman year than students receiving few or no services.
- Students receiving more services are likely to attempt and complete more course credits.
- Students receiving a full range of services are more likely to receive lower grade point averages than students receiving fewer services. (This may indicate only that these programs focus on and provide more services to students with poor entry level skills.)
- Minority and low income students receive lower grades and take fewer course credits than other students, but have comparable retention rates.
- Students with higher levels of financial aid are more likely to stay in school during their freshman year, attempt and complete more credits, and obtain higher grades.

A review of the research and evaluations in the area of improving performance in higher education for disadvantaged students was conducted as a part of this evaluation. Several recommendations can be made toward providing more effective programs based on this information.

- Multidimensional programs where students receive a full range of services such as study skills, counseling, tutoring, orientation, survival skills, and training in specific self monitoring techniques, are more successful in retaining students.
- The actual time spent in service does not have to be great (3-20 hours) but should be focused on the quarter or semester of entry into higher education.
- Programing should be flexible, designed to meet the needs of students, with continuous systematic planning and feedback.
- Clearly written program objectives should be made available to students.
- Program environment should foster growth of positive self images and provide opportunities for success.

Several of these recommendations are incorporated into the goals of the TRIO/Special Services program at the University of Minnesota; General College.

Program Description

As the open-admissions unit of the University of Minnesota, General College has more non-traditional students than other colleges within the University of Minnesota. For fifty years, GC has served as an educational laboratory within a major research university. The laboratory focus has been to develop instructional methods for non-traditional students. The TRIO/Special Services Program's goal is to provide services which help to prevent non-traditional freshmen from becoming victims of the "revolving door" syndrome; that is, entering and leaving college before achieving any success in higher education. This is the second year of the program's existence.

The TRIO/Special Services Program has four components.

1) The Integrated Course of Study is a group of courses taught by General College faculty and counselors designed to be taken concurrently. These courses include a Survival Seminar course, which concentrates on study skills, career planning, and stress management; a writing lab; math courses; and courses in areas such as urban problems, arts and psychology. Educational counseling and tutoring are also included in the Integrated Course of Study.

2) Counseling Services are available for students to receive assistance in dealing with educational, vocational and personal concerns.

3) Tutorial Services are available, with individual tutors, to aid students with the development of their reading and writing skills.

4) The Summer Institute is available for entering low income freshmen during the summer prior to their first fall quarter. These students are not included in this evaluation.

1981-82 Academic Year TRIO/Special Services: Student Demographics and Outcomes

During the 1981-1982 academic year, TRIO services were utilized by 252 students. Based on a student survey collected in Fall '81 and again in Spring 1982, the TRIO students were found to be older than average college freshmen (mean TRIO age = 22.87 versus mean GC beginning student age = 20.4). A higher percent of TRIO students received financial aid than the beginning GC population (86% TRIO versus 48% GC). The majority of TRIO students had been out of school longer than one year prior to enrolling in General College (51%) with 17% having been out of school for more than six years, compared to only 31% of GC beginning students out of school for more than 1 year and 6% for more than six years (Romano, 1982). The TRIO student population also included a greater proportion of minorities than the General College population (33% TRIO, 23% new GC students), and a higher proportion of disabled students (9% TRIO, 5% new GC students).

New TRIO students also scored lower on the General College Placement Test, averaging at the forty-sixth percentile on Written Expression, thirty-seventh percentile on Reading, forty-fourth percentile on arithmetic, and twenty-fourth percentile on Whole Numbers using 1980 General College norms (Brothen, et al, 1981).

When compared to a low income control group who did not receive special services but had a similar demographic profile, TRIO students obtained higher grade point averages (GPA) for the academic year (TRIO GPA = 2.78, Control GPA = 2.61, N's excluded; TRIO GPA = 2.53, Control GPA = 1.89, N's included).

Secondly, TRIO students were more likely to stay in school (Fall '81 to Spring '82) than the control group (81% versus 72%, respectively) and they passed a higher number of credits that they attempted (84% TRIO versus 70% control) during the 1981-82 school year.

On one factor contributing to academic success, self esteem, TRIO/Special Services students began the year with higher self esteem than the control group, and by the end of the year, they had larger gains in self esteem.

When TRIO/ICS students were asked to complete a student satisfaction survey, they supported the TRIO staff and program and felt they had been able to stay in school as a result of their participation.

Also presented in this evaluation are case studies of two TRIO students, exit reviews of ICS students, course evaluations, a special evaluation of sign language classes and hearing impaired students, and a brief description of the Summer Institute, which is being evaluated during the 1982-83 academic year.

Second Year Follow-Up: 1980-81 TRIO/Special Services Students

While TRIO students were more successful than would have been anticipated during their first year at the University, the 1980-81 TRIO students did not fare as well during the second year when they were not receiving services.

In fact, although more TRIO students entered school for a second year than the control group, similar numbers completed the year, received similar (though slightly lower) grades, attempted and completed a similar (though slightly fewer) number of credits when compared to the low income control group.

Even though these statistics do not try to account for students transferring to other institutions, the evidences seem to indicate that special programs may need to be ongoing rather than short term if the positive results in the first year are to be maintained.

Summary

The 1980-81 and 1981-82 TRIO/Special Services students began college with several handicaps to academic success. They had limited basic skills, low income, and were from non-traditional backgrounds. However, a higher percentage of the TRIO students stayed in school, completing a higher proportion of credits than the low income control group, and maintained GPA's similar to, or higher than, the control group. The TRIO/Special Services students also ended the year with higher self esteem, and ICS students endorsed the TRIO/Special Services Program and believed it to be beneficial to them.

For second year students, the positive effects were only visible in the greater number of students attending each quarter than the control group, though not showing higher grades, credit completion or overall retention.

CHAPTER I
HIGHER EDUCATION PROGRAMS FOR NON-TRADITIONAL STUDENTS:
A REVIEW OF RESEARCH AND EVALUATION LITERATURE

Introduction

The following literature review focuses on special programming in post-secondary institutions designed to promote academic success for non-traditional students. A non-traditional student is broadly defined as any student who differs from the historically typical freshman: an eighteen year old, single white male, who is entering college immediately after graduation from high school. Special programs usually focus on providing services for subsets of this population, including programs for minorities, handicapped students, educationally disadvantaged, veterans, and older students. The broad population of non-traditional students has also been referred to as "high risk" or "disadvantaged" students, emphasizing a perceived lack or deficit within the student. In the present review, the term non-traditional student is preferred to "high risk" and "disadvantaged" due to its more neutral and inclusive orientation. However, when describing specific programs, the terms used by program staff will be used.

The purpose of this review is to describe the program components from the full range of special programs for non-traditional students, summarize evaluation efforts, examine particular techniques used, and make recommendations for implementing successful programs based upon these observations. The primary questions of interest are: What kind of programs exist, and what has proven effective in promoting academic success for non-traditional students.

Background

Historically, minorities have been underrepresented in higher education. In 1965, it was estimated that less than forty percent of culturally disadvantaged children with measured IQ's of more than 110 entered post-secondary institutions (Blair, 1965). Educators have long noted the human resources wasted or lost through unequal access to higher education, and through failure of many of those minorities who were able to find their way into post-secondary education (Alger, 1971). At the time in history prior to 1968, only a fundamental change in recruiting and admissions practices would serve to change the educational balance (Blair, 1965; Bracy, 1971; Bowers, 1972). Once the admissions procedures were altered to open education to non-traditional students, institutional and curricular changes would be unavoidable (Blair, 1965; Menzel, 1969; Woodlands, 1978).

In 1968, just such a change took place with the passage of the Federal Higher Education Amendment. This amendment provided funding for special services for disadvantaged students. Most of the programs existing today originated as a direct outgrowth of this amendment (Church, 1973). This new reality also stems from the need for public and private institutions alike to compensate for declining enrollments by admitting students who had been previously considered underprepared and unsuited for higher education (Hays, 1980).

Many barriers existed to welcoming these new students. Financial aid was and continues to be a necessity for non-traditional students. Faculty attitudes toward the practicality of teaching underprepared students and the need to develop new instructional practices and programs to meet new demands were substantial and often negative. Finally, a reluctance to lower academic standards became a grave institutional concern (Rosner, 1970). Resolving these barriers called for greater effort in terms of energy, financial resources and support and training of administrators and teaching staff (Morrison, 1973).

A 1975 national evaluation of federally funded special services programs found that 14 percent of all enrolled undergraduates could be considered disadvantaged, with considerable variability among percentages in different types of colleges and geographic regions (Davis, 1975). The question of whether access should be allowed to non-traditional students no longer seems appropriate. The question that educators are now challenged to answer is: How can we provide the best possible programs for all students?

Defining the Population

Somogye and Draheim (1976) have isolated thirteen types of non-traditional students:

- 1) students who were not successful in high school,
- 2) students who interrupted their education by one or more years prior to enrolling in higher education,
- 3) students without occupational goals,
- 4) part-time students,
- 5) students attending school because of job-related pressure,
- 6) older students,
- 7) housewives,
- 8) divorced or widowed women,
- 9) students who were previously suspended from other institutions,
- 10) returning B.A. students who have already completed a degree,
- 11) students who have not completed high school and may or may not have received a GED,
- 12) students who need large financial aid, and
- 13) students supported by rehabilitation funds.

The length of this list alone attests to the diversity of non-traditional students. Other students not mentioned include veterans, single parents, all handicapped students (physical, emotional, and learning disabilities), and foreign, English-as-a-second-language students, and educationally deprived students.

Barriers to Success

All of these groups of students and the individuals within them have unique needs and barriers to success in higher education. Dill (1976) identified five problems common to all students in adjusting to college life. They include problems in:

- 1) attending school on a regular, disciplined basis,
- 2) developing a personal system of rewards and punishments which becomes internalized,
- 3) developing self-imposed standards of excellence,
- 4) diagnosis and analysis of problems, constructing workable problem solving methods, and
- 5) defining goals in concrete, measurable ways.

Special barriers for non-traditional students include concerns about success in school (Berry, Gordon, 1977; Strader, 1974), cognitive style (Alston, 1972), need for financial support (Morrison, 1973), adjusting to a new culture and set of values (Alston, 1972), language and communication problems (Gordon, 1969; Algier, 1971), low self image (Fagin, 1976), low expectations of self and low expectations by faculty (Fagin, 1976; Spickelmier, 1973), architectural barriers (for physically handicapped) (Fair, Sullivan, 1980), low motivation (Morrison, 1973), family responsibilities (Algier, 1971; Dispenzieri, 1971), few racial role models in faculty positions (Miller, 1977), poor academic and study skills (National Academy of Science, 1977; Bell, 1969; Dispenzieri, 1971), and lack of institutional support (Morrison, 1973). Some problems are caused by participating in special programs themselves, such as concerns about being set apart from other students, anxiety associated with needing special help, taking non-credit classes, and concerns about depth and pace of instruction (Hampton, 1979). It is helpful to remember these barriers when designing programs and providing services for these special populations.

Non-Traditional Students as Learners

When trying to understand non-traditional students in an effort to design programs which are responsive to their needs, one of the first questions that comes to mind is: What do researchers know about non-traditional students and how they may differ as learners from traditional college students (Borland, 1973; Blair, 1963)?

Several factors are known to affect learning; such as sex, years since attending high school, age, educational level at the time of admission, and numerous environmental factors (Grant, Hoerber, 1978). Awardy and Chafin (1980) have recently identified three different types of underprepared learners: the resilient learner, the reluctant learner, and the naive learner. The resilient learner has limited academic skills, but has sufficient confidence and perseverance to acquire the skill necessary to succeed, in spite of years of failure. Reluctant learners also have limited skill, but their confidence has been negatively affected by repeated failure in academic settings, and they are unwilling to take the risks unavoidable in acquiring new skills. The naive learner has limited skills but has somehow managed to escape detection. They are those students who have "gotten by" in school and have been rewarded for less than adequate skills, resulting in false notions about their academic competence. These students must first be convinced that they are lacking in some of the skills required to do college level work. Some educators and researchers argue that disadvantaged students do not differ significantly from advantaged students as learners (Blair, 1965). Borland (1973) holds that these non-traditional students differ from traditional students only in that they have deficient academic skills.

This question cannot be answered here, but its implications are widespread. If disadvantaged students do not differ from traditional students in the way they learn, then a technology of accelerating their development so they can get on with the business of higher education is all that is required. If non-traditional students do differ as learners, we must discover what they are like in order to plan effectively (Borland, 1973).

Identifying Student Needs and Predicting Success

According to Adolphus (1977), testing is the essential tool in student-centered developmental education. Tests of basic skills can be used to identify specific weaknesses of students. Testing also has been used to aid in predicting student success. Achievement tests have been used alone (Lunneborg, 1970; Pedrini, 1977) and in concert with: 1) demographic variables such as age, ethnic background, and sex (Rossman, 1975), 2) non-intellectual measures such as personality characteristics (Spack, Stout (1969; Brock, 1967), 3) past achievement - high school rank and high school GPA (Rossman, 1975; Shaffer, 1973), and, 4) environmental factors such as number of credits taken, scholarship money and number of hours spent in outside employment (McDonald, McPherson, 1975) to predict success in higher education.

All of these variables were shown to aid in predicting college success. Spack (1971) and Bowers (1971) found that traditional predictors of grade point average work just as well for disadvantaged students. Persistence in college can be better predicted from test scores for specific students than GPA (Hall and Coates, 1971). Once in college, college GPA proves to be a powerful predictor of persistence in higher education (Pedrini, 1977).

Adolphus (1977) called for a higher morality in using testing both as a predictor of success and as an aid in detecting special needs and matching resources to those needs. This higher morality can be obtained, first, by observing the rights of those being tested, by using valid tests, and finally by using the test findings in a positive and sophisticated manner. It was further recommended that faculty members be involved in designing activities in the classroom to serve the specific needs identified through diagnostic testing (Adolphus, 1977).

Now that the program population has been described, barriers to success identified, and the role of testing examined, the remainder of this review will focus on describing programs, the roles of instructors and students, techniques used, summarizing the results achieved, and making recommendations for future programming.

Program Descriptions

Special programs vary considerably from institution to institution as a result of differences in populations served and the existing services available to students. The two most common approaches are remedial based instruction and cultural differences programs (Harclerod, 1971). Virtually all programs had increased student retention and academic success as their primary goals (Davis, 1975).

The following constitutes a summary of combined program purposes and functions, listed in general order of prevalence:

- 1) academic and communication (reading, writing, speaking and listening) skills development (Mares, Levine, 1975),
- 2) develop study skills (Mares, Levine, 1975),
- 3) respond to individual needs for personal understanding and encouragement (Mares, Levine, 1975),
- 4) foster positive growth in self concept (Church, 1973; Green, 1977),
- 5) provide a buffer between students and bureaucratic environment (Jackson, Depuyat, 1974),
- 6) provide information about educational and career alternatives (Giroux, 1973; Church, 1973),
- 7) increase personal problem-solving skills (Church, 1973),
- 8) provide information and referral services concerning financial aid, legal services, day care and other agencies (Dispenzieri, 1968),
- 9) improve social skills (Bucklin, 1970), and
- 10) broaden and strengthen cultural experiences and values (Dreyfus, 1979).

The services provided in an effort to achieve these purposes also vary. Davis (1975) identified the most commonly occurring services in federally funded programs for non-traditional students as: remedial instruction, counseling, tutoring, and ethnic-related activities. Less frequently mentioned services include: summer programs prior to the freshman year, support seminars where students work on study skills, problem solving, time management, career planning, and information is provided concerning financial aid and other institutional services (Zahoni, 1981). Special services are also provided for handicapped students.

In a national evaluation of special services, Coulson (1981) found with few exceptions the average participation time spent in any particular service was not lengthy. Students spent a respectable average of 16.6 hours in special instruction, but only 2.6 hours in counseling, 1.5 hours in orientation and 4.5 in cultural activities. In general, program staff feel that the "teaching relationship with minority group students must be a highly personal matter in order for effective learning to take place (Mares, Levine, 1975)."

Role of the Instructor

Spickelmier (1973) surveyed community college faculties and found that they expressed reluctance and non-responsive attitudes toward teaching low ability and underprepared students. They preferred separate remedial courses for these students rather than individualizing their own courses. Spickelmier suggests that the contact faculty had with non-traditional students is affected by those attitudes. The major complaints leveled against faculty by students were their lack of commitment to the teaching task, inaccessibility to students, and poor teaching skills (Nosen, 1980). For disadvantaged students to be successful in higher education there must be a concerted effort by administrators and instructors to create an environment which is conducive to learning for all students, or at the very least, exhibit a willingness to do so (Bracy, 1972).

Bloom (cited in Awardy, Chafin, 1980) has presented a model for an expanded role of instructors which includes instructor responsibility for a systematic on-going evaluation of students, matching them with appropriate

teaching techniques, facilitating participation and reinforcing learners. Their progress must then be assessed and corrective action taken in instructional techniques, re-starting the cycle of evaluation and continued modification of approaches until the desired result is achieved.

To facilitate this expanded role of the instructors, several support features are encouraged. First, instructors must have flexible time to accommodate the variable rates of student learning requiring attention to group size and the facilities available to instructors. Secondly, to aid in assessment of student skills, norm referenced and criterion referenced testing must be available to provide diagnostic information, to measure progress, and to make mastery/non-mastery decisions. All of these features require profound instructor skill, student participation and administrative support (Awardy, Chafin, 1980).

Jennings (1974) made several recommendations for improving the training of teachers for work with disadvantaged students in secondary education. The programs should last at least two years, and all prospective teachers should be required to participate in workshops, courses and seminars and a variety of experiences actually working with disadvantaged students. Cleveland State University instituted a 40-week program for training instructors and counselors (Bureau of Higher Education, 1971). This program focused on four major areas, requiring that instructors/counselors had a knowledge of a major field of study, understood the characteristics of disadvantaged underachievers, basic instructional theory, and information on individual approaches to learning. An evaluation confirmed the success of this approach.

At the institutional level, Hogges (1979) proposed that violation of civil rights and affirmative action laws present messages to minorities and women. Both teachers and administration must be aware of deep-rooted attitudes which may affect their treatment of minorities in the classroom and in academic advising.

Role of the Student and Self Concept

One of the most powerful factors affecting behavior is the conviction an individual has that he or she can successfully perform a behavior that will produce a desired result. More simply put, one of the main reasons we do things is that we think we can. Students will register in school if they believe they can be successful. Students will stay in school if they believe they can continue to succeed. Repeated exposure to success strengthens the conviction an individual has that he or she will be successful in the future when performing that particular behavior. Repeated exposure to failure strengthens the conviction an individual has that he or she will be unsuccessful in the future when performing that particular behavior. These notions represent the theory of self-efficacy as outlined by Bandura in 1977.

Self-efficacy refers to the opinions people possess about their personal effectiveness, and self esteem is the degree to which people like and respect themselves. Both of these concepts have important implications for how successful students will be, and whether or not they will stay in school. For this reason, many special programs make conscientious efforts to raise self esteem and self-efficacy in their students through the use of creative

writing courses, tutoring, counseling, mastery approaches to learning and special programs (especially those based on ethnic pride and peer support groups) (Zirkel, 1972). The efforts that have been evaluated with respect to raising self esteem showed evidence of positive change across time and subjects and a positive relationship between self esteem and academic success (McCormick, Williams, 1974; Zirkel, 1972; Read, 1981).

The student's role in achieving academic success must be grounded in the very basic and essential conviction that he or she is actually able to succeed in college and is willing to do what needs to be done to insure that success.

Instructional Methods

Many educators and researchers have presented the notion that it is the responsibility of educators to provide course structures and educational technologies which produce the maximum educational value for students (Beaman, Diener, Fraser, Edresen, 1977). Students and educators alike have started to question traditional methods of teaching in universities, and they call for more innovative structuring of courses.

In recent years, the most innovative university programs have been based on programmed instruction (Beaman, et al., 1977). These courses usually include course materials which are subdivided into many well-defined steps. Testing is frequent and studying is maintained by positive reinforcement of desired behavior. One of the drawbacks associated with self-paced instruction is a greater cost associated with test grading and record keeping (Beaman, et al., 1977). Cartwright (1971) advocates the use of analysis of individual learning styles in teaching, but cautions against being taken in by commercially packaged programmed materials as a substitute for personal attention. Woodland (1978) recommends several instructional techniques for non-traditional students (including individualized instruction), such as independent study classes, academic credit for life experience related to work or home, and the use of learning contracts. Another method which appears to be well suited for non-traditional students is cooperative education (Knowles, 1971). Cooperative education involves a combination of periods on campus in classroom instruction with periods of time spent in off-campus working experience. This is amenable to minorities because it provides an opportunity to experience a new environment and to be exposed to a real employment setting within an unusually patient and supportive climate. These factors aid in reducing fear of employment and aid students in establishing contacts that may be invaluable in their search for future employment.

The methods discussed here represent general approaches to instruction. More specific techniques will be discussed further in the section entitled Study Skills.

Basic Skills: Remedial Education

In 1977, the National Assessment of Educational Progress reported that nearly half of seventeen year old high school students cannot read college freshman materials or perform basic math. (Grant, Hoerber, 1978). Thus, the population of students requiring training in basic skills has expanded to include more than just the "disadvantaged" students. This is evidenced by

the downward national trend in college entrance examination scores. Crawford (1979) suggested that there has always been a need for basic skills programs, but the cost associated with this activity has given rise to objections by many institutions in this time of financial uncertainty. Basic skills programs, however, are no longer an option but a necessity in most public and private institutions.

Grant and Hoerber (1978) reviewed basic skills programs with respect to the question: Are these programs working? They answered the question in two ways: Yes, the staff involved in delivering the programs are "working" very hard, but they were unable to make generalizations about the success of those programs due to the scarcity of empirically based evaluation research available at that time. Since the time of their research, many programs have conducted evaluation research. Before looking at the overall evaluation findings, the individual components of skill programs will be addressed.

Reading for Non-traditional Students

In one basic reading laboratory, several objectives were outlined (Schiavone, 1976). First, students need to develop the ability to comprehend the literal meaning of written material and materials at varying levels of difficulty at the most efficient rate. Then students need to develop an ability to find broader meaning in a written work and the ability to judge the accuracy and relevancy of what is read. They must also become able to realize the relative importance of statements, the logic behind them and the validity of the conclusions (Schiavone, 1976).

The specific reading skills which are developed in the reading laboratory are:

- speed of perception and reading rate,
- vocabulary development;
- increased comprehension,
- intensive and thorough reading,
- reading as a study skill,
- understanding broader meanings,
- skimming and scanning,
- how to evaluate the quality of writing,
- reading within a subject matter, and
- reading technical materials (Schiavone, 1976).

Spickelmier (1972) recommends that students who are poor readers enroll in special reading classes, because faculty members are often unwilling to become teachers of reading. While national reading scores have declined in the past twelve years, students in remedial classes have been able to gain two years reading level on the average from a special reading course (Reinertson, 1978). Students already reading at a college level were able to nearly double their speed and improved vocabulary and comprehension significantly through the same remedial instruction (Reinertson, 1978).

Writing for Non-traditional Students

Shaughnessy (1978) has identified three types of writers among non-traditional students: those who appear from tests to be competent readers/writers and meet all the traditional entrance requirements; those who "got by" in high school, but would never write voluntarily, whose style is characterized as flat and utterly predictable; and, finally, those left so far behind as to seem to be visitors from some distant planet.



For the students who enroll in basic writing programs, Shaughnessy gives some precious insight into the way they view writing:

For the BW (Basic Writing) student, academic writing is a trap, not a way of saying something to someone. The spoken language, looping back and forth between speakers, offering chances for groping and backing up and even hiding, leaving room for the language of hands and faces, of pitch and pauses, is generous and inviting. Next to this rich orchestration, writing is but a line that moves haltingly across the page, exposing as it goes all that the writer doesn't know, then passing into the hands of a stranger who reads it with a lawyer's eyes, searching for flaws.

Several models have been proposed for coping with these barriers to success. First, writing is viewed as involving developmental stages which are specific to each student. Therefore, writing programs must be designed to challenge individuals at various levels of development (Moore, 1977). A laboratory approach has evolved to include both structured and unstructured writing activities with time devoted to individual tutoring and the use of peer evaluation in preparing assignments (Moore, 1977; Shaughnessy, 1978). This approach discourages the goal of producing the "perfect" paper, but looks toward goals in notion, based on revision, renovation and revolutions, the three R's (Moore, 1977).

Penfield (1979) described a writing program based on proficiency testing using standards agreed upon through faculty consensus. Courses are taught with teacher and students working toward the common goal of mastering the test. Here, the expectations are focused on success. This type of program resulted in higher standards, but more students passed the course than before the proficiency test was instituted.

Both of these approaches are, in varying degrees, in line with recommendations made by Bloesser (1968) to develop remedial writing programs which test and diagnose students, meet individual needs, maximize the effectiveness of each instructor, and provide for continuous counseling and evaluation of students.

Mathematics for Non-traditional Students

A survey of 134 academic programs for disadvantaged students revealed that mathematics and quantitative skills are generally not emphasized in these programs (Mare, Levine, 1975). Those stressing remedial math found that individualized instruction beginning with tests and directing students to instructional units as needed produced positive results. Students liked this mode of instruction, more finished the course and received higher scores (Gunselman, et al., 1971). Remedial math instruction accompanied by math laboratories were also found to be successful (Berger, 1971).

Study Skills Programs

Study skills are procedures that are intended to directly improve reading effectiveness and efficiency (such as Robinson's SQ3R method; Champlin, Karoly, 1975) and the related academic tasks of note-taking, test-taking, and paper writing (Kirschenbaum and Perri, 1982). In a review of twenty-two

study skills courses, Entwisle (1960) found that study skills courses are all followed by some kind of improvement, varying from very slight to considerable amounts. Motivation, as indicated by the desire to enroll in a study skills course, is an indispensable ingredient for achieving any significant improvement. Motivation alone, however, is not sufficient to produce improved grades unless it is accompanied by actual participation in a study skills course (Entwisle, 1960). This is related to the finding that gains in study skills are not necessarily related to the content or duration of the course. It appears, then, that it is not enough for a student to simply want to take a study skills course. Once enrolled, however, the content and duration have little impact on how much improvement takes place.

Kirschenbaum and Perri (1982) state that mastering study skills is an arduous task which seems to be facilitated by controlling certain motivating factors (or setting events). These events include: perceived personal control over the environment, volunteer status in the program, a technologically oriented intervention (such as behavioral modifications as opposed to study skills counseling), and positive expectations about success.

In a major literature review, Kirschenbaum and Perri (1982) found that skills programs producing the most substantial gains in performance were structured, multicomponent interventions, not particularly lengthy (3-8 hours can be effective), and incorporating study skills with self control training (i.e., training in self regulatory or monitoring skills). They proposed a three-component model for improving academic performance which includes establishing motivating environments, study skills development, and self regulatory skills development.

Study skills development focused on reading, note-taking, paper writing, test taking and frequent studying. And finally, self-regulatory skills include: self-monitoring, self evaluation, self punishment/reward system, environmental management (location of study, time of day, et cetera), planning and problem solving skills. Test anxiety is viewed as a phenomenon which may be more accurately defined as inadequate test taking skills (Kirkland, Hollandsworth, 1980).

Another technique used to produce results in academic performance was behavioral contracting, which was found to be effective in direct proportion to the student's commitment (Himelstein, Himelstein, 1977). In behavioral contracting, the student is responsible for identifying self defeating behaviors and eliminating them. Academic improvement and strength of commitment relied on the presence of immediate reinforcement. The overall effectiveness of this technique was judged as moderate in producing better grades (Bristol, Sloane, 1974).

Beaman (et al., 1981) examined the effects of peer monitoring, through the use of mutual study groups, on academic performance. They found that participation in the study groups produces positive gains in academic achievement, but that this technique is greatly enhanced by the use of a group contingency model. Here, students are assigned a partner or partners and the course grade is based on an average of the students' work. The group contingency model offers promising results; it is easy to implement, produces only a minimal increase in bookkeeping, and has a low implementation cost (Fraser, et al., 1977). As Fraser and associates put it, two, three and

four heads are better than one.

This completes a look at academic skills programs and the techniques they employ. We now turn to the counseling component offered in many programs for non-traditional students.

Counseling: Role of the Counselor

Bell (1969) outlines a number of characteristics of counselors who are effective in dealing with non-traditional students. An effective counselor is: acceptant, able to approach students and be available, straightforward, honest and even blunt when necessary. Effective counseling with high risk students must begin with interpersonal skills, and then go on to create a low risk learning environment (Snow, 1977).

The major concern for non-traditional students is not basic personality transformation but the need for more immediate psychological relief in crisis situations (Amada, 1977). This calls for flexible scheduling for counselors and real accessibility through telephones or office hours. Mitchell (1970) stresses the importance of the counseling relationship when dealing with minorities. A relationship must be built on trust, focus on the here and now (not dwelling on past history), with positive regard and empathy for the student. It is also important to supply the students with definitive techniques and skills for coping with their environment (Mitchell, 1970).

Group Counseling

Group counseling is an important component of many special programs. It helps students in developing communication skills, and fosters an atmosphere of support (Dill, 1976). Group counseling has been shown to have a positive effect on self concept and the feeling of control an individual believes he or she can exert upon the environment (referred to as locus of control; Patton, 1974).

Peer Counseling

Many programs utilize peer counselors. Studies show that students develop close feelings for their peer counselors and that peer counselors provide considerable help and support for students in helping them discover adequate solutions to specific problems (Copeland, 1979; Benson, 1975). Peers were also found to function as well or better than other professional staff in fulfilling student needs (Copeland, 1979).

This completes a look at services provided by programs for non-traditional students. We will now turn to examining the evaluation efforts of specific programs to answer the question: Are special programs for non-traditional students successful?

Summary of Non-Traditional Student Program Evaluation Efforts

Programs for non-traditional students are as diverse as the students they serve. However, most of them were designed to promote academic success in terms of student retention (i.e., staying in school) and increased grade

point averages. The following table represents a summary of the evaluation efforts of twenty-five programs for non-traditional students which measure outcome based on academic success (GPA and retention). All of the programs examined report positive results in either retention, GPA's, or both.

Summary of Evaluations Results in Terms of Retention Rates and Grade Point Averages (GPA) for Twenty-five Programs for Non-Traditional Students

Programs Reporting Increased Retention Rates	Programs Reporting Increased GPA's/ Academic Success	Programs Reporting Increases in GPA's/ Academic Success and Retention Rates
1) Algier (1971)	1) American Personnel and Guidance Association (1969)	1) Hall (1971)
2) Dispenzieri (1969, 1971)	2) Beham, McGowan (1976)	2) Peet, Wanner (1969)
3) Finnell, Flanders (1976)	3) Brown (1978)	3) Dudley (1978)
4) Johansson, Rossman (1974)	4) Jones, Osborne (1977)	4) Parker (1974)
5) Joyce (1980)	5) Majumder (1973)	5) Read (1982, present study)
6) Morrison (1974)	6) McAllister, Johnson (1974)	
7) Read (1981)	7) Obler, Martin, et al (1977)	
8) West (1975)	8) Ogrodnic (1977)	
	9) Quealy (1971)	
	10) Rátekin (1971)	
	11) Rayburn, Hayes (1975)	
	12) Romano, et al. (1981)	

These findings reflect only programs which conducted evaluations, reported their results, and were published in an available source, producing a biased sampling. However, it is encouraging to note the number of programs which have begun to conduct systematic evaluations and produce positive results.

Recommendations

Based on the research and evaluation presented in this review, the following general recommendations may be made for designing special programs for non-traditional students.

- Participation in programs should be voluntary.
- Programs should be multidimensional, with students receiving a full range of services such as study skills, counseling, tutoring, orientation, survival skills, and training in specific self monitoring techniques.
- The actual time spent in each service does not have to be great (3-20 hours) but should be focused on the quarter or semester of entry into higher education.
- Programing should be flexible, designed to meet the needs of students, with continuous systematic planning and feedback.
- Clearly written program objectives should be made available to students.
- Program environment should foster growth of positive self images and provide opportunities for success through the use of support groups and group counseling, peer counselors, and increased numbers of minority counselors and other minority staff to act as role models.
- Instructors should be encouraged to make use of innovative teaching techniques suited to non-traditional students such as cooperative education, individualized instruction and group contingency.

These recommendations can be taken as a summary of empirical evidence from successful programs.

Introduction

The program evaluation for the General College Special Services Program is designed to meet three major needs. First, the evaluation provides a description of program operations, services offered and the program participants. Secondly, program effectiveness is assessed in terms of student outcomes. Finally, individual program services are examined as an internal feedback measure, aiding in the initiation of program changes and improvements for subsequent quarters.

Program Description

The program description outlines the goals, organization and services offered by the Special Services Program at General College. This section is included in order to familiarize the reader with the program and set the stage for the evaluation.

Student Demographic Profile

The student demographic profile describes the population of the students in each program component in terms of race, sex, educational history, academic preparedness, and a number of other variables. The students are also compared to a control group selected from General College freshmen who meet low income criteria but did not receive the Special Services Program.

Determining Program Effectiveness

Several techniques have been employed in order to determine program effectiveness. First, traditional student outcomes are examined for students in each group. These traditional measures include: grade point averages, credit completion (using a ratio of classes taken as compared to those completed), and overall student retention rates (which reflect the proportion of students who remain in school).

Additional measures of student outcome are reported, focusing on the growth of self esteem, changes in academic aspirations as a result of being in the program, and a self ranking of basic skills by each student at the end of the year. Again, program students are compared to the non-program control group.

The ICS students also participate in a Student Satisfaction Survey. In this way, the students are able to provide direct feedback to program staff with their feelings and ideas concerning the TRIO Program, its effectiveness, and how well it met individual needs.

Based on exit interviews with TRIO counselors, the final variable examines students in the ICS who did not remain in school and summarizes their reasons for leaving. Several individual students are also interviewed and this information is presented in a case study format.

Program Development

The program development portion of the evaluation involves specific course evaluations. These evaluations will aid staff in program development and planning.

Special program components will be examined, in particular the Summer Institute and sign language classes and hearing impaired students.

The Special Services evaluation includes a wide variety of techniques and methods. Hopefully, the collection of diversified information, when drawn together, will provide a broad basis allowing for more consistent and valid conclusions.

PROGRAM EVALUATION

Need	Goal	Method	Criteria for Measuring Achievement
I. Introduction: What are Special Services?	A. To provide a review of current programs and evaluations B. To provide a history of special programs for nontraditional students	A. Review of literature	Included in final report
II. Describe program	To describe: A. Integrated Course of Study B. Counseling services C. Tutorial services	A. Interviews with staff B. Observe classes/seminars	Final product will be reviewed by program staff and included in final report
III. Describe student participants	Describe program participants	Collect and summarize data from individual students: A. General College Student Survey B. General College Placement Program Scores C. Income Information	Compare TRIO/Special Services students to low income control group
IV. Determine program effectiveness	A. Compare program students with group selected from similar background from General College on traditional academic measures: 1) Grade point average 2) Credit completion ratio 3) Retention rate 4) General College Comprehensive Admission Test B. Determine student non-academic growth (self concept) C. Determine student satisfaction with program D. Conduct exit interviews	A. Collect and analyze data (pre/post tests) B. Administer student self concept questionnaire and readminister selected questions from G.C. student survey C. Administer Student Satisfaction Survey D. Exit interviews with counselors	Compare TRIO/Special Services students with low income control group
V. Provide data for program development	A. Conduct course evaluation	A. Standardized Course Evaluation form	Data will be used as an internal feedback mechanism to initiate program changes and improvements in subsequent quarters.

CHAPTER III PROGRAM DESCRIPTION

Introduction

The Special Services Program at the University of Minnesota was first provided for by a federal grant in September of 1980. It is one of the TRIO programs (Special Services, Talent Search, and Upward Bound) which function jointly to promote higher education for students who have previously had limited access to higher education. These students include minorities, physically handicapped and low income students as well as the educationally disadvantaged. The General College TRIO/Special Services Program serves primarily freshmen during their first year of college.

Program Goals

This year the continuing goals of the TRIO/Special Services Program are to:

- offer an opportunity for disadvantaged students to develop the skills necessary to survive in a university setting,
- promote educational success,
- provide a creditable academic program,
- provide a supportive atmosphere and reduce stress inherent in post secondary education,
- aid students in making educational and career plans, goal setting,
- help students to become aware of university and community resources and how to use them, and
- heighten awareness of General College staff and faculty of hearing impaired students and increase staff communication skills by offering staff sign language classes.

Organization

In order to accomplish these goals during the academic year, TRIO/Special Services offers three program components to eligible students, each with varying degrees of intensity based on student needs. The Integrated Course of Study (ICS), the most intensive component, consists of a set of pre-selected courses which are supplemented with individual tutoring, a Survival Seminar which emphasizes basic skills, study techniques and provides regularly scheduled academic and personal counseling.

The two less intensive program components are Counseling and Tutoring which are available on a walk-in or appointment basis. The Summer Institute provides services for the same population of students during the summer prior to their freshman year. It is described in greater detail in Chapter IX.

INTEGRATED COURSE OF STUDY

The Integrated Course of Study offers several carefully selected courses each quarter. The Survival Seminar (described below) is required each quarter as well as two additional ICS classes. All ICS courses have tutors assigned to them, so that ICS students receive as much intensive help as they need. Students may also take optional or elective courses. Virtually all of these courses transfer to other colleges and majors.

The following listing presents course descriptions (adapted from the General College Bulletin, course syllabi, and other General College brochures - see reference notes) for the courses offered each quarter, as well as a list of optional courses.

Fall Quarter

1. Urban Problems (5 credits, course number 1212)

Using problem-solving, interdisciplinary approach, students examine some major urban problems such as social class and poverty, social change, crime, and education. It is hoped that each student will obtain the information, insight and improved ability to reach intelligent, independent, viable conclusions and act on them in public and private life.

2. Communication Skills: Fundamentals of Usage and Style (3 credits) course number 1411)

Students practice principles of grammar, usage, and style through exercises and writing sentences and paragraphs.

3. Writing Laboratory: Personal Writing (4 credits, course number 1421)

Students read and write descriptive narratives, characterizations and autobiographical sketches. Personal help with individual writing problems is provided. The course emphasis is on clear and effective written expression.

4. Writing Laboratory: Communicating in Society (4 credits, course number 1422)

Primarily through expository writing, but also through reading and discussion, students analyze how people communicate in society: how they perceive events, how they think about them, and how they write and talk about them.

5. Mathematics Skills Review (5 credits, course number 1434)

This is a course designed for students who have limited math backgrounds and wish to enhance existing math skills and eliminate deficiencies. Topics include fractions, decimals, percents, signed numbers, metric system, scientific notation, ratio and proportion, formulae and simple graphs.

6. Elementary Algebra (5 credits, course number 1435)

Basic concepts and manipulative skills of algebra are introduced in preparation for college algebra courses. A strong math background is required. Topics include sets, properties, signed numbers, equations, word problems, inequalities, graphing, polynomials, factoring, fractions, and radicals.

7. Survival Seminar (2 credits, course number 1702)

Successful completion of academic work in a highly competitive University environment requires the acquisition of a specialized body of skills and information. This course is designed to develop the basic academic skills of entering freshmen and provide the information essential to their retention of information from lectures and texts, improve their performance on exams and written assignments, learn to cope with standard University procedures, and obtain information on the campus and community resources available to support their efforts. Regularly scheduled small group and individual counseling is required.

Winter Quarter

1. Psychology in Modern Society (5 credits, course number 1281)

Introduction to science of human behavior. Topics include analysis of research methods used in observing and drawing conclusions about behavior, development of behavior, human biological and social motives, place of emotion and conflict in human adjustment, how the individual perceives the environment and learns from it, and psychology of behavior in groups.

2. Special Topics: Concepts of College Science (5 credits, course number 1138)

This course lays the groundwork for future classes in science. It has been developed for students with limited science or math backgrounds. One college course in basic math is a prerequisite.

3. Writing Laboratory: Personal Writing (4 credits, course number 1421)

See Fall Quarter

4. Writing Laboratory: Communicating in Society (4 credits, course number 1422)

See Fall Quarter.

5. Elementary Algebra (5 credits, course number 1435)

See Fall Quarter.

6. Intermediate Algebra (Part I), 3 credits; course number 1443)

A slow-paced intermediate algebra course for students who have good background in elementary algebra. The topics include sets, real numbers, linear equalities, linear inequalities, polynomials, rational expressions, exponentials, and roots.

7. Survival Seminar II (2 credits, course number 1703)

Continuation of 1702, see Fall Quarter.

Spring Quarter

1. Art: General Arts (4 credits, course number 1311)

Examines representative works of art from genres of painting, sculpture, architecture, literature, and music to discover how and why art is created and to enable students to formulate ideas and attitudes about it.

2. Writing Laboratory: Communicating in Society (4 credits, course number 1422)

See Fall Quarter.

3. Creativity: Writing Laboratory - Individual Writing (4 credits, course number 1484)

Work on individual writing projects. After a study of techniques of description and narration, participants write sketches, short stories, informal essays, poems or dramatic scripts, as their interest directs them and as instructor permits.

4. Writing for Business and the Professions (4 credits, course number 3531)

Students write letters, informal and formal reports, recommendations, proposals, summaries, memos; i.e., forms of writing used in business; in health, education, and welfare; and in legal professions. Content adapted to vocational needs of students enrolled. Form, clarity, economy of expression, and suitable tone stressed. Typed final drafts required.

5. Intermediate Algebra (Part I, 3 credits, course number 1435)

See Winter Quarter.

6. Survival Seminar III (2 credits, course number 1704)

Continuation of 1702 and 1703. See Fall Quarter. This Survival Seminar incorporates career planning into its basic curriculum.

Optional Courses

1. Science in Context: Human Uses of the Environment (5 credits, course number 1112)

This course focuses on the study of ecology as applied to aspects of our past, present, and future existence; application of biological principles and interrelationships between the individual and the environment. Principles of ecology are explored, including the structure and function of ecosystems; pollution of soil, water, and air resources; population explosion, and relationship of people, disease, food production, environmental controls to survival.

2. Career Planning (2 credits, course number 1502)

The career workshop is designed to assess a student's interests, abilities, needs, values, and personality through testing and subjective self-exploration. Occupational information is provided through computerized system and other printed materials. This course is for students who are undecided about their future career choices and those who need to confirm a tentative career choice.

3. Literature: Reading Short Stories (3 credits, course number 1371)

Representative short stories by American, British and continental writers are discussed, and how individual writers have used the form of the short story to express their ideas about human experience.

4. United States: Law in Society (5 credits, course number 1235)

The role of law in our changing society is examined. Topics include courts and court system, corrections, police-community relations, environmental problems, domestic problems, wills and probate, and insurance. When possible, students may visit courts, correctional institutions or similar institutions.

5. United States: The Crime Problem (4 credits, course number 1236)

The nature and extent of crime in America is discussed in addition to the causes and consequences of crimes for criminal, victim and social order.

6. Oral Communication: Interpersonal Communication (4 credits, course number 1465)

Students examine their own communication patterns - verbal, nonverbal, and vocal - and try to discover why they are effective or ineffective communicators, to uncover some origins of their communicative behavior, and to understand means we use to relate to each other and ways we alienate ourselves from each other. The course asks students to begin or deepen their search for identity and to aid others in their search.

7. Literature for Children (4 credits, course number 1363)

Survey of children's literature. For parents, prospective parents, or child-care workers who wish to become acquainted with children's literature and to guide children in selecting and reading books or for others who may not have had an opportunity to read books - including classics - when they were children.

COUNSELING

Counseling for Special Services students is made available off campus through the Center for Higher Education for Low-Income Persons (H.E.L.P. Center). The H.E.L.P. Center provides the following services for this special population of students:

--academic counseling

--counseling

- financial
- personal
- family
- chemical dependency

--tutorial referral and assistance

--advocacy

--legal assistance

--program planning

--contact for community, private and public agencies

--resources for discovering additional funds

--space for students to meet, study, plan and develop peer groups

--groups for career orientation, parentage and survival in the university.

Professional individual or group counseling and psychological counseling are also available for more conventional academic needs through the Counseling and Student Development Division of General College.

TUTORING .

Tutoring is provided at the Reading and Writing-Skills Center where tutors assist students with writing papers, reading, filling out forms, improving vocabulary or spelling, learning note taking skills and library research techniques. Students may also complete academic courses in a self paced, individualized mode at the center. Writing and math tutoring is also available at the H.E.L.P. Center in conjunction with the Math Department and writing instructors.

The center is open during school hours and no appointments are necessary.

CHAPTER IV
STUDENT DEMOGRAPHIC PROFILE

Introduction

The following section provides a summary of demographic information for the students in each of the three TRIO Program components: Integrated Course of Study (ICS), Counseling and Tutoring groups. In order to provide comparative data, a control group was selected from low income General College students, and these students are also described in this section. TRIO students are also compared to all entering GC students (Romano, 1982).

Method

As a part of the routine General College orientation process, the following information was collected for each student:

- 1) General College Placement Program (mandatory) is a battery of tests primarily used for placement and planning purposes. It includes five sections, two dealing with language and three with mathematics, as follows.

- a. Reading Placement Test

This test is distributed by the Comparative Guidance and Placement Program of the College Board (Educational Testing Service, 1977) and consists of eight passages with associated questions regarding the content. The test focuses on reading comprehension, inference-making ability, and vocabulary in context. It is normed on more than 30,000 students from primarily two year institutions of higher education and vocational education across the country (ETC, 1977).

- b. Written English Expression Placement Test

This test concerns sentence structure and the clear, logical expression of ideas (ETS, 1977). It is also distributed by ETS and normed on the same group of students described above.

- c. Mathematics Test: Whole Numbers Subtest

This test consists of seven items which require the performance of addition, subtraction, multiplication, and division using whole numbers only. The mathematics test was developed at General College and is normed on General College students (Brothen et al, 1981).

- d. Arithmetic Subtest

This test includes twenty-five items and requires the same operations (addition, subtraction, multiplication and division) using whole numbers, fractions, decimals and percents. This test was developed at General College and norms were established for GC students (Brothen et al, 1981).

e. Algebra Subtest

This test consists of twenty questions which require the student to solve elementary algebraic equations and inequalities, use negative integers, and find the slope of a line. This test was also developed at General College and normed on GC students (Brothen, et al, 1981).

2) General College Student Survey (GCSS)

The General College Student Survey is a basic intake form which asks students for demographic information such as age, sex, ethnic background. Several additional questions ask students about educational, personal, and career planning services they may need.

Since a number of students do not attend the full two-day orientation during which data are collected, many students did not complete the General College Student Survey. For that reason, another attempt was made at the end of the academic school year to have students complete this form. The end-of-the-year data were combined with the earlier data to arrive at the information reported here. Even with this follow-up measure, the percent completion rate for each group ranged from 53 to 94 percent. (For more complete information, the number and percent responding by group is displayed in Table I.) While there is no reason to believe that respondents differ from nonrespondents, the summary comments made for these groups should be limited to those who actually completed the questionnaire.

Subjects

The subjects described in this study represent four groups:

- a) ICS Students - all students enrolled in the Integrated Course of Study (ICS) were asked to participate in the study.
- b) Counseling Students - all General College freshmen who were eligible for the Special Services Program (by low income, academic need, handicapped or minority status) and utilized the counseling facilities two or more times during the academic year, were included in the study.
- c) Tutorial Group - all General College freshmen who were eligible for Special Services, and made use of direct personal tutoring two or more times were included in the study. Some of these students also received counseling.
- d) Control Group - a control group of 57 students was randomly selected from General College freshmen eligible for Special Services using the low income criteria, and who had not participated in the TRIO Program or used counseling or tutoring services during the academic year.

A TRIO total is reported on each variable collected which combines the ICS, Tutoring, and Counseling groups so that TRIO students can more readily be compared to the Control group. Results are also compared to all General College entering students as presented in The General College Student, Fall 1982 (Romano, 1982). This group of students includes some students transferring from other post secondary institutions or returning students as do the TRIO and Control groups.

Results

The TRIO and Control groups varied slightly on the distribution of men and women with the ICS group consisting of more women than men (58% vs. 42%), but with Counseling and Tutoring groups including a higher proportion of men to women (56% and 61% vs. 44% and 39% men to women respectively). When TRIO groups were combined, there was little difference from the Control group (men = 51% control, 48% TRIO, women = 49% control, 52% TRIO). Compared to new General College students, both TRIO and the control group had higher than average numbers of women (GC freshmen, 55.9% male, 43.5% female). These data are displayed in Table II and Figure II.

TRIO and Control group students were both older than new GC students by 2.47 to 3.74 years (TRIO and Control group students respectively) with TRIO students mean age = 22.87, Control group mean age = 24.14 and new GC students mean age = 20.4. These data are presented in Table III, Figure III.

In the new GC student population, minority students accounted for 23% of all students. The Control group had even fewer minorities (14%) while TRIO students were almost one third minority (33%) with the Tutoring group 52% minority (Table IV, Figure IV).

Ninety-six percent of the Control group and 86% of TRIO students received financial aid, compared to only 48% of the new GC students (Table V, Figure V).

Fewer TRIO students planned to work while attending college than either the low-income Control or new GC students (60% TRIO, 74% Control, and 87% new GC students, Table VI, Figure VI).

The transfer plans for all groups seem comparable, with more Control group students planning to stay at GC than either TRIO or new GC students. The majority of students plan to transfer to another college at the University of Minnesota or elsewhere (Table VII, Figure VII).

The highest grade level completed prior to enrolling in the General College was comparable for all groups, with a slightly higher proportion of TRIO students receiving GED's (14% opposed to 6% Control and 4% new GC students) rather than graduating from high school (Table VIII, Figure VIII).

The majority of all students have been out of school less than one year prior to enrolling at GC. A higher proportion of TRIO students had been out of school for more than one year prior to enrolling (50% TRIO vs. 30% Control and new GC students, Table IX, Figure IX).

The highest academic aspirations (for degrees) appear similar for all groups (Table X and Figure X).

Parental education patterns are similar for all groups with TRIO students having slightly lower levels for both parents (Tables XI, XII, and Figures XI, XII).

There are few differences between groups on stated majors of students. An emphasis on technology and sciences is evident in all groups (Table XIII, Figure XIII).

TRIO students are more likely to report physical, emotional or learning disabilities (9% vs. 2% Control, 5% new GC students) and also more likely to require additional services for these disabilities (5% vs. 2% Control, Table XIV and Figure XIV).

On the standard battery of placement tests (General College Placement Program) given by General College and described earlier, TRIO students scored significantly lower on the reading placement test (ANOVA, $\alpha = .05$), but similarly on the written expression and math tests (whole numbers, arithmetic and algebra). Based on 1980 General College Placement Program norms, both groups have low average scores (Brother, et al, 1981). On the reading placement test, TRIO students scored at the thirty-seventh percentile (Control = fifty-second percentile), and both TRIO and Control groups scored at the forty-sixth percentile on the written expression test. The mean scores for the whole number and arithmetic placement test were at the twenty-fourth percentile and forty-fourth percentile respectively for both the TRIO and Control groups. Norms are not available on the algebra section of the math placement test. These data are presented in Table XI and Figure XV.

Discussion

The TRIO/ICS Program at General College serves a large number of single parents, most of whom are women receiving Aid to Families with Dependent Children (AFDC). This may account, in part, for the higher proportion of women in the program, the higher average age, the longer period of time since the students have been in school, and also the smaller percentage of working students.

Minorities and handicapped students are encouraged to participate in the program and this is also reflected in the statistics. A high proportion of Asian students and Vietnamese students are participants in the Tutoring portion of the program. This may account for some of the variance in the reading scores due to language difficulties.

A higher percent of Control group students received financial aid than TRIO students. This finding may reflect the major criterion for Control group selection, which was low income level, and TRIO program participants are also selected due to educational disadvantage, physical or emotional handicaps or minority status.

The highest grade achieved prior to enrolling in General College was comparable for all groups with ICS having a slightly higher proportion of GED's, indicating a less traditional background. Nevertheless, the academic aspirations for all groups appear to be similar. There are slight differences in parental education, with TRIO having a lower level of education for both parents, also indicating a less traditional background from other college students. As far as academic majors are concerned, all students gravitate toward more technological fields.

Finally, the descriptive information which may have the greatest import in this evaluation is the test scores on the General College placement test. These data show that the TRIO students are at a lower level than the Control group on reading, with the Tutoring group scoring lowest. The three TRIO components vary most noticeably on the math tests, with ICS scoring lowest and Tutoring scoring higher, especially in arithmetic and algebra. Both TRIO and Control group students' average placement scores are below average (median) based on 1980 General College norms (Brothen, et al, 1981), with the Control group reading mean score in the fifty-second percentile the only test mean higher than the median.

Conclusions

While few differences exist between the TRIO and Control group students are dissimilar in many ways from what is considered a typical college freshman. They are low income students who are older, more likely to be female, have been out of school longer, are more likely to be minority or handicapped than the average, and they enter college with limited basic skills. In a very real sense, these differences may work against these students in higher education. Will they, or can they, survive?

TABLE I

Number of Students Completing
General College Student Survey

	ICS		Counseling		Tutoring		Control		TRIO Total	
	N	%	N	%	N	%	N	%	N	%
Students Who Completed Survey in Fall	86	83%	37	51%	30	39%	41	72%	153	61%
Students Who Completed Post-Survey	52	50%	27	38%	36	47%	23	40%	115	46%
Students Who Completed Both Pre and Post	44	43%	26	36%	26	34%	16	28%	96	38%
Students Who Completed Either Pre or Post	97	94%	43	60%	41	53%	48	84%	181	72%
Total Students	103		72		77		57		252	

Note: The percentages do not add up to 100% due to overlapping categories.

FIGURE I
NUMBER OF STUDENTS COMPLETING
GENERAL COLLEGE STUDENT SURVEY

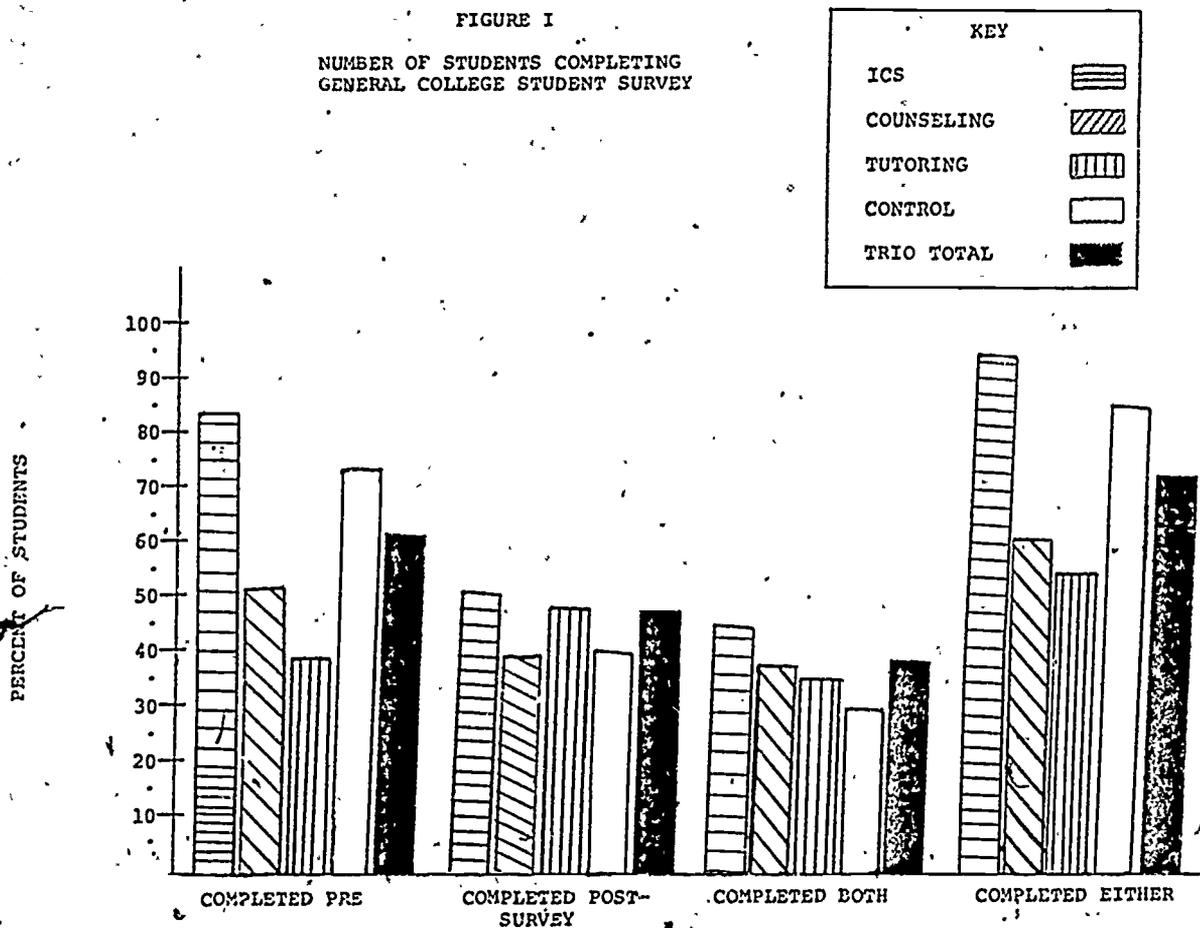


TABLE II
Sex of Student

	ICS		Counseling		Tutoring		Control		TRIO Total	
	N	%	N	%	N	%	N	%	N	%
Female	60	58%	32	44%	30	39%	29	51%	122	48%
Male	43	42%	40	56%	47	61%	28	49%	130	52%
Total	103	100%	72	100%	77	100%	57	100%	252	100%

NOTE: Figures based on students completing GC Student Survey only, missing data excluded from calculations.

FIGURE II
SEX OF STUDENTS

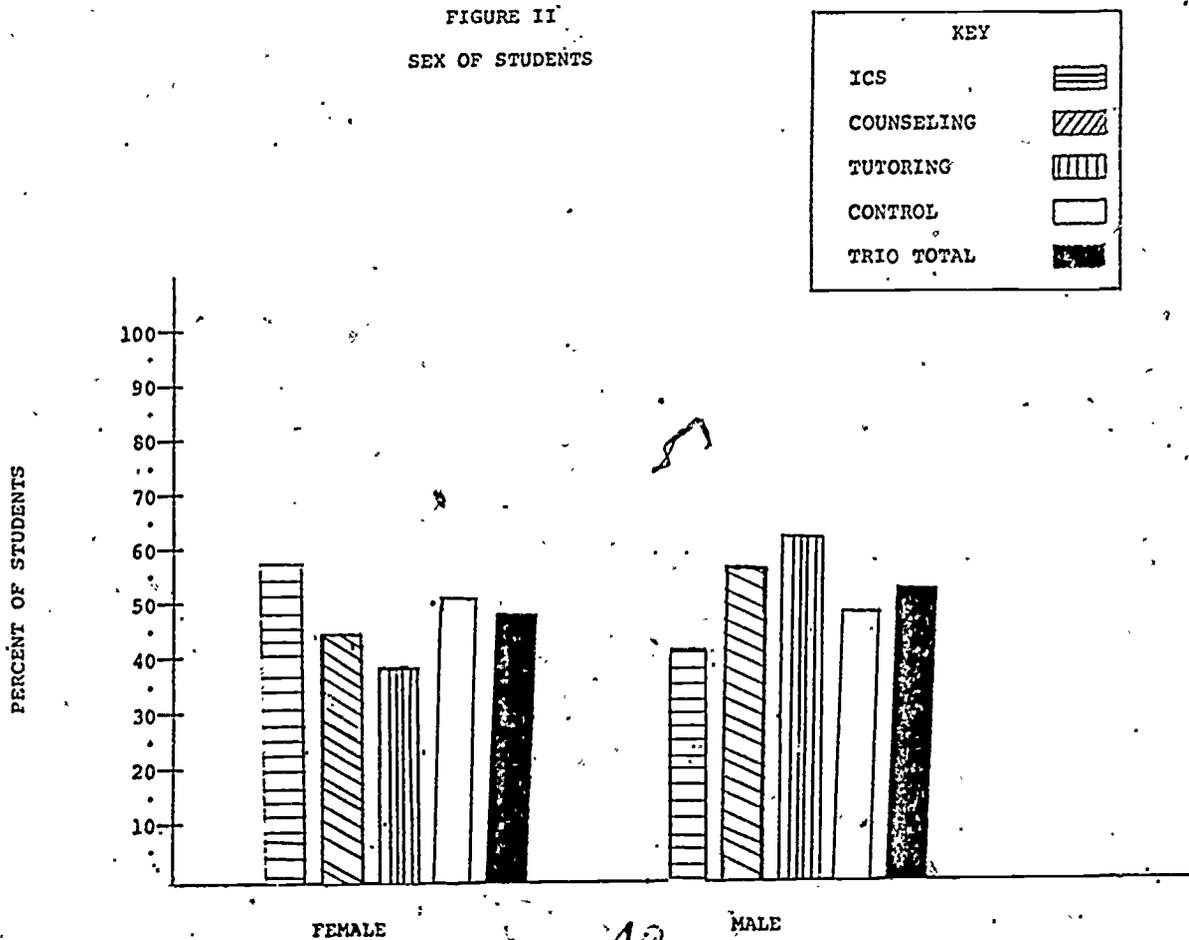


TABLE III

Age of Student

		ICS	Counseling	Tutoring	Control	TRIO Total
Total Number Completing GC Survey	N	97	43	42	42	182
Average Age	\bar{X}	23.29	21.63	23.19	24.14	22.67

NOTE: Figures based on students completing GC Student Survey only, missing data are excluded from calculations.

FIGURE III
AGE OF STUDENTS

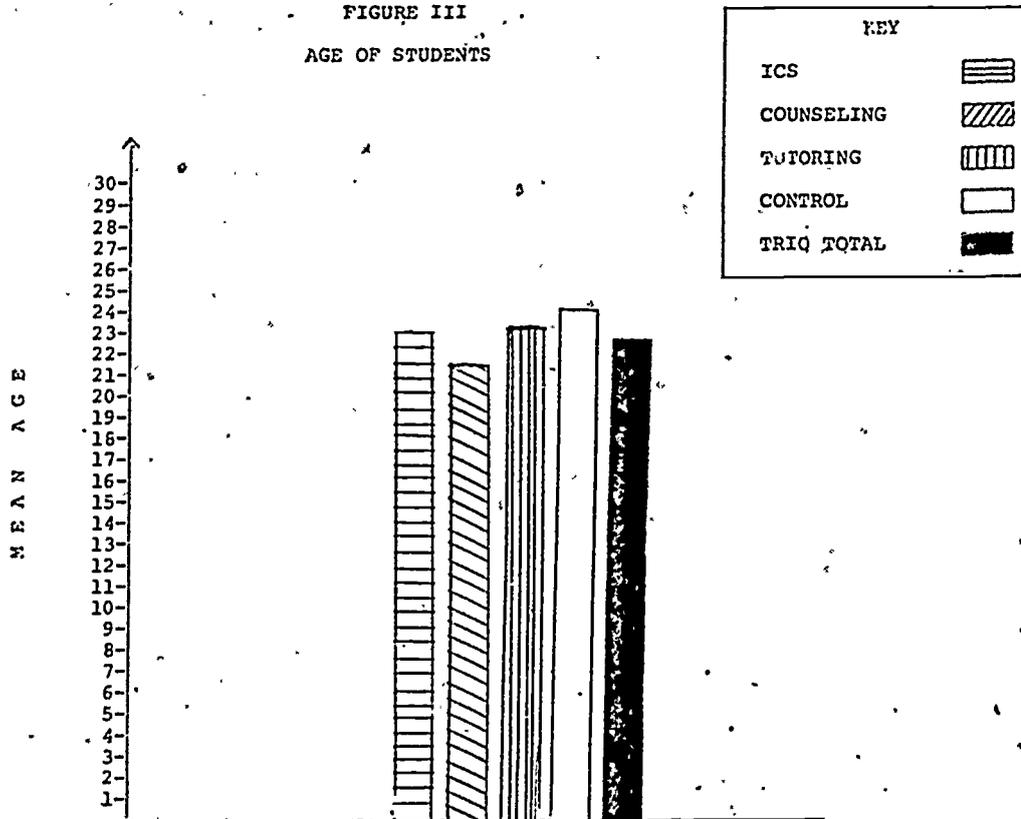


TABLE IV
Ethnic Background of Student

	ICS		Counseling		Tutoring		Control		TRIO Total	
	N	%	N	%	N	%	N	%	N	%
American Indian	1	1%	1	2%	4	10%	1	2%	6	3%
Asian American	2	2%	1	2%	4	10%	1	2%	7	4%
Black Non-Hispanic Origin	12	14%	3	7%	3	7%	2	5%	18	10%
Hispanic	7	8%	0	0%	1	2%	0	0%	8	5%
Vietnamese	0	0%	2	5%	6	14%	1	2%	8	5%
Caucasian Non-Hispanic	61	70%	35	81%	20	48%	38	86%	116	67%
Other	4	5%	1	2%	4	10%	1	2%	9	5%
Total	87	100%	43	100%	42	100%	44	100%	172	100%

NOTE: Figures based on those students completing GC Student Survey only, missing data are excluded from calculations.

FIGURE IV
ETHNIC BACKGROUND OF STUDENTS

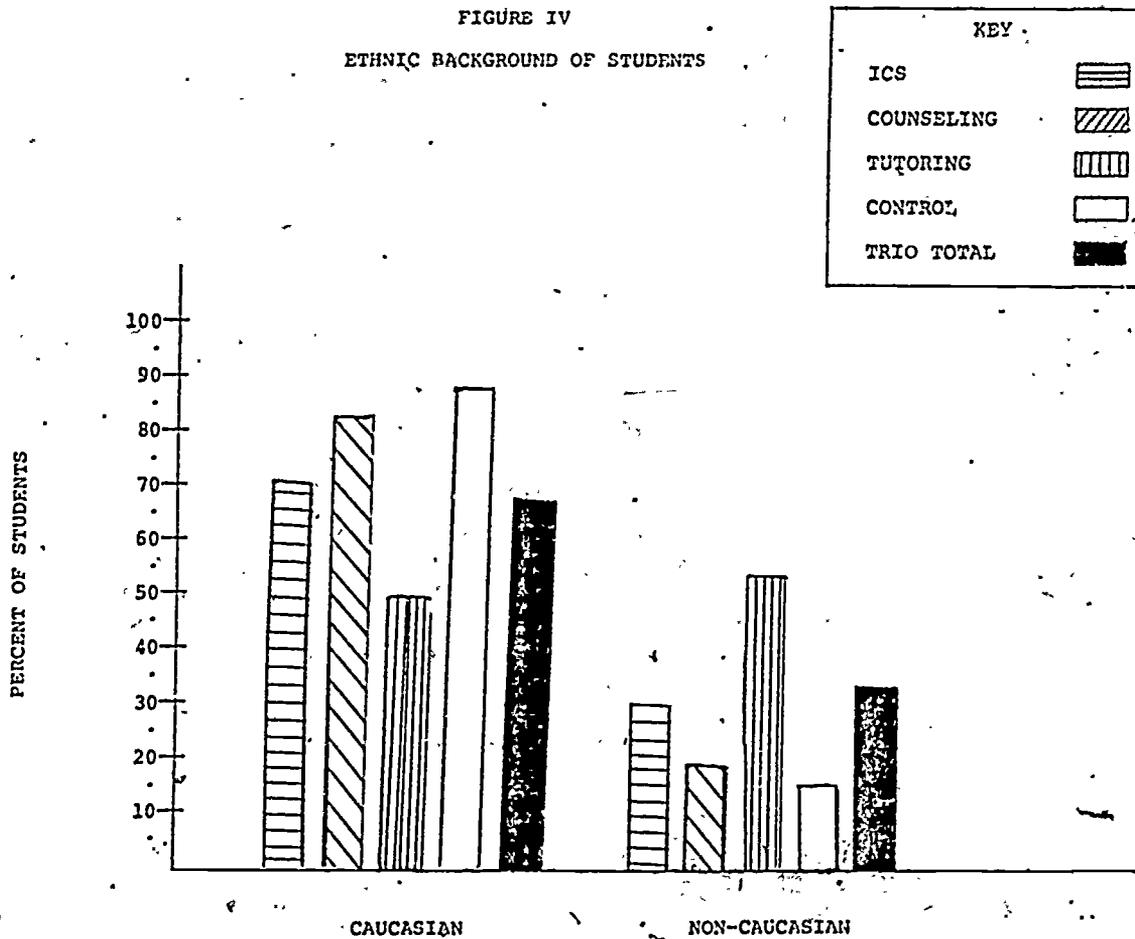


TABLE V
Students Receiving Financial Aid

	ICS		Counseling		Tutoring		Control		TRIO Total	
	N	%	N	%	N	%	N	%	N	%
Yes	81	84%	36	86%	38	90%	44	96%	155	86%
No	16	16%	4	14%	4	10%	2	4%	26	14%
Item Total	97	100%	42	100%	42	100%	46	100%	181	100%

NOTE: Figures based on students completing GC Student Survey only, missing data are excluded from calculations.

FIGURE V
STUDENTS RECEIVING FINANCIAL AID

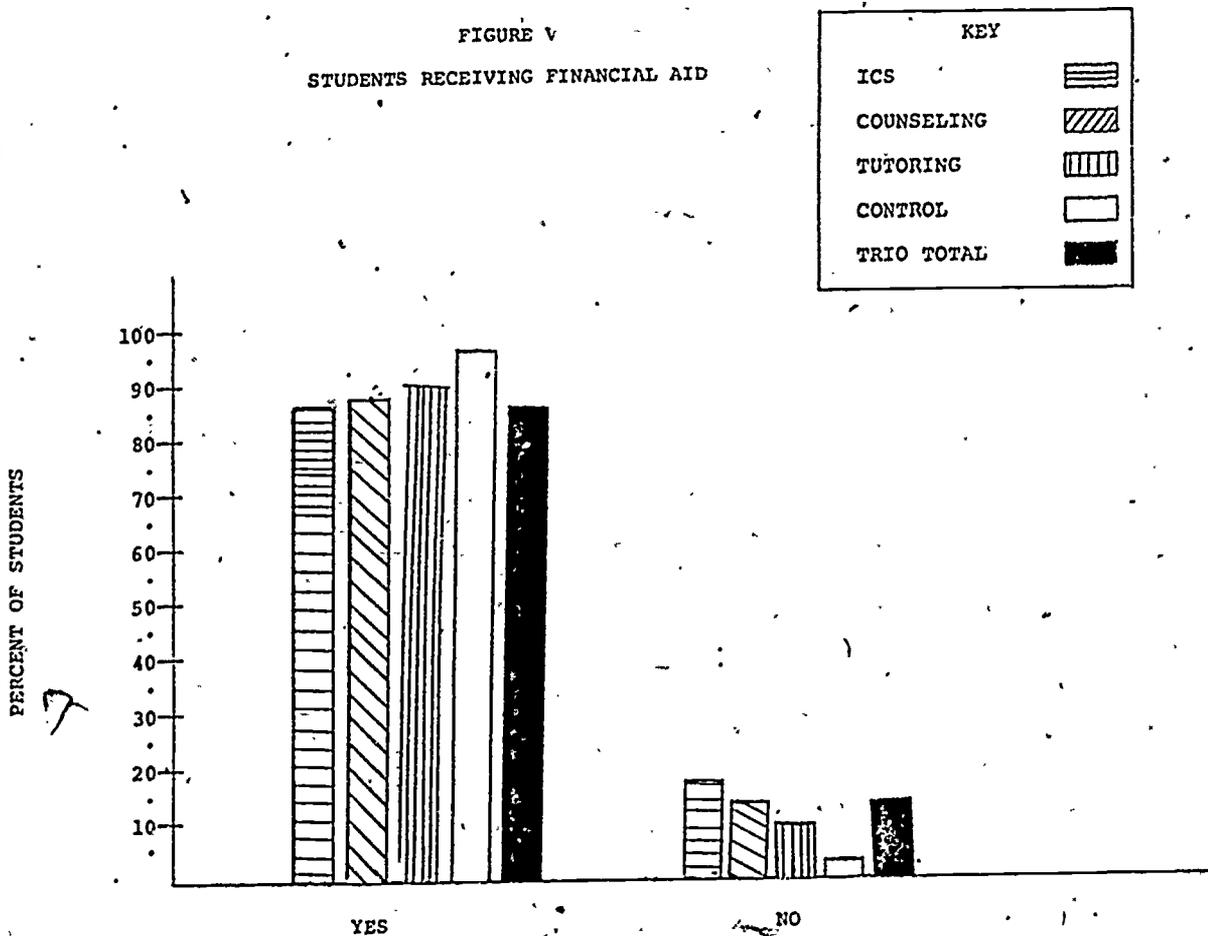


TABLE VI

Students Working While Attending College

	ICS		Counseling		Tutoring		Control		TRIO Total	
	N	%	N	%	N	%	N	%	N	%
No	29	30%	6	14%	8	19%	4	9%	43	24%
Yes, 1-10 Hours/Week	8	8%	10	23%	7	17%	3	6%	25	14%
Yes, 11-20 Hours/Week	27	28%	14	33%	12	29%	23	49%	53	29%
Yes, 21-35 Hours/Week	14	15%	5	12%	3	7%	9	19%	22	12%
Yes, 36 or More Hours/Week	3	2%	1	2%	5	12%	0	0%	9	5%
Not Sure	15	16%	7	16%	7	17%	8	17%	29	16%
Total	96	100%	43	100%	42	100%	47	100%	181	100%

NOTE: Figures based on students completing GC Student Survey only, missing data are excluded from calculations.

FIGURE VI
STUDENTS WORKING WHILE ATTENDING COLLEGE

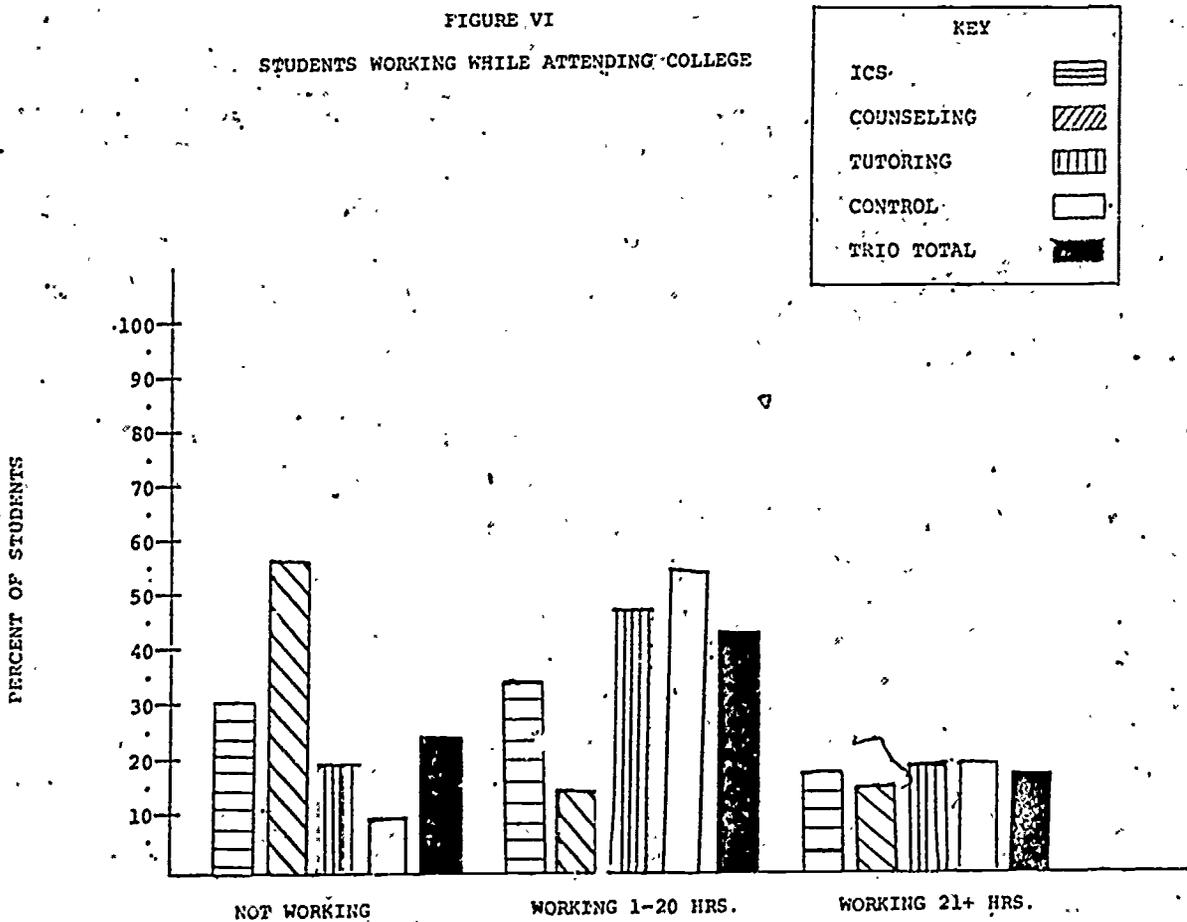


TABLE VII

Students' Transfer Plans from General College

	ICS		Counseling		Tutoring		Control		TRIO Total	
	N	%	N	%	N	%	N	%	N	%
No, do not plan to transfer	6	7%	6	14%	3	7%	8	17%	15	9%
Yes, to a college within the University	61	69%	27	63%	33	80%	31	67%	121	70%
Yes, to another college outside the University	1	1%	3	7%	0	0%	1	2%	4	2%
Not sure	21	24%	7	16%	5	12%	6	13%	33	19%
Item Total	89	100%	43	100%	41	100%	46	100%	173	100%

NOTE: Figures based on students completing GC Student Survey only, missing data are excluded from calculations.

FIGURE VII
STUDENT TRANSFER PLANS

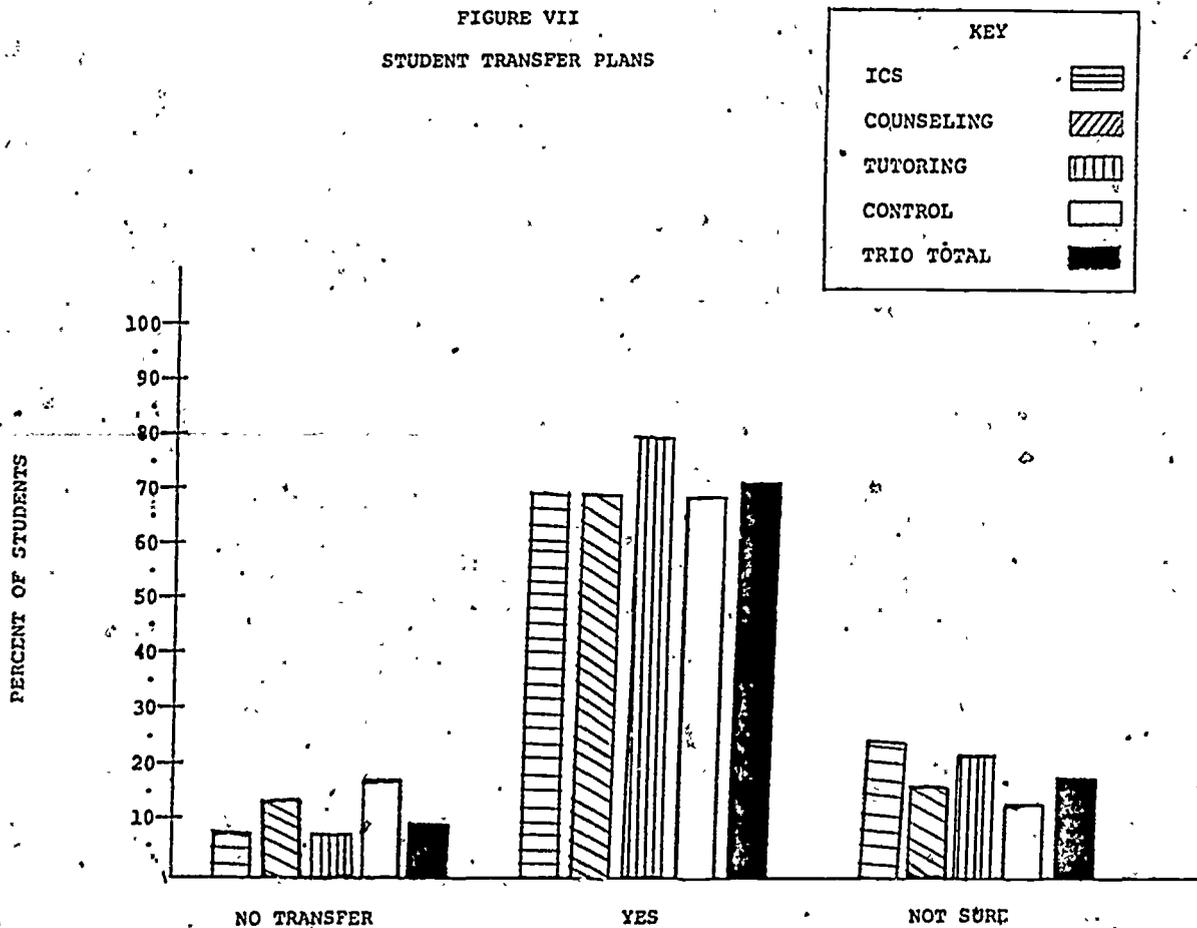


TABLE VIII

Students' Highest Grade Level Completed Before Enrolling in General College

	ICS		Counseling		Tutoring		Control		TRIO Total	
	N	%	N	%	N	%	N	%	N	%
Eighth-Grade or Less	0	0%	0	0%	0	0%	0	0%	0	0%
Some High School	1	1%	0	0%	1	2%	2	4%	2	1%
High School Graduation	53	55%	26	60%	23	55%	28	60%	102	56%
G.E.D. Diploma	16	16%	3	7%	7	16%	3	6%	26	14%
One Year or Less of College	14	14%	7	16%	6	14%	12	26%	27	15%
Two Years or More of College	5	5%	3	7%	3	7%	1	2%	11	6%
Other	8	9%	4	9%	2	5%	1	2%	14	8%
Item Total	97	100%	43	100%	42	100%	47	100%	182	100%

NOTE: Figures are based on students completing GC Student Survey only, missing data are excluded from calculations.

FIGURE VIII

HIGHEST GRADE LEVEL COMPLETED BEFORE ENROLLING IN GENERAL COLLEGE

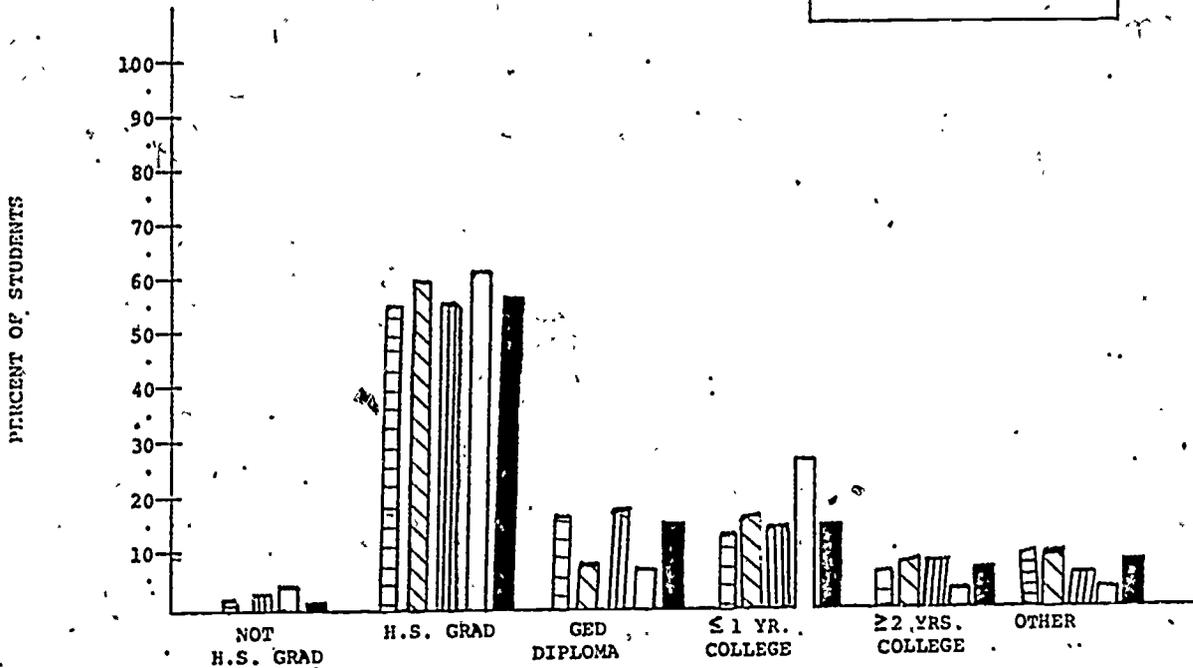
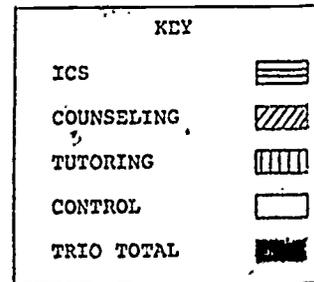


TABLE IX

Years Since Students Last Attended Any School

	ICS		Counseling		Tutoring		Control		TRIO Total	
	N	%	N	%	N	%	N	%	N	%
Less Than 1 Year	43	45%	28	67%	20	49%	32	71%	91	51%
1-2 Years	20	21%	5	12%	5	12%	7	16%	30	17%
3-5 Years	12	13%	5	12%	9	22%	3	7%	26	15%
6-10 Years	16	17%	2	5%	2	5%	3	7%	20	11%
More Than 10 Years	5	5%	2	5%	5	12%	0	0%	12	7%
Item Total	96	100%	42	100%	41	100%	45	100%	179	100%

NOTE: Figures based on students completing GC Student Survey only, missing data are excluded from calculations.

FIGURE IX
YEARS SINCE STUDENT LAST ATTENDED SCHOOL

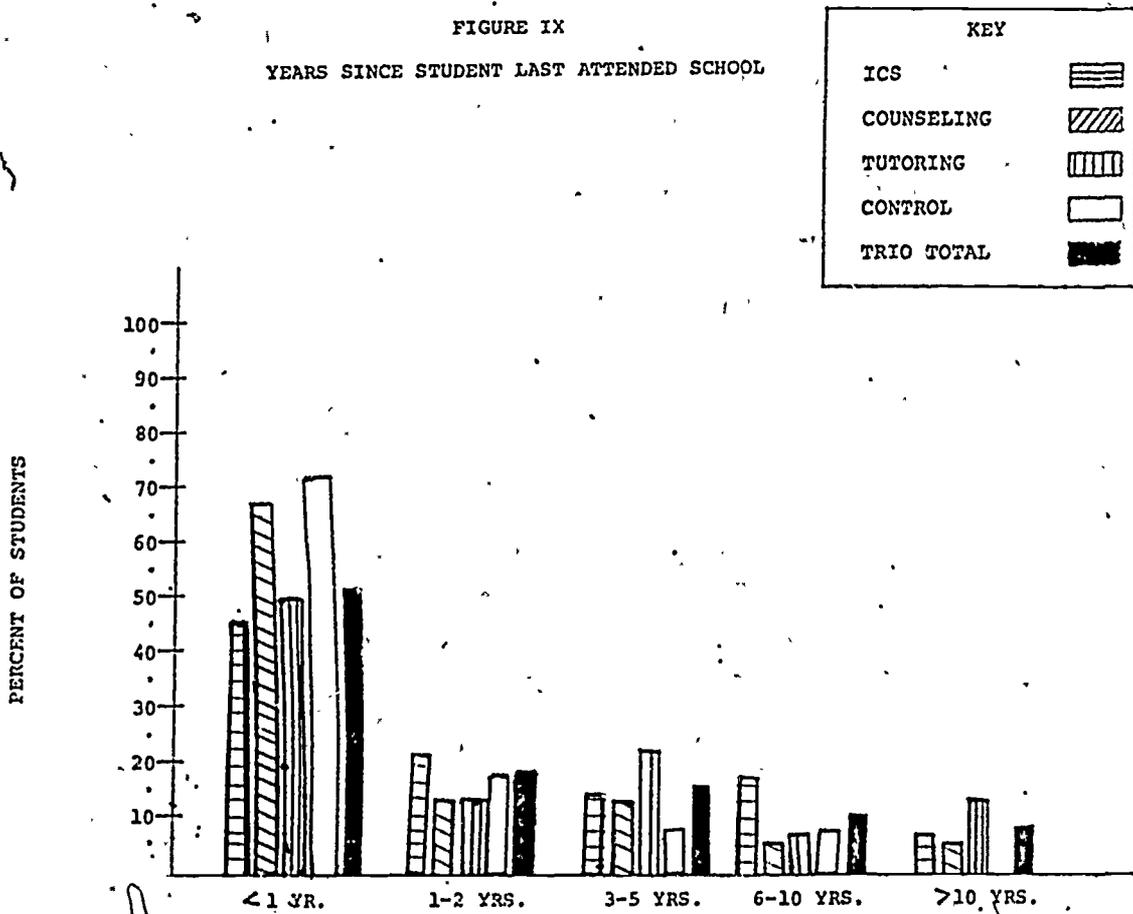


TABLE X

Highest Academic Degree to Which Students Aspire

	ICS		Counseling		Tutoring		Control		TRIO Total	
	N	%	N	%	N	%	N	%	N	%
None	4	4%	1	3%	1	2%	2	5%	6	3%
Certificate (less than Associate)	2	2%	1	3%	2	5%	1	2%	5	3%
Associate Degree	6	6%	2	5%	2	5%	4	9%	10	6%
Bachelors Degree	49	53%	22	55%	22	52%	20	47%	93	53%
Masters Degree	26	28%	9	22%	11	26%	14	33%	46	26%
Doctorate	4	4%	5	13%	4	10%	2	5%	13	7%
Missing Data	2	2%	0	0%	0	0%	0	0%	2	1%
Item Total	93	100%	40	100%	42	100%	43	100%	175	100%

NOTE: Figures based on students completing GC Student Survey only, missing data are excluded from calculations.

FIGURE X
HIGHEST DEGREE ASPIRATIONS

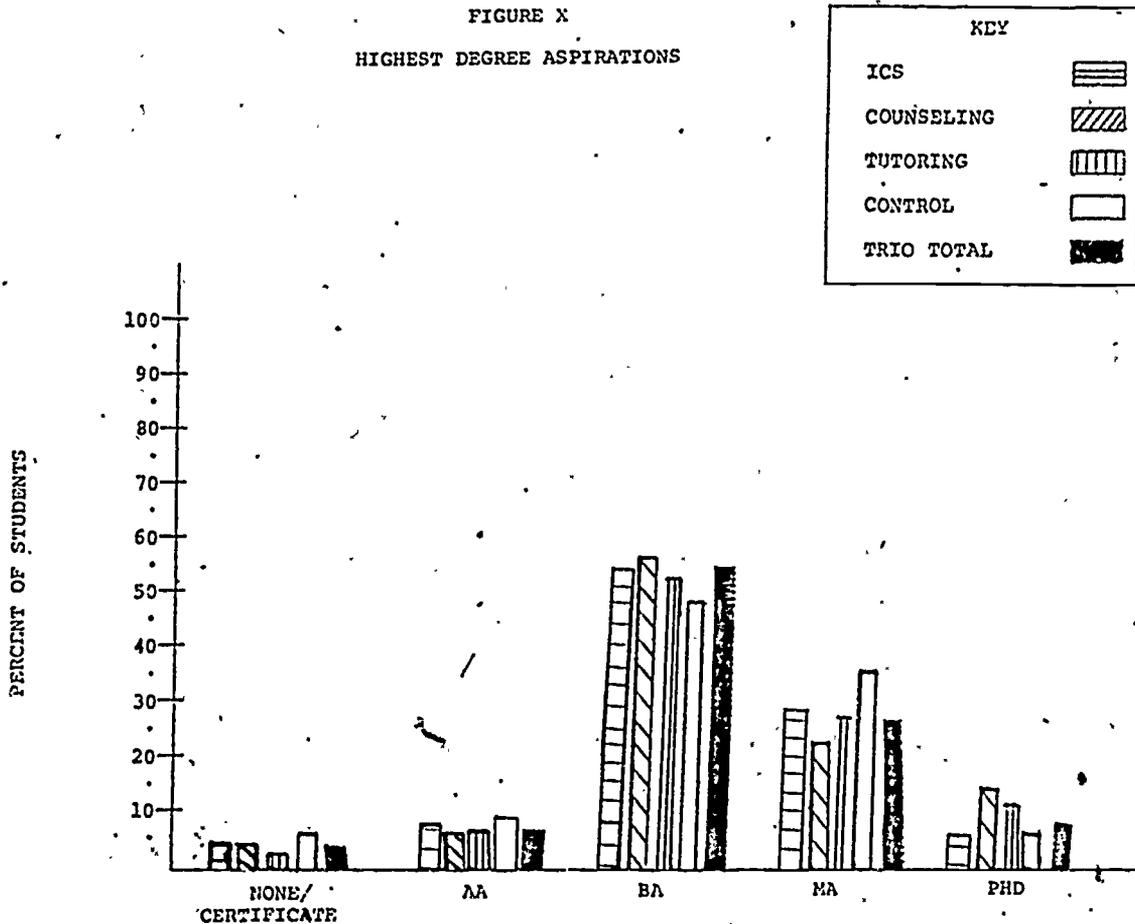


TABLE XI
Mother's Educational Level

	ICS		Counseling		Tutoring		Control		TRIO Total	
	N	%	N	%	N	%	N	%	N	%
8th Grade or Less	11	12%	2	5%	6	18%	4	9%	19	11%
Some High School	12	13%	5	12%	1	3%	4	9%	18	11%
GED or High School Grad	36	43%	16	37%	6	18%	15	34%	58	35%
Some College	17	19%	7	16%	11	33%	5	11%	35	21%
Post High School Voc. Training	6	7%	2	5%	4	12%	6	14%	12	7%
Bachelors Degree	6	7%	5	12%	3	9%	7	16%	14	8%
Masters Degree	3	3%	6	14%	2	6%	2	5%	11	7%
Doctorate Degree	0	0%	0	0%	1	3%	1	2%	1	1%
Total	91	-	43	-	34	-	44	-	168	-

NOTE: Figures based on students completing GC Student Survey only, missing data are excluded from calculations.

FIGURE XI
MOTHER'S EDUCATIONAL LEVEL

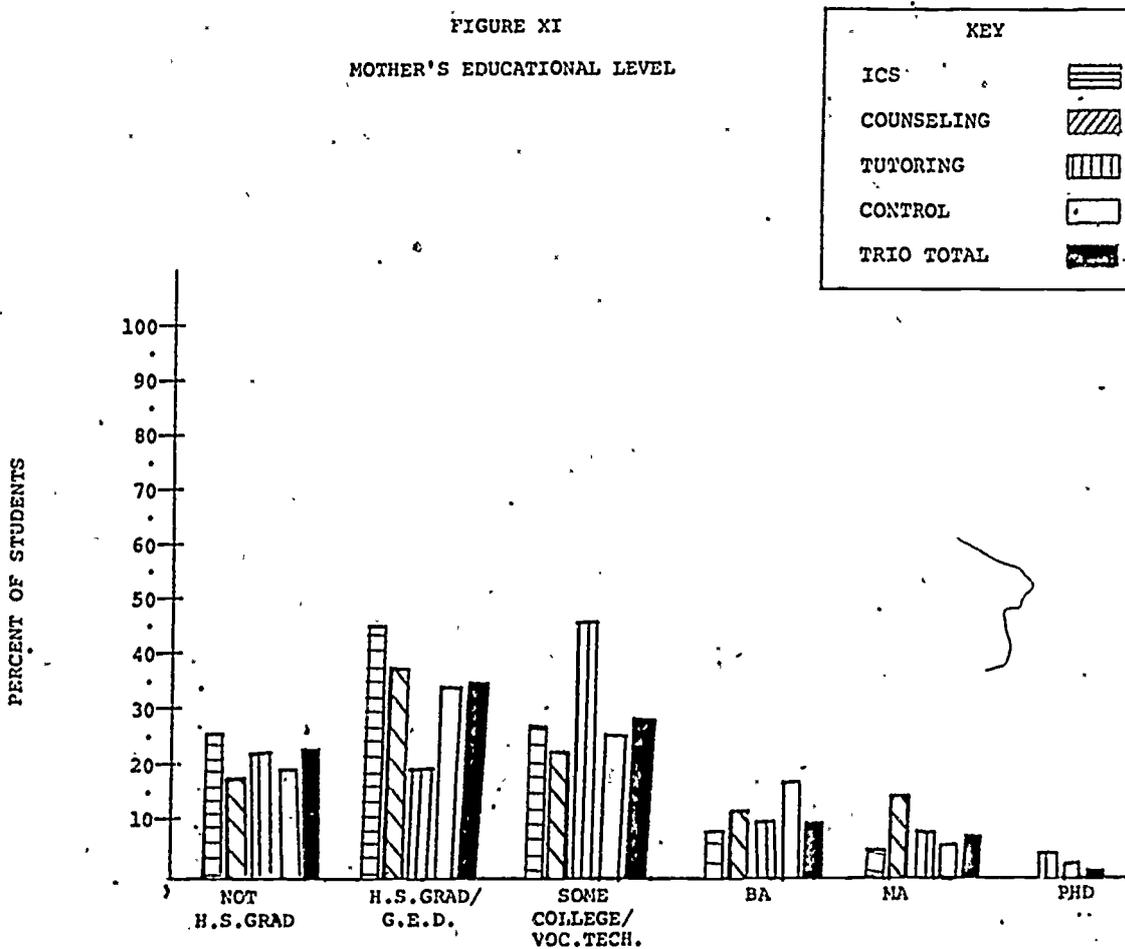


TABLE XII

Father's Educational Level

	ICS		Counseling		Tutoring		Control		TRIO Total	
	N	%	N	%	N	%	N	%	N	%
8th Grade or Less	15	17%	2	5%	5	15%	3	7%	22	13%
Some High School	14	16%	6	14%	5	15%	4	9%	25	15%
GED or High School Grad	24	27%	10	24%	4	12%	13	29%	38	23%
Some College	8	9%	6	14%	5	15%	4	9%	19	12%
Post High School Vocational Training	10	11%	6	14%	5	15%	6	13%	21	13%
Bachelors Degree	7	8%	6	14%	5	15%	10	22%	18	11%
Masters Degree	7	8%	5	12%	4	12%	4	9%	16	10%
Doctorate Degree	3	3%	1	2%	0	0%	1	2%	4	2%
Item Total	88	100%	42	100%	33	100%	45	100%	163	100%

NOTE: Figures based on students completing GC Student Survey only, missing data are excluded from calculations.

FIGURE XII
FATHER'S EDUCATIONAL LEVEL

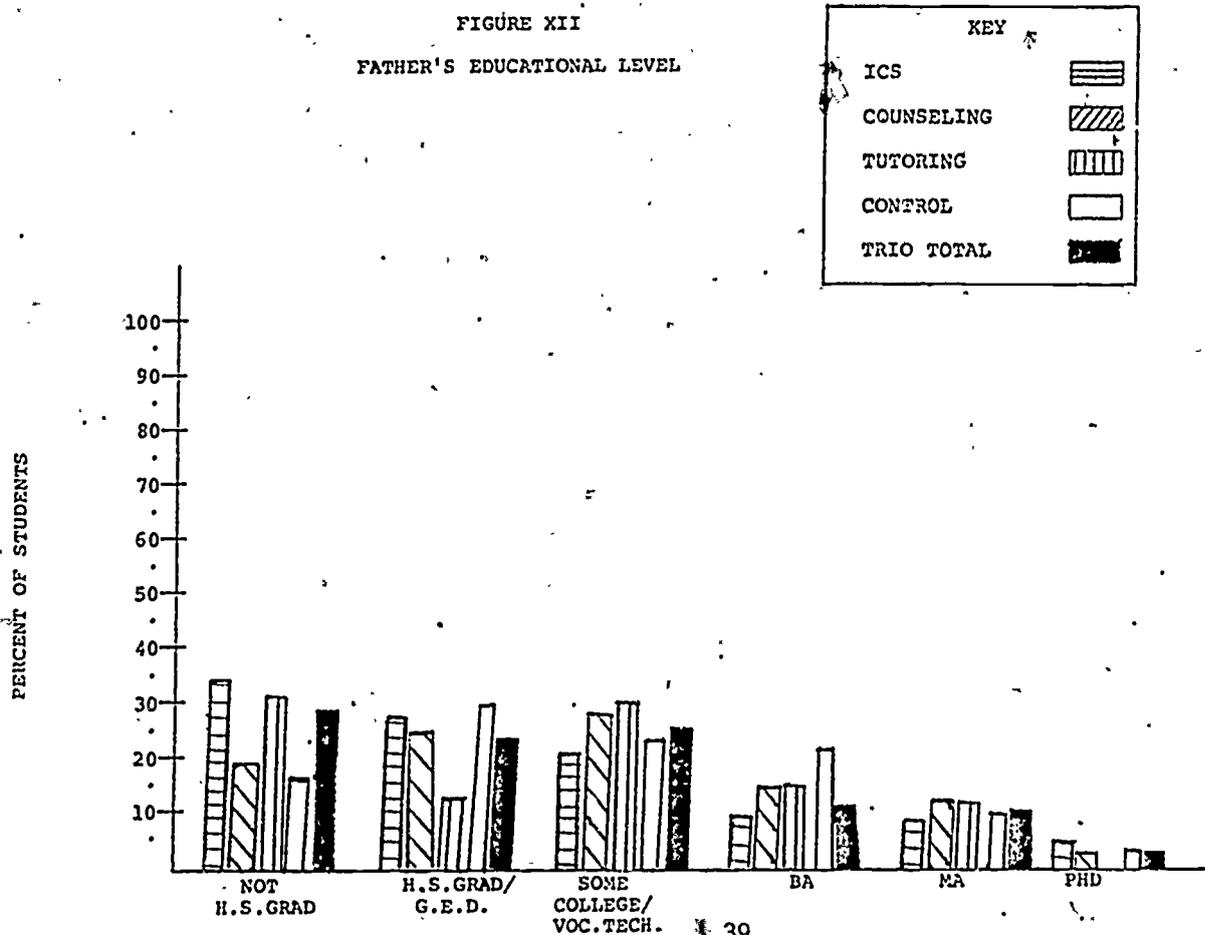


TABLE XIII
Student Majors

	ICS		Counseling		Tutoring		Control		TRIO Total	
	N	%	N	%	N	%	N	%	N	%
Undecided	23	24%	10	24%	12	27%	11	24%	45	26%
Business	17	18%	7	17%	5	11%	8	18%	29	17%
Humanities (e.g., literature, philosophy, art, etc.)	4	4%	0	0%	1	2%	1	2%	5	3%
Social Science (e.g., psychology, sociology, history)	7	7%	2	5%	3	7%	2	4%	12	7%
Math or Science (e.g., engineering, math, biology, computer science)	15	16%	9	21%	8	18%	5	11%	32	18%
Medical Science (e.g., nursing, dental hygiene, occ. or phys. therapy)	8	9%	3	7%	3	7%	5	11%	14	8%
Education (e.g., elem., secondary, phys. ed.)	3	3%	3	7%	2	5%	4	9%	8	5%
Other	17	18%	6	9%	3	7%	9	20%	28	16%
Item Total	94	100%	42	100%	44	100%	45	100%	173	100%

NOTE: Figures based on students completing GC student Survey only, missing data are excluded from calculations.

FIGURE XIII
STUDENT MAJORS

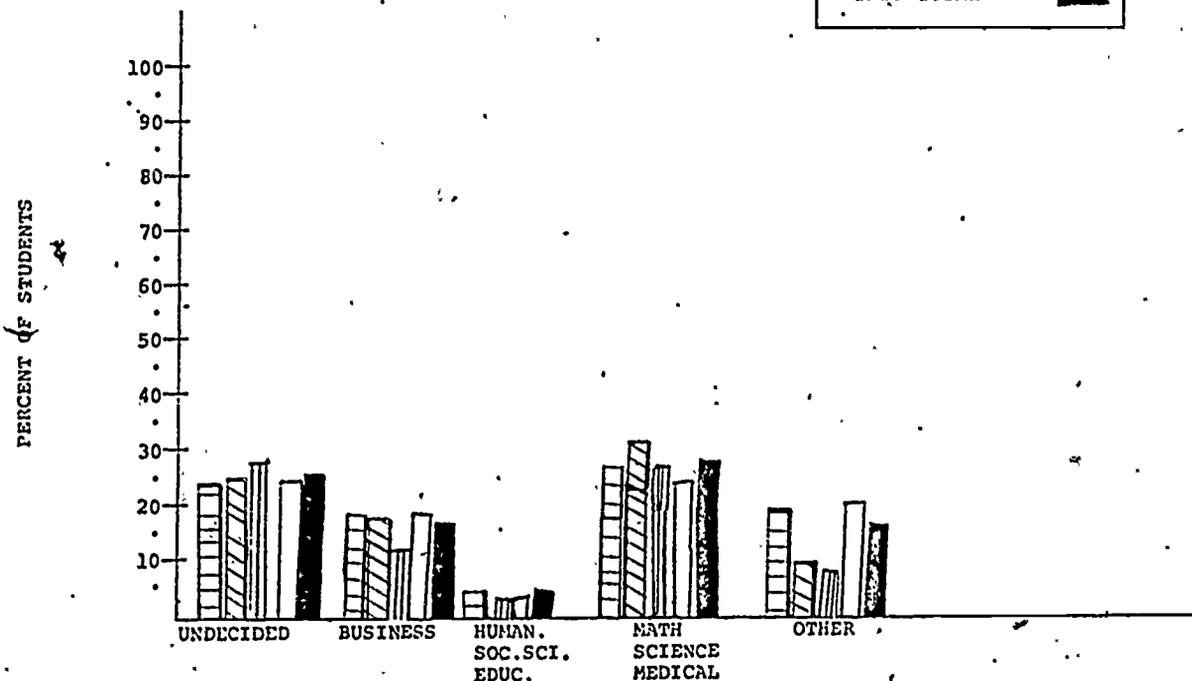
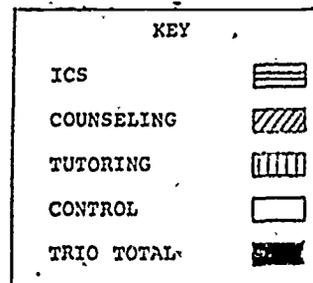


TABLE XIV

Self-Report of Students with Physical, Emotional, or Learning Disabilities

	ICS		Counseling		Tutoring		Control		TRIO Total	
	N	%	N	%	N	%	N	%	N	%
No Disability Reported	86	89%	40	93%	39	93%	41	98%	165	91%
Have Physical, Emotional, or Learning Disability	11	11%	3	7%	3	7%	1	2%	17	9%
Needs Services for Disability	7	7%	2	5%	1	2%	1	2%	10	5%
Item Total	97	100%	43	100%	42	100%	42	100%	182	100%

Note: Total = No disability reported + Have disability.

Figures based on students completing GC Student Survey only, missing data are excluded from calculations.

FIGURE XIV

STUDENT SELF REPORT OF PHYSICAL, EMOTIONAL, OR LEARNING DISABILITIES

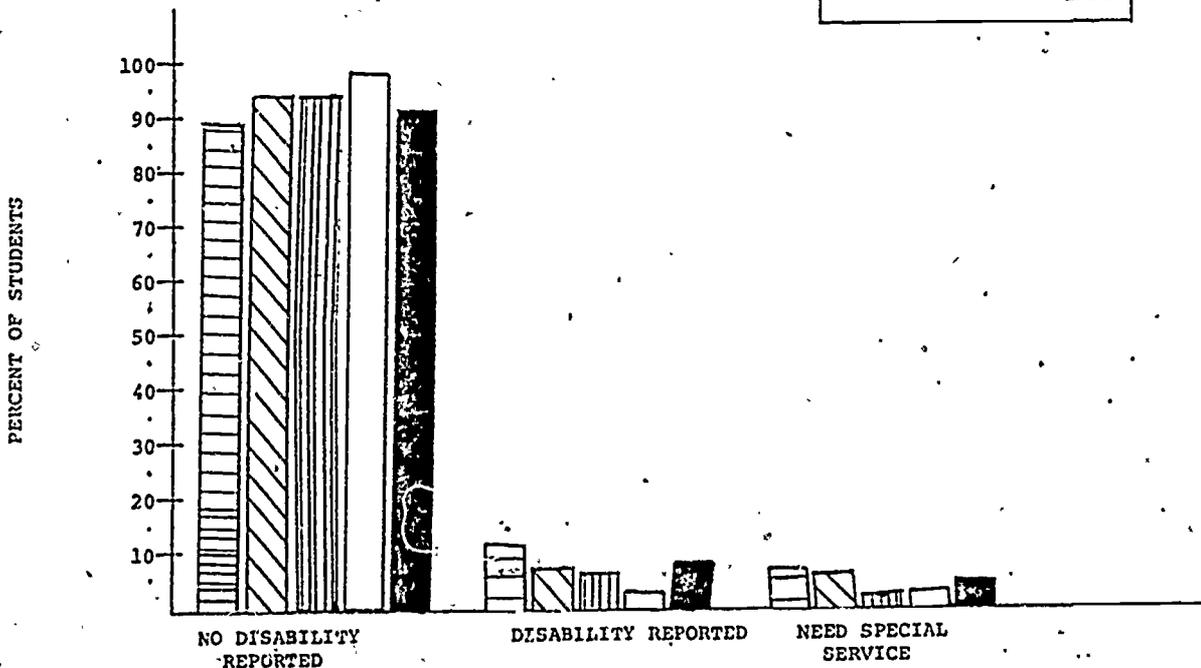
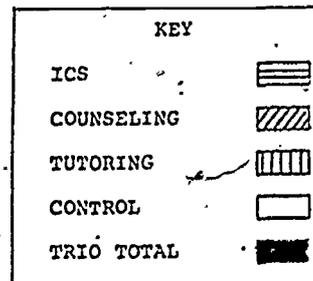
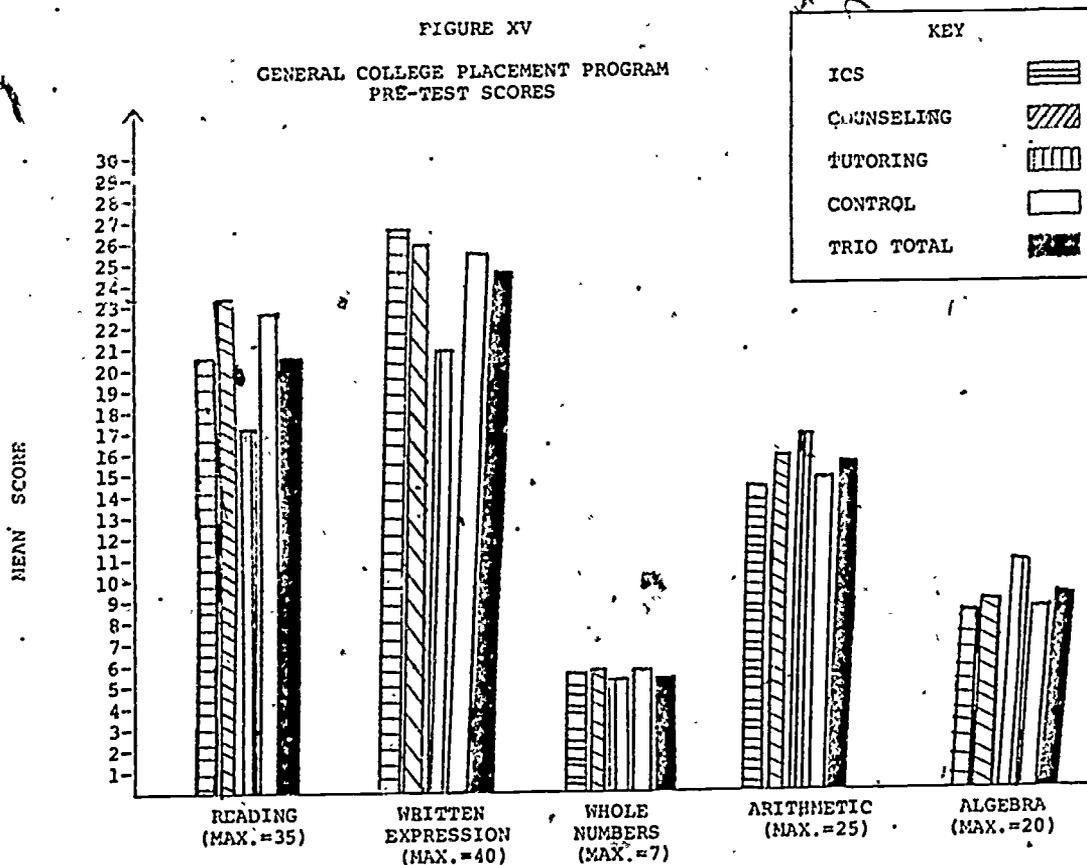


TABLE XV

General College Placement Program Test Scores

	ICS		Counseling		Tutoring		Control		TRIO Total	
	N	\bar{X}	N	\bar{X}	N	\bar{X}	N	\bar{X}	N	\bar{X}
Reading (maximum score = 35)	82	20.40	66	23.14	57	17.18	51	22.57	205	20.39
Written English Expression (maximum score = 40)	82	26.57	66	25.86	57	20.86	51	25.24	205	24.73
Whole Numbers (maximum score = 7)	82	5.37	66	5.65	57	5.42	51	5.35	205	5.45
Arithmetic (maximum score = 25)	82	14.27	66	15.88	57	16.54	51	14.67	205	15.42
Algebra (maximum score = 20)	82	8.04	66	8.94	57	10.53	51	8.39	205	9.02

FIGURE XV
GENERAL COLLEGE PLACEMENT PROGRAM
PRE-TEST SCORES



CHAPTER V
STUDENT OUTCOMES: ACADEMIC

Introduction

The primary questions of interest in this evaluation are:

- 1) Did TRIO students stay in school? and
- 2) Were they successful in school?

To answer the first question, the overall retention rate for the program (the proportion of students who remained in school continuously from their entry into the program to the end of the year) is examined. The most widely used measures of academic success are the grade point average (GPA) and the proportion of completed credits for each student (credit completion ratio; CCR). These measures take into account not only the grade achieved, but also the number of credits attempted and passed during the academic year. These three traditional indicators of success: retention rate, CCR and GPA, are explored in this section.

Method

Subjects

The subjects described in this study represent four groups:

- a) ICS students - all students enrolled in the Integrated Course of Study (ICS) were asked to participate in the study.
- b) Counseling students - all General College freshmen who were eligible for the Special Services Program (by low income, academic need, handicapped or minority status) and utilized the counseling facilities two or more times during the academic year, were included in the study.
- c) Tutorial group - all General College freshmen who were eligible for Special Services, and made use of direct personal tutoring two or more times, were included in the study. Some tutoring students also received counseling.
- d) Control group - a control group of 57 students was randomly selected from General College freshmen eligible for Special Services using the low income criteria, and who had not participated in the TRIO program or other retention programs also operating at General College.

A TRIO total is reported on each variable collected which combines the ICS, Tutoring and Counseling groups so that TRIO students can more readily be compared to the control group.

Individual files are created and maintained for each student. These files contain the student demographic profiles described in Section IV. The students are also tracked throughout the year on the following items:

- 1) courses and number of credits attempted each quarter,
- 2) courses and number of credits completed each quarter, and
- 3) grades received, for those courses.

The source of this information is the official student transcript. These data are recorded quarterly and for the full academic year.

Retention Rate

The retention rate is defined as the proportion of students in each group who remain registered continuously from their quarter of entry into the program until the end of the academic year. To be considered "retained," a student who enters in the Fall must register for and complete Fall, Winter and Spring quarters and a student who begins Winter quarter must register for and complete Winter and Spring quarters. Students attending Spring quarter only are not included in this analysis.

A retention rate of 85% indicates that 85% of the students remained in school while 15% did not.

Grade Point Average (GPA)

The University of Minnesota (UM) uses a 4-point grading system where A = 4 grade points, B = 3 grade points, C = 2 grade points, D = 1 grade point and N = 0 grade points. N is not a passing grade and credit is not given for classes where a grade of N is received. Unlike many universities, at UM, grades of N are not included in the grade point average. To make these data comparable to other university settings, GPA's are calculated in two ways, first with N's excluded and secondly with N's included.

For a three-credit course with a grade of B, nine grade points are given (3 credits x 3 grade points = 9 grade points). In order to compare the groups on grade points, a Group GPA (N's excluded) is calculated by dividing the total number of grade points received by the group by the total number of credits completed with a passing grade (A - D). To include N's, the total number of grade points received is divided by the total number of credits attempted by that group. Grades of S (S = pass on a pass/fail grading option), I (I = incomplete) and W (W = withdrawal) are excluded in both cases.

Credit Completion Ratio (CCR)

Credit completion is calculated in two ways. The CCR 1 shows how many courses were completed, pass or fail. It is calculated by dividing the total number of credits for which a grade was received (A, B, C, D, S or N) in each group by the total number of credits attempted by that group. If 30 out of 40 credits attempted are completed, then the CCR = .75, indicating 75% of the credits are completed.

The CCR 2 is calculated by dividing the total number of credits receiving a passing grade (A, B, C, D or S) in each group by the total number of credits attempted by that group.

Classes officially withdrawn from are excluded.

Results

The overall retention rates for each group are displayed in Table I, Figure I. The TRIO retention rate is 81.35% vs. 71.93% for the Control group. A Chi-Square test for independent samples was performed and the actual retention rates were found to differ significantly from the expected rates, which indicates that a statistically significant difference does occur between group retention rates ($\chi^2 = 9.4$, $\alpha = .05$).

The group GPA's (N's excluded) are displayed in Table II, Figure II. These data also show little variation between groups. A one way Analysis of Variance produced no statistical differences between groups. The TRIO students have a cumulative GPA of 2.78 as compared to the Control GPA of 2.61. The General College GPA (N's excluded) for the 1981-82 academic year was 2.60 (Romano, 1982).

The group GPA's (N's included) for each quarter and cumulatively are presented in Table III, Figure III. These data show that overall, the TRIO students have a higher GPA (TRIO $\bar{X} = 2.53$ vs. $\bar{X} = 1.89$ for the Control group). A one way analysis of variance (ANOVA) was performed and the differences between groups were found to be statistically significant ($\alpha = .05$). The General College GPA (N's included) for the 1981-82 academic year was 2.36 (Romano, 1982).

The Credit Completion Ratios (CCR1 and CCR2) for each quarter and cumulatively are displayed for each group in Table IV, Figure IV. Both TRIO and Control students received grades for a high proportion of courses attempted (CCR1 = .95 for both groups), but TRIO students passed a significantly higher proportion of their classes than the Control group (CCR2 = .84 TRIO vs. .70 Control). This difference is statistically significant on a Chi-Square test for independent samples ($\chi^2 = 3.78$, $\alpha = .05$).

Another variable of interest, also displayed in Table IV, is the mean number of credits attempted and completed for each group. These data show that TRIO students, on a yearly basis, attempted slightly more credits than the Control group (34.95 TRIO vs. 33.50 Control) but TRIO students passed an average of 5.84 credits more than the Control group for the academic year.

Comparable statistics for GC students for credit completion, credits attempted, and completed are not available due to different computational methods.

Conclusion

TRIO students compare favorably to the low income Control group on retention, credits passed and grade point average (N's excluded and included). When compared to General College students as a whole, TRIO students compared favorably on grade point average.

These findings support the goal of the TRIO program to promote educational success and provide a creditable academic program.

TABLE I
Student Retention Rates

	ICS	Counseling	Tutoring	Control	TRIO Total
<u>Total Number of Students Enrolled During Academic Year</u>	103	72	77	57	252
<u>Number of Students Maintaining Continuous Registration</u>	81	54	70	41	205
<u>Retention Rate</u> Proportion of Students Maintaining Continuous Registration	78.64%	75%	90.91%	71.93%	81.35%

FIGURE I
STUDENT RETENTION RATES

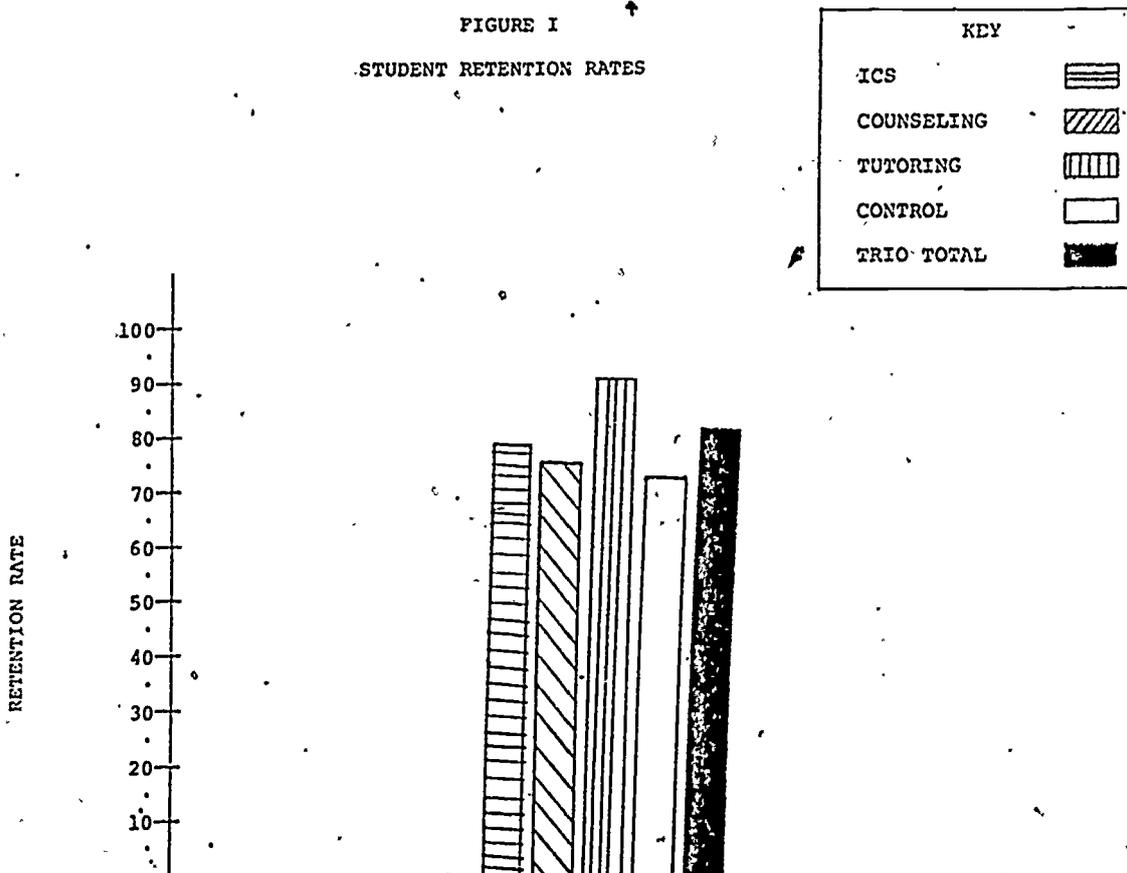


TABLE II

Grade Point Averages for Each Group for Fall, Winter, Spring Quarters and Cumulatively
(A = 4, B = 3, C = 2, D = 1, N's not included)

	ICS	Counseling	Tutoring	Control	TRIO Total
Fall					
N of Students	95	71	77	51	243
grade point average	3.12	2.85	2.88	2.87	2.96
Winter					
N of Students	91	62	73	44	226
grade point average	2.79	2.94	2.88	2.52	2.87
Spring					
N of Students	79	55	67	39	201
grade point average	2.63	2.69	2.74	2.63	2.69
Cumulative					
Total Students in Program	101	71	77	52	249
grade point average	2.73	2.81	2.82	2.61	2.78

FIGURE II
MEAN GRADE POINT AVERAGE
(A=4, B=3, C=2, D=1, N's NOT INCLUDED)

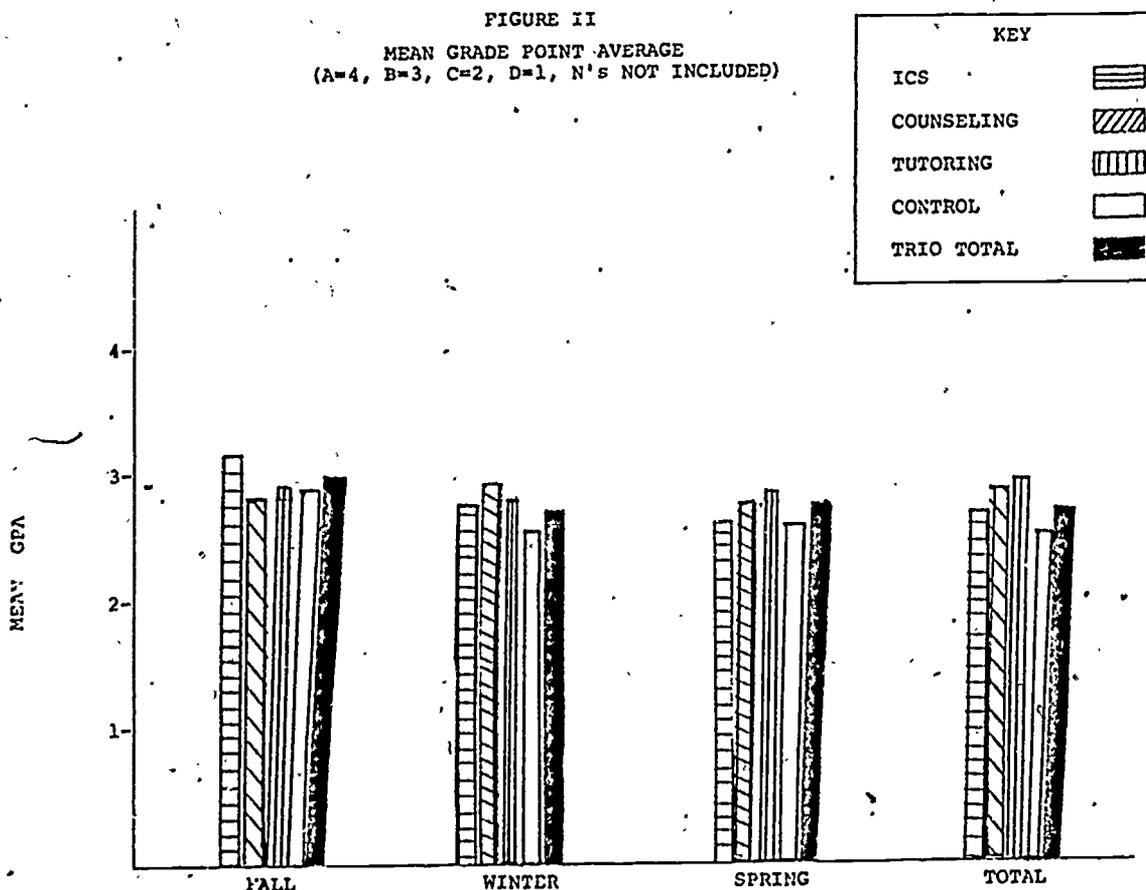


TABLE III

Grade Point Averages for Each Group for Fall, Winter, Spring Quarters and Cumulatively
 (A = 4, B = 3, C = 2, D = 1, K = 0)

	ICS	Counseling	Tutoring	Control	TRIO Total
Fall					
N of Students	95	71	77	51	243
grade point average	2.70	2.51	2.61	2.36	2.68
Winter					
N of Students	91	62	73	44	226
grade point average	1.64	2.61	2.70	1.81	2.28
Spring					
N of Students	79	55	67	39	201
grade point average	2.14	2.40	2.46	1.58	2.33
Cumulative					
Total N of Students in Program	101	71	77	52	249
grade point average	2.41	2.51	2.68	1.89	2.53

FIGURE III
 MEAN GRADE POINT AVERAGE
 (A=4, B=3, C=2, D=1, N=0)

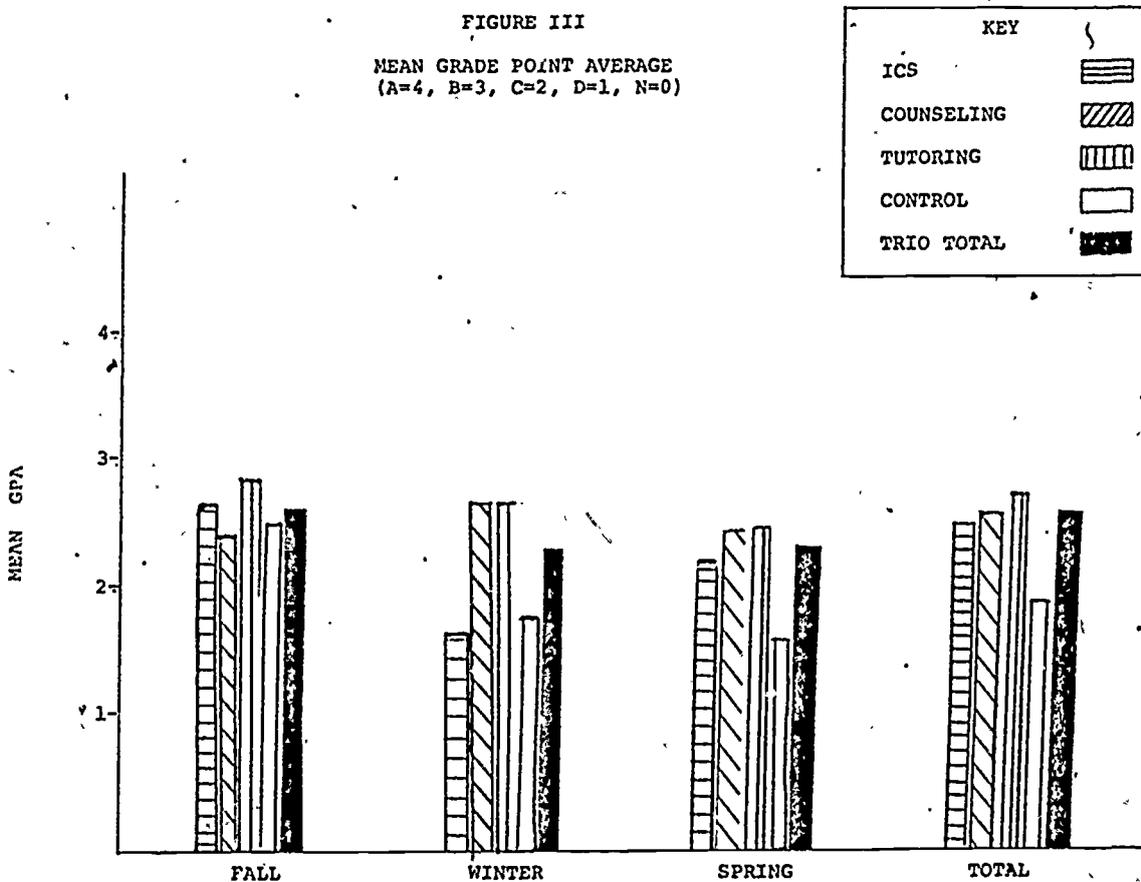


TABLE IV

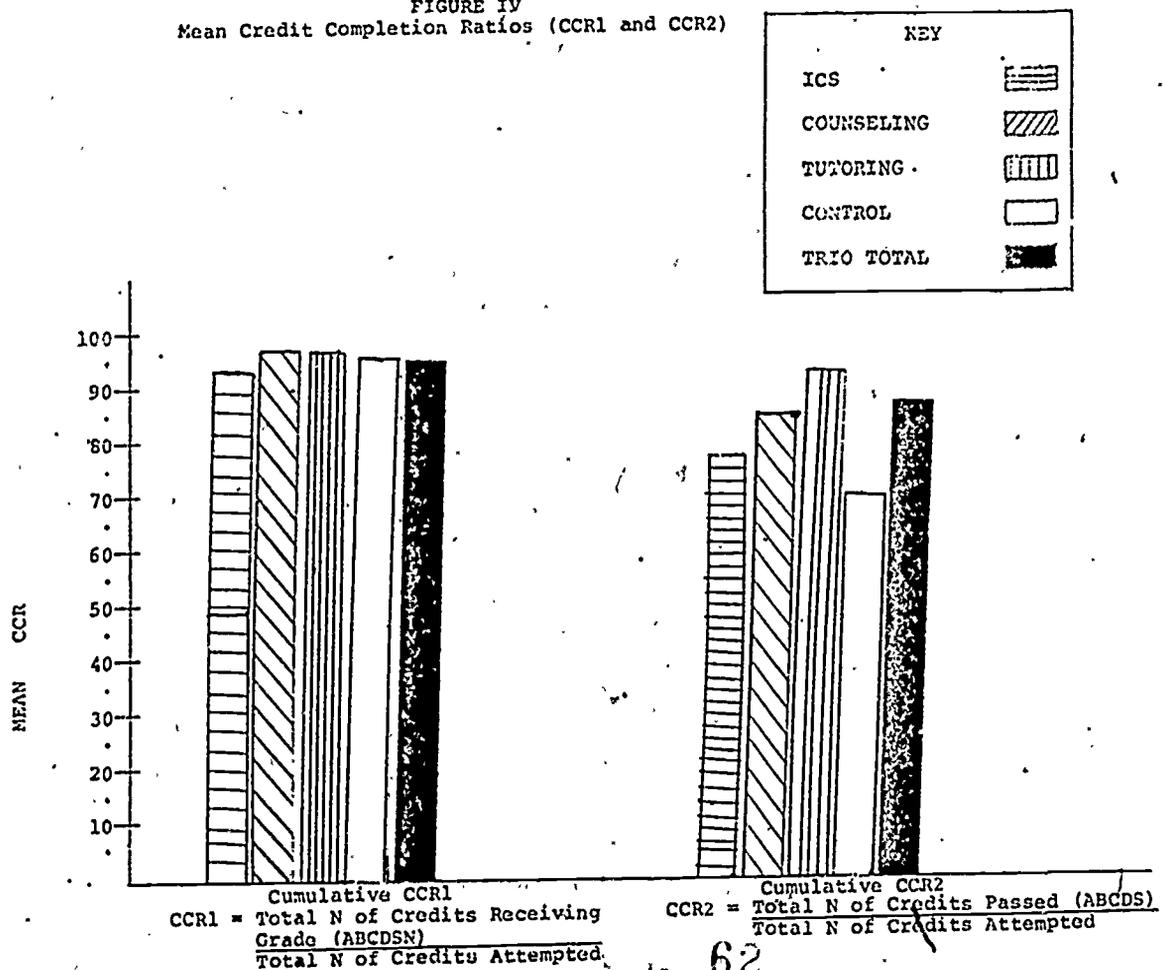
Mean Credit Completion Ratios (CCR) and Mean Credits; Attempted, Receiving Grade, and Passed for Each Group of Students for Each Quarter and Cumulatively

	ICS	Counseling	Tutoring	Control	TRIO total
Fall Quarter					
N of Students	95	71	77	51	243
CCR1	.97	.97	.99	.97	.98
CCR2	.84	.83	.97	.80	.85
\bar{X} Credits Attempted	14.08	12.92	13.26	13.12	13.48
\bar{X} Credits Receiving Grade	13.72	12.49	13.19	12.71	13.19
\bar{X} Credits Passed	11.80	10.77	12.88	10.55	11.84
Winter Quarter					
N of Students	91	62	73	44	226
CCR1	.89	.96	.97	.93	.94
CCR2	.73	.85	.93	.66	.89
\bar{X} Credits Attempted	13.53	12.97	13.45	13.02	13.27
\bar{X} Credits Receiving Grade	12.00	12.40	13.07	12.07	12.46
\bar{X} Credits Passed	9.86	11.03	12.55	8.93	11.05
Spring Quarter					
N of Students	79	55	67	39	201
CCR1	.89	.97	.93	.95	.92
CCR2	.74	.85	.84	.59	.81
\bar{X} Credits Attempted	11.63	12.76	12.63	12.92	12.27
\bar{X} Credits Receiving Grade	10.34	12.35	11.69	12.26	11.34
\bar{X} Credits Passed	8.62	10.82	10.66	7.62	9.90
Cumulative					
N of Students	101	71	77	52	249
CCR1	.93	.96	.96	.95	.95
CCR2	.78	.85	.92	.70	.84
\bar{X} Credits Attempted	33.95	34.00	37.13	33.50	34.95
\bar{X} Credits Receiving Grade	31.45	32.61	35.49	31.87	33.00
\bar{X} Credits Passed	26.40	28.92	33.97	23.62	29.46

CCR1 = $\frac{\text{Total N of Credits Receiving Grade (A,B,C,D,S,N)}}{\text{Total N of Credits Attempted}}$

CCR2 = $\frac{\text{Total N of Credits Passed (A,B,C,D,S,N)}}{\text{Total N of Credits Attempted}}$

FIGURE IV
Mean Credit Completion Ratios (CCR1 and CCR2)



CHAPTER VI
STUDENT OUTCOMES: NON-ACADEMIC

Introduction

In order to determine student growth in non-academic areas, several student outcome measures were collected in addition to the more traditional indicators of academic success described in Chapter V (GPA, credit completion, retention rates). These non-academic measures included changes over the year in: self esteem, self assessment of skills, and academic aspirations.

The non-academic outcomes reveal more about students in a broad way, about their expectations, feelings of self worth, and dreams. All of these things have an impact on how well students perform academically. In general, program goals are geared toward increasing self esteem, positive self evaluation of skills and academic aspirations.

Method

Subjects

The subjects in this study represent four groups:

- a) ICS Students - all students enrolled in the Integrated Course of Study (ICS) were asked to participate in the study;
- b) Counseling Students - all General College freshmen who were eligible for the Special Services Program (by low income, academic need, handicapped or minority status) and utilized the counseling facilities two or more times during the academic year were included in the study;
- c) Tutorial Group - all General College freshmen who were eligible for Special Services and made use of direct personal tutoring two or more times. Some of these students also received counseling;
- d) Control Group - a control group of 57 students was randomly selected from General College freshmen eligible for Special Services using the low income criteria, and who had not participated in the TRIO/Special Services Program or other retention program also operating at General College.

Procedure

Data were collected Fall quarter through the regular General College orientation program and again at the end of the academic year through a mailed survey. Students completing the post survey were paid \$5.00 for their participation.

Instruments

The instruments used in this study are:

- 1) Self Esteem (administered as a pretest and retrospective pre/post test))

The Janis Field feelings of inadequacy scale is used to measure self esteem. It is probably the most widely used non-commercial scale (Robinson, Shaver, 1973) of self esteem. The twenty-item version developed by Eagly (1967) and used in this study is balanced for response bias with the inclusion of items both positively and negatively stated. The popularity of the Janis-Field inventory has led to the accumulation of validity information sufficient to justify its use.

At the end of the year, a retrospective pre/post test for self esteem was administered. This methodology asks students to respond to each item with the current feelings (post test) and as they felt prior to enrolling in college (retrospective pre test). In this way, a perceived change in self esteem can be determined. Research on the effectiveness of this technique suggests that it may be more accurate than a traditional pre and post test (Howard, 1979). The retrospective pre test data was not used as a substitute for pre data, but provides data for additional analysis. Much more research must be conducted on this technique before it could be used validly as a substitute for pre test data.

2) General College Student Survey (GCSS, selected items)

The General College Student Survey was administered as a pre test during regular GC orientation.

For this analysis two items were selected to be looked at on a pre/post test basis:

- a) academic aspirations: What is the highest academic degree you wish to obtain?
- b) self-assessment of skills: How well prepared do you feel in the following areas?
 - 1) Mathematics skills
 - 2) Writing skills
 - 3) Reading skills
 - 4) Study skills (note taking, text reading, outlining)
 - 5) Musical and artistic skills
 - 6) Library research skills
 - 7) Time management skills
 - 8) Science
 - 9) History, social science
 - 10) Art, music, literature appreciation
 - 11) Decision-making skills
 - 12) Career and college major plans

Analysis and Limitations of the Data

In this study, the main questions of interest involve the amount and direction of change in each of these variables: self esteem, self assessment of academic and non-academic skills, and academic aspirations. For this reason, it is necessary to obtain both pre and post data for each subject. Unfortunately, the number of subjects responding to both pre and post measures was quite low. Only 38% of all TRIO students and 28% of the control group completed both pre and post administration. Due to this low

response rate, analyses of the data are strictly descriptive in nature and no attempt to generalize will be made beyond speculation about patterns and implications of the data for further research.

Results

Self Esteem

Student responses to the Janis-Field inventory measuring self esteem are summarized in Table I. The mean pre test scores for TRIO and Control group students do not differ greatly. There is some indication of wider variation within the TRIO groups with ICS students displaying higher entry levels of self esteem than either Tutoring or Counseling students with Counseling students reflecting the lowest level of all groups.

On the post test scores, all groups showed a positive growth in mean self esteem scores. ICS and Counseling groups show the most growth and, overall, TRIO students have slightly higher self esteem at the end of the year than the Control group.

For the retrospective pre test averages, all groups set retrospective pre test scores at levels below their post test averages, indicating an awareness of positive growth in self esteem.

Two types of change scores were identified, actual changes in self esteem (post test scores - pre test scores), and perceived changes in self esteem (post test scores - retrospective pre test scores). All cases, actual and perceived, indicate positive growth in self esteem over the year.

Subjects were very accurate in their ability to recall their feelings after a period of nine months (i.e., difference between actual and perceived). The ability to recall feelings was not consistent across groups. Tutoring students were the most accurate. Control group and ICS students were more pessimistic, recalling lower self esteem than was actually reflected in pre test scores, and Counseling students were more optimistic, recalling higher levels of esteem than were evident in the pre test scores.

Self Assessment of Academic and Non-Academic Skills

The pre and post averages for student self assessment are presented in Table II.

Pre test self assessments show Counseling and Control groups with the most confidence in their overall preparedness and ICS and Tutoring groups with less confidence.

Post test self assessments show ICS and Counseling groups with increased confidence in all areas, but with Counseling and Control group scores lower on post tests in four areas from where they stood on the pre test.

The areas showing greatest improvement for all groups were math and study skills. The least improvement occurred in music and art skills, and art, music, and literature appreciation.

The ICS students exhibit the most marked improvement in confidence, particularly in math, study skills, library and research skills, and time management.

Changes in Academic Aspirations

Pre and post levels of academic aspirations are displayed in Table III.

- Pre test aspirations appear similar for TRIO groups, but higher for Control group students
- Post test aspirations show higher levels of aspiration in all groups with the exception of Tutoring students. Tutoring students broke down into two groups, with a 16% increase in those aspiring toward certificates and a 20% increase in those aspiring toward masters and doctorates.
- Control group students exhibit higher aspirations on pre tests, and ICS and Control students show highest aspirations on the post test.

Discussion

While the results in this study are extremely speculative due to the low response rates, all students appear to be heading toward the desired outcomes. Specifically, there are positive changes in self esteem, self assessment of abilities and academic aspirations. Differences between TRIO and Control group students are not evident. ICS students alone appear to be making the most positive gains in all areas.

The area of non-academic factors influencing academic success in disadvantaged students may be a valuable area for continued research. Recommendations for further exploration include: using non-academic factors as predictors of success, growth in self esteem and its relationship to academic achievement, and the role of self assessment and aspirations in academic success.

TABLE I

Mean Pre Test, Retrospective Pre Test, and Post Test Scores
for Each Group on the Janis-Field Self Esteem Scale
(on a 5-point scale where 5 = high self esteem and 1 = low self esteem)

	ICS (N = 42)	Counseling (N = 25)	Tutoring (N = 25)	Control (N = 15)	TRIO Total (N = 92)
Pre Test Mean Score	3.72	3.55	3.34	3.52	3.57
Retrospective Pre Test Mean Score	3.55	3.64	3.30	3.41	3.51
Post Test Mean Score	4.03	3.87	3.51	3.77	3.84
Actual Changes in Self Esteem. Mean Change Score 1 (Pre Test - Post Test)	+ .31	+ .32	+ .17	+ .25	+ .27
Perceived Changes in Self Esteem. Mean Change Score 2 (Post Test - Retrospective Pre Test Score)	+ .48	+ .23	+ .21	+ .36	+ .33

Note: Includes only students completing both Pre and Post measures.

TABLE II

Changes in Self Assessment of Academic and Non-Academic Skills
 (mean pre and post test ratings on a 3-point scale; 3
 = very well prepared, 2 = fairly well prepared, 1 =
 not well prepared)

	ICS (N = 40)		Counseling (N = 26)		Tutoring (N = 19)		Control (N = 12)		TRIO Total (N = 85)	
	\bar{X} Pre	\bar{X} Post	\bar{X} Pre	\bar{X} Post	\bar{X} Pre	\bar{X} Post	\bar{X} Pre	\bar{X} Post	\bar{X} Pre	\bar{X} Post
Mathematics skills	1.59	2.05	1.73	1.92	1.51	1.89	1.58	2.08	1.62	1.98
Writing skills	1.93	2.38	2.19	2.15	1.68	1.84	2.00	2.08	1.95	2.19
Reading skills	1.98	2.28	2.23	2.42	1.95	2.26	2.33	2.50	2.07	2.32
Study skills	1.59	2.18	2.00	2.19	1.58	1.84	1.83	2.25	1.71	2.11
Music & artistic skills	1.71	1.88	1.92	1.88	1.63	1.64	1.83	1.58	1.76	1.83
Library & research skills	1.37	1.98	1.88	2.00	1.52	1.58	2.00	2.00	1.56	1.90
Time management	1.54	2.20	1.88	1.85	1.63	1.89	2.08	1.83	1.66	2.02
Science	1.66	1.78	1.92	2.00	1.74	2.00	2.08	2.25	1.76	1.90
History, social science	1.83	1.98	2.00	1.96	1.58	1.79	2.08	2.25	1.83	1.93
Art, music, literature appreciation	2.05	2.13	1.96	1.88	1.63	1.74	2.27	2.25	1.93	1.97
Decision making skills	2.15	2.15	2.15	2.23	1.84	2.10	2.16	2.25	2.08	2.16
Career & college major plans	1.98	2.21	2.07	2.00	1.58	2.00	2.25	1.83	1.92	2.10

TABLE III

Changes in Academic Aspirations

	ICS (N = 40)		Counseling (N = 25)		Tutoring (N = 19)		Control (N = 12)		TRIO Total (N = 84)	
	% Pre	% Post	% Pre	% Post	% Pre	% Post	% Pre	% Post	% Pre	% Post
None	3%	0%	4%	0%	5%	5%	0%	0%	4%	1%
Certificate	5%	3%	4%	0%	0%	16%	0%	0%	4%	5%
Associate	8%	3%	8%	28%	11%	0%	25%	8%	8%	10%
Bachelors	43%	28%	48%	24%	47%	47%	42%	33%	45%	31%
Masters	33%	43%	28%	36%	26%	16%	33%	33%	30%	35%
Doctorate	3%	20%	8%	4%	6%	16%	0%	25%	5%	14%
Other	3%	0%	0%	8%	5%	0%	0%	0%	2%	2%

CHAPTER VII
STUDENT SATISFACTION SURVEY AND COURSE EVALUATIONS

Student Satisfaction Survey

To give students the opportunity to personally evaluate the TRIO Program, ICS students were asked to respond to a Student Satisfaction Survey. The survey was constructed through Staff selection from a pool of items based on program goals and objectives.

Method

The survey was administered to ICS students as part of the end-of-the-year post testing process. Of the ninety-seven (97) students contacted, fifty-five (or 57%) responded to the survey.

Results

The questions and results are displayed in Table I. In general, students were satisfied with the TRIO Program, as can be seen in item 8 (overall, I am satisfied with the TRIO Program, with a mean of 3.78 on a 5-point scale, 5 indicating strong agreement). They would also strongly recommend the program to friends and relatives (item 9, mean 4.46). The staff was viewed as very supportive and accessible (items 3 and 4, means 4.57 and 3.96 respectively).

On a personal note, students felt they were more confident and motivated, had greater organizational and long range planning skills, and were more aware of University and community resources as a result of being in the TRIO Program (items 2, 10, 5, 7, and 11; means 3.48, 3.64, 4.26, 3.43 and 4.07 respectively).

Conclusions

The students responding to the survey gave their vote of confidence to the TRIO Program. Statistically, this response may not be generalized to the entire ICS population due to the relatively low response rate.

TABLE I

Student Satisfaction Survey 1981-1982
Results

Note: When this survey was administered, 50% of the items were negatively stated and 50% positively stated. To facilitate interpretation, the results are displayed using all positive statements, with statistics adjusted accordingly.

All items used the following scale:

strongly disagree	disagree	agree	strongly agree	very strongly agree
1	2	3	4	5

	n	mean	median	mode
1. The TRIO Program helped me to stay in school.	53	3.32	3	3
2. I have more confidence in myself as a student now than I did last fall as a result of the TRIO Program.	54	3.48	3	3
*3. The TRIO staff has been very supportive of me in my efforts as a student.	53	4.57	5	5
4. The TRIO staff has been accessible to me when I needed help.	54	3.96	4	5
*5. My skills in organization have improved this year from being in the TRIO Program.	53	4.26	4	4
*6. The TRIO Program has helped me to make career plans.	54	4.11	4	5
7. My long-range planning skills have improved this year as a result of participating in the TRIO Program.	54	3.43	4	3
8. Overall, I am satisfied with the TRIO Program.	55	3.78	4	5
*9. I would recommend the program to friends and relatives.	54	4.46	5	5
*10. I am more motivated to continue school now than I was last fall.	53	3.64	4	4
11. Because of the TRIO Program, I am more aware of University and community resources (such as financial aid, day-care, and student support services) and how to use them.	55	4.07	4	5

*Stated in negative terms on the scale actually used in the evaluation.

Course Evaluations - The Student Opinion Survey

At the close of each quarter, the instructors of TRIO classes and Survival Seminars conducted student opinion surveys regarding class content, presentation, and overall effectiveness. At the minimum, these surveys contained the following questions:

- a) How much have you learned in this course thus far?
- b) All things considered, how would you rate this instructor's teaching in this course?
- c) All things considered, how would you rate this course?

Instructors were encouraged to add additional questions.

The TRIO students rated all of their courses and instructors favorably. Across all TRIO classes, students felt they had learned very much in their courses, with a 3.61 average on a five-point scale (1 = little and 5 = an exceptional amount). Their instructors were rated very good, with an average of 4.02 on a five-point scale (1 = unsatisfactory and 5 = excellent) and the courses were rated good with an average of 3.83 on the same five-point scale.

A sampling of the courses is presented here.

Questions 4 through 15 use the following 7-point scale:

1	2	3	4	5	6	7
strongly disagree	moderately disagree	slightly disagree	slightly agree	moderately agree	strongly agree	most strongly agree

	Mean	Median	Mode	Standard Deviation	Minimum	Maximum
4. The instructor presents the subject matter clearly.	6.45	7,6	7	.68	5	7
5. I have achieved a fundamental grasp of what the course material is about.	6.24	6	7,6	.76	5	7
6. The instructor seems well prepared for class.	6.33	7	7	.63	5	7
7. The instructor is approachable.	6.62	7	7	.76	4	7
8. The instructor clearly defines student responsibilities in the course.	6.31	6,7	7	.75	5	7
9. The instructor gives the impression of respecting students as persons.	6.43	6	6	.67	5	7
10. The instructor provides enough criticism of my work.	6.31	6,7	7	.75	5	7
11. The instructor provides good criticism of my work.	6.42	7	7	.76	5	7
12. The instructor gives encouragement to me as a student.	6.62	7	7	.47	5	7
13. The assignments seem carefully graded.	6.43	7,6	7	.68	5	7
14. The procedures for determining grades were appropriate for this course.	6.22	7,6	7	.85	5	7
15. I can write more effectively as a result of this course.	6.56	7	7	.68	5	7

*This Page 2 used by Collins (1-421).

Questions 4 through 15 use the following
7 point scale:

1	2	3	4	5	6	7
strongly disagree	moderately disagree	slightly disagree	slightly agree	moderately agree	strongly agree	most strongly agree

	Mean	Median	Mode	Standard Deviation	Minimum	Maximum
4. The instructor presents the subject matter clearly.	6.41	6	6	.99	4	7
5. I have achieved a fundamental grasp of what the course material is about.	5.91	6	6	.81	4	7
6. The instructor always had work for me to do.	5.23	6	6	1.4	2	7
7. The instructor is approachable.	6.44	7	7	1.0	3	7
8. The instructor clearly defines student responsibilities in the course.	6.20	7	7	1.1	4	7
9. The instructor gives the impression of respecting students as persons.	6.31	7	7	1.3	1	7
10. The instructor provides enough criticism of my work.	6.22	7,6	7	.94	4	7
11. The instructor provides good criticism of my work.	6.13	6,7	7	.76	5	7
12. The instructor gives encouragement to me as a student.	6.42	7	7	.78	4	7
13. The assignments seem carefully graded.	6.32	7	7	.82	5	7
14. The procedures for determining grades were appropriate for this course.	6.09	6	6,7	.79	5	7
15. I can write more effectively as a result of this course.	6.14	6	6	.76	5	7

*This Page 2 used by Behling (1-411) and Hattenhauer (1-421).

Student Opinion Survey

Course: Writing Lab: Personal Writing 1421
Title Number

Instructor: Hattenhauer

Quarter: Fall 1981
Quarter Year

Number of Students Responding: 23

		Mean	Median	Mode	Standard Deviation	Minimum	Maximum
<p>The first question uses the following 5-point scale:</p> <p style="margin-left: 40px;">. 1 2 3 4 5 little. some much very exceptional much amount</p>							
1. How much have you learned in this course thus far?		3.92	4	4	.80	2	5
<p>Questions 2 and 3 use the following 5-point scale:</p> <p style="margin-left: 40px;">1 2 3 4 5 unsatis- marginal fairly very excellent factory good good</p>							
2. All things considered, how would you rate this instructor's teaching in this course?		3.81	4	4	.64	3	5
3. All things considered, how would you rate this course?		4.00	4	4	.62	3	5

Student Opinion Survey

COURSE: Survival Seminar 1702-5
 Title _____ Number _____
 Instructor: Felland/Harris
 Quarter: Fall 1981
 Quarter Year
 Number of Students Responding: 23

Mean	Median	Mode	Standard Deviation	Minimum	Maximum
------	--------	------	--------------------	---------	---------

The first question uses the following 5-point scale:

1	2	3	4	5
little	some	much	very much	exceptional amount

1. How much have you learned in this course thus far?	3.4	3	3	.77	2	5
---	-----	---	---	-----	---	---

Questions 2 and 3 use the following 5-point scale:

1	2	3	4	5
unsatisfactory	marginal	fairly good	very good	excellent

2. All things considered, how would you rate this instructor's teaching in this course?	3.8	3	3	.59	3	5
---	-----	---	---	-----	---	---

3. All things considered, how would you rate this course?	3.6	3	3	.65	3	5
---	-----	---	---	-----	---	---

Student Opinion Survey

Course: Survival Seminar 1702-6
 Title _____ Number _____
 Instructor: Lawson
 Quarter: Fall 1981
 Quarter Year
 Number of Students Responding: 32

	Mean	Median	Mode	Standard Deviation	Minimum	Maximum
<p>The first question uses the following 5-point scale:</p> <p>1 2 3 4 5 little some much very exceptional much amount</p>						
1. How much have you learned in this course thus far?	3.3	3	3	.80	2	5
<p>Questions 2 and 3 use the following 5-point scale:</p> <p>1 2 3 4 5 unsatis- marginal fairly very excellent factory good good</p>						
2. All things considered, how would you rate this instructor's teaching in this course?	4.2	4	4	.63	3	5
3. All things considered, how would you rate this course?	3.9	4	4	.91	2	5

Student Opinion Survey

Course: Urban Problems 1212
 Title _____ Number _____
 Smith
 Instructor: _____
 Quarter: Fall 1981
 Quarter Year
 Number of Students Responding: 79

Mean	Median	Mode	Standard Deviation	Minimum	Maximum
------	--------	------	--------------------	---------	---------

The first question uses the following 5-point scale:

1	2	3	4	5
little	some	much	very much	exceptional amount

1. How much have you learned in this course thus far?	3.62	4	4	.92	2	5
---	------	---	---	-----	---	---

Questions 2 and 3 use the following 5-point scale:

1	2	3	4	5
unsatisfactory	marginal	fairly good	very good	excellent

2. All things considered, how would you rate this instructor's teaching in this course?	3.83	4	4	.91	2	5
---	------	---	---	-----	---	---

3. All things considered, how would you rate this course?	3.72	4	4	.83	1	5
---	------	---	---	-----	---	---

Questions 4 through 15 use the following 7-point scale:

1	2	3	4	5	6	7
strongly disagree	moderately disagree	slightly disagree	slightly agree	moderately agree	strongly agree	most strongly agree

Number of students responding: 58

	Mean	Median	Mode	Standard Deviation	Minimum	Maximum
4. The instructor clearly presents the subject matter.	5.11	6,5	6	1.6	1	7
5. The readings are meaningful.	5.31	5	6	1.4	1	7
6. Adequate feedback about my performance on tests was readily available.	5.00	5	5	1.6	1	7
7. I have achieved a fundamental grasp of what the course material is about.	5.42	6	6	1.4	1	7
8. I have become more interested in the material of this course.	5.30	6	6	1.64	1	7
9. The instructor is approachable.	5.90	6	7	1.15	3	7
10. The instructor is aware when students are having difficulty understanding.	4.80	5	6	1.55	1	7
11. The instructor provides enough criticism of my work.	4.80	5	17	1.65	1	7
12. The instructor enjoys working with students.	6.10	6	7	.99	3	7
13. The instructor stimulates me to think.	5.98	6,7	7	1.36	1	7
14. I have done all or almost all of the assigned readings up to this point.	4.96	5	5	1.73	1	7
15. The combination of this class with a writing class improved my performance in both classes.	5.40	6	7	1.74	1	7

*This Page 2 used by Smith (1-212)

Student Opinion Survey

Course: General Arts GC 1311/3311, Section 2
 Title _____ Number _____
 Instructor: Jerry Gates
 Quarter: SP 82
 Quarter Year
 Number of Students Responding: 30

Mean	Median	Mode	Standard Deviation	Minimum	Maximum
------	--------	------	--------------------	---------	---------

The first question uses the following 5-point scale:

1	2	3	4	5
little	some	much	very much	exceptional amount

1. How much have you learned in this course thus far?

3.43	4	4	.94	2	5
------	---	---	-----	---	---

Questions 2 and 3 use the following 5-point scale:

1	2	3	4	5
unsatisfactory	marginal	fairly good	very good	excellent

2. All things considered, how would you rate this instructor's teaching in this course?

3.93	4	4	.87	2	5
------	---	---	-----	---	---

3. All things considered, how would you rate this course?

3.41	3	4	.73	2	5
------	---	---	-----	---	---

Student Opinion Survey

Course: Intermediate Algebra

1445-2

Title

Number

Instructor: William Schwabacher

Quarter: SP 82
 Quarter Year

Number of Students Responding: 10

Mean	Median	Mode	Standard Deviation	Minimum	Maximum
------	--------	------	--------------------	---------	---------

The first question uses the following 5-point scale:

1	2	3	4	5
little	some	much	very much	exceptional amount

1. How much have you learned in this course thus far?

3.6 3.5 3 .97 2 5

Questions 2 and 3 use the following 5-point scale:

1	2	3	4	5
unsatisfactory	marginal	fairly good	very good	excellent

2. All things considered, how would you rate this instructor's teaching in this course?

4.3 4.5 5 .82 3 5

3. All things considered, how would you rate this course?

4.0 4 4 .67 3 5

7

88

Student Opinion Survey

Course: Career Planning 1502-5
 Title _____ Number _____
 Instructor: Thomas Skovholt
 Quarter: SP 82
 Quarter Year
 Number of Students Responding: 16

Mean	Median	Mode	Standard Deviation	Minimum	Maximum
------	--------	------	--------------------	---------	---------

The first question uses the following 5-point scale:

1	2	3	4	5
little	some	much	very much	exceptional amount

1. How much have you learned in this course thus far?	3.56	3.5	3	.81	2	5
---	------	-----	---	-----	---	---

Questions 2 and 3 use the following 5-point scale:

1	2	3	4	5
unsatisfactory	marginal	fairly good	very good	excellent

2. All things considered, how would you rate this instructor's teaching in this course?	3.88	4	4	.72	3	5
3. All things considered, how would you rate this course?	3.69	4	3,4	.70	3	5

CHAPTER VIII
SIGN LANGUAGE CLASSES AND HEARING IMPAIRED STUDENTS

by Evelyn Harris and Sherry Read

Introduction

One of the new goals of the TRIO/Special Services Program this year was to heighten the awareness of General College staff and faculty of hearing impaired students and increase the staff's communication skills by offering sign language classes. One of the TRIO counselors, Evelyn Harris, born deaf, recently graduated from General College with a BA degree in Human Services. She offered two sign language classes during the 1981-1982 academic year, one for GC staff and the other for credit through the Arts, Communication, and Philosophy Division of General College.

This section includes a course proposal and evaluation for the Introduction to American Sign Language and the Deaf Community class (level one) offered to General College students. In addition, a summary of interviews conducted with the three hearing impaired TRIO students is presented. These interviews focus on the TRIO/Special Services Program and how it can better meet the needs of deaf students.

Hearing Impaired Students

There were three hearing impaired students who participated in the TRIO program this year.

Robert, 40 years old, is married with three daughters, both wife and daughters also deaf. Originally, Robert is from Faribault, Minnesota, where he attended a school for the deaf through high school. Currently, he works for the Minnesota Deaf Services Division acting as a liaison between the state legislature and the deaf community. As a result of this work he is interested in studying, writing, and politics. Because Robert works full time, he is now taking night school classes.

Kevin is twenty-five years old. He is originally from South Dakota where he attended a school for the deaf. After high school, Kevin spent some time working in a factory. He is interested in art and also chemical dependency counseling as possible careers.

Gary is twenty-eight years old and recently became hard of hearing as a result of an auto accident. At the time of the accident, he was working for Univac, although he is presently unemployed and living with his parents. He is interested in pursuing photography as a possible career. Gary left school last winter and spent some time traveling. He is no longer in school for financial reasons.

These students were interviewed to find out how they felt about the TRIO program and the extent to which it met their needs.

On the positive side, they felt that the TRIO program was helpful and the staff supportive. The program enabled them to feel more comfortable on campus and with other students.

Some ideas for the program included:

- more counseling, possibly small group counseling for deaf students only,
- more enthusiasm in Survival Seminars, especially in afternoon classes,
- deaf teachers for deaf students so that students can communicate in sign language without interpreters,
- greater awareness stimulated in TRIO staff and students to special needs of deaf students, especially in understanding sign language as a first language, and
- availability of night classes.

Using performance alone as an indicator of the TRIO program's success in aiding deaf students leaves the program in a less than impressive light. One student is no longer in school, two students completed only one daytime class, and one student accumulated a large number of incomplete grades. We could speculate about causes for the lack of success, but it would perhaps be more profitable to really look at the University services provided to deaf students, their strengths and weaknesses, and how they could be improved.

Suggestions have been made to provide notetaking services for deaf students and extend the interpreter service for both students and deaf faculty and staff.

Course: Introduction to American Sign Language and the Deaf Community (Level I)

Credits: 4

Course Description:

Topics include history of American Sign Language (ASL), the survival of ASL, historical change in ASL signs, ASL as the deaf people's first language, Pidgin Sign English (codes for English), basic sign language, rules for ASL sign structure, body movement, facial expression, and a discussion of common myths associated with deafness. Readiness activities, such as training the eyes and the body, will also be included to help students to "loosen up" and encourage the development of the visual and motor skills needed for ASL. The course will be offered for 4 credits.

Rationale:

1. During my four years as a student in General College, my interpreters were constantly asked by hearing students where they could learn sign language. There is a strong interest among students in General College to learn sign.
2. There is an increasing number of hearing impaired students in the General College. Many of their hearing peers would like to be able to communicate with them.
3. In the United States, ASL is the third most used language, following English and Spanish. As a second language for students, ASL offers much opportunity for actual use.
4. Learning ASL as a second language will allow students to explore a minority culture in the United States, enhancing their ability generally to understand cultural differences.

Logistics:

1. The course could be taught by one person who has expert ASL skills in language teaching experience and knowledge of the related cultural areas and some linguistics experience. The use of two instructors would be preferable, with one being a native signer and the other having background in linguistics. Again, both would need strong familiarity with deafness and would need some teaching experience. Precedence for the "native-linguistics" co-teaching method is found at some institutions and has proven to be very successful.
2. Four hours a week, two hours per day for two days a week, would seem to be a sufficient amount of time for an introductory course.
3. From my past teaching experience I would recommend A Basic Course in American Sign Language by Tom Humphries, Carol Padden, and Terence J O'Rourke (T. J. Publishers, 1980), as the reference text for signs. The second text would be Sign Language and the Deaf Community by Charlotte Robbin Battison (National Association of the Deaf, 1980).

Objectives:

1. To learn basic American Sign Language at a beginning level.
 - A. Vocabulary
 - B. Syntax
 - C. Chereemes
2. To identify historical origins and change in ASL signs.
 - A. Compare older signs (around 1910) to modern signs today
 - B. Tendency to centralization
 - C. Tendency to fluidity, smoother and "easier" to sign
 - D. Tendency to higher visibility
3. To develop skill at a basic level for communication with hearing impaired people.
4. To strengthen the ability of hearing students to socialize with their hearing impaired peers.
5. To learn the importance of non-verbal cues in ASL.
 - A. Facial expression
 - B. Body language
 - C. Use of space
 - D. Body shift
6. To identify common myths associated with deafness.
 - A. All hearing-impaired persons have the same basic disability?
 - B. A good hearing aid can help any hearing impaired person understand the spoken word?
 - C. With good teachers and practice, the average deaf person can learn to lip-read and speak well enough to take part in a casual conversation?
 - D. Deaf people have sharper vision than people who can hear normally?
 - E. Certain personality traits can be attributed to the deaf as a group?

Assignments:

1. Read Sign Language and the Deaf Community, by Charlotte Baker and Robbin Battison.
2. Learn sign language with A Basic Course in American Sign Language, by T. Humphries, C. Padden, and T. J. O'Rourke.

Evaluation of Students Based On:

1. Quizzes
2. Mid-Quarter
3. Final Exam
4. Attendance

Course Evaluation

The instructor will develop an evaluation form based partly on standardized models and partly designed to fit the unique needs of a course in a visual language. The evaluation will be used as a learning tool for the instructor to assess the course in terms of how it can be improved for future course offerings.

Final Evaluation

GC 1468 Special Topics. An Introduction to American Sign Language and the Deaf Community. Spring 1982.

Number of Students Responding: 24

Introduction:

Students were asked to rate (on a five-point scale) several dimensions of GC 1468. Specifically, the topics examined were: overall course, instructor, assistant, speakers, textbooks, handouts, exams student's motivation, and movies.

In addition, students responded to a number of open-ended questions concerning their likes and dislikes in the course as well as their ideas for improvement. Students also examined their understanding of deafness and sign language.

Student Opinion Survey Supplement:

1. The whole course

1/ _____	/Unsatisfactory	N = 24
2/ _____	/Fair	Mean = 4.38
3/X _____	(1)/Good	Median = 4
4/XXXXXXXXXXXXX	(13)/Very Good	Mode = 4
5/XXXXXXXXXXXXX	(10)/Excellent	

2. The instructor's ability to get you interested in the subject matter

1/ _____	/Unsatisfactory	N = 24
2/ _____	/Fair	Mean = 4.79
3/X _____	(1)/Good	Median = 5
4/XXX _____	(3)/Very Good	Mode = 5
5/XXXXXXXXXXXXXXXXXXXXX	(20)/Excellent	

3. The instructor's clarity and organization in teaching this course

1/ _____	/Unsatisfactory	N = 24
2/ _____	/Fair	Mean = 4.46
3/X _____	(1)/Good	Median = 4.5
4/XXXXXXXXXXXXX	(11)/Very Good	Mode = 5
5/XXXXXXXXXXXXX	(12)/Excellent	

4. The instructor's teaching of this course

1/ _____	/Unsatisfactory	N = 24
2/ _____	/Fair	Mean = 4.83
3/ _____	/Good	Median = 5
4/XXXX _____	(4)/Very Good	Mode = 5
5/XXXXXXXXXXXXXXXXXXXXX	(20)/Excellent	

5. The instructor's use of examples and illustrations

1/	/Unsatisfactory	N = 24
2/	/Fair	Mean = 4.71
3/	/Good	Median = 5
4/XXXXXX	(7)/Very Good	Mode = 5
5/XXXXXXXXXXXXXXXXXX	(17)/Excellent	

6. The instructor encouraged questions and discussion

1/	/Unsatisfactory	N = 24
2/	/Fair	Mean = 4.75
3/	/Good	Median = 5
4/XXXXXX	(6)/Very Good	Mode = 5
5/XXXXXXXXXXXXXXXXXX	(18)/Excellent	

7. The instructor's rapport with you as a student

1/	/Unsatisfactory	N = 24
2/X	(1)/Fair	Mean = 4.33
3/XXX	(3)/Good	Median = 5
4/XXXXXX	(7)/Very Good	Mode = 5
5/XXXXXXXXXXXXXXXXXX	(13)/Excellent	

8. The overall performance of the instructor's assistant

1/	/Unsatisfactory	N = 24
2/	/Fair	Mean = 4.79
3/X	(1)/Good	Median = 5
4/XXX	(3)/Very Good	Mode = 5
5/XXXXXXXXXXXXXXXXXX	(20)/Excellent	

9. The effect of the movie shown in this course

1/	/Unsatisfactory	N = 24
2/XX	(2)/Fair	Mean = 4.04
3/XXX	(3)/Good	Median = 4
4/XXXXXXXXXX	(9)/Very Good	Mode = 5
5/XXXXXXXXXX	(10)/Excellent	

10. The effect of the speaker

1/	/Unsatisfactory	N = 22
2/XXX	(3)/Fair	Mean = 3.41
3/XXXXXXXXXX	(8)/Good	Median = 3.5
4/XXXXXXXXXX	(10)/Very Good	Mode = 4
5/X	(1)/Excellent	

11. The effect of the textbook Sign Language and the Deaf Community

1/	/Unsatisfactory	N = 23
2/XX	(2)/Fair	Mean = 3.61
3/XXXXXXXXXX	(8)/Good	Median = 4
4/XXXXXXXXXX	(10)/Very Good	Mode = 4
5/XXX	(3)/Excellent	

12. The textbook A Basic Course in American Sign Language.

1/	/Unsatisfactory	N = 23
2/XX	(2)/Fair	Mean = 4.09
3/XXX	(3)/Good	Median = 4
4/XXXXXXXXXX	(9)/Very Good	Mode = 4,5
5/XXXXXXXXXX	(9)/Excellent	

13. The quality of the handouts

1/	/Unsatisfactory	N = 23
2/X	(1)/Fair	Mean = 3.70
3/XXXXXX	(7)/Good	Median = 4
4/XXXXXXXXXXXXXX	(13)/Very Good	Mode = 4
5/XX	(2)/Excellent	

14. The overall quality of exams

1/	/Unsatisfactory	N = 23
2/	/Fair	Mean = 4.04
3/XXXX	(4)/Good	Median = 4
4/XXXXXXXXXXXXXX	(14)/Very Good	Mode = 4
5/XXXXX	(5)/Excellent	

15. Your own motivation to do as well as you could in this course

1/	/Unsatisfactory	N = 23
2/	/Fair	Mean = 4.00
3/XXXXXX	(6)/Good	Median = 4
4/XXXXXXXXXXXXXX	(11)/Very Good	Mode = 4
5/XXXXXX	(6)/Excellent	

16. The instructor's pace of instruction

1/X	(1)/Too slow	N = 23
2/X	(1)/Slow	Mean = 3.13
3/XXXXXXXXXXXXXX	(16)/Moderate	Median = 3
4/XXXX	(4)/Little too fast	Mode = 3
5/X	(1)/Fast	

Summary of Answers to Open-Ended Questions

1. In what ways and how much do you feel this course has contributed to your education?
 - A. The most frequent responses included: (mentioned more than 5 times)
 - broaden horizons
 - realize other cultures/communities
 - able to communicate with deaf people
 - would like to take more classes
 - helped me lots/contributed a lot to my education
 - B. Additional responses: (mentioned by 4 or fewer students)
 - importance of language
 - aware of the problems deaf people face in education
 - rekindled interest in sign language
 - don't pity deaf people any longer
2. What were things you liked best about this class? Least about this class?
 - A. Liked best:
 1. The most frequent responses (5 or more):
 - Evie and Karen are so very personable, cheerful and alive
 - enjoyed the instructor as she is friendly and enthusiastic
 2. Less frequent responses (4 or fewer):
 - excellent class
 - discussions where everyone got involved
 - right size (students)
 - group work/practicing signs
 - learning a new language
 - lectures on the Deaf Community
 - movie
 - instructor shared her experiences
 - instructor made everyone feel comfortable about signing and making mistakes
 - like to learn how to express myself with deaf people
 - B. Liked least:
 1. The most frequent responses (5 or more):
 - not enough time/need more class hours
 2. Less frequent responses (4 or fewer):
 - need more speakers
 - levels of different students' knowledge of signing
 - movie
 - time of day

B. Liked least, continued

- didn't like going so fast
- apathy of some students and few not knowing the assignment
- people would make more of an effort to be on time
- not having the alphabet required more practices

3. List two or three ways the class has helped you in your awareness of understanding deafness.

Most students felt that this course really helped them to be more aware of the Deaf Community and the values of Deaf Culture. They also realized that American Sign Language is a separate language because it has its own structure and rules like other languages. Some students developed a new understanding as to why deaf people want to protect their language and how ASL is closely related to the Deaf Culture.

A few students mentioned that they now are sensitive to the needs of deaf people in the educational settings and other places. They gained insight to the specific problems of deaf people and the different ways that deaf people have been oppressed in the past.

Two students mentioned that now some "myths" about deafness have been cleared up. Two students mentioned that this course helped them to realize that deafness does not have to be a handicap.

4. Do you feel you now have a better understanding of sign language?

Eighteen students felt that they had a better understanding of sign language from this course.

Other students mentioned:

- a basework to continue building on
- with work, I can reach a level of understanding
- realize that signs fit with the movement and expression - not only the plain sign
- gave me an understanding of ASL and the differences between ASL and signed exact English
- yes, very difficult at first to learn, but with practice and continuous work it becomes more natural and easy.
- used to think sign language was very awkward, but now I think it is a very beautiful language
- can see why deaf people would like to keep it in their culture

5. Suggestions to improve the course

The most frequent responses (5 or more) were related to the length of class and practice time. Most students would prefer a longer class time allowing them more opportunity for individual and group practice.

The time constraint limited:

5. Continued

- discussions after a lecture
- opportunity for teacher to work with small groups based on students' expressive and receptive skills
- activities such as field trips, skits
- the addition of silent days
- more speakers (most speakers wanted more than 45 minutes to allow for their presentation and discussion time)

CHAPTER IX
SUMMER INSTITUTE

Introduction

The University of Minnesota Summer Institute is a six week program designed to help low-income minority students bridge the gap between high school or junior college and university life. This program is a cooperative effort between the Office of Minority and Special Student Affairs (OMSSA), the College of Liberal Arts (CLA), the University Summer Session, General College, and the TRIO/Special Services Program. The Summer Institute provides new students with a head start in college prior to fall quarter, where they may sharpen their basic academic skills and familiarize themselves with the university campus and its inner workings. Students receive orientation, individual counseling, and classroom instruction in basic skills, and tutoring if necessary. All of the courses are taken for college credit. Thirty-two students received referrals to other agencies for health, employment and legal services.

1982 Student Demographics

During the Summer of 1982, one hundred and thirty-one students participated in the Summer Institute. One hundred and eighteen (90%) of the students met the federal low income criteria. Fifty-six percent were male and forty-four percent female. The ethnic composition of the students was as follows:

<u>Ethnic Group.</u>	<u>Number</u>	<u>% of Total</u>
Asian American	49	37%
Black	54	41
Hispanic	19	15
American Indian	9	7
White	0	0
	<hr/>	<hr/>
Total	131	100%

Of the one hundred and thirty-one students, one hundred and five (80%) were educationally deprived, one was physically handicapped (1%) and one hundred and twenty-six (96%) had a cultural need. All of the 131 students completed the full summer program.

An extensive evaluation of this program and student progress during the 1982-1983 academic year is being conducted by Bob Etcioni of the Office of Minority and Special Student Affairs. The evaluation results will be available through him in late 1983.

CHAPTER X
CASE STUDIES AND EXIT REVIEWS

Case Study Interviews Conducted by Gary Simonson

Introduction

The General College Special Services evaluation relies heavily on the use of aggregate data which compares groups of students on a number of variables. This is also true of most research and evaluation. While this type of information is useful, by its very nature, it forces us to lose track of the individual. For this reason, the evaluation will also include a more in-depth look at three individual TRIO students (using a case study or n=1 methodology), so that a more well-rounded view of the program can be obtained. In addition, for the reader who is not familiar with the type of student that Special Services program typically serve, these case studies may provide some insight into the background of Special Services students.

Method

Subjects: The three subjects interviewed in this section, a male and two females, were selected based on staff recommendations of students who were fairly representative of the ICS/TRIO population.

Procedure: The subjects were interviewed using a semi-structured/open interview format. The primary questions of interest were:

- 1) Please describe yourself. What are your hobbies, educational background, hopes for the future, etc.?
- 2) How did you feel about school last fall when you started the TRIO program? Did your feelings change over the year?
- 3) Are you still in school? What are your plans?
- 4) What do you think about the TRIO program? Good points? Things that need improvement/change/addition?

The text of these interviews was then summarized into the following narratives.

Case Studies

Pamela Zappa is thirty years old, has two children, and is a soon-to-be single parent. She participated in the TRIO program primarily in Fall '81 working with the HELP Center parenting group. She found that:

TRIO gave me a base to start my schooling on, helped to get to know people and make friends. It was nice to find out there were many students like myself ... to have unity with ... (and) it helped with the classes that I took. I could work (with) and talk about classes with other TRIO students.

Pamela is working as a teaching assistant this year for the TRIO Urban Problems class. She is in her sixth quarter of school, but has not decided upon a major yet, although she has some interest in the "University Without Walls" program. In her spare time, Pam likes to play the piano, read, and write.

Pam completed 32 credits with a 3.5 GPA during the 1981-82 academic year for a total of 56 credits at the University of Minnesota.

Percy McCoy lives in Cottage Grove, Minnesota, with his grandmother. He is single and has no children. He is currently attending Northwest Bible College. Eventually, Percy would like to become an evangelist, but until then he wants to get a BA in ministry (with a minor in business) and work for a non-profit organization.

When Percy entered college,

My expectations were high. I began waiting for things to unify. Being religious, there weren't many chances to meet friends, and my social life was lacking. TRIO helped in having (a) feeling of unity and helped me fit in and realize there were other people in the same boat.

The primary benefits of the program for Percy were that "... the program helped me, and prevented me from sticking my neck out too much."

He also felt that the program helped him to pace himself so that he didn't "take too big of a load and get washed under by U of M circumstances."

In terms of program improvement, Percy recommended more support and monitoring of students' activities and direction and "an incentive program to help students achieve goals and monitor direction."

Overall, he felt the program was significant in getting him started at such a large university. The TRIO program offered encouragement and really made the difference in coming straight out of high school.

During the 1981-82 academic year, Percy completed 36 credits with a 2.39 GPA.

Gussie Willis is a single parent with one child. She is originally from Saint Louis, Missouri. She will be a junior winter quarter of the 1982-83 academic year with a major in public health and computer science.

Gussie says that "TRIO helped me a lot because I was out of school (for) ten years. It helped me to start studying again. Advisors were helpful with class scheduling. Also, tutoring helped with class problems."

For the 1981-82 academic year, Gussie obtained a GPA of 2.33 for twenty-one credits.

After talking with these students, it becomes clear that these are people who feel good about themselves. They know who they are. These are some of the success stories. Now, what about students who did not complete the first year?

Exit Reviews

At the end of Spring quarter, each Survival Seminar counselor was asked to report on students who left the ICS program. For the 19 (19%) ICS students who left school before the end of Spring quarter, the following

reasons were given for leaving:

<u>Reason for Leaving School</u>	<u>Number</u>	<u>% of Total ICS Students (N = 102)</u>
Parental Reasons	12	12%
Financial	4	4%
Attend Another School	3	3%
	<hr/>	<hr/>
\ Total	19	19%

All students leaving the program had contact with their advisors before withdrawing from the University.

Conclusions

Obviously, the students described in these case studies did well in school. They feel that the TRIO Program played a major role in their academic success. While this experience does not reflect the experience of all TRIO students, it does provide some insight into the type of student served by Special Services and how they may benefit from the program.

For students leaving the ICS program, it is encouraging to note that all students had contact with advisors prior to leaving school and that a very high percent of the total group completed that first year at the University.

Introduction/Background

The 1980-81 academic year was the first year of operation for the TRIO/Special Services Program. During the second year of the program, the opportunity is available to further test the program's effectiveness by tracking TRIO and Control students in their academic progress after completing the TRIO program. The major questions of interest continue to be: Did the students stay in school, and how successful were they, while not receiving special services?

After participating in the program for their freshman year, the 1980-81 TRIO students received grades which were comparable to a low income control group (who did not receive special services), even though they began school with less well developed basic skills (TRIO GPA, N's excluded = 2.79, Control GPA = 2.88). In addition, TRIO/Special Services students were more likely to stay in school (Fall '80 to Spring '81) than the control group (84% versus 68% respectively). TRIO students also completed a higher proportion of credits than did the control group (.78 versus .71 respectively) during the 1980-81 school year.

This section takes a look at TRIO students during their second year at the University of Minnesota.

MethodSubjects

The subjects of this study include the 1980-81 TRIO/Special Services students and a low income Control group randomly selected from TRIO-eligible students who did not receive special services. These students were broken down into four groups based on services utilized:

- 1) Integrated Course of Study (ICS)
- 2) Counseling students
- 3) Tutoring students
- 4) Control group students.

Procedure

The University files were checked each quarter to record the following information:

- 1) Registration status
- 2) Credits attempted (all)
- 3) Credits receiving grade (A-N)
- 4) Credits passed (A-D, S)
- 5) Course grades.

At the close of the 1981-82 academic year, this information was analyzed to determine: retention rates (percent of students in school), grade point average (GPA, two ways, with N's excluded and N's included, N = 0), and credit completion ratios (CCR1 = proportion of credits receiving grades, CCR2 = proportion of credits passed). The calculation of these statistics is described in detail in Chapter V.

Results

Retention Rates

The retention rates for TRIO and Control group students are presented in Table I. No statistically significant difference was found between groups for the proportion of students remaining in school all three quarters of their second year ($\chi^2 = 4.86$, $df = 3$, $\alpha = .05$). Twenty-seven percent (27%) of the Control group students and twenty-nine percent (29%) of TRIO students registered all three quarters. The Counseling group had the lowest retention rate (22% all three quarters with the Tutoring group maintaining the highest retention rate (36% all three quarters). Overall, more TRIO students did register each quarter than the Control group, indicating that some students took one or more quarters off during the year.

Grade Point Average

Cumulative grade point averages for each group are presented in Table II. For GPA (with N's included, $N = 0$), the Counseling group received the lowest mean (GPA = 1.62), with ICS receiving the highest (GPA = 2.07). For GPA (with N's excluded) very little difference was found between groups. In both grade point calculations, the Control group performed slightly better than the TRIO students.

Credit Completion

Credit completion data for each group are presented in Table II. The Control group received grades for 95% of the credits they attempted (CCRI), with ICS and Counseling students at 91% and Tutoring students receiving grades for 93% of their courses.

ICS students and Tutoring students both received passing grades for 74% of their credits, but the Counseling students only received grades for 59% of their classes, bringing the TRIO total to 70% compared to the Control at 71%.

The Control group also attempted and passed slightly more credits during the academic year than TRIO students (Attempted: Control = 28.4, TRIO = 26.36; and Passed: Control = 21.14, TRIO = 19.94).

Discussion

While TRIO students were more successful than would have been anticipated during their first year at the university, they did not fare as well during the second year when they were not receiving special services. More TRIO students began school for a second year than the control, and a higher proportion registered each quarter. However, overall, only 29% of TRIO students maintained continuous registration during their second year compared to 27% Control group students. There were no significant differences between TRIO and Control group grades, credit completion ratios or retention rates.

Although these statistics do not try to account for students transferring to other institutions, the evidence here indicates that special programs may need to be ongoing rather than short term if the positive results are to be maintained.

TABLE I
Retention Rates

Number and Percent of 1980-81 TRIO Students Who Remained Registered at University of Minnesota in 1981-82 by Quarter as Compared to Low Income Control Group

		ICS Total N = 63	Counseling Total N = 88	Tutoring Total N = 97	Control Total N = 59	TRIO Total N = 248
Fall '81	N %	37 59%	37 42%	58 60%	27 46%	132 53%
Winter '82	N %	26 41%	30 34%	54 56%	23 39%	110 44%
Spring '82	N %	20 32%	23 26%	42 43%	17 29%	85 34%
All 3 Quarters '81-'82	N %	19 30%	19 22%	35 36%	16 27%	73 29%

TABLE II

Second Year Follow Up
Cumulative Grade Point Average (GPA), Credit Completion Ratio
for 1981-82 Academic Year. Mean Credits Attempted, Receiving Grades, Passed

	ICS	Counseling	Tutoring	Control	TRIO Total
Number of Students	30	37	54	25	121
Cumulative GPA (N's included, N = 0)	2.07	1.62	1.88	1.96	1.86
Cumulative GPA (N's excluded)	2.53	2.49	2.45	2.60	2.48
Credit Completion Ratio 1 (Proportion of Credits Receiving Grade)	.91	.91	.93	.95	.92
Credit Completion Ratio 2 (Proportion of Credits Passed)	.74	.59	.74	.71	.70
Yearly Mean Credits Attempted	29.93	27.62	28.72	29.80	28.69
Yearly Mean Credits Receiving Grade	27.13	25.05	26.72	28.40	26.36
Yearly Mean Credits Passed	22.20	16.24	21.22	21.24	19.94

CHAPTER XII
CONCLUSIONS AND RECOMMENDATIONS

During the 1981-1982 academic year the TRIO/Special Services Program appeared to be successful in meeting its program goals. First, the program offered an opportunity for disadvantaged students to develop the skills necessary to survive in a university setting. Educational success was promoted and a high proportion of students completed their first year in higher education in a creditable academic program. Students became aware of university and community resources. Their educational and career planning and goal setting abilities were expanded, and they were provided with a supportive educational environment. The program also increased awareness on the part of staff and students concerning the communication difficulties the hearing impaired face in higher education.

Based on the evaluation results presented in this document and recommendations drawn from the review of educational research and evaluation, the following recommendations are presented for program improvement:

- investigate counseling students' outcomes further to determine reasons for lower GPA's,
- encourage the use of tutoring services, expand the program to include the math skills tutorial program,
- place greater emphasis on peer tutoring/peer counseling/peer monitoring, especially in tracking student attendance,
- evaluate peer counselors program,
- explore the feasibility of expanding services for hearing impaired students, such as increasing interpreter hours and providing note-taking,
- explore the feasibility of expanding the program to meet the needs of other handicapped students already on campus,
- track the progress of Summer Institute students more closely during the academic year, and
- investigate implementing a program to support second year and upper division TRIO students in continuing their education.

Thank you for participating in the TRIO/Special Services Program and its evaluation efforts by reading this program evaluation. Hopefully, you will find the information presented here interesting and useful. If you have any comments, questions, or suggestions, please contact:

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References by Chapter

Executive
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Additional references follow listing of references by chapter.

Chapters
III, IV
and V

Brothen, T., Romano, J., Robertson, D., and Garfield, J. Norms for the General College Placement Program. General College Research Reports, University of Minnesota, 1981.

Coulson, J. E. Evaluation of the Special Services for Disadvantaged Students (SSDS) Program: 1979-80 Academic Year. Systems Development Corporation, Santa Monica, CA, 1981.

Educational Testing Services. Using and Interpreting Scores on the CGP Self-Scoring Placement Test in English and Mathematics. Princeton, NJ, 1977.

General College 1980/81. Brochure. University of Minnesota, Minneapolis.

General College Skills Centers. University of Minnesota, Minneapolis.

General College Student Support Services, 1980. University of Minnesota, Minneapolis.

Individual Course Syllabi supplied by ICS Instructors, 1980-81, 1981-82.

Read, Sherry. TRIO/Special Services Program Evaluation. Final Report 1980-81, University of Minnesota, General College, Minneapolis, 1981.

Romano, John. The General College Student, Fall 1982. General College Reports, Volume I, No. 2, 1982.

University of Minnesota Bulletin, General College, 1978-81, Minneapolis, Minnesota.

Chapter
VI

Eagly, Alice H. Sex differences in the relationship between self-esteem and susceptibility to social influence. Journal of Personality, 1969, 37, 581-591.

Hovland, C., and Jarvis, I. (Eds.) Personality and Persuasability. New Haven, CT: Yale University Press, 1959.

Howard, G. S. Response shift bias: A problem in evaluation interventions with pre/post self reports. Evaluation Review. Volume 4(1), 93-106, 1980.

Howard, G. S. and Dailey, P. R. Response shift bias: A source of contamination of self report measures. Journal of Applied Psychology, 1979, 64:144-150.

Howard, G. S., Ralph, K. M., Gulanic, N. A., Maxwell, S. W., Nance, D., and Gerber, S. L. Internal invalidity in pretest-post test self report evaluations and a re-evaluation of retrospective pre-tests. Applied Psychological Measurement, 1979, 3:1-23.

Robinson, J. P. and Shaver, P. R. Measures of Social Psychological Attitudes (revised ed.) Ann Arbor, MI: Survey Research Center Institute for Social Research, 1973.

Bibliography

- Adolphus, Stephen. Diagnostic testing and the disadvantaged student: A field in disarray. Paper presented at the Annual Conference on Remedial/Developmental Studies in Post-Secondary Education, 1st Chicago, March 18, 1977. ERIC Document Reproduction Service No. ED140281.
- Albright, Robert L. College and the minority student: Journal of the National Association of College Admissions Counselors, 19(1), 13-16, July, 1974. ERIC Document Reproduction Service No. EJ102382.
- Alemon, L. M., Bowers, J. E. The evaluation of a special educational opportunities program for disadvantaged college students. Research in Higher Education, 1974, 2(2), 151-164.
- Algier, Ann S., A new approach to academic rehabilitation. Educational Record, 53(1), 80-84, Winter, 1972. ERIC Document Reproduction Service No. EJ053595.
- Allen, G. J., and Desaulniers, G. J. Effectiveness of study counseling and desensitization in alleviating test anxiety: A two year follow-up. Journal of Abnormal Psychology, 1974, 83, 186-191.
- Alpert R., and Haber, R. N. Anxiety in academic achievement situations. Journal of Abnormal and Social Psychology, 1960, 61, 207-215.
- Alston, E. M. Changing lives: A study of the life style of six excluded students (Doctoral dissertation, Rutgers State University, 1972). Dissertation Abstracts International, 1972, 33(5-B), 2336.
- Altman, Robert A. (Ed.), Snyder, Patricia O. (Ed.) The Minority Student on the Campus: Expectations and Possibilities. Berkeley, California. Center for Research and Development in Higher Education. Papers presented at the Twelfth Annual College and Self Study Institute (July 6-9, 1970; University of California, Berkeley), 1970.
- Amada, Gerald. Crisis-oriented psychotherapy: Some theoretical and practical consideration. Journal of Contemporary Psychotherapy, Vol. 9, No. (1), pp. 104-111, Summer, 1977.
- Amada, Gerald. The paucity of mental health services and programs in community colleges: Implications of a survey. Journal of the American College Health Association, June, 1975, 23(1).
- Amada, G., and Swartz, J. Social work in a college mental health program. Social Casework, 1972, 53(9), 528-533.
- American Personnel and Guidance Association. Transitional Year Program - UMKC (University of Missouri - Kansas City). American Personnel and Guidance Association, Washington, D.C. ERIC Document Reproduction Service No. ED032588.
- Annual Report of the United Scholarship Service, Inc., 1969. United Scholarship Service, Inc., Denver, Colorado (BBB04138). ERIC Document Reproduction Service No. ED043422.
- Antioch College. The Antioch New Directions Program. A Report to the Antioch Community and to the Board of Trustees from the Steering Committee to Increase Antioch's Pluralism. Antioch College, Yellow Springs, Ohio, 1970. ERIC Document Reproduction Service No. ED041089.
- Arwady, Joseph W., and Chafin, Carl K. The transitional curriculum program: Toward learner independence through developmental education. Paper presented at the National Developmental Studies Conference, Atlanta, Georgia, November, 1980. ERIC Document Reproduction Service No. ED197662.
- Association of American Colleges, Washington, D.C. Project on the status and education of women, On Campus with Women, November 29, Winter, 1981.
- Association of American Medical Colleges. Washington, D.C. Minority Student Opportunities in United States Medical Schools, 1970-1971.
- Astin, Alexander W. The myth of equal access in public higher education. Atlanta. Paper presented at The Conference on Equality of Access in Postsecondary Education, 1975. ERIC Document Reproduction Service No. ED 119551.
- Astin, Helen S. Educational Progress of Disadvantaged Studies. Washington, D.C.: Human Services Press, 1970.
- Astin, Helen S., Astin, Alexander W., Bisconti, Ann S., and Frankel, Hyman H. Higher Education and the Disadvantaged Student. Washington, D.C.: Human Services Press, 1972.
- Averch, Harvey A., Carroll, Stephen J., Donaldson, Theodore S., Kiesling, Herbert J., and Pineus, John. How Effective is Schooling? A Critical Review and Synthesis of Research Findings. Santa Monica: Rand, 1972. ERIC Document Reproduction Service No. ED058495.
- Avery, Anita. Admission, Yes - Retention, No. Journal of the National Association of College Admissions Counselors, 19(4), 17-18, March, 1975. ERIC Document Reproduction Service No. EJ117316.
- Backner, Burton L. and Beckenstein, Lewis. A survey of disadvantaged students' attitudes toward a special college program. Journal of Human Resources, 5(1), 117-127, 1970 Winter. ERIC Document Reproduction Service No. EJ014544.
- Baehr, R. F. Project Success Final Report. Washington, D.C.: Office of Education, DHEW, December, 1969. ERIC Document Reproduction Service No. ED039870.
- Bandura, A. Self efficacy: Toward a unifying theory of behavioral change. Psychological Review, 1977, 84, 191-215.
- Barbush, H. Edward. At long beach, they "tell it like it is." Journal of College Placement, 36(1), 57-62, October-November, 1969. ERIC Document Reproduction Service No. EJ011229.
- Baum, Joan. An exhortation for teachers of English in open-admissions programs. College Composition and Communication, 25(4), 292-7. October, 1974. ERIC Document Reproduction Service No. EJ105756.

Beagan, A. L., Diener, E., Fraser, S. C., and Endresen, K. L. Effects of voluntary and semivoluntary peer-monitoring programs on academic performance. Journal of Educational Psychology, 1977, 69, 110-114.

Bednar, R. L., and Weinberg, S. L. Ingredients of successful treatment programs for underachievers. Journal of Counseling Psychology, 1970, 17, 1-7.

Bell, David G. College Guidance Aspects of the Educational Opportunity Program. San Fernando Valley State College, Northridge, California, 1969. ERIC Document Reproduction Service No. ED032592.

Benjamin, Barbara Cohen, et al. Evaluating and auditing a community college learning skills center program. Oakland, California. Paper presented at the Annual Conference of Educational Program Auditors on Evaluators, 1976. ERIC Document Reproduction Service No. ED121408.

Benjamin, Libby, and Pratt, Richard (Eds.) Transcultural Counseling: Needs, Programs, and Techniques. New York, New York: Human Sciences Press, Behavioral Publications, Inc, 1977. ERIC Document Reproduction Service No. ED122202.

Benson, H. R. The relationship and differences between students who utilized and students who did not utilize the peer counselor services in developmental education at the Ohio State University (Doctoral dissertation, Ohio State University, 1976). Dissertation Abstracts International, 1976, 36(11-A), 7200.

Berg, E. H., and Axtell, D. Programs for Disadvantaged Students in California Community Colleges. Oakland: Peralta Junior College District, 1968. ERIC Document Reproduction Service No. ED0260320.

Berger, Dan. The First-Year of Remedial Mathematics Instruction Under Open Admissions (A Report on the Results of Several Studies of the Remedial Math Program at City College of New York), Report Number 9. City University of New York, New York City College (QPX 14625). ERIC Document Reproduction Service No. ED071564.

Berger, Leslie, and Johnson, Kenneth. A Counseling Program for Socially and Economically Disadvantaged Evening College Students Who Leave School in Good Academic Standing. Technical Report, 1966. City University of New York, New York City College. ERIC Document Reproduction Service No. ED014090.

Berger, Marc I., et al. Understanding Students and Counseling Two-Year Colleges. Spring Workshops, Second Monograph. State University of New York, Albany. Two Year College Student Development Center, 1969. ERIC Document Reproduction Service No. ED039535.

Berke, G. B. Employing educational cognitive style as a teaching aid for educationally disadvantaged college students. (Doctoral dissertation, Catholic University of America, 1976.) Dissertation Abstracts International, 1976, 37(3-A), 1461-1462.

Berlak, Harold. Values, goals, public policy, and educational evaluation. Review of Educational Research, April, 1970, 40, 261-78.

Berman, Gerald S., et al. Bridges and Ladders: A Descriptive Study in New York City. Rehabilitation Occupations for the Disadvantaged and Advantaged. Case Western Reserve University, Department of Sociology, Cleveland, Ohio (BBB04834), 1971. ERIC Document Reproduction Service No. ED033022.

Bernstein, Basil. A critique of the concept of "compensatory education:" in Opening Opportunities for Disadvantaged Learners, Passow, A. H. (Ed.). New York: Teachers College Press, 1972.

Berry, Gordon L., and Vivell, Susan. A Study of Educationally Disadvantaged Veterans Enrolled in a College Preparatory Program. California University, Los Angeles, Graduate School of Education (BBB05262). ERIC Document Reproduction Service No. ED068863, 1972.

Berry, G.L. Counseling needs of disadvantaged veterans. Journal of College Student Personnel, 1977, 18(5), 406-412.

Bertsch, Eilene. "The small college opens its doors:" Who runs the high risk college programs. 1970, N1-16P. Paper presented at American Psychological Association Meeting, Miami Beach, Florida, September 4, 1970. ERIC Document Reproduction Service No. ED044482.

Bettors-Reed, Bonnie, et al. Orientation: New Student Survey, Summer 1974. University of Texas Austin, Office of the Dean of Students, 1974. ERIC Document Reproduction Service No. ED123647.

Bishop, Michael E., and Mullen, James. Vigorous recruitment needed to attract minority students. Journalism Educator, 29(2), 45-48, July, 1974. ERIC Document Reproduction Service No. EJ094717.

Blair, G. Survival of the disadvantaged. New York State Education, 1965, 53(3), 12-15.

Blankely, K. B. Needs of culturally disadvantaged negro students vis-a-vis the counseling services of the pupil personnel program. Proceedings of the 76th Annual Convention of the American Psychological Association, 1968, 3, 621-622.

Block, James H. Mastery Learning: Theory and Practice. New York: Holt, Rinehart, and Winston, 1971.

Bloesser, Robert, et al. Study Skills Project, Spring 1968, Foothill College. Foothill Junior College District, Cupertino, California, 1968. ERIC Document Reproduction Service No. ED022437.

Bloom, Benjamin. Handbook on Formative and Summative Evaluation of Student Learning. New York: McGraw Hill, 1971.

Borland, D. T. A comparative study of instructor ratings by students admitted to a "disadvantaged student" program. Journal of Negro Education, 1973, 42(2), 187-190.

Borus, Michael E., et al. Pathways to the Future: A Longitudinal Study of Young Americans Preliminary Report: Youth and the Labor Market - 1977. Ohio State University, Columbus, Center for Human Resource Research, 1980. ERIC Document Reproduction Service No. ED195796.

Bossone, Richard M. Understanding junior college students: Proposals for meeting their special needs. Journal of Higher Education, 1965, 36, 279-83.

Bossone, Richard M., and Troyka, Lynn Q. A Strategy for Coping with High School and College Remedial English Problems. New York: Case, 1976. ERIC Document Reproduction Service No. ED130268.

Bourn, Ken. Self concept development for high risk students in the community college. Miami: Paper presented at the Annual Meeting of the College Reading Association, 1976. ERIC Document Reproduction Service No. ED129394.

Bournazos, Kimon. An Exploratory Study for MLK (Martin Luther King) Program Improvement. Preliminary Report. Western Michigan University, Kalamazoo, Center for Educational Research, 1972. ERIC Document Reproduction Service No. ED129123.

Bowers, John. The comparison of GPA regression equations for regularly admitted and disadvantaged freshmen at the University of Illinois. Journal of Educational Measurement, 7(4), 219-25, Winter, 1970. ERIC Document Reproduction Service No. EJ029796.

Bowers, John E. The Evaluation of the Special Educational Opportunities Program for Disadvantaged College Students. Final Report. Urbana, Illinois: University of Illinois, Office of Instructional Resources, 1971. ERIC Document Reproduction Service No. ED060814.

Bowers, John Z., and Purcell, E. F. (Eds.) New Medical Schools at Home and Abroad. Port Washington, New York: Independent Publishers Group, 1980. ERIC Document Reproduction Service No. ED188558.

Bracy, Randolph, Jr. Compensatory Educational Programs - Is There a Place in Higher Education. Gainesville, Florida, Florida University (HWP26625), 1972. ERIC Document Reproduction Service No. ED062451.

Brehman, George E., Jr., and McGowan, Kristine A. Higher Education Equal Opportunity Program 1974-75 Annual Report. Harrisburg, Pennsylvania Department of Education, 1976. ERIC Document Reproduction Service No. ED154047.

Bresnan, M. T. The effects of ethnicity, sex, and locus of control on vocational maturity of disadvantaged high school students (Doctoral dissertation, Fordham University, 1976). Dissertation Abstracts International, 1976, 37(2A), 800.

Bristol, M. H., and Sloane, H. N. Effects of contingency contracting on study rate and test performance. Journal of Applied Behavior Analysis, 1974, 2, 271-285.

Brody, Lawrence, and Schenker, Hank. Discovering and developing the college potential of disadvantaged high school youth. A Report of the Fifth Year of a Longitudinal Study on the College Discovery and Development Program. City University of New York, New York, Office of Teacher Education (BBB05543). ERIC Document Reproduction Service No. ED061408, 1972.

Brooks, Ian R., and Moore-Expan, E. The Indian Students University Program Services Third Evaluation Report 1975-76. Calgary University (Alberta), Office of Educational Development, 1976. ERIC Document Reproduction Service No. ED129545.

Brown, Roscoe C., Jr., and Henderson, Edward H. The Factor Structure of Variables Used in the Prediction of Performance of College Students from Disadvantaged Backgrounds, NT-8P. Paper presented at the Meeting of Educational Research Association of New York State (November 13, 1967). ERIC Document Reproduction Service No. ED024717.

Brown, Sidney E., and Ervin, Leroy. A multivariate analysis of a special studies program. College Student Journal, 12(4), 379-81, Winter, 1978. ERIC Document Reproduction Service No. EJ197605.

Brummit, H. Impressions of a black psychiatrist in a college dealing with black and other minority students. American Journal of Psychoanalysis, 1977, 37(1); 13-21.

Bynum, Effic, et al. Report of the Study of Collegiate Compensatory Education Programs for Disadvantaged Youth: A Draft. New York: Columbia University Teachers College, 1972. ERIC Document Reproduction Service No. ED110525.

Bucklin, Robert W., et al. The Academic Support Center: A Program Description and Future Projections, 1970. ERIC Document Reproduction Service No. ED049471.

Bureau of Higher and Continuing Education. Directory of Funded Projects, Program Year 1978-79, Special Programs for Disadvantaged Students; Educational Information Centers Program. Washington, D.C., 1978. ERIC Document Reproduction Service No. ED164733.

SN - Bureau of Higher Education (DHEW/OE), Washington, D.C., Division of College Support (BBB07338). The Cleveland State University and Cuyahoga Community College 1970-71 Instructor-Counselor Program. Director's Evaluation Report. Cleveland State University, Ohio College of Education (BBB05075). Cuyahoga Community College, Cleveland, Ohio (RUF20050). 1971. ERIC Document Reproduction Service No. ED077915.

Burkheimer, Graham J., et al. A Study of the National Upward Bound and Talent Search Programs. Final Report. Appendixes to Volume IV. Evaluation Study of the Upward Bound Program. Research Triangle Institute, Durham, North Carolina, Center for Educational Research and Evaluation, 1976. ERIC Document Reproduction Service No. ED131153.

Burkheimer, Graham J., et al. A Study of the National Upward Bound and Talent Search Programs. Final Report. Volume IV. Evaluation Study of the Upward Bound Program. Research Triangle Institute, Durham, North Carolina, Center for Educational Research and Evaluation, 1976. ERIC Document Reproduction Service No. ED131152.

Burkheimer, Graham J., and Davis, Junius A. A Census of Special Support Programs for "Disadvantaged" Students in American Institutions of Higher Education, 1971-72. Princeton, New Jersey, Educational Testing Service, 1973. ERIC Document Reproduction Service No. ED112791.

Bybee, Rodger. Upward Bound students in college earth science. Science Teacher, 36(8), 40-42, November, 1969. ERIC Document Reproduction Service No. EJ012582.

Calloway, S. T. A Study of the Effects of Educational Services Upon the Self Concept of Disadvantaged Students in Selected Schools of the Mobile County Public School System, 1974-1975.

Campbell, H. D. A comparative study of the academic performance of black, high-risk, disadvantaged students enrolled in the experiment in higher education of Southern Illinois University (Edwardsville) (Doctoral dissertation, 1976). Dissertation Abstracts International, 1976, 37(4-A), 42.

Campbell, R. E. and Parsons, J. L. Readiness for vocational planning in junior high school: A socio-economic and geographic comparison. Journal of Vocational Behavior, 1972, 2(4), 401-417.

Carey, Phillip, et al. The Higher Education of Minorities - The Summer of Seventy-Eight. A Creative Response to Minority Higher Education. University of Minnesota, Minneapolis, Office for Minority and Special Student Affairs, October, 1979. ERIC Document Reproduction Service No. ED171816.

Carlson, Mary (Ed.) The Options Handbook: Communicating with Prospective Students About Postsecondary Educational Options. Summary and Recommendations. National Student Educational Fund, Washington, D.C., 1976. ERIC Document Reproduction Service No. ED121327.

Carlson, Mary, and Berlet, Chip (Eds.) The Options Handbook. Handbook Three: Counseling to Improve Student Decision-Making. National Student Educational Fund, Washington, D.C., 1976. ERIC Document Reproduction Service No. ED127855.

Carman, Robert A. Cost-Effectiveness Analysis of Various Methods of Instruction in Developmental Mathematics. Santa Barbara, California: Seminar Paper, 1971.

Carney, Clarke G. A Career Development Workshop for Emotionally Disadvantaged Students. Kansas State University, Manhattan, Center for Student Development. ERIC Document Reproduction Service No. ED072367.

Carpenter, E. F. Harlem Prep: An alternative system of education. In Opening Opportunities for Disadvantaged Students, edited by A. H. Pansow. New York: Teachers College Press, 1972.

Carter, Larty G. Developmental Studies Project. Post-secondary Education. Final Report. Ganandaigua, NY: Community College of the Finger Lakes, 1976. ERIC Document Reproduction Service No. ED131888.

Cartwright, Hyla D. Individualization of Instruction in a Reading and Study Skills Center with Junior College and/or Open Door Policy Students. AV - National Reading Conference, Inc., Marquette University, 1217 W. Wisconsin Avenue, Milwaukee, WI 53233. 1971. ERIC Document Reproduction Service No. ED059842.

Caruthers, J. D. The effects of small group counseling on the self concept of disadvantaged students (Doctoral dissertation, 1975, University of Oklahoma). Dissertation Abstracts International, 1975, 36(4-A), 2017.

Cash, Carol Dolores. Educationally Inferior Students: Getting In and Out of College, 1970. Missouri University, Columbia, College of Education (OH054615). ERIC Document Reproduction Service No. ED045035.

Centra, J. A. College freshman attitudes toward cheating. Personnel and Guidance Journal, 1970, 18(5), 366-373.

Champlin, S. M., and Karoly, P. Role of contract negotiation in self-management of study time: A preliminary investigation. Psychological Reports, 1975, 37, 724-726.

Chandler, Marjorie O. The longitudinal study of educational effects: Design of the follow-up surveys. San Francisco: Paper presented at the Annual Meeting of the American Association for the Advancement of Science, 1974.

Chavis, John, and Cash, William. Considerations in serving black college students on university campuses. Education, 92(1), 26-28, September-October, 1971. ERIC Document Reproduction Service No. EJ046365.

Church, L. A. A study of personnel-social development programs for disadvantaged students in the community-junior college (Doctoral dissertation, Florida Atlantic University, 1973). Dissertation Abstracts International, 1973, 34(5-A), 2288-2289.

Clark, K. B., and Plotkin, L. The Negro Student at Integrated Colleges. New York: National Scholarship Service and Fund for Negro Students, 1963.

Clark, Philip. Compensatory education: The underlying stances and teachers' attitudes. Urban Education, 9, January, 1975, 340-345.

Coleman, James, et al. Equality of Educational Opportunity. Washington, D.C.: U. S. Government Printing Office, 1966.

College Entrance Examination Board. A Chance to Go to College. A Directory of 800 Colleges That Have Special Help for Students from Minorities and Low-Income Families. New York, NY: College Entrance Examination Board (QPX 15900), June, 1971. ERIC Document Reproduction Service No. ED047636.

College Entrance Examination Board. Announcement of the Organization and Plans of The College Board Advisory Panel on Score Decline. New York: Press Release, December 16, 1975.

College Entrance Examination Board. New Approaches to Student Financial Aid: Report of the Panel on Student Financial Need Analysis. New York, NY: (QPX15900), 1971. Publications Order Office, College Entrance Examination Board, Box 592, Princeton, NJ 08540 (\$3.00). ERIC Document Reproduction Service No. ED052708.

Congress of the United States, Washington, D. C., House Committee on Education and Labor. Reauthorization of the Higher Education Act and Related Measures, Part I. Hearings Before the Subcommittee on Post-secondary Education of the Committee on Education and Labor, House of Representatives, Ninety-sixth Congress, First Session (March 20, 28, 29; April 10 and 26, 1979). Washington, D.C., 1979. ERIC Document Reproduction Service No. ED180350.

Congress of the United States, Washington, D.C., House Committee on Appropriations. Departments of Labor and Health, Education and Welfare Appropriations for 1980. Hearings Before a Subcommittee of the Committee on Appropriations, House of Representatives, Ninety-sixth Congress, First Session, Part 5. Department of Health, Education and Welfare: Education. January, 1980. ERIC Document Reproduction Service No. ED174762.

Connecticut University. An Evaluation of the Hartford, Connecticut, Career Opportunities Program (COP). Storrs, CT: Educational Resources and Developmental Center, 1975. ERIC Document Reproduction Service No. ED126203.

Connors, Joy. They're on their way. American Education, 6(5), 23-25, June, 1970. ERIC Document Reproduction Service No. EJ024778.

Copeland, Elaine J. Training advanced educational-opportunity program students as peer-group counselors for freshman students. Journal on Non-White Concerns in Personnel and Guidance, 7(2), 62-66, January, 1979. ERIC Document Reproduction Service No. EJ197575.

Cornish, T. E. D., and Dilley, J. S. Comparison of three methods of reducing test anxiety: Systematic desensitization, implosive therapy, and study counseling. Journal of Counseling Psychology, 1973, 20, 449-503.

Craig, A. S., and Cooke, G. J. The federal government as a change agent in higher education and a black college's response to that role. Journal of Negro Education, 1975, 44(4), 468-475.

Crawford, June. The need for basic skills in colleges and universities. Paper presented at the meeting of the International Reading Association, Atlanta, GA, April 26, 1979. ERIC Document Reproduction Service No. ED181845.

Cristoffel, Pam, and Celio, Mary Beth. A benefit-cost analysis: Upward Bound: A comment. Journal of Human Resources, 9, 1973, 110-115.

Cross, K. Beyond the Open Door: New Students to Higher Education. San Francisco: Jossey-Bass, 1971.

Cross, K. Patricia. Accent on Learning. San Francisco: Jossey-Bass, 1976.

Cross, K. Patricia. Mastery learning: The new classroom revolution. ACB Reports, 18, 21-28, July, 1976b.

Crossland, F. Minority Access to College. New York: Schocken Books, 1971.

Daniels, Arlene K. Welcome and Neglect: The Ambiguous Reception of Re-Entry Women at a Private, Elite University. Evanston, IL: Northwestern University, Program on Women, 1980. ERIC Document Reproduction Service No. ED185936.

Davis, Joseph S. The Effect of an Enriched Summer Program and Prior Experience with White Persons on Academic Success of Incoming Black Students and the Continuing Effects in the Following Semester. Final Report. Missouri University, Columbia, 1973. ERIC Document Reproduction Service No. ED095244.

Davis, Junius A., et al. The Impact of Special Services Programs in Higher Education for "Disadvantaged" Students. Princeton, NJ: Educational Testing Service, 1975. ERIC Document Reproduction Service No. ED112790.

Davis, Junius A., and Kenyon, Cynthia. A Study of the National Upward Bound and Talent Search Programs. Final Report. Volume I. Review of the Literature Relevant to the Upward Bound and Talent Search Programs. Durham, NC: Research Triangle Institute, Center for Educational Research and Evaluation, 1976. ERIC Document Reproduction Service No. ED131150.

DeLancella, V. L. On being a minority student in clinical psychology. Journal of Contemporary Psychotherapy, 1978, 9(2), 178-182.

Deniston, O. L., Rosenstock, I. M., and Getting, V. A. Evaluation of program effectiveness. In Public Health Reports, No. 83. Washington, D.C.: Department of Health, Education and Welfare, 1968.

Denney, D. R., and Rupert, P. A. Desensitization and self-control in the treatment of test anxiety. Journal of Counseling Psychology, 1977, 24, 272-280.

Diggs, P. L. Communication skills in legal materials: The Howard Law School program. University of Toledo Law Review, 1970, 2-3, 763-789.

Dill, B. T. Group counseling and communication skills: An approach to college-level remediation and counseling. Journal of Non-White Concerns in Personnel and Guidance, 1976, 4(4), 167-173.

Dispenzieri, Angelo, et al. Characteristics of the College Discovery Program Students: 1964-1967. College Discovery Program. Research and Evaluation Unit. ERIC Document Reproduction Service No. ED036815.

Dispenzieri, Angelo, et al. Characteristics of Seek Program Students: September 1968 Entering Class. New York: City University of New York Research and Evaluation Unit for Special Programs. ERIC Document Reproduction Service No. ED041069.

Dispenzieri, Angelo, et al. The College Discovery Program: A Synthesis of Research. New York: City University of New York, Research and Evaluation Center for Special Programs, 1969. ERIC Document Reproduction Service No. ED041070.

Dispenzieri, Angelo, et al. An Overview of Longitudinal Findings on a Special College Program for Disadvantaged Students. New York: City University of New York, College Discovery and Development Program, 1971. ERIC Document Reproduction Service No. ED047078.

Donovan, Richard. Alternatives to the Revolving Door: The National Project II Programs. New York: Bronx Community College, 1976. ERIC Document Reproduction Service No. ED151054.

Donovan, Richard A., et al. The Final Report of National Project II: Alternatives to the Revolving Door. New York: Bronx Community College, 1977. ERIC Document Reproduction Service No. ED151054.

Dreyfus, Joel. Ethnic studies: A springboard, not a trap. Change, 11(7), 13-15, 1979. ERIC Document Reproduction Service No. EJ211360.

Driskell, J. L. A study of the effectiveness of a guided note-taking and study skills system upon the level of academic success among entering University of Idaho freshmen (Doctoral dissertation, University of Idaho, 1976). Dissertation Abstracts International, 1976, 37, 1305A.

Dudley, J. R. A remedial skills course for under prepared college students. Journal of Educational Research, 1978, 71, 143-148.

Dyer, Henry S. Some thoughts about future studies. In On Equality of Educational Opportunity, edited by F. Mosteller and Daniel P. Moynihan. New York: Random House, 1972.

Eboch, Sidney C., and Stufflebeam, Daniel L. The evaluation of educational programs. In Equality of Educational Opportunity, edited by LaMar P. Miller and Edmund O. Gordon. New York: AMS Press, 1974.

Egerton, John. Higher Education for "High Risk" Students. Atlanta, GA: Southern Education Foundation. ERIC Document Reproduction Service No. ED023745, 1968.

Ehrlich, Isa F., and Ehrlich, Phyllis. Social work and legal education: Can they unite to serve the elderly. Journal of Education for Social Work, 15(2), 87-93, Spring, 1979. ERIC Document Reproduction Service No. EJ216340.

Elvena, Ronald G., and Heranney, David J. Non-white prospective law students and lawyers: A counseling perspective. Journal of Non-White Concerns in Personnel and Guidance, 4(4), 181-191, July, 1976. ERIC Document Reproduction Service No. EJ147837.

Entwisle, D. R. Evaluation of study skills courses: A review. Journal of Educational Research, 1960, 53, 243-251.

Esp, Barbarann, and Antorelli, Alexis. Analysis of the Special Studies Program Based on the Interviews of Its Students. Hempstead, NY: Hofstra University, Educational Research Office, 1977. ERIC Document Reproduction Service No. ED145759.

Evans, David L. Minority admissions and support. Second in a series. College Board Review, 89(17), 22-23, Fall, 1973. ERIC Document Reproduction Service No. EJ086272.

Evans, Doris A., and Jackson, Edgar B., Jr. Deans of minority student affairs in medical schools. Journal of Medical Education, 51(3), 197-99, March, 1976. ERIC Document Reproduction Service No. EJ132900.

Figlin, Michael T. Development of minority programs at predominantly white colleges and universities. Counseling and Values, 21(1), 51-57, October, 1976. ERIC Document Reproduction Service No. EJ146093.

Fair, G. W., and Sullivan, A. R. Career opportunities for culturally diverse handicapped youth. Exceptional Children, 1980, 46(8), 626-631.

Fair, Martha H. The myth of the "free ride" through college. Journal of Non-White Concerns in Personnel and Guidance, 4(4), 174-180, July, 1976. ERIC Document Reproduction Service No. EJ147836.

Fantini, Mario. Making Urban Schools Work: Social Realities and the Urban School. New York: Holt, Rinehart, and Winston, 1968.

Fantini, Mario, and Weinstein, Gerald. The Disadvantaged: Challenge to Education. New York: Harper and Row, 1968.

Farley, Jennie. Chenango Development Project - People - Mobile Project Evaluation. Ithaca, NY: Cornell University, Cooperative Extension Service, State University of New York, Ithaca College of Agriculture at Cornell University, 1971. ERIC Document Reproduction Service No. ED096093.

Ferrin, Richard L. Developmental Programs in Midwestern Community Colleges. Princeton: College Entrance-Examination Board, 1971. ERIC Document Reproduction Service No. ED048848.

Fincher, Cameron. The access-placement-retention-graduation of minority students in higher education. Atlanta: Paper presented at the Conference on Equality of Access in Post-secondary Education, 1975. ERIC Document Reproduction Service No. ED114011.

Finnell, Sara, and Flanders, John. Against the odds: College success for underdeveloped students. Paper presented at the Annual Meeting of the American College Personnel Association, Denver Colorado, March 27-30, 1977. ERIC Document Reproduction Service No. ED145348.

Fishman, F., and Dugan, M. Alternative Programs and Services for the Non-Traditional Student. Philadelphia. ERIC Document Reproduction Service No. ED129380.

Fox, D. F. A comparison of gains in cognitive abilities and affective behaviors of disadvantaged black students in open and traditional middle school programs (Doctoral dissertation, New York University, 1976). Dissertation Abstracts International, 1976, 37(1-A), 42.

Franklin, Clara. The Open Admissions Freshmen Program and Basic Skills Development Program, 1974. ERIC Document Reproduction Service No. ED090841.

Franklin, Paul. Beyond Student Financial Aid. Issues and Options for Strengthening Support Service Programs Under Title IV of the Higher Education Act. College Entrance Examination Board, Washington, D.C., September, 1980. ERIC Document Reproduction Service No. ED185913.

- Fraser, S. G., Beaman, A. L., Diener, E., and Kelcm, R. T. Two, three or four heads are better than one: Modification of college performance by peer monitoring. Journal of Educational Psychology, 1977, 69, 101-10.
- Frimow, W. J., and Feindler, E. L. Peer versus professional models for study skills training. Journal of Counseling Psychology, 1978, 25, 576-580.
- Fund for the Improvement of Postsecondary Education (DHEW). The Proceedings of the Final Conference of National Project II: Alternatives to the Revolving Door. Washington, D.C.: Fund for the Improvement of Postsecondary Education, 1976.
- Fund for the Improvement of Postsecondary Education (DHEW). Resources for Change: A Guide to Projects 1979-80. The Fund for the Improvement of Postsecondary Education. Washington, D.C.: 1980. ERIC Document Reproduction Service No. ED180331.
- Gadzella, B. M., Goldston, J. T., and Zimmerman, M. L. Effectiveness of exposure to study techniques on college students' perceptions. Journal of Educational Research, 1977, 71, 26-30.
- Gamble, W. J. A comparative analysis of changes in attitude and academic achievement among "educationally disadvantaged" students who are exposed to systemic counseling versus traditional counseling techniques (Doctoral dissertation, Michigan State University, 1973). Dissertation Abstracts International, 1973, 34(3-A), 1077-1078.
- Gelles, J. D., and Howard, G. Some sociopsychological characteristics of student political activists. Journal of Applied Social Psychology, 1972, 2(2), 114-137.
- Gelsomino, J. Internal-external locus of control and a socially disadvantaged population: A comparison of intervention techniques (Doctoral dissertation, State University of New York, Buffalo, 1973). Dissertation Abstracts International, 1973, 34(6-B), 2896.
- Giroux, R. P., and Pietrofesa, J. New directions for disadvantaged adults in the community college. Canadian Counsellor, 1974, 8(3), 156-162.
- Glasser, William. Schools Without Failure. New York: Harper and Row, 1969.
- Goldman, G. Contract teaching of academic skills. Journal of Counseling Psychology, 1978, 25, 320-324.
- Goldman, R. D., and Slaughter, R. E. Why college grade point average is difficult to predict. Journal of Educational Psychology, 1976, 68, 9-14.
- Goldman, R. D., Schmidt, D. E., Hewitt, B. N., and Fisher, R. Grading practices in different major fields. American Educational Research Journal, 1974, 11, 343-357.
- Goldman, J. A. The social health of disadvantaged black college students. Journal of the American College Health Association, 1974, 22(4), 272-273.
- Goodrich, Andrew. Education for the new student at community colleges: A legacy and a hope. Peabody Journal of Education, 48(4), 286-93, July, 1971. ERIC Document Reproduction Service No. EJ041559.
- Goodrich, Andrew. New programs and services for higher education's new student. Journal of Afro-American Issues, 5(1), 20-32, Winter, 1977. ERIC Document Reproduction Service No. EJ163308.
- Goodrich, Andrew. A data driven minority student retention model for faculty and administrators in predominantly white institutions. Paper presented at the Annual Meeting of the American College Personnel Association, Detroit, Michigan, March, 1978. ERIC Document Reproduction Service No. ED159503.
- Goodrich, Andrew. Developing a data-driven retention model for improving minority student persistence in predominantly white and historically Black colleges. Paper presented at the American Educational Research Association Conference, Boston, Massachusetts, April, 1980. ERIC Document Reproduction Service No. ED186525.
- Gordon, Charles E. Problems of Culturally Different Youth in College. Washington, D.C.: American Personnel and Guidance Association. ERIC Document Reproduction Service No. ED031718.
- Gordon, E. W. The higher education of the disadvantaged. In New Dimensions in Higher Education. No. 28. Washington, D.C.: U. S. Office of Education, April, 1967. ERIC Document Reproduction Service No. ED013350.
- Gordon, E. W. Compensatory education: Evaluation in perspective. IRCD Bulletin, 6, Winter, 1970, 1-5.
- Gordon, E. W. Equal opportunity in higher education: The current state of the art and recommendations for change. IRCD Bulletin, 11, Winter, 1976a, 1-6.
- Gordon, E. W. Equal opportunity in higher education: A review of the studies of the programs. IRCD Bulletin, 11, Winter, 1976b, 1, 7-13.
- Gordon, E. W., and Wilkerson, D. Compensatory Education for the Disadvantaged. New York: CEEB, 1966.
- Gordon, Edmund W. Opportunity Programs for the Disadvantaged in Higher Education. ERIC/Higher Education Research Report No. 6, 1975. ERIC Document Reproduction Service No. ED114028.
- Graham, Jewel. The Antioch Program for Interracial Education. A Five-Year Report, 1964-69. Sn. - Fels Research Institute, Yellow Springs, Ohio, Antioch College, Yellow Springs, Ohio. ERIC Document Reproduction Service No. ED033416.
- Grant, Mary K., and Moebler, Daniel R. Basic Skills Programs: Are They Working? ERIC/Higher Education Research Report Number 1, 1978. George Washington University, ERIC Clearinghouse on Higher Education, 1978. ERIC Document Reproduction Service No. ED150918.
- Greco, Maria Elena, McDavis, Roderick J. Cuban-American college students: Needs, cultural attitudes, and vocational development program suggestions. Journal of College Student Personnel, 19(3), 254-258, May, 1978. ERIC Document Reproduction Service No. EJ179059.

Green, Nancy. Do I belong in college? Community College Frontiers, 5(2), 20-25, Winter, 1977. ERIC Document Reproduction Service No. EJ151737.

Green, Robert. Minority admissions and support. Journal of Student Financial Aid, 5, March, 1975, 24-31.

Greiner, J. M., and Karoly, P. Effects of self control training on study activity and academic performance: An analysis of self monitoring self-reward and systematic planning components. Journal of Counseling Psychology, 1976, 23, 495-502.

Griggs, L. F. The effect of a special living-learning residence hall experience on the self concept of entering educational opportunity program students at Oregon State University (Doctoral dissertation, Oregon State University, 1978). Dissertation Abstracts International, 1978, 39(3-A), 1367.

Groverman, A. H., Richards, C. S., and Caple, R. B. Effects of study-skills counseling versus behavioral self control in the treatment of academic performance. Psychological Reports, 1977, 41, 186.

Groves, Cecil, and Carroll, Frank. Compensatory Education: Relationship of Curriculum and Faculty to Student Retention. New Orleans: Seminar Proceedings, 1973. ERIC Document Reproduction Service No. ED111478.

Gunselman, Marshall, et al. A Feasibility Study for Individualized Instruction of College Freshmen in Two Basic Areas of General Education. Final Report. Oklahoma City: Oklahoma Christian College (SB067800). Sponsoring Agency - Office of Education (DHEW), Washington, D.C., Bureau of Research (RMQ66004). June, 1972. ERIC Document Reproduction Service No. ED059698.

Gurin, P., and Epps, E. Black Consciousness, Identity and Achievement. New York: Wiley, 1975.

Haettenschwille, D. L. Counseling Black College Students in Special Programs, 1970. ERIC Document Reproduction Service No. ED049474.

Hall, J. W. The effects of supportive services for disadvantaged college students (Doctoral dissertation, Ohio State University, 1972). Dissertation Abstracts International, 1972, 32(7-A), 3686-3687.

Hall, Raymond L., and Coates, Caroline J. Prediction of academic success for special program and regularly admitted college freshmen. College and University, 49(1), 14-18, Fall, 1973. ERIC Document Reproduction Service No. EJ089616.

Hampton, P. J. Problems encountered in developmental education course offerings. Journal of Instructional Psychology, 1979, 6(2), 12-17.

Hampton, Peter. Innovative techniques in teaching academically disadvantaged students. Honolulu: Paper presented at the American Psychological Association Annual Convention, 1972. ERIC Document Reproduction Service No. ED070785.

Hampton, Peter J. Commitment beyond failure: Referral counseling for disadvantaged students. Continuing Education, 6(2), 9-10, 66-8, April, 1973. ERIC Document Reproduction Service No. EJ076923.

Harcleroad, Fred P. Disadvantaged Students: What Makes for College Survival. American Association for Higher Education, Washington, D.C. (FGK01523). American College Testing Program, Iowa City, Iowa (JXQ01640). 1971. ERIC Document Reproduction Service No. ED052509.

Harris, M. S. The effects of work experience programs on disadvantaged ninth grade students in Corvallis, Oregon (Doctoral dissertation, Oregon State University, 1969). Dissertation Abstracts International, 1969, 30(4-A), 1397.

Hastings, J., and Walker, M. The effects of levels of fear and rate of approach on cardiac rate and avoidance of a phobic stimulus. Behavior Therapy, 1975, 6, 445-452.

Hays, Janice, et al. A liberating writing program for a liberal arts college. Journal of Developmental and Remedial Education, 4(1), 5-7; 27, Fall, 1980. ERIC Document Reproduction Service No. EJ244400.

Heffernan, T., and Richards, C. S. Self control and study behavior: Identification and evaluation of natural methods. Journal of Counseling Psychology, 1981, 28, 361-364.

Heinsohn, A. L. Work/career expectations of female college seniors having traditional and nontraditional sex role equality attitudes (Doctoral dissertation, Pennsylvania State University, 1975). Dissertation Abstracts International, 1975, 36(3-A), 1845-1846.

Henderson, J. L. Persistence and nonpersistence factors of disadvantaged Vietnam-era veterans in college (Doctoral dissertation, University of Cincinnati, 1977). Dissertation Abstracts International, 1977, 37(7-A), 4133-4134.

Herman, Melvin; Sadofsky, Stanley. Study of the Meaning, Experience and Effects of the Neighborhood Youth Corps on Negro Youth Who Are Seeking Work. Part I, Work Attitudes, Self-Image, and the Social and Psychological Background of Work-seeking Negro Young Adults in New York City. New York: New York University, Graduate School of Social Work, 1967. ERIC Document Reproduction Service No. ED015312.

Higher Education Aid for Minority Business. A Directory of Assistance Available to Minorities by Selected Collegiate Schools of Business. Washington, D. C.: Department of Commerce (BB02972), June, 1971. AV - Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 20402 (\$1.00). ERIC Document Reproduction Service No. ED047628.

Higher Education Opportunity Program. Report to the Legislature. State University of New York, Albany. State Educational Department (BB01395), 1970. ERIC Document Reproduction Service No. ED043304.

Himestein, H. C., and Himestein, E. Z. A pilot project: Behavior contracting for community college students on academic probation. Journal of College Student Personnel, 1977, 18, 67-68.

Hogges, Ralph. The Administrator and Affirmative Action. Florida, 1980. ERIC Document Reproduction Service No. ED178012.

Hohenshil, T. H. Call for redirection: A vocational educator views school psychological services. Journal of School Psychology, 1975, 13(1), 58-62.

Hohenshil, T. H., and Warden, P. The emerging vocational school psychologist: Implications for special needs students. School Psychology Digest, 1977, 7(1), 5-17.

Hohenshil, T. H. Adulthood: New frontier for vocational school psychology. School Psychology Digest, 1979, 8(2), 193-198.

Horne, A. M., and Matson, J. L. A comparison of modeling, desensitization, flooding, study-skills, and control groups for reducing test anxiety. Behavior Therapy, 1977, 8, 1-8.

Howard, D. E. A study of two beginning reading programs with disadvantaged first grade students (Doctoral dissertation, Duke University, 1968). Dissertation Abstracts, 1968, 29(2-A), 408.

Hughes, G., McKay, R. B., Winograd, P. A. The disadvantaged student and preparation for legal education: The New York University experience. University of Toledo Law Review, 1970, 2-3, 701-718.

Hull, W. Frank. Higher Education and the Black Atypical Student. University Park, PA: Penn State Center for the Study of Higher Education, 1970. ERIC Document Reproduction Service No. ED038479.

Illinois Community College Board, Springfield. Abstract of the ACT Class Profile for 1976-77 Freshmen Enrolled in Illinois Public Community Colleges. IV(9), 1977. ERIC Document Reproduction Service No. ED139457.

Institute for the Study of Educational Policy. Minorities in Two-Year Colleges: A Report and Recommendations for Change. Washington, DC; Howard University, 1981. ERIC Document Reproduction Service No. ED194647.

Iowa University, Iowa City. Summary Report for Educational Opportunities Program 1968-1969, 1969-1970. Iowa City: Iowa University, 1970. ERIC Document Reproduction Service No. ED042423.

Jackson, B., and Van Zoost, B. Self-regulated teaching of others as a means of improving study habits. Journal of Counseling Psychology, 1974, 21, 489-493.

Jackson, M. C., and Depuydt, D. Community service: An adjustment motif for minority students. Journal of Non-White Concerns in Personnel and Guidance, 1974, 2(2), 94-97.

Jason, Emil, et al. Accelerated program in mathematics for disadvantaged students. Paper presented at the TRIO Programs Conference, Fontana, WI, November 8, 1978.

Jason, L. A. and Carter, B. Training undergraduates to work with disadvantaged toddlers: Middle class agents strengthen minority values. College Student Journal, 1978, 12(1), 88-91.

Jelfo, Donald T. An Evaluation of the Developmental Education Program at Cuyahoga Community College Eastern Campus. Fort Lauderdale, FL, Nova University, 1974. ERIC Document Reproduction Service No. ED099036.

Jennings, C. M. The impact the education professions development act, part B, subpart II, had on preparing teachers for the economically disadvantaged students: Experimental programs in two Michigan urban school districts (Doctoral dissertation, Michigan State University, 1974). Dissertation Abstracts International, 1974, 34(12-A, Part 1), 7467-7468.

Jennings, J. S. For such a tide 'is moving. In Education for the Disadvantaged, edited by A. H. Passow. New York: Holt, Rinehart and Winston, 1967.

Jensen, C. J., and Lunneborg, C. E. A preliminary investigation of a special education program for minority group university students. Measurement and Evaluation in Guidance, 1972, 5(2), 326-331.

Jensen, A. R. Selection of minority students in higher education. University of Toledo Law Review, 1970, 2-3, 403-457.

Johansson, C. B. and Rossman, J. E. The disadvantaged student at a liberal arts college. Research in Higher Education, 1974, 2, 195-206.

Johnson, Charles. Success Breeds Success: Basic Studies, 1970-71 Report. Fort Worth, Texas: Tarrant County Junior College, 1971. ERIC Document Reproduction Service No. 049761.

Johnson, James. Does "mastery" really improve student achievement? Improving College and University Teaching, Winter, 1974, 22, 59-60.

Johnston, E. T. The effects of independent desensitization and study skills instruction on anxiety study behaviors and academic performance (Doctoral dissertation, McGill University, Canada, 1974). Dissertation Abstracts International, 1975, 35, 6457A.

Jones, Emmet L., Gordon, Howard A., and Schechtman, Gilbert L. Mastery learning: A strategy for success in a community college. Topical paper No. 53. Los Angeles: ERIC Clearinghouse for Junior Colleges, 1975. ERIC Document Reproduction Service No. ED115315.

Jones, J. D., and Osborne, T. An educational support program: The results of merging academics and student personnel services. Journal of College Student Personnel, 1977, 18, 251-254.

Jordann, Mary J. On counseling minority students in a university center. Journal of the American College Health Association, 23(2), 146-50, Dec., 1974. ERIC Document Reproduction Service No. EJ111671.

Joyce, Corine. The Goal Center at Donnelly College. Donnelly College, Kansas, 1980. ERIC Document Reproduction Service No. ED198778.

Kane, Jacqueline. Peer counseling: An experience. Journal of Non-White Concerns in Personnel and Guidance, 7(2), 59-61, January, 1979. ERIC Document Reproduction Service No. EJ197574.

Kanekar, S., Neelakantan, P. and D'Souza, M. Anxiety, intelligence and academic performance. Psychological Reports, 1976, 38, 938.

Kanfer, F. H. The many faces of self-control, or behavior modification changes its focus. In R. B. Stuart (Ed.), Self Management: Strategies, Tactics, and Research. New York: Brunner/Mazel, 1977.

Kanfer, F. H., and Phillips, J. S. Learning Foundations of Behavior Therapy. New York: Wiley, 1970.

Kapel, David. Counselors and the Counseling Needs of Environmentally Handicapped Students in Higher Education, 1974. ERIC Document Reproduction Service No. ED109393.

Karabel, J. Community colleges and social stratification. In Educating the Disadvantaged, E. Flaxman (Ed.). New York: AMS Press, 1973.

Karkhanis, Sharad, and Sellen, Betty-Carol (Eds.) A New College Student: The Challenge to City University Libraries. Rockaway Park, NY: The Scientific Book Service, Inc. ERIC Document Reproduction Service No. ED039908.

Katz, I. Academic motivation and equal educational opportunity, Harvard Educational Review, 33, 57-65, 1968.

Kaye, Mildred. College Discovery and Development Tutorial Program, 1967-68. Research Report. New York: City University of New York, Division of Teacher Education. ERIC Document Reproduction Service No. ED035706.

Kazdin, A. E. Research Design in Clinical Psychology. New York: Harper and Row, 1980.

Kazdin, A. E., and Wilcoxon, L. A. Systematic desensitization and non-specific treatment effects: A methodological evaluation. Psychological Bulletin, 1976, 83, 729-758.

Khan, S. A., and Roberts, D. M. Structure of academic attitudes and study habits. Journal of Educational and Psychological Measurement, 1975, 35, 835-842.

Kirkland, K., and Hollandsworth, J. G. Test anxiety, study skills, and academic performance. Journal of College Student Personnel, 1979, 20, 431-436.

Kirkland, K., and Hollandsworth, J. G. Effective test taking: Skill acquisition versus anxiety-reduction techniques. Journal of Consulting and Clinical Psychology, 1980, 48, 431-439.

Kirschenbaum, D. S., and Perri, M. G. Improving academic competence in adults: A review of recent research. Journal of Counseling Psychology, November, 1981, 76-94.

Kirschenbaum, D. S., Humphrey, L. L., and Malett, S. D. Specificity of planning in adult self control: An applied investigation. Journal of Personality and Social Psychology, 1981, 2, 941-950.

Klingelhofer, Edwin L. The College Opportunity Grant Program of the California State Scholarship and Loan Commission: A Report on and Evaluation of the 1969 and 1970 COG Selection Procedures. Berkeley: California University, Institution of Government Studies, June, 1977. ERIC Document Reproduction Service No. ED047645.

Klingelhofer, E. L., and Hollander, Lynne. Educational Characteristics and Needs of New Students: A Review of the Literature. Berkeley: California University, Center for Research and Development in Higher Education, 1973. ERIC Document Reproduction Service No. ED084482.

Klotsche, J. Martin. The Urban University - And The Future of Our Cities. 1966. ERIC Document Reproduction Service No. ED014811.

Knowles, Ann S. Cooperative education: An effective education for minority students. A speech made before the American Psychological Association National Meeting, Washington, D. C., September 5, 1971. ERIC Document Reproduction Service No. ED054285.

Kotnick, Louis J. Developing material for underprepared students. New Directions for Community Colleges, Spring, 1975, 31, 39-42.

Kysar, John E. Preventive Psychiatry on the College Campus. 1966. ERIC Document Reproduction Service No. ED014745.

Lahn, Alan M. Changes in study habits and attitudes during a college preparatory program for high risk students. NT - 10 pages. Paper presented at the American Personnel and Guidance Association National Convention, Atlantic City, NJ, 1971. ERIC Document Reproduction Service No. ED064433.

Lang, P. J. The application of psychophysiological methods to the study of psychotherapy and behavior modification. In A. E. Bergin and S. L. Garfield (Eds.), Handbook of Psychotherapy and Behavior Change. New York: Wiley, 1971.

Lang, P. J. A bio-informational theory of emotional imagery. Psychophysiology, 1979, 16, 495-512.

Lantz, Robert J. The Negro and Engineering Education: A Section of Responses from 100 Deans of Engineering. Boston University, College of Engineering, 1970. ERIC Document Reproduction Service No. ED040663.

LaPointe, C. P. Effects of motivational and employment programs on scholastic behavior among students from economically disadvantaged groups. Topics in Culture Learning, 1977, 5, 50-60.

Lavin, David E., and Silberstein, Richard. Alternative Admissions Criteria at the City University of New York. 1976. ERIC Document Reproduction Service No. ED124611.

Lederman, M. J. Launching a remedial reading, writing, speech program. Contemporary Education, 46, Fall, 1974, 34-37.

Lefcourt H. Locus of control for specific goals. In L. C. Perlmuter and R. A. Monty (Eds.), Choice and Perceived Control. Hillsdale, NJ: Erlbaum, 1979.

Lent, R. W., and Russell, R. K. Treatment of test anxiety by cue-controlled desensitization and study-skills training. Journal of Counseling Psychology, 1978, 25, 217-224.

Levinson, Betty, and Pfeffer, Carol. A University Learning Center. California University, Los Angeles (CI11700), 1971. ERIC Document Reproduction Service No. ED049500.

Levitt, Alan, et al. Developing a mental health program at an urban community college. Journal of the American College Health Association, 19(5), 289-292, June, 1971. ERIC Document Reproduction Service No. EJ039397.

Liu, Richard. Testing the open door policy in higher education. College Student Journal, 14(2), 149-52, 1980. ERIC Document Reproduction Service No. EJ223072.

Lopate, Carol. The college readiness program: A program for Third World students at the College of San Mateo, California. In Equality of Educational Opportunity, Lamar P. Miller and Edmund W. Gordon (Eds.), New York: AMS Press, 1974.

Lopez, Homero. Report on the Survival Week Program 1974. University of Texas, Austin, Office of the Dean of Students, 1974. ERIC Document Reproduction Service No. ED112336.

Losak, J. and Burns, N. An Evaluation of the Community College Studies Programs for the Year 1969-70. Miami: Miami-Dade Junior College, 1971. ERIC Document Reproduction Service No. ED056683.

Ludwig, L. Educational Consulting Study. Working Papers on Professional Development in Teaching: Special Techniques for Assisting the Under-prepared College Student. Working Papers on Professional Development in Teaching, Number 5. Cleveland: Commission of Higher Education, Ohio, 1980. ERIC Document Reproduction Service No. ED175324.

Lunneborg, Patricia W. Prediction of Post-High School Educational Experiences from an Aptitude/Achievement Test Battery. Seattle, Washington University, Bureau of Testing, 1970. ERIC Document Reproduction Service No. ED041972.

Lynch, M. L. The relationships between the student characteristics of race, sex and socioeconomic background and student perception and use of "academic counseling" (Doctoral dissertation, Indiana University, 1973). Dissertation Abstracts International, 1973, 33(9-A), 4842.

MacDonald, A. P. Jr., and Hall, J. Perception of disability by the non-disabled. Journal of Consulting and Clinical Psychology, 1969, 33(6), 654-660.

MacDougall, Allan. Disadvantaged-handicapped Identification and Supportive Service Delivery System. Southwestern College, Chula Vista, California, 1974. ERIC Document Reproduction Service No. ED097938.

Mackler, B. Blacks who are academically successful. Urban Education, 5, October, 1970, 210-237.

Madrazo-Peterson, Rita, and Rodriguez, Mario. Minority students' perceptions of a university environment. Journal of College Student Personnel, 19(3), 259-63, May, 1978. ERIC Document Reproduction Service No. EJ179060.

Majumder, R. K. Role of Occupational orientation and on-the-job experience for the vocational development of disadvantaged youth. Proceedings of the 31st Annual Convention of the American Psychological Association, Montreal, Canada, 1973, 8, 791-792.

Mares, Kenneth R., and Levine, Daniel U. Non-traditional admissions criteria for disadvantaged students. Journal of the National Association of College Admissions Counselors, 19(1), 17-20, July, 1974. ERIC Document Reproduction Service No. EJ102383.

Mares, Kenneth R., and Levine, Daniel U. Survey of academic programs for disadvantaged students in higher education. Research in Higher Education, 3(2), 169-76, June, 1975. ERIC Document Reproduction Service No. EJ122895.

Martin, Peter B. Freshman Profile, Entering Class: Fall 1972. Bronx, NY: Houtos Community College, 1975. ERIC Document Reproduction Service No. ED114158.

Martinez-Perez, Luis A. Hispanic students in higher education. Paper presented at the National Conference on Education of Hispanics. Alexandria, VA., August 20-23, 1978. ERIC Document Reproduction Service No. ED178257.

Matthews, Dorothy (Ed.). Remedial English. Illinois English Bulletin, 67(2), Winter, 1980. ERIC Document Reproduction Service No. ED179973.

Maxwell, Martha. Remedial Education at Berkeley: Do We Still Require It? Berkeley: University of California, 1975. ERIC Document Reproduction Service No. ED130249.

Maynard, Marianne. Can universities adapt to ethnic minority students' needs. Journal of College Student Personnel, 21(5), 398-401, September, 1980. ERIC Document Reproduction Service No. EJ231731.

Mayville, William V. Changing Perspectives on the Urban College and University. AAHE-ERIC/Higher Education Research Currents April, 1980, Washington, D. C.: American Association for Higher Education, George Washington University. ERIC Clearinghouse on Higher Education, 1980. ERIC Document Reproduction Service No. ED185890.

McAllister-Johnson, Pnm. Proposed model for improving educational and professional opportunities for journalism students of color in a predominantly white university. Paper presented at the Annual Meeting of the Association for Educational Journalism, 57th, San Diego, CA, August 18-21, 1974. ERIC Document Reproduction Service No. ED095546.

McCormick, M. K., and Williams, J. H. Effects of compensatory program on self-report, achievement and aspiration level of "disadvantaged" high school students. Journal of Negro Education, 1974, 43(1), 47-52.

McCrary, J. W. The disadvantaged student in Illinois public community colleges (Doctoral dissertation, Northern Illinois University, 1974). Dissertation Abstracts International, 1974, 35(4-A), 1922-1923.

McDermott, Joseph M. Servicing the needs of a non-traditional clientele: The new resources approach. Liberal Education, 61, May, 1961, 268-274.

- McDill, Edward L., McOill, Mary S., and Sprehe, J. Timothy. Strategies for Success in Compensatory Education: An Appraisal of Evaluative Research. Baltimore: The Johns Hopkins Press, 1969.
- McDill, Edward L. Evaluation in practice: Compensatory education. In Evaluating Social Programs, Peter Ross and Walter Williams (Eds.) New York: Seminar Press, 1972.
- McDonald, J. F., and McPherson, M. S. High school type, sex, and socio-economic factors as predictors of the academic achievement of university students. Educational and Psychological Measurement, 1975, 35(4), 929-932.
- McEwen, Marcia. Help for Pennsylvania's culturally and economically deprived college students. Phi Delta Kappan, 61(4), 286-87, December, 1979. ERIC Document Reproduction Service No. EJ211064.
- McKelpin, Joseph P. Improving Educational Practice for Marginal College Freshmen: A Research Model. Atlanta: Southern Association of Colleges and Schools (IEE80925), 1971. ERIC Document Reproduction Service No. ED050684.
- McKendall, Benjamin W. Breaking the Barriers of Cultural Disadvantage and Curriculum Imbalance. ERIC Document Reproduction Service No. ED011892.
- McVey, Ronald, et al. Critical issues and innovative approaches to career development and placement of minority group members and young and mid-career professionals: New Directions, the John Jay College experience. Paper presented at the annual meeting of the National Association of Student Personnel Administrators, Atlanta, Georgia, April 3-6, 1977. ERIC Document Reproduction Service No. ED146538.
- Melendrez, Gilbert, et al. A Proposed Model for PSDS Admissions. Technical Report Number 15. Claremont, CA: Claremont Center for Educational Opportunity (BB804120), 1971. ERIC Document Reproduction Service No. ED074192.
- Melnick, J., and Russell, R. W. Hypnosis versus systematic desensitization in the treatment of test anxiety. Journal of Counseling Psychology, 1976, 23, 291-295.
- Menzel, Dennis. Theoretical Issues Involved in Educating the Disadvantaged. ERIC Document Reproduction Service No. ED039833.
- Merritt, Ray. Academic performance of work-study students. Journal of College Student Personnel, 11(3), 173-176, May, 1970. ERIC Document Reproduction Service No. EJ019441.
- Middle States Association of Colleges and Secondary Schools. The Disadvantaged Student. Special Collegiate Programs: Admission, Financial Aid, Instruction. New York: Middle States Association of Colleges and Secondary Schools. ERIC Document Reproduction Service No. ED030378.
- Miller, LaMar P., and Gordon, Edmund W. Equality of Educational Opportunity: A Handbook of Research. New York: AMS Press, 1974.

- Miller, Robert, et al. Institutional Characteristics Affecting Minority Admissions and Enrollment Levels at State Universities in Ohio, 1973-76. Oxford, Ohio: Miami University, School of Education, 1977. ERIC Document Reproduction Service No. ED165691.
- Miller, S. J., and Sloane, H. N. Generalization of verbal conditioning of study habits. Journal of College Student Personnel, 1974, 15, 455-460.
- Mills, Glen D. Perceptions of the veteran student minority. Journal of College Student Personnel, 19(3), 208-211, May, 1978. ERIC Document Reproduction Service No. EJ179050.
- Mims, L. A study of attitude change and academic performance of students in a college readiness program (Doctoral dissertation, University of California, Berkeley, 1980). Dissertation Abstracts International, 1980, 41(4-A), 1362.
- Minkevich, G., George, R. L., and Marshall, J. C. Personality differences for two and four year college commuters. College Student Journal, 1972, 6(2), 87-91.
- Minorities-in-Engineering Project. Minorities-in-engineering: Pre-college motivation and preparation. Journal of Educational Technology Systems, 1977-1978, 6(4), 359-380.
- Mitchell, Horace. The Black experience in higher education. Counseling Psychology, 2(1), 30-36, Summer, 1970. ERIC Document Reproduction Service No. EJ024778.
- Mitchell, K. R., Hall, R. F., and Piatkowska, O. E. A group program for bright failing underachievers. Journal of College Student Personnel, 1975, 16, 306-312.
- Mitchell, K. R., Hall, R. F., and Piatkowska, O. E. A group program for the treatment of failing college students. Behavior Therapy, 1975, 6, 324-336.
- Mitchell, K. R., and Piatkowska, O. E. Effects of group treatment for college underachievers and bright failing underachievers. Journal of Counseling Psychology, 1974, 21, 494-501.
- Mitchell, K. R., and Piatkowska, O. E. Some aspects of student failure: Characteristics associated with failing underachievers. Counseling Monograph of the Australian and New Zealand Student Services Association, 1975, 3, 1-20.
- Molloy, Larry, et al. Housing for New Types of Students. A Report. Educational Facilities Labs., 1977. ERIC Document Reproduction Service No. ED144212.
- Monks, Delia, and Ortega, Ludy. Retention of the nontraditional student through peer modeling. Paper presented at the annual convention of the American Personnel and Guidance Association, Chicago, Illinois, April 11-14, 1976. ERIC Document Reproduction Service No. ED130214.

Mooru, C. Angela. Teaching writing to the unprepared: The Three R's. Paper presented at the annual meeting of the Conference on English Education, 15th, Knoxville, Tennessee, March 24-26, 1977. ERIC Document Reproduction Service No. ED143024.

Morgan, Gordon D. The Ghetto College Student: A Descriptive Essay On College Youth From the Inner City. Iowa City, Iowa: American College Testing Program, Research and Development Division; ACT Publications, P.O. Box 168, Iowa City, IA 52240 (\$3.00), 1970. ERIC Document Reproduction Service No. ED038918.

Morrison, Andrew P. Medical student psychiatric education in neighborhood health settings. Journal of College Student Personnel, 19(3), 259-263, May, 1978. ERIC Document Reproduction Service No. EJ192743.

Morrison, James L. The community college and the disadvantaged. Research in Higher Education, 1973, 401-413.

Morrison, James L., and Ferrante, Reynolds. Compensatory Education in Two Year Colleges. University Park, PA: Center for the Study of Higher Education, 1973.

Morrison, James L., and Ferrante, Reynolds. Why the Disadvantaged Drop Out: The Administration's View, 1973. ERIC Document Reproduction Service No. ED071665.

Morrison, J. L., and Stoltz, R. The role of oral communication for the culturally different college student. College Student Journal, 1976, 10(1), 4-7.

Morrison, Lennie. A Comparison of the "Educationally Disadvantaged" Students Receiving Tutorial and Counseling Assistance with Students Accepted Through Regular Admission and Do Not Receive Any Tutorial or Counseling Assistance. State University of New York, Oswego College, 1974. ERIC Document Reproduction Service No. ED095240.

Mout, M. K., and Tirrell, F. J. Improving examination scores through self monitoring. Journal of Educational Research, 1977, 71, 70-73.

Mumford, Napoleon. Training graduate social work students for child advocacy in community health. Journal of Education for Social Work, 11(1), 113-120, Winter, 1975. ERIC Document Reproduction Service No. EJ114421.

Munday, L. A. Declining Admission Test Scores. ACT Research Report 71. Iowa City, American College Testing Program, 1976. ERIC Document Reproduction Service No. ED120245.

Murton, Bonnie J., et al. Project Motivation 1964-1965. Hennepin County Community Health and Welfare Council, Minneapolis, MN., 1967. ERIC Document Reproduction Service No. ED012717.

National Academy of Sciences. National Research Council, Washington, D.C., Committee on Minorities in Engineering. Retention of Minority Students in Engineering. A Report of the Retention Task Force, Committee on Minorities in Engineering, Assembly of Engineering, National Research Council. Washington, D.C., 1977. ERIC Document Reproduction Service No. ED152467.

National Advisory Council on Extension and Continuing Education. The Importance of Service: Federal Support for Continuing Education. Eighth Annual Report of the National Advisory Council on Extension and Continuing Education. Washington, D.C., 1974. ERIC Document Reproduction Service No. ED097827.

Nelson, R. O., Hay, L. R., and Hay, W. M. One versus consequence functions of high probability behaviours in the modification of self-monitored study coverants and study time. Psychological Record, 1977, 3, 589-599.

New Jersey State Department of Higher Education. Fourth Annual Report of the Educational Opportunity Fund, 1972-74. Trenton, NJ, 1974. ERIC Document Reproduction Service No. ED096897.

SN - New York City Board of Education, Brooklyn, NY (QPX 60300). Final Report of High School Homework Helper Program, Summer 1972. New York: Teaching and Learning Research Corp., 1972. ERIC Document Reproduction Service No. ED075549.

New York State Education Department. New York State Programs of Postsecondary Opportunity, 1974-75; Summary of Reports, Analysis and Regents' Recommendations. Albany, 1977. ERIC Document Reproduction Service No. ED141475.

New York University, New York Project Apex. Project Apex, A Program for Excellence in Urban Teacher Education. 1965. ERIC Document Reproduction Service No. ED019309.

Nieves, Luis. The minority college student experience: A case for the use of self-control systems. OME Monograph Number One. Princeton, NJ: Educational Testing Service, Office for Minority Education, 1978. ERIC Document Reproduction Service No. ED159246.

Nieves, Luis. College Achievement Through Self-help. A Planning and Guidance Manual for Minority Students. Princeton, NJ: Educational Testing Service, Office of Minority Education, 1978. ERIC Document Reproduction Service No. ED164676.

Nilne, Terry. Continuing Adult Education: An Annotated Bibliography. 1974. ERIC Document Reproduction Service No. ED109393.

Nossen, Robert (Ed.) The Retention Committee, University of Pittsburgh, A Report to the President. Pittsburgh University, PA, 1980. ERIC Document Reproduction Service No. ED200178.

Obler, H., Francis, K., and Wishengrad, R. Combining of traditional counseling, instruction, and monitoring functions with academically deficient college freshmen. Journal of Educational Research, 1977, 70(3), 142-147. ERIC Document Reproduction Service No. EJ161282.

O'Brien, R. M. Negative practice and desensitization of anxiety about examinations. Psychological Reports, 1976, 38, 1147-1153.

Office of Education (DHEW), Bureau of Higher Education. Special Services for Students in Institutions of Higher Education Program. Washington, D.C., 1970. ERIC Document Reproduction Service No. ED040658.

Office of Education (DHEW), Division of Compensatory Education (B0097330), Detroit College Opportunity Program, "Preparing College Bound Youth" Evaluation of the Detroit College Opportunity Program, Funded Under Title I of the Elementary and Secondary Education Act. Detroit Board of Education, Michigan (B0000729), Detroit Public Schools, Michigan, Department of Research and Development (NWK21600), Detroit University, Michigan (NWK21750), 1974. ERIC Document Reproduction Service No. ED074168.

Ogrodnik, R. W. A description and evaluation of an implementation of William F. Brown's approach to student-to-student academic counseling with disadvantaged incoming college freshmen (Doctoral dissertation, University of Pittsburgh, 1978). Dissertation Abstracts International, 1978, 38(12-A), 7158.

O'Leary, K. D., and Borkovec, T. D. Conceptual, methodological, and ethical problems of placebo groups in psychotherapy research. American Psychologist, 1978, 33, 821-830.

Packwood, William. College student personnel graduate placement. Journal of College Student Personnel, 17(1), 22-27, January, 1976. ERIC Document Reproduction Service No. EJ139122.

Pappas, James P., et al. Career Development symposium. 78 p. Paper presented at the American Psychiatric Association Convention, September 2-8, 1972, Honolulu, Hawaii, Research and Development Report No. 43. ERIC Document Reproduction Service No. ED053494.

Parker, S. A. The effect of financial assistance and counseling on the educational progress of minority students in an urban public university (Doctoral dissertation, Northwestern University, 1975). Dissertation Abstracts International, 1975, 35(11-A), 7067.

Parks, A. Paul. Operation Hope: An experimental training program. Social Work, 18(5), 104-106, September, 1973. ERIC Document Reproduction Service No. EJ084174.

Passow, A. H. (Ed.) Opening Opportunities for Disadvantaged Learners. New York: Teachers College Press, 1972.

Patton, D. B. The effects of a group counseling program on the self-concept and locus of control orientation of pre-college disadvantaged students (Doctoral dissertation, University of Connecticut, 1975). Dissertation Abstracts International, 1975, 35(11-A), 7067-7068.

Paul, G. L. Strategy of outcome research in psychotherapy. Journal of Consulting Psychology, 1967, 31, 109-118.

Pearson, Richard. The Opening Door. A Review of New York State's Programs of Financial Aid for College Students. College Entrance Examination Board, New York (QPX1590U), 1967. ERIC Document Reproduction Service No. ED044083.

Pedroni, B. C., and Pedroni, D. T. Multivariate prediction of attrition/persistence for disadvantaged and control collegians. College Student Journal, 1977, 11(3), 239-242.

Pedroni, B. C., and Pedroni, D. T. Grade point evaluation of an experimental program for disadvantaged college freshmen. College Student Journal, 1978, 11(4), 318-323.

Pedroni, B. C., and Pedroni, D. T. Multivariate assessment of ACT composite scores of disadvantaged and regular freshmen. Education, 1978, 99(1), 36-43.

Pedroni, B. C., and Pedroni, D. T. Evaluating experimental and control programs for attrition/persistence. Journal of Educational Research, 1978, 71(4), 234-237.

Pedroni, B. M. The usefulness of ACT scores in predicting achievement and attrition among disadvantaged and regular college freshmen at the University of Nebraska at Omaha (Doctoral dissertation, University of Nebraska, Lincoln, 1975). Dissertation Abstracts International, 1975, 36(2-A), 792-793.

Pect, Howard, and Wanner, Daniel. Concentrated approach program at North Dakota State University. A paper presented at the Minnesota Association of Equal Opportunity Program Personnel, Winter Conference, Minneapolis, MN, February, 1982.

Penfield, Elizabeth F. Proficiency testing within the basic writing course: Developing a faculty consensus on standards. Paper presented at the annual meeting of the Conference of College Composition and Communication, 30th, Minneapolis, MN, April 5-7, 1979. ERIC Document Reproduction Service No. ED172214.

Pennsylvania Department of Education. Bureau of Equal Opportunity. Higher Education Equal Opportunity Act: Act 10' Guidelines 1978-79. Application and Program Manual. Harrisburg, PA, 1977. ERIC Document Reproduction Service No. ED154048.

Pepper, Roger S., and Drexler, John A. Jr. Relationships among reading performance, locus of control and achievement for marginal admission students. Paper presented at the meeting of the North Central Reading Association, Bloomington, IN, October 29, 1971. ERIC Document Reproduction Service No. ED056832.

Perlmutter, L. C., and Monty, R. A. (Eds.) Choice and Perceived Control. Hillsdale, NJ: Erlbaum, 1979.

Phelps, A. L. Vocational education for special needs learners: Past, present, and future. School Psychology Digest, 1977, 2(1), 18-34.

Philadelphia Council for Community Advancement, Philadelphia School District, PA. Progress Report of the Experimental Nursery School Program, 1964-1965. ERIC Document Reproduction Service No. ED021880.

Pinto, L. R., and Feigenbaum, L. Effects of clinical counseling on college achievement. Journal of Counseling Psychology, 1974, 21, 409-414.

Pitts, William E. Minority Student Recruitment: A concept and plan of action. Journal of Afro-American Issues, 5(1), 72-87, Winter, 1977. ERIC Document Reproduction Service No. EJ163308.

Proctor, R. E. Performance effectiveness of graduate career opportunities program participants of Rutgers University (Doctoral dissertation, Rutgers University, 1977). Dissertation Abstracts International, 1977, 37(12A, Part 1), 7595-7596.

Project Opportunity Reports: Research and Evaluation Report, Number 1972-5: Post-Secondary Enrollment Patterns of Group III Project Opportunity Students; Number 1972-6: College Choices of Outstanding Black Students in Project Opportunity. College Entrance Examination Board, Atlanta, GA. Southern Regional Office (BBB06252). Southern Association of Colleges and Schools, Atlanta, GA (IEE80925), 1972. ERIC Document Reproduction Service No. ED073207.

Pruitt, Anne S. New Students and Coordinated Counseling. - Southern Regional Education Board, Atlanta, GA. Institution for Higher Education Opportunity, 1973. ERIC Document Reproduction Service No. ED084968.

Quatrano, L. A., Blake, C., and Cleary, M. J. Interrelationship of disabled college students' attributes, program use, and study attitudes. Rehabilitation Counseling Bulletin, 1978, 22(2), 134-137.

Quatrano, Louis A., et al. Equalizing opportunity: Training indigenous personnel as mental health counselors. Counselor Education and Supervision, 15(2), 95-103, December, 1975. ERIC Document Reproduction Service No. EJ129186.

Quealy, Roger J. The Beginning College Reader. AV - National Reading Conference, Inc., Marquette University, 1217 W. Wisconsin Avenue, Milwaukee, WI 53233, 1971. ERIC Document Reproduction Service No. ED059847.

Ratekin, Ned. The effect of two different reading programs on culturally disadvantaged college freshmen. A paper presented at the meeting of the International Reading Association, Atlantic City, NJ, April 19-23, 1971. ERIC Document Reproduction Service No. ED053867.

Rayburn, Wendell G., and Hayes, Edward J. Compensatory education: Effective or ineffective? Journal of Counseling Psychology, 22, 523-28, November, 1975.

Read, S. A. TRIO/Special Services Program Evaluation Final Report 1980-1981. University of Minnesota, Minneapolis, General College, June, 1982. ERIC Document Reproduction Service No. ED212227.

Reichardt, C. S. The statistical analysis of data from nonequivalent group designs. In T. D. Cook and D. T. Campbell (Eds.), Quasi-experimentation: Design and Analysis Issues for Field Settings. Chicago: Rand-McNally, 1979.

Reinertson, Jacquelyn. The Problems of Literacy in the Community College, 1978. ERIC Document Reproduction Service No. ED156286.

Rampson, Joe L. Minority Access to Higher Education in New York City. City Almanac, Volume 7, Number 2, August 1972. New York: New School for Social Research, Center for New York City Affairs (BBB06659). ERIC Document Reproduction Service No. ED067437.

Richards, C. S. Behavior modification of study through study skill advice and self-control procedures. Journal of Counseling Psychology, 1975, 21, 431-436.

Richards, C. S. Improving study behaviors through self-control techniques. In J. D. Krumboltz and C. E. Thorenson (Eds.) Counseling Methods. New York: Holt, Rinehart and Winston, 1976.

Richards, C. S., McReynolds, W. T., Holt, S., and Sexton, T. Effects of information feedback and self administered consequences on self-monitoring study behavior. Journal of Counseling Psychology, 1976, 23, 316-321.

Richards, C. S., and Perri, M. G. Do self-control treatments last? An evaluation of behavioral problem solving and faded counselor contact as treatment maintenance strategies. Journal of Counseling Psychology, 1976, 23, 405-406.

Richardson, Laura. A first - and maybe last - chance for college-bound migrants. Change, 9(12), 13-15, December, 1977. ERIC Document Reproduction Service No. EJ170192.

Rimm, D. C., and Masters, J. C. Behavior Therapy: Techniques and Empirical Findings. New York: Academic Press, 1974.

Robin, A., Martello, J., Foxx, R. M., and Archable, C. Teaching note-taking skills to underachieving college students. Journal of Educational Research, 1977, 71, 81-85.

Robinson, F. P. Effective Study, 4th ed. New York: Harper and Row, 1970.

Robyak, J. E. A revised study skills model: Do some of them practice what we teach. Personnel and Guidance Journal, 1977, 56, 171-175.

Robyak, J. E. Study skills versus non-study skills students: A discriminant analysis. Journal of Educational Research, 1978, 71, 161-166.

Robyak, J. E., and Downey, R. G. Effectiveness of a study skills course for students of different academic achievement levels and personality types. Journal of Counseling Psychology, 1978, 25, 541-550.

Robyak, J. E., and Downey, R. G. A discriminant analysis of study skills and personality types of underachieving and non-achieving study skills students. Journal of College Student Personnel, 1979, 20, 306-309.

Robyak, J. E., and Patton, M. J. The effectiveness of study skills courses for students of different personality types. Journal of Counseling Psychology, 1977, 24, 200-207.

Romano, John, and Garfield, Joan. A Curricular Experiment for Underprepared Minority Students: An Evaluation of the General College Pilot Education Packages (PEP). Final Report, 1979-1980. University of Minnesota, Minneapolis, General College, 1980. ERIC Document Reproduction Service No. ED195213.

Romero, M. Multicultural reality: The pain of growth. Personnel and Guidance Journal, 1981, 59(6), 384-386.

Romney, Miles C., and Okedara, Joseph T. A Report on the Programs for the Disadvantaged in the Oregon State System of Higher Education. Portland: Oregon State System of Higher Education, Office of Academic Affairs (88B03349), 1969. ERIC Document Reproduction Service No. ED044067.

Rosner, Benjamin. Open Admissions at the City University of New York. Washington: American Association for the Advancement of Science (FGK01540), December 27, 1970. ERIC Document Reproduction Service No. ED050676.

Ross, J. L. Academic performance related to characteristics of disadvantaged work-study students and those not in work-study programs (Doctoral dissertation, Indiana University, 1977). Dissertation Abstracts International, 1977, 37(8-A), 4905-4906.

Ross, Sandra F. A Study to Determine the Effect of Peer Tutoring on the Reading Efficiency and Self Concept of Disadvantaged Community College Freshmen: Final Report. Fort Worth, TX: Tarrant County Junior College District, 1972. SW - National Center for Educational Research and Development (DHEW/OE), Washington, D.C., Regional Research Program. ERIC Document Reproduction Service No. ED081415.

Rossmann, Jack E., et al. Open Admission at City University of New York: An Analysis of the First Year. Englewood Cliffs, NJ: Prentice-Hall, Inc., 1975. ERIC Document Reproduction Service No. ED137446.

Rotter, J. B. Generalized expectancies for internal vs. external control of reinforcements. Psychological Monographs, 80, 1966, 1-25.

Rotter, J. B. Individual differences and perceived control. In L. C. Perlauter and R. A. Monty (Eds.), Choice and Perceived Control. Hillsdale, NJ: Erlbaum, 1979.

Roueche, John E. Feeling good about yourself: What is effective in remedial education? Community College Frontiers, 4, Winter, 1976, 10-13.

Roueche, John E., and Wheeler, Charles L. Instructional Procedures for the disadvantaged. Improving College and University Teaching, 21, Summer, 1973, 222-225.

Russell, R. K., Miller, D., and June, L. A comparison between group systematic desensitization and cue controlled relaxation in the treatment of test anxiety. Behavior Therapy, 1975, 6, 172-177.

San Francisco State College, California. 1967-1968 Upward Bound Proposal and Statements (Title Supplied). ERIC Document Reproduction Service No. ED020246, 1967.

Sanchez, Y., and Sena, E. E. The effects of high school equivalency program tutoring on the attitudes and opinions of college student tutors (Doctoral dissertation, Washington State University, 1976). Dissertation Abstracts International, 1976, 36(7-A), 4270.

Sandeen, Arthur. Evaluation of Naspas' Windspead Conference on Minority Groups. Naspa Journal, 10(4), 348-349, April, 1973. ERIC Document Reproduction Service No. EJ087530.

Sandusky, Nancy, and Johnson, Susan. An Evaluation of the Special Services Program for Disadvantaged Students in Post-Secondary Institutions (Revision 7). Kirschner Associates, Inc., Albuquerque, NM, 1976. ERIC Document Reproduction Service No. ED145743.

Silavone, James. Integrated remediation for the community college. Improving College and University Teaching, 24(3), 183-185, Summer, 1976. ERIC Document Reproduction Service No. EJ151626.

Scott, B. S. The adjustment and progress of college students from disadvantaged homes (Doctoral dissertation, Columbia University, 1967). Dissertation Abstracts, 1967, 28(4-A), 1313-1314.

Sedlacek, William E., et al. Minority students in higher education. Journal of College Student Personnel, 14(1), 16-46, January, 1973. ERIC Document Reproduction Service No. EJ084174.

Sedlacek, William E., and Webster, Dennis W. Admission and Retention of Minority Students in Large Universities. Research Report No. 3-77, 1977. ERIC Document Reproduction Service No. ED139889.

Seidner, M. L. and Kirschenbaum, D. S. Behavioral contracts: Effects of pre-treatment information and intention statements. Behavior Therapy, 11, 689-698, 1980.

Settles, C. E. The effects of two training modes on lay and professional therapy with black adolescent males (Doctoral dissertation, University of Texas, Austin, 1976). Dissertation Abstracts International, 1976, 37(5-A), 2704.

Shaffer, P. E. Academic progress of disadvantaged minority students: A two-year study. Journal of College Student Personnel, 1973, 14(1), 41-46.

Shaughnessy, Nina P. Errors and Expectations: A Guide for the Teacher of Basic Writing. New York: Oxford University Press, 1977.

Showell, Ellen. Tutoring kids can be exciting. Opportunity, 1(7), 8-10, October, 1971. ERIC Document Reproduction Service No. EJ046128.

Shrier, Irene, and Lavin, David E. Open Admissions: A Bibliography for Research and Application. New York: City University of New York, Office of Program and Policy Research, 1974. ERIC Document Reproduction Service No. ED090840.

Silverman, M. S., and Riordan, K. Study skills training for "high risk" freshmen. Journal of College Student Personnel, 19, 15, 69.

Simmons, D. S. A study of selected characteristics of minority and majority students attending predominantly white and predominantly black universities. (Doctoral dissertation, Duke University, 1978). Dissertation Abstracts International, 1978, 38(8-A), 4497-4498S.

Singleton, R. The effects of Upward Bound students' use of advanced organizers as an aid to reading comprehension of selected expository material (Doctoral dissertation, University of Florida, 1980). Dissertation Abstracts International, 1980, 40(8-A), 4392.

- Smith, Kurt B. (Ed.) Assisting students to succeed, Part II. Connections, 2(2), November, 1980. ERIC Document Reproduction Service No. ED261221.
- Snow, Jerry J. Counseling the high-risk student. New Directions for Higher Education, No. 20 (Increasing Basic Skills by Developmental Studies), 5(4), 1-21, Winter, 1977.
- Somogyi, R. J., and Brnheim, E. H. The Non-traditional Student. Ohio: Toledo University, Community Technical College, 1976. ERIC Document Reproduction Service No. ED149809.
- Southern Association of Colleges and Schools. Project Opportunity: A Progress Report 1964-1968; A Fifteen Mile Hike. Atlanta, GA (IEE80925), 1970. ERIC Document Reproduction Service No. ED049684.
- Southern Regional Education Board. The College and Cultural Diversity: The Black Student on Campus. A Project Report. Atlanta, GA (IEE81377), 1971. ERIC Document Reproduction Service No. ED055563.
- Spaights, Ernest (Ed.) Support services for disadvantaged college students: A symposium. NT. 14p. Symposium papers presented at the American Personnel and Guidance Association Convention, New Orleans, LA, March, 1970. ERIC Document Reproduction Service No. ED041972.
- Spickelmeier, D. O. Two-year community college faculty attitudes toward educationally disadvantaged students (Doctoral dissertation, Texas Tech. University, 1973). Dissertation Abstracts International, 1973, 33(8-A), 4133.
- Spielberger, C. D., Gorsuch, R. L., and Lushene, R. E. The State-Trait Anxiety Inventory Manual. Palo Alto, CA: Consulting Psychologists Press, 1970.
- Spuck, Dennis W., and Stout, Robert T. Predicting College Success Among Minority Youth: An Analysis in Highly Selective Colleges. California: Clairmont Graduate School and University Center. ERIC Document Reproduction Service No. ED035910.
- Stanley, J. C. Predicting college success of the educationally disadvantaged. Science, 1971, 171(3972), 640-647.
- State University of New York, Albany, Office of the Regents. New York State Programs of Postsecondary Opportunity, 1973-74; Comments and Recommendations of the Regents and Staff Analysis. Albany, NY, 1974. ERIC Document Reproduction Service No. ED135930.
- Strader, Mary A., et al. A Comparison of College Park Black Freshmen With Black Freshmen Nationally in Predominantly White Schools. College Park: Maryland University, College Park Cultural Study Center, 1974. ERIC Document Reproduction Service No. ED089645.
- Stuart, David, and Cruze, Alvin. A Study of the National Open Bound and Talent Search Programs. Final Report. Volume II. Estimates of the Target Population for Upward Bound and Talent Search Programs. Research Triangle Institute, Durham, NC, Center for Educational Research and Evaluation, 1976. ERIC Document Reproduction Service No. ED131151.
- Stuart, R. B. (Ed.) Selfmanagement: Strategies, Tactics, and Research. New York: Brunner/Mazel, 1977.
- Suchman, Edward A. Evaluation Research: Principles and Practice in Public Service and Social Action Programs. New York: Russell Sage Foundation, 1967.
- Sue, S. Training of "Third World" students to function and counselors. Journal of Counseling Psychology, 1973, 20(1), 73-78.
- Swick, K. J. Expanding educational opportunities for disadvantaged college students. College Student Journal, 1973, 1(3, Pt. 2, mono), 7 P.
- Swofford, Ronald, and Swofford, Joyce C. Developmental Studies in North Carolina and Virginia: A Constant Search for Anything That Works. 1974. ERIC Document Reproduction Service No. ED02727.
- Symposium: Disadvantaged students and legal education: Programs for affirmative action. University of Toledo Law Review, 1970, 2-3, 277-986.
- Taddiken, Nancy K. Minorities on Campus. A Survey of Black and Hispanic Participation in Colleges of the Rochester Area. Rochester, NY: Urban League of Rochester, Inc. 1981. ERIC Document Reproduction Service No. ED013371.
- Taylor, Charles (Ed.) Selected Conference Proceedings from the Conference on the Future of Minority Centers, February 23-24, 1978. University of Wisconsin, Oshkosh, Multicultural Educational Center, 1978. ERIC Document Reproduction Service No. ED164666.
- Taylor, Derek B., and Fleming, Margret. Resident Tutor Projects. Title I Fund, Fund Number 58-7: 1971-72 Evaluation. Ohio: Cleveland Public Schools, Division of Research and Development. ERIC Document Reproduction Service No. ED078107.
- Thomas, Gail E. (Ed.) Black Students in Higher Education: Conditions and Experiences in the 1970's. Westport, CT: Greenwood Press, 1981. ERIC Document Reproduction Service No. ED198759.
- Tichenor, J. L. Self-monitoring and self reinforcement of studying by college students. Psychological Reports, 1977, 40, 103-108.
- Tinto, V., and Sherman, R. H. The Effectiveness of Secondary and Higher Education Intervention Programs: A Critical Review of Research. New York: Columbia University, Teachers College, September, 1974. ERIC Document Reproduction Service No. ED101042.
- Tollefson, A. L. College Student Development in Evolution - With Special Focus on the Disadvantaged. Los Angeles: Human Interaction Research Institute, 1973. ERIC Document Reproduction Service No. ED082632.
- Tollefson, Arthur L. New Approaches to College Student Development. New York: Behavioral Publications, Inc., 1975. ERIC Document Reproduction Service No. ED121183.

Trachtman, Richard. A social work role on the college campus. Journal of College Student Personnel, 16(5), 431, September, 1975. ERIC Document Reproduction Service No. EJ125683.

Treadwell, Vernell. Counselor education: Minority underachievers. Journal of Non-White Concerns in Personnel and Guidance, 3(2), 82-84, January, 1975. ERIC Document Reproduction Service No. EJ115631.

Trent, William T. College Compensatory Programs for Disadvantaged Students. Washington, D.C., ERIC Clearinghouse on Higher Education (BBB01751), 1970. ERIC Document Reproduction Service No. ED042932.

Troutt, B. V. Independence and ego identity reflected in minority students' utilization of the support services in an academic special program (Doctoral dissertation, Columbia University, 1980). Dissertation Abstracts International, 1980, 41(5-A), 2029.

Turner, Rick. Factors influencing the retention of minority students in the 1980s: Opinions and Impressions. Journal of Non-White Concerns in Personnel and Guidance, 8(4), 202-214, July, 1980.

University Council for Educational Administration, Columbus, Ohio. Emergent leadership: Focus on minorities and women in educational administration. Emergent Leadership, 3(1), Winter, 1978.

Wagner, Carol A., and McKenzie, R. Success skills for disadvantaged undergraduates. Journal of College Student Personnel, 21(6), 514-520, November, 1980. ERIC Document Reproduction Service No. EJ236187.

Walden, T., Singer, G., and Thomet, W. Students as clients: The other side of the desk. Clinical Social Work Journal, 1974, 2(4), 279-290.

Warren, Jonathan R. Who wants to learn what? Evaluation with a changing clientele. New Directions in Higher Education, 1, Winter, 1973, 15-40.

Wayne, Ronald D. An Evaluation of the Community Education Demonstration Project. AV - Clearinghouse for Federal Scientific and Technical Information, Springfield, VA 22151 (PB-177-678, Hfs-65, HC \$3.00). ERIC Document Reproduction Service No. ED023965. Data Systems Research, Inc., New York, NY, 1968.

Weese, K. C. An investigation of the impact of two different types of in-service professional reading programs on the perceptions of teachers in disadvantaged schools (Doctoral dissertation, University of Illinois, 1969). Dissertation Abstracts International, 1969, 30(3-A), 974.

Weisman, Lawrence. Program implications of characteristics of disadvantaged students. Illinois Career Education Journal, 32, Winter, 1975, 69.

Wells, Robert N. Short-term Training Program. The American Indian Student in Higher Education. Canton, NY: Saint Lawrence University (BBB07051). ERIC Document Reproduction Service No. ED067996.

West, Carolyn. Minority Retention in a Community College Program for the Disadvantaged. 1975. ERIC Document Reproduction Service No. ED151660.

Whitley, Alice I. (Ed.) Counseling the Disadvantaged Junior College Student: Approaches Suggested by Higher Education Achievement Program Counselors. Fall, 1973. Atlanta, GA: Southern Association of Colleges and Schools, 1973. ERIC Document Reproduction Service No. ED097931.

Wille, Charles V. Black colleges redefined. Change, 11(7), 46-49, 1979. ERIC Document Reproduction Service No. EJ211355.

Williams, Robert. What are we learning from current programs for disadvantaged students. Journal of Higher Education, 40(4), 274-285, April, 1969. ERIC Document Reproduction Service No. EJ004856.

Wilson, Gerald L., and Doederlein, Arthur P. Speech communication as survival training: The C.H.A.N.C.E. Program. Speech Teacher, 22(3), 189-195, September, 1973. ERIC Document Reproduction Service No. EJ087602.

Wimmer, W. E. Effects of a program of study skills instruction on the attitudes of a disadvantaged group of college freshmen (Doctoral dissertation, Oregon State University, 1976). Dissertation Abstracts International, 1976, 36(8-A), 5008.

Winston, Eric. Advising minority students. Integrated Education, 14(4), 22-28, July-August, 1976. ERIC Document Reproduction Service No. EJ142224.

Winten, Evelyn. Glassboro State College Head Start and Follow Through Supplementary Training Program. Glassboro State College, NJ (QAT29290), 1971.

Wolff, Gladys. Outcome for Project Co. Freshmen, Fall, 1972. Colorado State University, Fort Collins, University Counseling Center. Student Development Report, 11(2), 1974. ERIC Document Reproduction Service No. ED090448.

Woodland, Calvin E., and James, Richard L. Strategies for Implementing Experimental Educational Programs in a Predominantly Black Institution. Maryland, 1978. ERIC Document Reproduction Service No. ED170418.

Woods, E. Counseling minority students: A program model. Personnel and Guidance Journal, 1977, 55(7), 416-418.

Worthen, B. R., and Sanders, J. R. (Eds.) Educational Evaluation: Theory and Practice. Worthington, OH: Jones Publishing Co., 1973.

Wright, J. A. Influences of client socioeconomic status on selected behaviors, attitudes, and decisions of counselors (Doctoral dissertation, University of Southern Mississippi, 1977). Dissertation Abstracts International, 1977, 37(9-B), 4716-4717.

Wright, William A. Comparison of the First Semester Academic Performance of Regular, Honors, and Disadvantaged Freshmen at University of Maryland, Baltimore County, for Fall, 1972. ERIC Document Reproduction Service No. ED124074.

Zanoni, Candido. The 1978-80 General College Retention Program, Final Report: Pilot Education Program. University of Minnesota, Minneapolis, General College, 1980. ERIC Document Reproduction Service No. ED195212.

Ziesat, H. A., Rosenthal, T. L., and White, G. M. Behavioral self-control in treating procrastination of studying. Psychological Reports, 1978, 42, 59-69.

Zirkel, P. A. An evaluation of the effectiveness of selected experimental bilingual education programs in Connecticut (Doctoral dissertation, University of Connecticut, 1972). Dissertation Abstracts International, 1972, 33(6-A), 2680.

Zirkel, P. A. Self concept and the "disadvantage" of ethnic group membership and mixture. Review of Educational Research, 41, June, 1971, 211-255.

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