To the Graduate Council:

I am submitting herewith a dissertation written by Carole Ann Schaum Haynes entitled "A Study of Learning Centers in Southeastern Two-year and Four-year Public and Private Colleges and Universities." I have examined the final copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Education, with a major in Educational Administration and Supervision.

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A STUDY OF LEARNING CENTERS IN SOUTHEASTERN TWO-YEAR AND FOUR-YEAR PUBLIC AND PRIVATE COLLEGES AND UNIVERSITIES

A Dissertation

Presented for the

Doctor of Education

Degree

The University of Tennessee, Knoxville

Carole Ann Schaum Haynes

August, 1989

ACKNOWLEDGEMENTS

The writer wishes to express her gratitude to the members of her doctoral committee: Dr. Gerald Ubben, Chairman, for his leadership, assistance and guidance throughout the doctoral program; Dr. Lynn Ourth, Dr. Dan Quarles and Dr. Mary Jane Connelly for their patience and assistance.

The writer wishes to thank Dr. Gerald Colvin, Dr. Cyril Roe, Dr. Ben Bandiola, Dr. Jeannette Stepanske and Dr. Diane Fletcher for their help and encouragement. Special thanks to Nancy Shaffer, Carol Palmer and Cherri Summerton for their hard work and assistance in innumerable ways.

The writer also wishes to thank the administrators, learning center directors and faculty who participated in the study; their time and assistance in responding to the request for information is sincerely appreciated.

Finally, the writer wishes to express her love and appreciation to her husband, Kenneth, her children and parents, for their support and encouragement not only in this endeavor, but throughout her life.

ABSTRACT

The purpose of this study was: 1) to determine the different types of learning centers within two-year and four-year public and private colleges and universities, 2) to determine the services offered to their clientele (underprepared students), 3) to describe programs that serve the underprepared students, and 4) to analyze the level of success of the learning center programs as perceived by students, faculty and administrators. Data were collected from forty-one two-year and four-year colleges and universities with learning centers and within a one-hundred mile radius of Chattanooga, Tennessee.

An analysis of the data revealed the following:

1. Colleges in general used similar definitions for underprepared students.

2. Learning centers proved to be a valuable instructional service within higher education and should be incorporated into college life through student orientation as well as faculty recommendations.

3. Since underprepared students were easily identified before they ever attended a class, the services and location of the learning centers should be made available to these underprepared students as soon as possible in their college career.

4. Learning centers have evolved to be very similar within the institutions with seven major services used by most of the learning centers. These services offered are: Remedial/Developmental courses,

Diagnostic Testing/Assessment, Academic Advising, Counseling, Tutoring, Study Skills, and Reading/Writing Improvement.

5. Learning centers were important to the college success of underprepared students. The centers should be more prominently promoted as a service and should be identified in the college catalog, in the school newspaper and through advisement, and announcements in classes.

6. The learning centers need to be an on-going supplemental program for many udnerprepared students during their college career.

7. Administrators, faculty and students perceived that learning centers do have expanded academic support and tutoring services which can hlep students.

8. Directors of learning centers were reluctant to provide financial data to outsiders about their programs.

9. Availability of financial information varied greatly from institution to institution so that financial cost comparisons were difficult to make.

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CHAPTER I

INTRODUCTION TO THE STUDY

1. INTRODUCTION

In the 1970's when Scholastic Achievement Test (SAT) and American College Test (ACT) scores started dropping, educators wanted to know what was causing the problem. They suspected it could be the proliferation of easy elective courses or watered-down requirements. When delving into the matter, they found that even though a higher percentage of high school graduates were going to college, many of the high school students were not taking the basic English, science, mathematics, or history courses that were necessary for a college preparatory background (Maeroff, 1982).

Forced to accept students with lower ACT and SAT scores, colleges found that they must somehow assist these students. Many public institutions could not, by law, refuse admission to high school graduates. In fact, some private, as well as public institutions, had a policy admitting any student, regardless of previous scholarship.

In order to bolster weak academic skills, some colleges and universities established learning assistance centers designed to give students appropriate study skills. These learning assistance centers were designed as an academic support system for students, faculty and/or staff. They could assist students by providing remedial and enrichment skills which could contribute to positive adjustment to and performance

in a learning environment. They could also serve as an academic skills resource to faculty and staff and as a resource for faculty/staff development. The purpose of most centers was to provide students with the opportunity to develop appropriate skills that could promote learning and improve study habits. In achieving this purpose, the center helped the institution maintain standards of excellence through its programs and services.

For example, in 1982 the Title III guidelines for the Teaching Learning Center at Southern College had the following short range goals:

1. To provide academic assistance for students and improvement of instructional activities for faculty.

2. To acquire and develop appropriate instruction materials for a full range of academic assistance courses.

3. To provide instruction in a variety of formats: regularly scheduled credit and non-credit courses, modules, workshops on flexible schedules and on an "as needed basis."

4. To develop an on-going system for training and coordinating tutors to work with students individually and to staff the center for open lab hours.

5. To design and pilot an internship program in the learning center for faculty and upper division students.

The American College Personnel Association, a division of the American Personnel and Guidance Association, organized a Task Force

group, called Commission XVI, which set up Standards for Learning Centers written by the members of Commission XVI. After six years of drafts and revisions their goals were as follows:

1. To provide remedial and other programs that teach skills which maximize the learning potential, academic performance, and adjustment of students.

2. To enable students to apply those skills they are developing to actual classroom learning situations.

3. To provide faculty with services and resources for improving teaching and supplementing classroom instruction.

4. To offer individualized and self-paced programs.

5. To help students develop positive attitudes and confidence in their ability to learn (Materniak and Williams, 1987).

2. STATEMENT OF PROBLEM

A review of the literature indicated that although several distinct types of learning centers were available with many divergent services accessible to their clientele, they have been set up without adequate delineation of the design or perceived success of the learning center.

3. STATEMENT OF PURPOSE

The purpose of this study was: 1) to determine the different types of learning centers within two- and four-year public and private colleges and universities, 2) to determine the services offered to their

clientele (underprepared students), 3) to describe programs that serve the underprepared students, and 4) to analyze the success of the learning center programs as perceived by students, faculty and administrators.

4. RESEARCH QUESTIONS

The following research questions were investigated:

1. What were the types of institutions, the definition of academically underprepared students used on their campuses and the major focus of their Learning Center in the institutions included in this study?

2. Were there differences between students selected to participate in the Learning Center, students in the Learning Center serves, and the definition of academically underprepared students used on campus?

3. Were there readily identified patterns among the freshman admissions policies, the type of institutions, and learning center services?

4. What were common elements of Learning Center designs and expenses.

5. Were there measurable differences in the funding of Learning Centers with full-time directors as compared to Learning Centers with part-time directors?

6. Were there differences in the ways referral students and drop-in students were handled?

7. What observations were made regarding the setting of Learning Centers such as location, average number of hours open, services provided, compensation of staff members, and ways Learning Centers are achieving their purpose(s)?

8. Did faculty and administrators perceive a successful change in the underprepared students who attended the Learning Center?

9. How were selected Learning Centers and their staffs perceived by faculty, students and administrators?

5. ASSUMPTIONS OF THE STUDY

The following assumptions were made:

1. There was no single standard evaluation tool to apply to learning centers.

2. Academic proficiency was a goal for the underprepared students.

6. LIMITATIONS OF THE STUDY

This study was limited by the accuracy and thoroughness of the respondents in the completion of the survey instrument.

This study was limited by the perceptions of the participants.

This study was limited by the willingness and availability of the institution's participants.

7. DELIMITATIONS OF THE STUDY

Public and private colleges within a hundred mile radius of Chattanooga, Tennessee were selected as the target population for this study.

8. DEFINITION OF TERMS

Academic success The ability to earn and receive passing grades while in college.

Basic studies programs The primary purpose of the Basic Studies program was to provide instruction with a fixed curriculum and in a classroom setting. Since these courses were used to develop existing skills, usually some kind of college credit was given.

Compensatory education In higher education compensatory education provided remediation activities or enriching experiences.

Developmental education Developmental education took the student through the basic skills into interpersonal skills where he learned to cope with life and make major decisions. It was also the generic term that replaced compensatory, basic studies, and remedial education in post secondary education.

Enrichment skills Skills above those necessary for academic success. This involved students doing work beyond the minimum requirements.

Learning assistance programs A variety of services designated to facilitate learning including diagnosis and placement, tutoring, counseling, individualized learning activities, and reading and study skills development.

Learning Center A college learning center usually offered developmental courses where reading, basic math and basic English classes were available as well as individual and group skills programs, tutoring, materials for self-paced instruction and preparation for graduate and professional examinations.

Remedial education In higher education remedial education denoted testing, diagnosing specific deficiencies, prescribing treatment to improve the deficiencies, and retesting, to prepare students for introductory college level work. The programs could include classroom instruction, learning laboratory work/experience, support services such as counseling or a combination of all three.

Survival skills These were basic knowledge skills which included reading ability and comprehension; mathematical operational skills of addition, subtraction, multiplying, and dividing of whole numbers, fractions, and decimals; as well as understanding and properly using English grammar.

Underprepared students These were students who have low ACT/SAT scores and low high school grade point averages.

CHAPTER II

REVIEW OF RELATED LITERATURE

1. PURPOSE AND ORGANIZATION

An understanding of college learning centers was necessary to complete this study. Therefore, this chapter includes a review of the literature outlining the problems with evaluation: grade point averages, pretest and posttest scores, and student satisfaction; the types of learning assistance programs: remedial, compensatory, developmental and learning assistance; the three most positive elements necessary for successful programs: assessment and placement, instructors and tutors; and the different programs within the learning center.

2. PROBLEMS WITH EVALUATION

Learning centers were very difficult to evaluate because there has not been a standard learning center. Some learning centers focused on basic skills, some on remedial work and some on tutorial programs. A college campus could have one center focusing on one particular program or it could have one center focusing on three separate and distinct programs. If a college had just one program, it usually included some of the services of the others. Most evaluations focused on the following: grade point averages, pretest and posttest scores and student satisfaction.

While the accessibility of post secondary education in the United States increased, academic preparation declined. College and university administrators became aware that many college bound students were underprepared (Cross, 1972; Sanoff, 1980; Shaw, 1981; White and Bigham, 1982).

Colleges admitting the underprepared students on academic probation needed to provide a bridge to academic success; learning assistance centers were one span of that bridge. Thus, colleges and universities had been making an effort to prepare these students by setting up learning centers or special classes (Redman, 1982).

By providing supplemental academic and personal support systems, college and universities could help underprepared students succeed. These learning centers could provide meaningful assistance to their students. Traditionally, the evaluation of a learning center was focused on the end result and the means to attain these results. However, this did not take into account the clientele or the different make-up of each individual school (Boyer, 1981; Moore, 1981).

Boylan (1981) reported that there was no standardized evaluation method, nor any consistency in reporting methods, therefore it was very difficult to compare one learning assistance program with another or to compare one school's program with another.

When using grade point averages to evaluate college reading programs, studies by Burgess (1976) and Turner (1974) found that the learning assistance program, including individual learning activities,

diagnosis and counseling, did result in higher student grade point averages. However, this grade point average did not take into consideration variables such as personal problems, student motivation or difficulty of courses which may positively or negatively affect student achievement. Grades could indicate the effectiveness of specific tutoring sessions to a limited degree. Thus, overall grade point averages would be useful only as a generalized measure of total program performance.

By comparing pretest and posttest and scores, Cross (1976) and Donovan (1975) found that practically all posttests showed substantial gains. However, the gained scores did not necessarily correlate with the skills learned since some students could be conditioned by the exposure of the pretest items such as on criterion referenced tests.

Student satisfaction or student retention were not reliable methods of evaluation because students could be biased. Students could relate well to the instructor or have prior experience totally unrelated to the program being evaluated. Also there could be variations as to how long the student attended the program and whether the student used all the services available (Centra, 1979).

When evaluating underprepared students, retention figures, GPA's and improved test scores could give quantitative evaluation. However, most important were self-esteem and motivation for college study which could not be measured quantitatively but qualitatively (Silverman, 1983).

Thus, with no standardized learning center, no standardized evaluation was available. The evaluations focused on grade point averages, pretest and posttest scores and student satisfaction, but these were not satisfactory evaluations for every program.

3. TYPES OF LEARNING ASSISTANCE CENTERS

With the adoption of the Carnegie unit in 1910, secondary schools did not make major changes in their curricular organization until the mid-1960's when more electives, more vocational programs, more extra-curricular activities and even mini-programs were added. However, these new, innovative programs did not enable some students to develop or refine the learning skills necessary for academic success in post-secondary institutions. Learning assistance centers were difficult to define because some centers had a specific name but actually offered other services. Remedial centers, openly recognized in English and mathematics, were required before students could enter the regular college curriculum. English departments and counseling centers offered programs aiding the student with reading improvement as well as speed reading courses. Developmental centers merged with remedial, compensatory and basic skills centers in developing strengths while correcting weaknesses. Developmental centers also encouraged growth in social as well as academic experiences. The name, learning assistance centers, which included all the above, then became the name of choice for college learning centers.

This was also the time for the "new students" as K. Patricia Cross (1972) described:

> . . . those in the lowest third academically--they drop out of our traditional schools; they quit listening to lectures; they fail to put forth their best effort; they score low on conventional tests designed to reflect the heart of the traditional academic curriculum; they get low marks for their school performance; their interests, leisure time activities and hobbies re 'non academic'; they fail to develop self-confidence, and they tell us they are nervous and tense in class. They are caught in the impossible bind of wanting to be successful but knowing that they will be required to display the style and values that traditional education will certify (p. 156).

These new underprepared students helped bring about the need for more classes in the reading, vocabulary and study skills courses.

With the decline in enrollments in the 80's, colleges and universities needed learning centers to help the underprepared students. Underprepared did not necessarily mean high school students who were poor students or the non-traditional college student; it could mean the college preparatory student who had not mastered the basic skills (Roueche, 1983), it might mean the less traditional students, the minority students, the international students, the part-time students from low to middle income families, or the older students (Litzenburg, 1983).

Although the name varied from learning assistance center, reading-writing lab, remedial center, communication skills center, developmental center, or just learning center, centers were now available to all students (Spivey, 1980).

The learning centers differed from campus to campus but, all were trying to limit college dropouts, improve learning skills and academic performance. Some centers dealt more with the academics of reading, study skills, mathematics and writing while others emphasized the social skills.

Remedial Centers

As part of his inaugural address as president of the University of Michigan, Henry P. Tappan, in 1852, said the American colleges were teaching too many rudimentary (basic) courses. However, in 1939, Harvard University started a remedial reading course for its students, and in 1961, while denying that colleges should teach any reading or study skills, many colleges offered remedial classes for the students who needed them (Maxwell, 1980).

Underprepared students were usually sent to remedial classes because the term remedial, although it had a derogatory connotation, inferred that a remedy could fix the student or make some weakness better (Nist, 1982).

In remedial centers a diagnosis was made on an academic skill, appropriate treatment was prescribed and the treatment was evaluated later on (Clowes, 1980).

Since these remedial programs were designed to overcome academic deficiencies and were used for introductory college level work, they were usually required before the student could be admitted to the regular college courses (Cross, 1971).

The college age students who attended the remedial centers were considered 'slow learners' or 'poor achievers.' The college faculty considered the remedial centers totally unrelated to the main focus of the college and considered teaching a remedial course as punitive. Thus, the college administrators hired inexperienced or uninterested teachers to teach the remedial classes. The underprepared students were supposed to take one remedial course in writing or reading along with the rest of the classes required for the freshman year. It is no wonder taking a remedial class was discouraging to the student (Maxwell, 1980).

Adult students in remedial programs sometimes felt that they were students of low ability or second class students when they could have been in need of programs to develop essential skills in note-taking, time management, exam preparation, or to increase their reading rates or comprehension. Remedial programs had to be non-threatening and non-competitive. Learning tasks, should be clearly defined, communication should be open to provide feedback, and instructions should be clear and simple. Many adult students needed to develop skills in how to reduce test anxiety, how to memorize, how to concentrate, and how to analyze and critique (Algier and Algier, 1982). Also, in dealing with lunderprepared students, self-esteem and motivation for college study was very important (Silverman, 1983).

Developmental Centers

Since remedial centers carried a derogatory connotation, many colleges started to call their centers compensatory or developmental

centers, thus avoiding the stigma of having a remedial center on their campus.

Compensatory education actually came into existence after World War II and was used to make up for the consequences of discrimination or poverty including study skills and reading skills to balance the home environment (Frost and Rowland, 1971). Its primary purpose was to enrich student's experiences where the home could not provide any help. It was supposed to provide extracurricular experiences or activities, although it could also provide remedial instruction (Clowes, 1982).

In 1980, Herrscher gave the following definition:

> Competency based education is an educational framework which systematically focuses on student attainment or a hierarchy of publicly stated and validated intellectual attitudinal, and/or motor learning outcomes and the concomitant instructional processes that facilitate, measure, and certify such attainments (p. 18).

This definition went along with criterion referenced testing which focused on whether the student had mastered a particular skill or objective.

Hunter R. Boylan, the director of the Kellogg Institute for the Training and Certification of Developmental Educations and a professor in Appalachian State University's graduate program in developmental education, defined developmental education as "a holistic term that refers to a field of study, a field of research, and a field of practice. It focuses on a specific clientele--college students" (Boylan, 1981, p. 5).

Developmental education was accepted as a process post-secondary students must go through and included the few who must also take the remedial or compensatory classes (Clowes, 1982). It had been a more recent name change which promoted the growth of the student's learning (Miller and Prince, 1976). The developmental student could refine his value system and interests which could enrich both his work life and leisure time (Drew, 1978). Thus, developmental education could stress supporting the students in the life-making decisions of career or personal skill choices academically or non-academically (Clowes, 1981).

Learning Assistance Centers

In 1979, LeRoy Sullivan completed a survey of learning centers throughout the United States and found that 75% of the four-year and 57% of the two-year public institutions had learning assistance centers of some kind. The private institutions also had learning centers, but not as many. These learning assistance programs were very diverse and included combinations of instructional resources, tutoring, instructional development, and learning skills development. Thus, the term, learning assistance center, became a catch-all for any and all of the special programs designed for underprepared college students.

Frank Christ described a learning assistance center as

> . . . a facility where students (learners) came to affect change in their learning assistance skills and attitudes . . . any place where learners, learner data, and learning facilitators are interwoven into a sequential, cybernetic, individualized, people-oriented system to service all students (learners) and faculty (learning facilitators) of any institution for whom learning by its students is important (Christ 1971, p. 35).

Learning assistance programs emphasize a variety of services designed to facilitate learning, including tutoring, counseling, study skill development and/or reading improvement or development. Basic studies programs were usually taught in a regular classroom setting and where the student received college credit for the courses. Some programs also included support services such as tutoring and advising (Boylan, 1981).

Ambrose Garner (1980) summed up the problem: If learning assistance programs could be developed with the following principles in mind, there would be less controversy:

1. Offer assistance to any student with a discernable need.
2. Assistance should be based on sound needs assessment.
3. Faculty administrators and boards must support the program.
4. Learning assistance programs should be established in the context of general accountability as set up by the college.

If these principles were used, all students who needed help or assistance could be served no matter what the program was called.

4. POSITIVE ELEMENTS FOR SUCCESSFUL PROGRAMS

After reviewing the problem of open admissions inherent with low admission scores and underprepared students, three positive elements necessary for successful learning center programs will be discussed: assessment and placement, instructors, and tutors.

Many educators felt that of the changes made in the 1960's, open admissions or open enrollment was the most devastating. In the fall of 1985, Tennessee Governor Lamar Alexander stated that the main problem of the low quality of education in Tennessee was because anyone who held a high school diploma could be admitted to any state university. Tennessee colleges were even competing for students who were not only underprepared but also uninterested in the academic side of college life. He suggested that colleges have tiers for enrollment.

> The first tier should be 'open enrollment'; these are college preparatory courses--without credit for those who need them. The upper levels should only be for those who have shown themselves both prepared for and serious about rigorous college-level academics (Alexander, 1985).

Students who attended college with an open-door admission policy were not used to studying in the manner necessary for success. Even those who knew how to study had difficulty in the general education section when they were introduced to subjects in which they had little ability or interest. Remedial work and tutoring were intended to be used by the students in need, but they did not look for these services. Teachers assumed that when students needed additional help they would contact the teacher, but they did not (Rossman, et al., 1975).

The City University of New York (CUNY) was founded in 1847 with an open admission policy and the mandate to provide "free education for the sons and daughters of the immigrant poor who could not afford to attend college" (Trillin and Associates, 1981, pp. 1-2). Twenty years later admissions were restricted. Almost one hundred years later in 1969, the

SEEK (Search for Education, Elevation and Knowledge) program recognized that many minority students could not find success in higher education because they were not adequately prepared from high school. The New York City Board of Higher Education again on July 9, 1969 advocated an open admissions policy with the following resolutions (pp. 188-189):

1. It shall offer admissions to some university programs to all high school graduates of the city.
2. It shall provide for remedial and other supportive services for all students requiring them.
3. It shall maintain and enhance the standards of academic excellence of the colleges of the University (p. 2).

The CUNY senior college program was limited to students who finished in the top half of their graduating class OR those who had maintained an 80% grade average in high school. Students who finished in the bottom half of their graduating class OR who did not maintain an 80% or better grade average in high school could enter a CUNY community college. With such a wide diversification of students, CUNY believed it could meet the needs of students at or near the poverty level. CUNY believed it could effectively educate large numbers of students who had potential and motivation but not the GPA thought necessary for college study. These CUNY colleges developed tutorial services, remediation programs, adequate financial aid, and individualized counseling. The administrators wanted the CUNY program to succeed and not become a revolving door admitting able students with inadequate preparation and

then without giving them a chance to perform satisfactorily, push them out the door. La Guardia Community College, one of four colleges established for the CUNY system, had an enrollment increase from five hundred students in 1971 to over seven thousand in one decade. Three thousand of their new students were tested in 1981 and with the following deficiencies noted: reading, 51%; writing, 71%; mathematics, 77%; and English as a second language, 19%. Consequently, the college offered 360 sections of basic skills courses that fall (Hoban, 1983).

In 1983, the State of Louisiana discovered that 40% of their college-bound high school graduates were not ready for college work. However, the Board of Regents estimated that "with remedial work, approximately 65% of these underprepared students can increase their academic skills to the level required for success in college level work" (Myers, 1983, p. 3). Mississippi and Georgia found that about one-third of their enrolled freshmen were taking some kind of remedial work. A national survey by the Board of Regents of universities and four-year colleges . . . "found that enrollment in remedial mathematics increased 40% from 1970 to 1975 and 72% from 1975 to 1980" (p. 4).

In a survey conducted by the National Center for Education Statistics in 1983-1984, one-fourth of all college freshmen were enrolled in one or more courses in remedial mathematics with 21% enrolled in courses in remedial writing and 16% taking courses in remedial reading. The survey did not record overlap so the total number taking remedial courses was unknown. It could run from 25% to 62%.

Eighty-two percent of all institutions offered at least one remedial course; 73% offered remedial courses in writing, 71% in math and 66% in reading (College Freshmen, 1987).

A more recent study by the Southern Regional Education Board in 1987 indicated that over 90% of the institutions responding had some form of remediation. Although there was no consensus as to what was considered "college level" courses, almost one hundred combinations of different tests were used as placement tests for mathematics, reading or writing. At least 30% of the entering freshmen needed remedial help in 60% of the institutions, with over half of the colleges offering more than one level or course of remedial studies. One-fourth of the institutions gave academic credit for this remedial work (College Level Programs, 1987).

Assessment and Placement

Assessment and placement were the most positive elements for successful programs. In order to provide an effective learning environment, the needs of the learner must be assessed. This could include evaluating his abilities and interests, identifying his strengths and weaknesses and areas where changes were needed (Walvekar, 1981). The majority of evaluations should be given before the student is permitted to register for college work. Then the student should be placed in classes or courses where he will succeed (Epstein, 1978; Schnioff, 1982; Cross, 1982-83; Helm, 1983; Morante, 1986).

Parkside, a campus on the University of Wisconsin, had an open admissions policy, and was also working to help the entering students complete their college education. Since many of the non-traditional students and some students directly from the high schools, had low English and/or mathematical skills, the UWP faculty developed their own Collegiate Skills Program. All entering students, except transfer students with more than ninety credit transfer hours, had to take a battery of five in-house developed competency tests. If they did not pass these five tests by the time they had forty-five credit hours, many remedial classes which did not count toward graduation credit were offered. Half of the entering students were required to take remedial course work in either mathematics or English (Cashen, 1981).

The Supportive Services Program of the University of Minnesota, Duluth, had four components in their program. Academic Assessment was for students who received a General Equivalency Diploma (GED) or graduated in the lower half of their graduating class. These students must attend the Supportive Services Program. The staff reviewed each student's test scores and high school transcript, then an assessment was made of what that particular student needed. The second stage was where the program was communicated to the students. They did not have to agree, but they did have to listen to the reason they were placed in certain courses. After classes began, if a student was in the wrong classes, he could change. The students seemed to appreciate the effort

the staff put into planning each individual program and the opportunity of talking with a staff member (Greenbaum, 1981).

Basic Skills Instruction in the areas of deficiency were required in the CUNY system. The students could enroll in remedial courses or find tutors or work on their own; but if they did not score above the acceptable level by the end of their sophomore year, they were dropped from degree candidacy. The University System of Georgia required that students register for remedial courses within the Special Studies Department. They may not take the regular classes until the remedial classes have been passed and retest scores were at an acceptable level. This must be finished by the end of the freshman year or the student may not continue (Marion, 1979). The Arkansas State Board of Higher Education adopted a special placement test in English and mathematics for all entering students in their public colleges and universities starting in 1988. Underprepared students will be placed in non-credit remedial courses (New Student Placement, 1987).

La Guardia Community College, part of the CUNY system, gave each student placement tests in reading, math and writing before they were permitted to register. Then a program was offered as a package. The La Guardia program proved that any student entering at any level could graduate with an associate degree (Hoban, 1983).

After the students at Miami-Dade Community College were assessed, they were given an appropriate prescription for courses that would help them overcome their own deficiencies. The students were given the

responsibility of their own destiny and the elements for their own success. Regular teachers advised the students who declared a major and did not have basic skill deficiencies. The undecided students and/or the ones with academic difficulty were seen by the counselors in the student services area. Each counselor had a list of courses and interventions to help students in each specific area of difficulty. Because of the stringent course outline and placement, the students needed to work very closely with their counselors. This established a good rapport and the students had a better chance of success. Miami-Dade's success could partially be attributed to their intelligent use of technology. At the end of seven weeks the instructors were asked two questions regarding their students: Is attendance satisfactory? Is performance satisfactory? This way each teacher was forced to check the progress of each student. All student information was fed into a computer. Then a personalized computerized letter was sent to each student, stating his progress in each course as well as suggestions for improvement (Cross, 1982-83; Schnioff, 1982).

To properly have served the needs of the underprepared students, time must be spent giving assessment tests, grading them and placing the students in the classes where they belong. Then the student would be able to work at his ability level and successfully progress to the next level. Assessment tests and proper placement have been positive elements in the successful programs reviewed.

Instructors

Another positive element necessary for successful programs were the instructors. They may come from academic backgrounds of reading, psychology, English, or special education or from student personnel.

According to data gathered by the College Marketing Group of Winchester, Massachusetts in 1986, about 26,000 college and university faculty were teaching some area of developmental education. Grammar or composition courses were taught by 35% of the total number or about 9100 instructors with 11% more added for English as a second language. Remedial mathematics or developmental mathematics included 8000 instructors or 31% of the developmental instructors. This did not include those who teach study skills or any kind of reading improvement classes (Boylan, 1986).

Although some specialized education was available, much of the expertise came from on-the-job training. In 1972, Appalachian State University established the first graduate program leading to either a Master's degree or an Education Specialist degree in developmental education. They also offered workshops and short-term internships. The W. K. Kellogg Foundation of Battle Creek, Michigan had established summer sessions and practicums through Appalachian State where directors or staff members could take four weeks of intensive training in the summer with a practicum involving their own learning centers during the school year (Spann & Boylan, 1981).

In July 1976, the University of California, Berkeley, in connection with the California Department of Education, began an intensive program for staff members or directors of learning centers. Offered every summer, this week long program permitted the participants to become acquainted with other professionals in their own field who shared their same interests and concerns. When they returned to their own campuses, they did not feel as isolated; some were even reassured that they were doing the right thing while others tried a new idea or tactic (Maxwell, 1981).

Any teacher could attend workshops or do the internships, but a successful learning assistance professional must be willing to work with students requiring individual help (Baker and Painter, 1983; Roueche and Snow, 1977; Trillin, et al, 1980; Murphy, 1979). Dickens (1980) defined a developmental educator as one who ". . . facilitates the improvement or skills of underprepared students so that they may realize their own potential and reach their educational goals" (p. 17).

Since most underprepared students of any age needed support, structure and organization, a knowledgeable, caring and understanding teacher was a necessity. Some students did not expect to succeed and looked to teachers for confirmation of that. Instead many teachers used reality counseling requiring the student to look at himself and identify his success and failure identities. Then by teachers getting involved with the student, focusing on his behavior, evaluating his problem and

how he handled it previously, and helping him make a realistic plan to do better, students did learn to succeed (Spann and Vandett, 1981).

The students regarded the teacher as being an expert in his field as well as possessing the cognitive skills of synthesizing that information so that they could understand it. Thus the teacher must know how the learning takes place and be willing and able to share these skills with the students (Atwell and Smith, 1979; Bailey, 1982; Burnham, 1982; Brockett 1983; Roueche and Watkins, 1982).

When teachers became involved with the learning process, the students benefited (Bartlett, 1983; Jones, 1984). Five professors from English, speech and education trained eleven Ithaca College liberal arts professors to incorporate basic communication and reasoning skills into their classes. The faculty were instructed in the basic skills areas and then incorporated ways for their students to achieve these skills through their particular content. Many of the professors were surprised when using the Fry and SMOG Readability Formulas to see how difficult the reading was in their textbooks. Some selected other texts, assigned supplemental material from the library, or even supplied students with guided reading questions for each reading assignment. Students were shown how to use the three kinds of reading comprehensions: literal, interpretative and applied for each particular class and were taught to read at various speeds (Erlich, 1983).

Students learned better when they were involved in the learning process. And when faculty student interaction increased, the students

benefited. Positive teacher attitude and understanding toward the needs of the students and high expectations, in line with the students' abilities, resulted in rigorous but obtainable goals toward instruction (Greenberg, 1983; Leflar, 1982).

Instructors should care about the feelings of their students and be interested in their well being (Burnham, 1983). When a teacher permitted the student to know he was truly interested in the student and was willing to help him succeed, more students did succeed. This kind of program retained more students because as the teachers kept them aware of the different support services available on their campus, the students visited the adviser more often and, in turn, received more attention (Glennen, 1983).

The Learning Assistance Center at California State University, Long Beach added classroom learning workshops where the students examined their learning skills and contemplated what they could do to improve these skills. A Study/Reading Workshop was held when a faculty member requested it. The teacher furnished the text and the types of assignments and tests that go with it to the learning assistance instructor, who then presented the students with practical step-by-step methods for effectively studying the text and for retaining the information for the test (Reed, 1986).

During instruction the teacher must organize his time effectively, have a systemized lecture, give clues to important items or items that might be found on a test, repeat key phrases and use the chalk boards,

overheads and ditto materials to stress those important points. After the lecture the teacher should help the student organize his notes, giving him time to ask questions or edit as necessary (Kahn, 1981).

Other teachers thoroughly instructed and discussed the different techniques of outlining, then gave the class an article to outline in groups. The different points were discussed and the best agreed upon (Hoffman, 1983).

One teacher divided her class into teams including one high achiever, one low achiever and two or three average students. The teacher continued to teach her normal way, but to reinforce the information, worksheets were given to the team and they had to come up with group answers. Each member worked with other members to make it a real team effort. At the end of each unit the teams changed. Students were given their own scores on the quizzes and tests, but for the team effort, they were combined and ranked as to how they did as a team (Lockwood, 1988).

Caring instructors developed positive self-concepts within their students by developing interpersonal skills using probe and clarifying questions. The students expressed their desires, opinions and even frustrations to the teachers, observed other students, then learned how to feel positive about themselves (Epstein, 1978; Roueche and Thompson, 1980).

The interpersonal skills of an effective instructor included being sensitive to the student's needs while thinking of the total student.

Developmental educators cared for their students and often developed interpersonal relationships whereby they could see the student grow. When the teacher listened and offered a little advice, the student felt better about his kind, caring teacher. The student did his best in the classroom because his self-confidence was greater; he did not fear the classroom, teacher or test (Thompson, 1986; Bliss and Mueller, 1987).

Vernon Avila, the Mexican American son of a coal miner, was an understanding teacher who raised standards in biology instead of lowering them. He used himself as a role model when students were told they could not go into a science major. Since he had about half the students in his class as the other teachers, he used this advantage and gave his students the personal attention they needed. He was willing to work with his students and they never felt they were intruding on him or his time. He met with the students for classes and labs and also for a weekly discussion group. When dealing with Gregory Mendel's theory of hereditary characteristics, instead of using the traditional smooth and wrinkled peas, Avila began by discussing the Sickle Cell Anemia. This was much more interesting to his class, which had a large number of blacks in it, and they remembered this lesson (Degnan, 1976).

The advisor or the instructor could use follow-up and intervention to make sure the student was going to the right class. The student may be counseled to drop a class or be advised to take a WP (withdrawal but

passing) in a class before receiving an F. When students were not going to class, not turning in any assignments or just turning in late work, intervention was definitely needed (Boylan, 1980).

Underprepared students spent less time talking to instructors, and were less motivated than students who experienced success in their work. Whereas, the more successful, prepared student was willing to spend time talking to instructors about academic subjects where he experienced success. On the other hand, underprepared students tended to spend more time on non-school related items (Cross, 1971).

When a student was interested in a subject, he usually spent more time doing an assignment for that class because he was curious or concerned about the material or liked the teacher. Most people were motivated to do the things they like; thus, it would make sense to say that the high achieving students spent more time studying than the low achieving students because they enjoyed what they were doing. Low achievers therefore, spent less time studying, made poorer grades and had lowered success. They also did not take the time to become acquainted with their instructors (Cross, 1982-83).

Using Piaget's theory of sequential development, learning time for underprepared students was not the same as the semester or quarter course of study (Miles, 1981). It might take some students longer to complete a program than others. Teachers, instructors, or advisers had to relate this information to the involved students in a way so they did

not become discouraged. Therefore when they did receive a degree or certificate, it would mean that they had succeeded (McCabe, 1983; Purvis, 1987).

Recent research suggested that students who studied, but still did not understand what they studied were under the domain of metacomprehension. This was a new term to describe that students were aware of and could control their reading comprehension. Since students viewed knowledge as isolated facts or concepts, something had to be done to change these into an organization. The teachers took the time to show them how one chapter related to another and how to link isolated ideas into whole ideas. By students interacting in their heads with the materials, by asking themselves questions, by making inferences and by visualizing, they did better. Students prepared for tests by asking 'How' or 'Why' questions and turned the headings or sections into questions. Students appreciated the teachers for taking the time and being concerned for them (Long and Long, 1987).

In order for the student to become a good learner, he had to be an active participant. He could not just sit there and let someone else do the work for him. The instructor made the learning goals clear and explicitly plain to the student. Small portions of the lesson with good feedback and self-paced material did the best for underprepared students. Then the student knew why the lesson was taught, what good it would do him in later life and when it might be of future use to him (Baker and Painter, 1983).

Many nontraditional students felt they were out of control; therefore, if they failed, it was because they were not in control of their lives. They did not see any relationship between their work and their grades. Teachers and counselors needed to help these students see that they were in control and that they were obliged to take the responsibility to see that the work was done. This form of learned helplessness had to unlearned. There was a consistent reinforcement to establish a new pattern. The student had to see value in what he was doing. He needed to trust the instructor and learn to be self-directed (Roueche and Mink, 1980).

The effective instructor who best helped the underprepared students had positive attitudes toward the student's needs and abilities, and expected a high level of commitment and achievement from those students. These teachers were flexible and planned the student's program around their strengths as well as their weaknesses. They were not afraid to become involved with the students; they gave support and encouragement when it was needed. All in all, the learning center instructors were not afraid to let the students know they cared about them.

Peer Tutors

College students had to become more actively involved not only in what they expected in academic college level learning, but how the standards were to be met. Peer tutors, the third positive element in successful learning centers, could fill this need.

They have attended some of the same classes, have listened to some of the same teachers, and have experienced some of the same frustrations. Just as it was usually a very special teacher who chose to work with the underprepared students, it was the same special kind of person who chose to tutor an underprepared student. It could be that they had a special interest in learning problems, it could be that they had problems themselves, or it could be just that they wanted to help others. Of course, they must be able to listen to the student's problems, be able to diagnose the problem, be specific in corrections, be clear in their expectations and be accessible to the students (Obler, 1983; Furcron, 1980; Schmelzer, Brozo and Stahl, 1985).

In 1980, Boylan wrote that underprepared students were not aware of the necessary processes they needed to go through in order to stay in good standing in school. He felt some academic interventions were needed with orientation, monitoring and follow-up as necessities. He mentioned that during pre-registration or orientation was a good time for students to meet with peer tutors or other students who had been through the process. During this time the students could be placed in a program designed to meet their needs during that first year.

Underprepared students need to be monitored during their first year to see that they are using the information packets as well as going to class and handing in the necessary work. This way procrastination, tardiness, poor planning, or lack of communication with the teacher could be avoided (White, 1980; Roueche and Snow, 1977).

Tutors were not just for the underprepared students; the Special Academic Services at the Brooklyn Center of Long Island University, New York offered tutorial services to all students, thereby eliminating the stigma of inferior students (Clarke, 1980). Even medical school applicants who hade been thoroughly screened, still needed extra tutorial help in such areas as notetaking, test-taking, text reading, or study skills (Martin, 1980).

Stanford University had a learning Assistance Center; however it was not primarily a remedial center. Bright students could use the center to enrich their knowledge on vocabulary while credit courses included study skills, reading and writing as well as courses in peer counseling (Walker, 1980).

Some universities have designed Supportive Services Programs which included tutors or peer assistants who have been trained and received credit for their experience. The peer tutors were observed and met regularly with the learning assistance center's instructors (Greenbaum, 1981).

Usually when a student asked for a peer tutor it was because he was having trouble with a specific class. Tutors were trained to ask the students pertinent questions to find out which area they were having trouble in and how they (the tutors) could best help them. Since tutoring was very different from a lecture, good tutors had to be trained in demonstrations; guided practice and analysis of the process with immediate reaction, and immediate positive reinforcement for

appropriate responses. Tutors had to know how to meet and work with people, how to interpret and use non-verbal communication and how to listen actively (Hoobler, 1980; Schmelzer, Brozo, and Stahl, 1985). One student tutor from the Learning Center of Mid-American Nazarene College, attended lectures and then held voluntary review sessions which incorporated note-taking techniques, time scheduling, text reading, test-taking strategies and even supplemental readings (Peck, et al, 1981).

The Developmental Studies Program at Northern Kentucky University worked out an agreement to allow their students to enroll in a pairing of courses in which they feel they need specialized reading/study or writing help. The pairs, consisting of the regularly enrolled students plus a specially screened student that needs specific help, met three hours per week for each class, plus they attended the reading/writing lab once a week for individualized help. These students learned how to think critically by the discussion groups, learned how to study more systematically, took better class notes, read the textbook more comprehensively and became more independent learners (Ganschow, 1980). Information from more than three hundred post-secondary institutions in the nation found that tutors who were trained to enhance the learners' self-concept, concerned with the feelings of the students and interested in their well-being were significant to the completion of a degree (Burnham, 1983).

In some programs the teachers not only recommended tutors but often hand-picked them from their own classes. The English tutorial program at Mansfield State College encouraged this. The tutors must be at least sophomores, in good academic standing and have at least a "B" grade in the subject they would be tutoring which may or may not be their major field. The tutor was then required to attend all the teacher's classes so he could thoroughly understand the material, how it was presented and what was expected of the students (Sexauer and Koloski, 1981).

North Carolina State University used the modeling method of problem solving for their underprepared students. Since many of these students were timid and shy they jumped from question to question without thinking about the problem. By attending the tutoring sessions the students were taught that problem solving required careful thought and logical steps with alternate approaches. The student tutors were trained to be patient, to be logical, and to be very careful of the student's work (Mills, 1982).

Peer tutoring was beneficial not only to students who needed help, but also to the tutor helping. The tutors learned because by teaching someone else, they were more aware of what was necessary to learn. Tutors did not have to be straight A students, but rather needed a knowledge of the course and be interested and willing to help others. They must be able to work well with their fellow students and teachers. If the tutors did not know an answer, they knew where they could find the information quickly. Tutors needed to remember that although they

might be more adept in one particular area, the student needing help might be more knowledgeable in his own field (Beck, Hawkins and Silver, 1978).

Although tutors were usually paid by the hour, writing tutors at Nassau Community College received college credit for their tutoring. These tutors wrote papers and critiqued papers from students within the class as well as some professional writers. They kept journals of their classroom and tutorial experiences and discussed and analyzed any problems (Beck, 1978).

Peer tutors were not necessarily the smartest students in a given class, but they were willing and able to help their fellow students. Some came from the ranks of the underprepared so they knew how to advise their peers regarding keeping up-to-date in the classes. Others were willing to listen to lectures, take notes and then go over their notes with other students. Still others critiqued papers and had their papers critiqued to help them become better tutors. Tutors like instructors had to be special people willing and able to help others.

4. PROGRAMS WITHIN THE LEARNING CENTER

Since funding was more difficult to obtain and colleges were allowing more underprepared students to enter, college administrators and faculty looked to learning assistance centers to help with declining or missing skills. In some subjects such as mathematics and science, learning must be sequential. Therefore, it would not make sense for

students to attempt pre-calculus during their freshman year in college when they could not do the simple fractions as they were taught in the sixth grade.

Knowing that as many as half the freshman class were taking remedial mathematics, Harold L. Enarson, president of Ohio State University during the 1970's, realized the university's open access policy could be costly and inefficient (Maeroff, 1982). When colleges admitted these underprepared students they could not leave them to flounder around, but had to help them grow in relation to their interests and abilities (Henderson and Henderson, 1975).

Many universities designed a Supportive Services Program which could cover academic planning assistance, could assist in financial aid, could remove technical and attitudinal barriers facing the learning disabled, could provide classes in academic and life skills, could make the physical environment more accessible, and could provide support for students from different cultures. Typically, teaching assistants and peer student tutors helped with reading, writing, math and study skills which met once a week for a lecture with two more hours in lab in classes (Greenbaum, 1981).

Other colleges offered a nine week course covering reading, writing, speaking and listening as well as self awareness and creating a positive self-image. Students were taught how to listen and take notes as well as how to read a book and remember what they have read (How to Survive, 1976).

Many of the underprepared students not only needed to learn the basic skills, but they also needed to learn generic thinking skills. These skills could be learned and applied in algebra, basic math or advanced physics as well as in basic grammar or Shakespeare. Some of the tools of thinking included classifying and ordering items into meaningful groups, seeing relationships or seeing how a certain object related to a bigger or more complex object, being specific in details, asking questions, analyzing situations, manipulating alternatives and communicating to one person or to a group (Mills, 1982; Jenkins, 1986).

Sacramento City College developed HELP (Higher Education Learning Package) which was designed primarily for the non-traditional at-risk student. Most of these students were reading at the seventh to tenth grade level; therefore, not only were their reading skills deficient, but their self-concept and study habits were poor. Three instructors taught reading improvement classes centered around the content area reading materials. Thus a unified and intense learning experience was presented within a supportive environment. The students showed improvement in their basic reading skills and in their understanding of the content area materials, as well as improvement in their communication skills and their self-concept (Luvaas-Briggs, 1984).

Another key issue was that of involvement. While boredom or lack of commitment and poor grades were the reasons most students gave for dropping out of college; when they became involved with their learning process, they were more likely to stay in school (Astin, 1975).

Students became involved when the teachers acted like they cared about the students. Faculty members who interacted with the students not just in the classroom, but after class, on the sidewalks, or in the cafeteria showed the students that they truly cared. This caring atmosphere made the student feel better about himself which in turn allowed him to get involved in college activities which ranged from studying to participation in extra-curricular organizations (Turnbull, 1986).

Many students knew how to study and take notes in class, but they did not study or take notes. They often did not take advantage of the support services available or take part in the developmental education programs because they felt that they were not worthy of being helped. They had no self-confidence and had negative feelings about their academic abilities. These were the students who needed strong counseling programs. They needed to identify with a professional counselor who could turn their negative feelings into positive expectations (Bliss and Mueller, 1987). Confidence in themselves could make the college experience more successful (Thompson, 1988).

Although many different programs were available for the underprepared students, some students still had a hard time attending the programs or classes. Therefore, some institutions provided workshops. These workshops were given in the student centers, club houses or dormitories and ranged from time management to term paper writing to test taking. Students were shown how to study, how to take notes in class, how to outline, and even how to mark a textbook.

Usually these workshops were sponsored by the Learning Center but could be requested by specific teachers (Reed, 1986; Niemeyer, 1982; Denton, et al, 1988; Hartman-Haas, 1981).

Programs within the learning center were also a very important part of college learning centers. Some institutions designed Special Services or Supportive Services--programs to give support to the underprepared students in academic areas, financial aid, life skills and counseling. Some colleges offered a nine weeks course in the basics as well as self awareness and creating a positive image. Other colleges offered workshops which ranged from time management, how to study, how to take notes and how to take tests. Programs varied from school to school, but they too, were very important to the underprepared college students.

Learning centers have been hard to evaluate because there has not been a standard learning center. Some centers focused on basic skills, some on remedial work and some on the tutorial programs. Evaluations have been focused on the grade point averages of the students, on their pretest or posttest scores or on student satisfaction. Although learning centers have been called by various names, all were trying to limit college dropouts and improve learning skills and academic performance. The successful learning centers included the assessment and proper placement of underprepared students, instructors who cared about their students and peer tutors who were willing to help the students. Even though support programs had different names, their goal

was to support the underprepared students in academic areas, in financial aid, in life skills, or in counseling. Workshops were held to aid students in time management, note taking and removing test anxiety. Although the names and services have varied, they were very important to the success of the underprepared students.

CHAPTER III

METHODOLOGY

1. INTRODUCTION

This was a two stage descriptive study first surveying Learning Center directors followed by a visit to four college learning centers selected from the institutions surveyed.

A review of research indicated that no appropriate validated instrument existed which would adequately collect data needed to complete the study. A questionnaire was designed for checklist responses and included open ended questions. The items of the questionnaire were developed and designed by the researcher to provide specific information relative to this study. The instrument was reviewed by a panel of experts in the field of learning centers from different areas of the country. The panel included the following:

Dr. Hayes Fletcher, Lambeth College, Jackson, Tennessee

Dr. Lilya Wagner, Union College, Lincoln, Nebraska

Dr. Gerald Colvin, Southwestern Adventist College, Keene, Texas

Carolyn Luce Kujawa, Columbia Union College, Takoma Park, Maryland

Mary Elam, Southern College of Seventh-day Adventists, Collegedale, Tennessee

The questionnaire was then modified in accordance with the suggestions from the panel. (See Appendix A)

2. PROCEDURES

The population in this study was all two- and four-year public and private colleges and universities within a one hundred mile radius of Chattanooga, Tennessee. The college and universities were identified from listings in the American College and University Blue Book. A letter (see Appendix B) was written to each registrar requesting information about the name of the learning center, if they had one, and the name of the director. A personalized letter (see Appendix C) was then written to each learning center director with the survey instrument (see Appendix A) included. Since all the questionnaires were not returned within the specific time, a second letter (see Appendix D) was written to the learning center directors with another copy of the questionnaire requesting compliance. Finally for those few non-responding directors, personal telephone calls were placed and the information given over the telephone was recorded, resulting in a 100% rate of return. Appendix E provides a list of the forty-one institutions included in this study.

Based on the information returned from the learning center directors, four colleges were selected for further study. Selection was determined based on the information regarding the size of undergraduate student population, and the number of students who attended the learning center, and the comments given regarding the uniqueness of their learning center. The school from Georgia wrote that they offered "a comprehensive program ranging from a remedial/developmental studies

program to college-wide testing, to independent studies in college courses, to computer-assisted instruction lab." One college from Tennessee stated,

> We assess every entering freshman with the College Board Test. The results are used for advisement purposes. Recommendations are College Level, Developmental, or Remedial. The unique thing is every student is tracked from the time they enter until they leave.

The other Tennessee college was chosen because it was under a different system. They commented, "Tutoring is supported by a thorough training program." The college from Alabama had these comments,

> The Center for Individualized Instruction is the only frequency-based academic assistance center in the USA. We utilize computer-assisted instruction, the personalized system of instruction, and precision teaching. Currently we are writing a book summarizing six years of empirical data.

The four case studies represented a community college, two former private colleges which were now state institutions and one private college. This part of the study involved an in-depth on-site interview of these four selected institutions' learning programs using ethnographic techniques.

The primary source of data for the case studies came through observations and interviews with administrators, learning center directors, lab assistants, tutors, instructors, teachers and students. Follow-up interviews were conducted by telephone when necessary. Brochures, catalogs, handbooks, advisement manuals and copies of procedures were obtained, when possible. An interview guide (See Appendix F) was employed to gather information focusing on the

perception of the faculty and administrators toward the academic performance of the students who had visited the learning centers.

Upon completion of the taped interviews of each institution, the tapes were labeled and transcribed. Approximately fifty pages of field and interview notes were gathered for each case study. The case studies were written using the interview guide questions and compiled in the order of the guide. Additional information from the brochures, advisement manuals or learning center procedures were also incorporated as they pertained to any segment of the case study.

CHAPTER IV

PRESENTATION AND ANALYSIS OF THE DATA

1. INTRODUCTION

The purpose of the study was: 1) to determine the different types of learning centers within two and four year public and private colleges and universities, 2) to determine the services offered to their clientele (underprepared students), 3) to analyze the relationship of the underprepared student and the successful programs, and 4) to analyze the level of success of the learning center program as perceived by students, faculty and administrators. This chapter includes the presentation of the data, an analysis of the data collected from the questionnaire and an interpretation of the data.

2. DEMOGRAPHICS

Sixty-one colleges and universities were identified in the American College and University Blue Book as being accredited and within a one hundred mile radius of Chattanooga, Tennessee. A letter was written to each registrar inquiring if they did have a learning assistance center and the name of the director. One hundred percent of the letters were returned within a one month period giving the requested information. Table I shows the location of the colleges used in this study.

Table I

Geographic Location of Institutions and Percentage of Those With Learning Centers

Area	Number Institutions Contacted	Number With Learning Centers	Percent With Learning Centers
Alabama	16	10	62.5
Georgia	15	9	60.0
Tennessee	30	22	73.3
Total	61	41	67.2

The registrars responses indicated that fourteen of the colleges did not have any kind of learning assistance programs and six others did have some kind of tutorial programs but they were small individual labs not located in any particular area. Because this was a small number for a study, follow-up letters were sent to the directors of the learning centers, followed by telephone calls until one hundred percent of the questionnaires were answered and returned.

Of the forty-one institutions with learning centers, data were received from fourteen directors of two-year public colleges, four directors of two-year private colleges, eight directors of four-year public colleges or universities and fifteen directors of four-year private colleges or universities as depicted in Table II.

Eighteen directors answered that their school had an open admissions policy, eight replied their school had a selective admissions policy, fourteen said their admissions policy was open with some programs selective and one replied that they were highly selective with their freshmen. This is shown in Table III.

The data presented in this part of this study are organized to respond to the major questions of the study as stated in Chapter I.

1. <u>What were the types of institutions, the definitions of academically underprepared students used on their campuses, and the major focus of their Learning Centers in the institutions included in this study</u>?

Table II

Type of Institution by Number and Percent

Response	Number	Percent
Two year public	14	34.1
Four year public	8	19.5
Two year private	4	9.8
Four year private	15	36.6
Total	41	100.0

Table III

Nature of Freshman Admissions Policy by Number and Percent

Responses	Number	Percent
Open	18	43.9
Selective	8	19.5
Open - some programs selective	14	34.2
Highly selective	1	2.4
Total	41	100.0

The majority, 66.7%, of the two-year institutions both public and private indicated that their major focus was developmental or teaching the basic skills. Learning assistance--using tutors, counseling or individualized learning activities--was next with 33.3%. The four-year institutions both public and private indicated the same kinds of policy with very similar percentages: 65.2% for teaching developmental skills and 34.8% for learning assistance as shown in Table IV.

Because of multiple responses to the definition of academically underprepared students, the numbers do not always total the number of colleges responding. However, Table V showed that 55.6% of the two-year institutions defined academically underprepared students as those with low ACT/SAT scores and those with low high school GPA's. The four-year institutions considered low ACT/SAT scores first with 95.7% followed by low high school GPA's with 47.8%.

2. Were there differences between students selected to participate in the Learning Center, students the Learning Center serves, and the definition of academically underprepared students used on campus?

Using the previously mentioned definition of academically underprepared students adopted on most campuses--that of students with low ACT or SAT scores--staff members from 48.8% of the institutions referred underprepared students to the learning centers, students from 46.3% institutions elected to attend the learning center on their own and 36.6% of the institutions required students with low admission status to attend the learning centers. Of the colleges who defined

Table IV

Major Focus of Learning Center by Type of Institution and Percents

	Type of Institution			
Major Focus	Two Year	Percent	Four Year	Percent
Developmental-Basic Skills	12	66.7	15	65.2
Learning Assistance	6	33.3	8	34.8
Total	18	100.0	23	100.0

Table V

Definition of Academically Underprepared Students Used on Campus and Percents Shown by Type of Institution*

	Type of Institution			
Definition**	Two-Year	Percent	Four-Year	Percent
Low ACT/SAT Scores	10	55.6	22	95.7
Low High School GP	10	55.6	11	47.8
GED	6	33.3	1	4.4
Low College GPA	4	22.2	5	21.7
Minority or Ethnic Background	2	11.1	2	8.7
Others*	8	44.5	5	21.7
Number =	18		23	

*Because of multiple responses, the numbers will not total the number of colleges responding.

underprepared students on the basis of low high school grade point average, 29.3% of the institutions required students to attend the learning center if they had low admission status while 26.8% of the institutions permitted the students to choose to attend the learning centers as these findings are displayed in Table VI.

Remedial students in 51.2% of the institutions were permitted to select whether they would attend the learning centers on their own, 48.8% of the institutions had staff members refer students and 46.3% required attendance at the learning centers because of the student's admission status. The institutions were almost evenly divided as to students enrolled in regular English and mathematics classes who could choose to attend the learning centers, those who were referred by staff members and those who were required to attend because of low admission status. These data are shown in Table VII.

Table VIII shows that institutions with academically underprepared students as defined by low ACT or SAT scores had students who attended learning centers from 68.3% of the remedial courses, 43.9% from regular English classes or any other college class and 39.0% from the regular math classes. The academically underprepared students as defined by low high school GPA, had students attending the learning centers from 46.3% of the remedial classes, 24.4% from regular English classes, 29.3% from regular mathematics classes and 26.8% from any college classes. There were no observable differences between the students selected to participate in the learning center, the students the center serves

Table VI

Definition of Academically Underprepared Students by Percentage as Students Are Selected to Participate in the Learning Center*

Definition**	Referred by Staff	Referred by Self	Low Admission Standards	Low High School GPA	Low College GPA
Low ACT/SAT Scores	48.8	46.3	36.6	31.7	26.8
Low High School GPA	22.0	26.8	29.3	19.5	9.8
GED	4.9	7.3	7.3	4.9	2.4
Minority or Ethnic Student	7.3	4.9	7.3	4.9	4.9
Low College GPA	14.6	9.8	12.2	7.3	9.8

*Number = 41

**Because of multiple responses, the numbers will not total the number of colleges responding.

Table VII

Groups of Students the Learning Center Serves by Percents as Students Are Selected to Attend the Learning Center*

Groups Learning Center Serves**	Low Admission Standards	Referred Self	Referred Staff	Low High School GPA	Low College GPA
Remedial	46.3	51.2	48.8	24.4	19.5
Regular English Courses	36.6	36.6	36.6	22.0	17.1
Regular Mathematics Courses	34.1	36.6	36.6	22.0	14.6
Any Student in Any Class	39.0	26.8	31.7	17.1	14.6
General Public	7.3	4.9	2.4	2.4	2.4

*Number = 41

**Because of multiple responses, the numbers will not total the number of colleges responding.

Table VIII

Academically Underprepared Students (Groups of Students the Learning Center Serves) by Percents and Definition*

Groups Learning Center Serves**	Low ACT/ SAT Scores	Low High School GPA	GED	Minority or Ethnic	Low College GPA
Students in Remedial Courses	68.3	46.3	17.1	9.8	19.5
Students in Regular English Courses	43.9	24.4	9.8	7.3	14.6
Students in Regular Mathematics	39.0	29.3	12.2	4.9	12.2
Any Student in Any Class	43.9	26.8	9.8	7.3	14.6
General Public	12.2	14.6	7.3	2.4	4.9

*Number = 41

**Because of multiple responses, the numbers will not total the number of colleges responding.

or the definition of academically underprepared students used on campuses.

3. Were there readily identified patterns among the freshman admissions policy, the type of institution, and learning center services?

When looking for distinguishable patterns in freshman admissions policies between two-year and four-year institutions, 50% of the two-year institutions responded that their admissions policy was open with 38.9% responding it was open with some programs selective. Just 11.1% indicated that their admissions policy was selective. On the other hand, 39.1% of the four-year institutions indicated that their admissions policy was open with 30.4% responding their policy was open with some programs selective. Selective admissions policies were selected by 26.1% while 4.4% said their programs were highly selective. This was depicted in Table IX.

Of the two-year institutions responding to the services available for academically underprepared students, 83.3% of the institutions had Remedial/Developmental courses, Diagnostic Testing/Assessment, Academic Advising, and Counseling and 77.8% of the institutions reporting Tutoring, Study Skills and Reading and/or Writing Improvement. In the four-year institutions, 87.0% reported having Remedial/Developmental courses, Reading and/or Writing Improvement and Tutoring while 78.3% reported they had Study Skills. Academic Advising and Diagnostic

Table IX

Nature of Freshman Admissions Policy by the Type of Institution amd Percent

Freshman Admissions Policy	Two-year	Percent	Four-year	Percent
Open	9	50.0	9	39.1
Selective	2	11.1	6	26.1
Open-some programs selective	7	38.9	7	30.4
Highly Selective	0	0	1	4.4
Total	18		23	

Testing were found in 73.9% of the four-year institutions. Table X summarizes these responses. Therefore, the services available for academically underprepared students were very similar whether the student was admitted to a two-year or a four-year institution.

4. What were common elements of Learning Center designs and expenses?

The number of students served in the learning centers ranged from ten to more than five thousand although the total undergraduate enrollment ranged from 180 to 24,800. When asked about the budget of the learning centers, nineteen directors responded that they had a separate budget, but only fourteen actually provided the amount of their budgets. These ranged from $2,800 which was for supplies and equipment only to $980,000. Not all of these budgets reflected the salaries of the teachers or instructors. Some directors were actually full-time faculty in a different department so their salaries were not included. Since the least amount budgeted was for supplies and equipment only and the greatest amount was a Title III federally funded program they were excluded when figuring the average amount spent. This gave an average of approximately $365 per student. This is shown in Table XI.

5. Were there measurable differences in the funding of Learning Centers with full-time directors as compared to Learning Centers with part-time directors?

Twenty-nine of the respondents replied that they did have directors. This included thirteen female directors, eight male

Table X

Relationship and Percent of Responses to the Services Available for Academically Underprepared Students in Two-Year and Four-year Institution*

Services Available	Two-Year Institutions	Percent	Four-Year Institutions	Percent
Remedial/developmental course	15	83.3	20	87.0
Diagnostic testing/ assessment	15	83.3	17	73.9
Academic advising	15	83.3	17	73.9
Counseling	15	83.3	16	70.0
Tutoring	14	77.8	20	87.0
Study Skills	14	77.8	18	78.3
Reading/writing improvement	14	77.8	20	87.0
Career Planning	12	66.7	13	56.5
Personal Skills	7	38.9	9	39.1
Consultation on a drop-in basis	6	33.3	13	56.5
Study Groups	5	27.8	7	30.4
Facilities for self help	5	27.8	4	17.4
Special orientation session	5	27.8	9	39.1
Support groups	4	22.2	6	26.1
Seminars	4	22.2	2	8.7
Group workshops	3	16.7	5	21.7
Summer transition program	0		2	8.7
Others	0		3	13.0
Number	18		23	

*Because of multiple responses, the numbers do not total the number of colleges responding.

Table XI

Amount of Budget Spent Per Student, Number of Students Who Attended the Learning Center and Amount of Learning Center Budget*

Number of Students	Total Budget	Amount Per Student**
350	2,800***	8.
2,662	80,000	30.
120	5,500	46.
1,000	51,000	51.
220	16,000	73.
2,000	450,000	225.
300	100,000	333.
230	95,000	413.
2,000	980,000	490.
600	328,000	547.
100	62,000	627.
200	150,000	750.
250	200,000	800.
21	50,000****	2,381.

*Number = 14 (Note: Twenty-seven institutions omitted question 17, thus they were not included in the anaylsis).
**Amount rounded to nearest whole dollar.
***This amount was for supplies and equipment only.
****This amount was for a Title III federally funded project.

directors and eight who gave no response. Fifteen directors were regular teaching faculty, eleven were full-time directors and three were part-time faculty. These data are shown in Table XII. Of the part-time directors one taught a class that did not interfere with her regular office hours, another had between one- half and three-fourths of the normal teaching load designated for the learning center and one had more than three-fourths the normal teaching load designated for learning center work.

Although the directors would not give the amounts of their monies, thirty-six did indicate the source of their funding. Since more than one budget may aid in the funding, several categories could have been checked. Grants or other outside sources and college or university budgets made up most of the funding for the learning centers as shown in Table XIII. The main difference between learning centers with full-time directors versus part-time directors and the amounts reported was that the centers with no directors and those with part-time directors were funded from within their schools. Just two institutions with regular faculty directors had outside funding while schools with full-time directors had grants plus school budgets as shown in Table XIV.

6. Were there differences in the way referral students and drop-in students were handled?

Of the thirty-seven directors responding, regularly scheduled students were taken care of by student tutors 51.3% of the time followed by the remedial department full-time faculty, 35.1%.

Table XII

Categories of Responses to Learning Center Director

	Response	Percent
Does your learning center have a director?		
Yes	29	70.7
No	8	19.5
No response	4	9.8
Total	41	100.0
What is the sex of your director?		
Male	8	19.5
Female	13	31.7
No response	20	48.8
Total	41	100.0
What is the faculty status of the director?		
Regular teaching faculty	15	36.6
Adjunct or part-time faculty	3	7.3
Full-time directors	11	26.8
No response	12	29.3
Total	41	100.0

Table XIII

Percent of Responses Regarding Who Funds the Learning Centers*

Response	Selected	Percent
Remedial department budget	5	13.9
English department budget	3	8.3
Mathematics department budget	3	8.3
College/school budget	13	36.1
University budget	8	22.2
Grant or other outside source	14	38.9
Other	3	8.3

*Number = 36 institutions (Note: Five institutions omitted question 16 thus, they were not included in the above analysis.)

**Because of multiple responses, the numbers will not total the number of colleges responding.

Table XIV

Learning Center Budget Reported by Director Classification, Number of Students Served and Source of Their Funding and Amount Spent Per Student*

	Number of Students Served	Amount Per Student**	Source of Funding
No Director			
2,800	350	8	Remedial Department
Part-Time Director			
328,000	600	547	School Budget
Regular Faculty			
5,500	120	46	School Budget
16,000	220	73	English, Math and School
50,000	21	2381	Title III
51,000	1,000	51	School Budget and Grants
80,000	2,662	30	School Budget
Full-Time Directors			
62,669	100	627	Grants****
95,000	230	413	Grants****
100,000	300	330	School Budget and Grants
150,000	200	750	School Budget and Grants
200,000	250	800	Grants****
450,000	2,000	225	School Budget
980,000	2,000	490	School Budget

*Number = 14 (Note: Twenty-seven institutions omitted question 17, thus they were not included in the analysis.)
**Amount rounded to nearest whole dollar.
***This amount was for supplies and equipment only.
****Grant or other outside source.

Drop-in students were usually taken care of by the remedial department full-time faculty first, 35.1%, followed by student tutors, 27.0%, as shown in Table XV. The drop-in students were seen first by the faculty to determine what service the students needed. Then the tutors could give the necessary help. All of the undergraduate and graduate students were trained before they could work in the learning centers.

7. What observations were made regarding the setting of learning centers such as location, average number of hours open, services provided, compensation of staff members, and ways learning centers were achieving their purposes?

The majority, 36.1%, of the learning centers were located in a major classroom building with 25% located in or near the remedial department offices. These data are shown in Table XVI.

Table XVII shows that 26.8% of the learning centers were open thirty-one to forty hours per week with 22% open forty-one to fifty hours per week and 17.1% open from fifty-one to sixty hours per week. These times were convenient for the students to come in at their free time. Interestingly, some centers were not open in the evenings except to the athletes.

Over three-fourths (77.4%) of the learning centers were identified in the college catalogs while 61.3% were identified by signs inside the buildings. Ads in the school newspapers were taken out by 35.5% of the learning centers. These data are shown in Table XVIII.

Table XV

Responses to the Initial Handling of Drop-In Students Versus Regularly Scheduled Students by Number and by Percents *

Response**	Drop-ins	Percent	Regular	Percent
Remedial Department Full-Time Faculty	13	35.1	13	35.1
English Department Full-Time Faculty	5	13.5	9	24.3
Mathematics Full-Time Faculty	4	10.8	5	13.5
Remedial Department Adjunct or Part-Time Faculty	5	13.5	9	24.3
Graduate Students	2	5.4	5	13.5
Undergraduate Students	10	27.0	19	51.3
Not Applicable	5	13.5	2	5.4
Others*	8	19.5	5	13.5

*Number = 37 (Note: Four institutions omitted question 16 thus, they were not included in the above analysis.)

**Because of multiple responses, the numbers will not total the number of colleges responding.

Table XVI

Location of Learning Center and Percents*

Location	Responses**	Percent
Major Classroom Building	13	36.1
In Or Near Remedial Department Offices	9	25.0
In Learning Resources Building	8	22.2
In Or Near English Department	5	13.9
In Or Near Mathematics Department	4	11.1
Others	9	25.0

*Number = 36 (Note: Five institutions omitted question 16 thus, they were not included in the above analysis.)

**Because of multiple responses, the numbers will not total the number of colleges responding.

Table XVII

Average Number Hours Learning Centers Open

Hours Open	Responses	Percent
31-40 Hours	11	26.8
41-50 Hours	9	22.0
51-60 Hours	7	17.1
21-30 Hours	4	9.8
Less than 20 hours	3	7.3
61 or more hours	1	2.4
No response	6	14.6
Total	41	100.0

Table XVIII

How Learning Centers Are Identified and Percent*

Identification	Responses	Percent
In College Catalog	24	77.4
Sign Inside Building	19	61.3
Ad in School Paper	11	35.5
Large Sign in Front of Building	6	19.4
Ad in Yearbook	3	9.7
Sign at Reception Desk	1	3.2
Other	7	22.6

*Number = 31 (Note: Ten institutions omitted question 16 thus, they were not included in the above analysis.)

Staff members were paid quite differently. Two directors stated staff were paid commensurate with their education and length of stay in the departments. Seven directors responded that their regular faculty were paid from $700 a semester to $37,000 per year. Four reported that adjunct faculty salary ranged from $6.00 per hour to $10,000 per year. Seven directors answered that graduate students pay ranged from $3.35 to $8.89 per hour while seventeen responded that undergraduate students pay ranged from $3.30 to $8.00 per hour.

Learning centers appeared to be achieving their purpose by the services they offered. The services most used by the underprepared students, as answered by the learning center directors, were the remedial or developmental courses, tutoring, reading/writing improvement, study skills, academic advising, diagnostic testing and counseling. These are shown in Table XIX.

Table XIX

Learning Center Services Most Used by Number and Percent*

Services Available**	Responses	Percent
Remedial/Development Causes	35	95.0
Tutoring	34	91.9
Reading/Writing Improvement	34	91.9
Study Skills	32	86.5
Academic Advising	32	86.5
Diagnostic Testing	32	86.5
Counseling	31	83.8
Career Planning	25	67.6
Consultation	19	51.4
Personal Skills	16	43.2
Special Orientation	14	37.8
Study Groups	12	32.4
Support Groups	10	27.0

*Number = 37 (Note: Four institutions omitted question 16 thus, they were not included in the above analysis.)

**Because of multiple responses, the numbers will not total the number of colleges responding.

CHAPTER V

PRESENTATION AND ANALYSIS OF THE CASE STUDIES

1. INTRODUCTION

The purpose of this chapter was to present the case studies and an analysis of the data collected from the case studies. Each case study was reported separately and the data collected from each individual institution case study were presented in the same order as the questions appeared in the interview guide. (See Appendix E) The presentation of each case study was divided and summarized into the following headings: Location, Clientele and Purpose; Underprepared Students; Personal Experience and Feedback; Perception of Learning Center and Staff; Developmental Classes; and Perceived Success.

2. SMALL COLLEGE

The philosophy of Small College was such that the faculty viewed the whole town as their campus. Thus, they tried to provide general education experiences to all their students to prepare them to live productive lives. Small College was located in a light industrial area with a population of 65,000-70,000. Of that population, about 4% are black, 95% are white and about 1% Hispanic. Small College had 1,866 students enrolled in "day and night credit courses for fall semester, 1988," according to the registrar, with 2% black, 97.5% white and .5%

Hispanic. The 353 students enrolled in the developmental classes included ten black and 343 white students.

Developmental classes were started in 1975 because the school officials saw that when the building industry declined, there was no work for the average hourly worker in that area. "If the people were going to stay off welfare, they must have some kind of education or skills." stated one administrator. Many students enrolled in Small College, but they were not equipped to handle the basic requirements of reading, math or even basic study skills. "Our students had dropped out of high school to take good paying jobs . . . but they could not read well enough to progress to blue-collar positions." said another administrator. Clearly something had to be done and they agreed the best place to start was Small College.

Another administrator said the reason they started their learning center was ". . . because it had been proven all around the state and probably all around the country that they (Learning Labs) are very effective." He added that some of the students are

> . . . highly motivated and they know they need some extra work . . . sometimes they are shy or reticent about getting additional class help . . . They like to have someone to talk with, to commiserate with . . . They like to have some kind of identification group . . . They all get together and have a kind of peer counseling.

Location, Clientele and Purpose

Small College's learning center was located in the Developmental Skills Building at the far end of the campus. When this study was

started and the questionnaire first sent out, they had small individual study skills labs in various departments. They did not have any programs to help developmental students in reading or English. Last fall they consolidated the study skills groups into one large learning center. Since this was the first year, the center has been "just for developmental studies students in reading, math, study skills and English." stated one of the lab assistants. "There is also a math lab that serves anyone from developmental math to any upper level math" located in the same building. However, next year the center "will be opened to any and all students enrolled on this college campus." replied another teacher.

Since this was a federally funded Title III project, there was no additional charge for any of the learning center services or for the special interest seminars sponsored by the Counseling/Career Development Center. They offered Study Skills, Stress Management, Career Development and Assertive Training Seminars. Interestingly enough, none of the teachers or lab assistants interviewed were aware of these seminars although the information was posted in the Student Center located two buildings away.

The teachers interviewed had attended the learning center's open house and were very impressed with the layout, the programs, the computers and the lab assistants hired to help the students. However, they expressed concern that the students would go to another building for help, especially if they were not developmental students. "I think

the students would rather stay right here in our department for help, rather than run all over the campus." said one teacher.

Awareness of Underprepared Students

The administrators, teachers and lab assistants were very much aware of underprepared students and tried to get the students to go to the center. Several different definitions of underprepared students were given by teachers and lab assistants although the meaning was the same. "Students who do not have a high enough SAT score . . . who do not do well on the college entrance exam . . . who test below the level necessary to go into regular college level work . . . are considered underprepared," stated the lab assistants. However, none of the lab assistants knew exactly what the cut-off score was. "We don't deal with that . . . We get the students after they have already been determined as developmental studies students . . . We don't have any prior contact with the students such as testing . . . until they come in." were the comments.

One teacher said, "Underprepared students, or developmental students, are defined as those who have SAT scores below 250 in verbal and 280 in math, or who have ACT scores lower than eleven in verbal (sic English) and five in math." Another teacher said, "Underprepared students are the ones who do not pass the College Placement Exams that all entering freshmen must take." No cut-off scores were given for this, but the teachers agreed that this information was all spelled out "somewhere in the catalog," although they could not find the exact page.

Even though 353 developmental studies students were enrolled in Small College, only seventy students had taken advantage of the learning center. Of this number, some just came in one time to visit or to take a test or retest. "We just have a handful of regulars," stated the lab assistants. "The administrators thought more students would attend," and they were still very optimistic that "once the students see how well their cohorts are doing, they will attend in greater numbers."

Many of the teachers interviewed said that when some of their students were getting behind and they did not have time to help them, they "suggested going to the learning center," but the students just shrugged and did not, or "could not find their way to the center."

Although the teachers and lab assistants referred to the underprepared students in other terminology, they did recognize that they needed help. Since this was their first year in full operation as a center, the administrators, teachers and lab assistants were hopeful that more students would attend the center next year. The teachers said they were really going to promote centers and send their students in for help.

Personal Experiences and Feedback

The teachers who taught large classes especially appreciated what the learning center did for their students and the feedback received on these students. The teachers had written out a list of the students who needed help, the kind of help they perceived the students needed and sent it to the center. Then the students were told to go to the center

for help. The lab assistants had the same textbooks as the teachers so they could reteach or reinforce what had been taught in the classroom. For instance, in an English class, the lab assistant could review basic grammar and help the student with a particular essay, "utilize the grammar skills they have been reviewing." Since the lab assistants had the time to work with individual students, they could help them not make the same mistakes. By going over the material one-on-one, "they (the students) understand the principles better" and did "much better work."

One developmental course, Introduction to College Life, was taught by several different teachers in four different departments. Although many students had to take this and other developmental course, they were not required to use the learning center, "it is completely optional." In fact, the college was having trouble getting the students to go to the center. "It is just human nature, you can't get people in unless you just say, 'you have to go.'" "It would be nice, if they did go in." "The ones that go to the center are really trying hard." "If we could make it mandatory, they could do so much better" were the comments from the teachers.

Many teachers were offering extra points just to get the students into the lab. One teacher permitted the students who missed a class "to get credit for that absence by attending an hour lab session." (If they have five absences, they were out of the course.) "We have a lot of

adult students who come here who may have to miss more than five times because of sick children . . . Thus, they have a legitimate reason for being out."

Another teacher was trying to have "one day a week as a lab class." where the students had to come in one time during the week and "work with the tutor or work on the software." "It's frustrating when we know the students need help and we could help them if they will just come in." said the tutors.

One good suggestion was for the teachers themselves,

> . . . to have a center day and bring all the students to the center, show them how to register on the computer, and then how to use the various machines. They could also introduce the lab assistants who would tell the students about the tutorial help that is available.

The teachers appeared to be very supportive of the center and those who had students using the center appreciated what it did to help them. One teacher said she knew she could . . . "depend on the center tutors to back me up when students need extra help." The teachers who had very large classes especially appreciated the lab assistants giving extra help and being very patient with the students. Another teacher said, "The center is wonderful because I don't have the time to work individually with the students." Thus the center permitted the teacher to have more time to prepare lessons.

Several of the students were favorably impressed with the center because, "I can get lots of extra help from the teachers in the center."

and "I don't have to let my teacher know how dumb I really am." were some of their statements.

The lab assistants personally went to each of the teacher's classes and told the class what was available for them in the center and the hours the center was open. "I tell them I don't give any kind of grades and it is not going to count against you in any way, so you can come in for help, for what you do not understand." said one assistant. But, "If the teachers do not promote this service to the students, they will not come in." Some students came in and

> . . . just throw up their hands and say, 'I can't do this.' There may be so many errors on their papers it looks like the teacher's red pen leaked. They really don't understand what is wrong or where to begin to correct it.

Consequently, the tutors and lab assistants would patiently explain what the error was and how the student could correct the paper.

Roll was taken when a student signed in on the computer. He also checked the kind of service he was looking for in the center. Some came in for computer drills, others required individual help, and still others needed study skills help. Every day the computer program

> . . . calculates who came in, what area they came in for--math, English or reading . . . how long they stayed . . . if they got personal help from the tutor, if they used the computer, if they came in for a retest in a developmental class, or if they used a math video.

Once a week this list was forwarded to the teachers naming the students and the help they received. This helped the teacher know which students attended and the help they received.

The teachers were very supportive of the center because the lab assistants could and did take the time to work with the individual students. They appreciated having a printed list of students who attended the center and the help the students received. One teacher whose students went to the lab remarked,

> One boy was so far behind . . . he could read the material but it took him hours for just one assignment . . . Down at the center they have these machines that help students read faster . . . The tutors got him on that machine . . . not only is he reading faster, he is getting better grades, too.

Others agreed that they too had students who did much better work since attending the center. They said they "could see marked improvement" in the students "who attend the center regularly."

Perception of Learning Center and Staff

Although just seventy students actually went to the learning center for help, the teachers said they thought the center was fulfilling a great need and they could see a difference in their student's work. They thought the center could develop into a great program and would then attract more students. The lab assistants were actually qualified, caring teachers and were well thought of by Small College teachers.

"It seems to me . . . that the older students who are returning are more motivated." "They know what it is like in the work world." "They've been out there" and "they are paying their own tuition." therefore, "they try harder than the kids . . . who have Daddy paying it all for them." commented the lab assistants and teachers. "We have so

many students with so many different backgrounds," said one teacher, "some with very poor backgrounds, that no matter how good their attitude is, it is going to take them several quarters to pass, especially reading and English."

Administrators and teachers realized the needs of their students and hoped the new center would help these underprepared students.

> It is . . . difficult for students with math deficiencies because . . . if they must take the very basic arithmetic course, then they must also take the next basic math course before they can take the College Placement Exam.

"There is a lot they have to do to qualify for the courses." "It's just frustrating because we know they are out there and we know they need help," were some of the comments of the teachers and administrators.

The tutors and lab assistants said,

> I feel that we can help them because it is difficult when you are in a class with forty people and you want to ask a question and you are embarrassed. You think, I really should know this and when you have the one-on-one attention, (the students) can progress so much more quickly.

The lab assistants had to first assess the drop-in student's needs. "We have to find out where he is coming from." "In English some students are so far behind that it will take them several quarters just to get to the level where they need to be." Then they "decide if the student needs help with a particular paper" or if "we could just give him a computer program" to do.

Before English students could be placed from a developmental English class to the regular college composition, "The student must

submit a final essay." "He must receive a 'Satisfactory' rating from two of the three instructors plus he must pass all the other material in that class." Then "He is given the opportunity to take the College Placement Exam" and " . . . must score seventy-five to go into English 101."

The developmental students interviewed said they "like the lab" and " . . . feel comfortable and secure" with the lab assistants and "want to come back where we can get the help we need." The tutors said "We are glad to have them.!" One student said, " I told John about this, but he said he's too busy to come in now." Another heard the comment and remarked, "He may be too busy but if he doesn't come in and get help he may have to repeat that class."

The lab assistants and teachers felt that the students who did go to the learning center and "are willing to do the assigned work and have the right attitude" "can and usually do succeed."

Knowledge of Developmental of Studies Classes

The teachers and one administrator interviewed at Small College were either teaching a remedial or developmental class or had taught one in the past two years. They seemed to enjoy the challenge of motivating the younger students and building confidence in the older students. "Even though sometimes it is very hard work, I get a personal satisfaction out of seeing one of my developmental students make it to graduation." said one teacher. This was the sentiment of the other teachers.

Although the teachers were happy with the center and the developmental classes, some of the students were not. Some who were placed in the developmental classes did not seem to accept or to know why they were placed in those particular classes. They said, "I don't really belong in this class." "I resent being put in these developmental classes!" and "I cannot justify the need to study for developmental classes."

The rules of the college were carefully and thoroughly explained to the students with the emphasis on how much better they could do after successfully completing the developmental courses. These classes did receive in-house or institutional credit versus degree credit and the students had to not only pass the developmental courses, but they also had to receive a passing score on the college placement exam before they could actually get into the regular college classes. The students had the option to take the developmental classes for four quarters. If they came within five points of passing, the could opt to retake the test that particular quarter. If not, they had to sign up for the class again and take the test the next quarter.

No negative comments were made at any time regarding the developmental classes or underprepared students by teachers. All teachers interviewed had taught developmental or remedial classes and appeared to enjoy not only the students but also the classes.

Perceived Success

Because this was the first year for Small College's Learning Center, not much data were available regarding its perceived success. However, the caring attitude of the lab assistants and the consistently high quality of teaching was perceived to be of high importance by the administrators, teachers and students. No academic advising or counseling was required of these instructors, but it was perceived that they conducted unofficial advising and counseling. Since not many students attended the learning center and the ones who did attend were interested in improving their academic skills, there was no system for identifying potential dropouts at that time.

3. LARGE COLLEGE

The goal of Large College was that "each student receive the utmost assistance in his or her educational and career goals." In advisement the students were informed about the support services needed for the attainment of their educational or career goals. The Counseling and Career Planning Center recognized that some students needed advice regarding stress, test anxiety or personal problems to maintain good grades.

Large College was located in an industrial area with a population of about 576,630. Large College had 5,500 students enrolled for the fall semester of 1988 with 350 students enrolled in the developmental classes.

The Developmental Studies courses were started to provide academic courses and support for those students who lacked certain college-level academic preparedness. Freshmen and transfer students were given a battery of assessment tests during freshman orientation. One test, the Degrees of Reading Power, determined whether the student had to take a reading improvement course. High school grade point averages (GPA) as well as the ACT or SAT scores also helped determine the types of remedial courses the students had to take. If a student scored less than twenty on the ACT verbal or 410 on the SAT verbal, he was placed in a developmental writing course. He might, but it was not required, wish to take a vocabulary developmental course along with the writing class. Students with less than fifteen on the ACT social studies or 360 on the SAT verbal had to take a basic study skills class. The Math ACT or SAT scores were combined with the mathematics placement test, then the combined scores determined which, if any, developmental classes were required.

Since Large College was in the process of upgrading the minimum requirements for regular admissions they included one additional unit of math and laboratory science and two units of the same foreign language. The student had to have a high school GPA of 2.75 with an ACT composite of twelve or SAT of 640 or a high GPA of 2.00 with an ACT composite of twenty or SAT of 900. Students might be admitted on a conditional basis if they fell below the above requirements. In that case, they would have to take a reduced course load, take specific course requirements or

be placed in a specific program of developmental studies. If he were admitted on a conditional basis, he had to earn at least 1.0 GPA during his first semester or he would be suspended. All these conditions were thoroughly explained to the students in their final acceptance letter.

Location, Clientele and Purpose

Special Services and Upward Bound were special programs of Large College which provided tutoring, counseling, writing, reading and study skills for students in this large four year public university. The learning center was located on the second floor of the main building near the Counseling Services and the Financial Aid Offices. Any student could receive special help; however, the main emphasis was for the developmental students. Many of the developmental teachers even required lab time in their course outlines. The Beginning Writing Lab, the Reading Lab and the Study Skills Lab, were designed for students who were in the Upward Bound Program. Then they went into the next phase of reading, writing, and math skills labs.

Since the Upward Bound Program was funded by the federal government and the Special Services Program was funded by Large College, they consolidated forces so "there is no additional charge to the developmental students or to the tutorial students," according to the administrators. Specialized Study Skills workshops were also offered in Human Resources, Psychology, Nursing and Sociology for students with less than high school GPA's of 2.75 and an ACT composite of twenty or an SAT combined score of 900.

The purpose for these developmental studies courses and the study skills workshops was to provide support for the students who were underprepared. Institution or in-house credit was assigned to these courses although they "do not apply to the hours required for graduation, either major requirements, general education requirements or elective hours." The teachers and administrators interviewed had been in the learning center and visited the different labs within the learning center of Large College; thus were very impressed with the set up and the materials available to the students. They were also aware that this was where the students went for special study skill help, reading improvement, or tutorial help.

Awareness of Underprepared Students

The main definition given for underprepared students in Large School was students who could not do college-level work. This was repeated by administrators, teachers and students. None of the teachers, administrators or students expressed any negative feelings regarding students who had to take remedial or developmental courses. They did show concern and wanted to help the students succeed. There was more apprehension that a student might "slip through the net and be floundering" in the more difficult regular classes instead of getting available help.

As soon as the underprepared or developmental students were identified by the assessment tests, high school GPA's and ACT or SAT scores, "counselors call the students and tell them the courses they

must take," remarked an administrator. "Letters are (also) written and the students are invited to visit the Reading Writing Center," added a counselor. "If the student is required to take a developmental course, he must take that course before he can attend a regular college level course." "A few of the students, maybe a half dozen try to fight this. They may be surprised, hurt, even angry that they must take developmental studies courses," said other administrators. "However," as administrators and teachers agreed, "it is stated in the college catalog . . . and we school officials tell them they must abide by the rules and take the courses they need." "After all," they explained, "this is in their (the students) best interest."

The reason some students were not able to do the regular college work could be because of a lack of high school preparation or because of a different type of socio-economic environment.

One teacher stated, "Students do not have the quiet, disciplined, quality homework time to do the work that is required of them." Another replied, "Many students do not have adequate preparation in high school to be able to do well in college. They may write and read very well, but cannot do math." Another teacher said, "Students may be cognitively able to do the work . . . but because of the social-cultural aspect . . . may not understand the language of the white, middle-class teacher."

The support services offered at Large College were considered very important because "not every student has had the opportunity to develop

evenly." declared an administrator. "The greatest concern of the educator, then, is to get these students into the developmental classes early," continued another administrator. "They can stay there (in the developmental classes), do the work, then go into college-level work." Another administrator answered, "I think the math is the greatest serious problem we face." Several teachers agreed with this, especially the math teachers.

Occasionally a transfer student might say, "I have already taken the developmental courses, but I do not have my transcript with me to prove it." He would be permitted to register but "a transcript must be forthcoming before the middle of the semester." If the transcript showed he had not taken the developmental courses, and was required to do so, then "he must take them before he can continue his college work."

Since underprepared students were technically the at-risk students, the developmental course work was done for institutional credit only. This means that the hours are counted toward financial aid or registration purposes, but not toward a degree. Large College teachers were aware of the underprepared students and the definition used on their campus. They felt they had a good system for not only identifying their underprepared students but also for providing excellent services in their center.

Personal Experience and Feedback

Interviewed teachers encouraged their students to go to the learning center to receive additional help outside the classroom.

Although not all students were aware of it, written feedback was sent to the teachers after each session. The teachers, however, could tell which students regularly attended the center by the improved quality of their work.

Occasionally students in the regular college classes needed some additional tutorial help. The individual teachers usually gave the students a slip "spelling out to the lab instructors exactly what they want them to work on" with their students. However, "not all the students who need help will go to the lab for it." remarked the teachers. The teachers kept up with lab attendance because the lab "provides us (teachers) with feedback about who is coming . . . how often . . . and what they have worked on." This written feedback might also "include the help the student requested," if it were different from what the teacher suggested, and any follow-up the tutor felt was needed. "I've been amazed at what . . . they realized they needed." "I thought one student needed help with prepositions . . . Come to find out when he didn't know the part of speech, he called everything a preposition!" If a student just dropped in on his own for tutorial help, no feedback was sent to any teacher.

The teachers of the developmental courses, as well as the regular college classes, were encouraged to send their students who were having any kind of study difficulty to the learning center for small group interaction or for small study groups within the discipline. The instructors "teach the group how to apply themselves" and "how to study

for a particular class." This encouraged the faculty to send more students to the center. It is estimated that approximately 400 students attended the lab per semester.

Many of the teachers interviewed said they had personally sent students to the different labs for help; however, one teacher declared emphatically, "There is absolutely no way except by threatening them with grades, to make them go." Others stated that they could "see marked difference in those (students) who attend the lab regularly." "Now those who go once or twice to the lab, there is not much difference," but the students "who do go regularly for the semester . . . there is a great deal of improvement." "Sometimes there is an obvious variation in the amount of improvement, but it is still there." "In some of my students there is very significant improvement."

One main problem with the students voluntarily going for tutorial help was that the students who really needed the help were not always the ones who pursued the additional help. Quite often the students who were a borderline B+ to A- or C+ to B- were the ones who wanted to raise their GPA. Also, the older students "who lack self confidence will attend several of the lab sessions."

Students in Large College became more successful because the teachers encouraged the underprepared students as well as all students who needed any kind of additional help to attend the learning center. Teachers were sent written information regarding the students' attendance and the work they did. When the students regularly attended the center, the teachers could see marked improvement in their work.

Perception of Learning Center and Staff

Often trying to get the students to attend the Reading Writing Lab was very difficult. One teacher stated, "Many times it is trying to get the right attitude with these students, because if you get them to have the right attitude, then you are three-fourths of the way there." "There is no best way to make the kids go." "It's very important for the teacher to explain . . . not only why they are going to the lab, but why they are in a developmental course." "Some think it is a kind of punishment." "We've got to convince them that we are trying to get them ready for the regular college composition class."

One teacher had a very good way to do this,

> The approach that I take at the very beginning, is that our (the English faculty) idea is for all composition students to start at a level where they have a chance to succeed . . . We put you in certain classes based on your assessment tests because we want you to be able to do what you are supposed to do so you can make at least a 'C' in the course. I would like to see you make better than that. After you finish this course, then you will be ready to move up to the next course.

"We feel it would be unfair to you to start you out in regular College Composition if there is no chance you could make a 'C' there." "Of course, this doesn't work for all the students, but it does work with a large number of them." The opinion was that if the teachers tried to convince the students they were on their side and that they wanted the students to succeed, the students would usually believe them and accept being placed in the developmental classes.

The teachers felt the learning center was successfully fulfilling a great service at Large College. Although they highly recommended it

to their students, not all students who needed the services actually went to the center to receive help. The administrators and teachers personally felt the staff and programs were excellent but they realized not all the underprepared students utilized the success of the center.

Many of the teachers praised the tutors and the coordinator for not only handpicking the student tutors, but also in the thorough training they received. "It is a very good service if you have good tutors . . . that is the crucial thing and . . . even here I feel some tutors are better than others." "The tutors are upperclass students who have been carefully screened and trained." "It is crucial that you have someone who carefully selects them and trains them . . . goes over the things that they want to have the students work on."

The teachers and administrators interviewed said they knew that the Reading Writing Lab as well as the other labs could and actually did help their students.

Approximately 35-40% of each entering freshman class had some kind of math problem they did not seem to feel any kind of stigma for attending the special services, but seemed to be very glad to receive the additional help.

The learning center at Large College was perceived to be successful by administrators, teachers, and students. Nevertheless, not all students who needed their services took advantage of them.

Knowledge of Developmental Studies Classes

When asked whether the developmental courses and learning centers were really worthwhile, one administrator answered with a resounding, "Yes!" The evidence offered were as follows:

> We have a rule that anybody who must take a developmental studies course must complete it within the first forty-two hours of college work. At this point, of 1,057 students, that is from fall of '86 and fall of '87, we have only about forty who still need to finish one or more classes to progress into the regular college work and only about twenty-three who are not enrolled in any classes.

These figures reinforced the feeling that the developmental courses at Large College were definitely worthwhile.

Another administrator was asked if she could or would like to teach a developmental course. She responded, "I am not trained to teach developmental or remedial courses .. . Maybe I could teach some history, English or study skills . . . But for obvious reasons, I could and would not teach math."

The teachers who teach developmental or remedial classes usually volunteered to do this. They appeared to find pleasure and delight in this particular type of teaching even though others might not enjoy teaching underprepared students. While there is no stigma for advising the underprepared students, there "are some who would attach a stigma to teaching developmental courses." The teachers who taught the developmental studies courses had the following comments regarding this. "I personally do not feel any kind of stigma for teaching a developmental class. Not by any means!" "Some people do look down on

those who teach developmental studies courses." "There are some . . . who think if you teach any kind of composition you are somehow inferior." "I personally do not feel that by teaching a developmental course I am inferior!" "I personally prefer to teach developmental composition rather than regular composition." "It is just a personal preference for several reasons. One major reason is the significant amount of progress you can see." "You can see much more progress in developmental students than ones in the regular courses."

One teacher had taught a group of accelerated composition students who did not like to do any extra work. "When I wanted to challenge them, they did not like that at all. But my developmental students are willing to work very hard. They become so happy when they finally understand how to do something." "I really enjoy teaching the developmental students." When regular college teachers were asked how they felt about teachers of developmental studies classes, they had these observations. "I admire Dr. _____ for being able to teach the slower students." "I don't have the patience to teach the underprepared students." "The center is doing a great job with the remedial students." "I can't do it but I'm glad someone else can." These comments came from teachers who chose not to teach underprepared students. The consensus was that if teachers do not want to teach developmental students, they definitely should not. "If they don't want to, they shouldn't be forced to teach remedial classes." "People like that (who were unwilling) can make it disastrous," was the final

comment. The developmental teachers interviewed had volunteered to teach these classes. Other teachers who did not chose to teach a developmental class did not make any snide remarks or slurs. Instead, they appreciated the ability and patience the teachers displayed toward the underprepared students.

Perceived Success

In the programs of Large College, the perceptions of the administration and teachers differed regarding the caring attitude of the faculty and staff, the consistent high quality of teaching, the counseling services and the system for identifying potential dropouts. The did agree on academic advisement, career planning services, student involvement and the support services.

The administration felt that the caring attitude of the faculty and staff, the consistent high quality of teaching, the excellent counseling service.

The faculty did not give high importance to any of these characteristics except the academic support services because they felt too many adjunct teachers were coming into this very vital part of their program. "At least 80% of the developmental and freshman composition teachers are paid by the course--with no benefits." The adjunct teachers did not have "or take the time to offer the caring, sympathetic attributes" the full-time teachers deemed necessary for this program, remarked the full-time teachers. The adjunct teachers agreed. "Since I am just paid to teach, I leave when my class is over." "They don't pay

me to stay here forty hours, so I go . . ." to another job. Most of the full-time faculty do work with advisement, but those who work with the underprepared students are hand-picked. These are the faculty who are good advisers for this particular age and ability group.

"We are doing something with the potential dropouts particularly the students who are on conditional admission," said one teacher. "We do have an excellent counseling service here and we take the conditional kids there to talk with the counselor." "We encourage all the adjunct teachers to keep up with attendance and do mid-term reports." "After we turn them (mid-term reports) into the administrators, they sometimes call the student in and talk to them." They all felt that there could be some improvement in encouraging student involvement in campus life and career planning.

Encouraging student involvement in campus life was rated very low because this was basically a commuter school. "This is a real disadvantage because students who are committed to a school hang in there better." and "have a lot less drop-out rate." "So many of them do not have anything associated with campus life." "It is a serious problem because they do not participate in anything." "Our students need a sense of identification with the institution." and "It is a serious problem because they are not associated with campus life." In fact, it was considered a serious problem on Large College campus by administrators, teachers and students because many students "do not

participate in anything." "This is one area that we hope to do better on," agreed the teachers. "but it won't be for at least another year."

Even though the administrators and faculty differed in their perception of the success of their programs, it was not a great difference. The administrators saw the programs as successful because of the hard work of all the teachers. The full-time faculty saw a few problems. They felt they were doing all the work which should have been divided among more full-time teachers. Adjunct teachers enjoyed their teaching but they did not stay in their offices to offer any of the additional services as the full-time teachers did. Therefore, administrators, faculty and students perceived their centers programs as successful.

4. LARGE UNIVERSITY

Large University was located in a small, quiet college town about forty miles from a large technical and industrial city. The school was started in 1883 as a small Baptist Normal or Teacher College. A Methodist group became quite active and started the Wesley Foundation which grew within this Baptist College. Then in 1929 it became a four-year state college. Today it was a large university with about 7500 students per semester.

The Center for Individualized Instruction was started about ten years ago and has become a multi-purpose, multi-disciplinary academic support center. They offered flexible modes of instruction to meet the

unique needs of their students. The Center actually consisted of three separate but united segments: basic learning skills courses, tutorial services, and individualized instruction sections of regular academic courses. Individualized instruction, using Computer Assisted Instruction, had many programs written by one of the Center's own instructors. This also included Precision Teaching where a student with a different learning style might wish to take an academic course taught by various teaching methods. The course content was the same and the student had to learn the same material, but the teaching styles were different than the regular college lecture course. The unit might be broken into relatively small components which the student studied with the assistance of learning activities identified specifically for him. Since he progressed at a different pace than the regular class, when he felt he had mastered one unit, the instructor discussed that unit and checked the learning activities the student had completed. After the instructor evaluated the work and determined that the student had mastered the content, he was given the unit test. If he were successful, he could begin another unit. This method of precision teaching was good for students who needed to brush up on a course or courses and could quickly go through the material or for students who needed extra time and help to master the work.

Location, Clientele and Purpose

In ten years the Center outgrew its original space in the Education Building and was now housed in the basement of the library

where they had five formal classrooms, several group study rooms, one large conference room, one large computer room, two small study rooms with comfortable chairs and three separate offices. There was no charge for the services and any student could go to the Center for a variety of assistance ranging from reading improvement or study skills to calculus or physics.

During the fall semester of 1988, with a total enrollment of 7,500 students, the Center served approximately 800 students in remedial math, 900 students in basic skills classes and 1,200 students in the tutoring sessions per week. The Basic Skills courses were taught in the formal classrooms and consisted of Academic Survival Skills, Reinforcing Communication Skills--which is pre-college English, and Problem Solving.

"So many college students are unprepared to think," explained one teacher. "They are just told what to do and they follow." added others. "They do not know how to think." They have never been required to think." Thus, the rationale for teaching a class where situations were given and the students had to thoroughly think through the processes necessary to solve the problem.

The Center was available to any student enrolled in Large University. The Developmental Studies students or those who must take the basic skills courses were required to come to the Center. The cut-off for the basic skills courses was determined by the ACT, English and Math placement tests. Students who scored an English ACT of seven or below had to take the lowest basic skills course while those students

who scored an English ACT of twelve or above could take the regular College Composition 101. The math ACT was not used alone, but the students had to take a separate placement test for math. Large University teachers found that if a student had a good day while taking the ACT, he may "guess a good game." but not really "have the background in math that is required."

The ACT and SAT scores were helpful but "ACT cut-offs do not tell the whole story."

> We have students that . . . were really guessing well that day . . . And they automatically go into English 101 . . . Then they come down here and say, 'I don't know what is going on in that class. Please help me.'

"And yet they have a good ACT." "So that ACT can fool you." were the sentiments of several teachers.

Students who scored below an English ACT of twelve had to also take the Learning Styles Inventory and the Micro Lab Assessment which was basically the parts of speech. This program tabulated each area and gave percentages. It told "how you are in commas, punctuation, etc." said a student. A teacher agreed, "It is a real good diagnostic tool. They (the tutors) know what to concentrate on to build their (the students) skills."

There was no additional fee for any student who uses the center, whether they come in for a basic skills class, special tutoring, or for the special individualized program. The tutors, both graduate and undergraduate, were paid by Work-Study programs and University Aid.

The teachers who had been in the Center were very impressed with how the center worked. "I just love it!" exclaimed one teacher. "You know they are doing something right." said another, "Look how they have grown." "I know my students are getting the kind of help they need." was the consensus of several teachers.

Therefore, with larger more centrally located quarters, this Centered offered a wide variety of free services to Large University students.

Awareness of Underprepared Students

The administrators and faculty were aware of the definition of the students and most wanted to help the students succeed. However, there were a few teachers who thought underprepared students did not belong on the Large University campus.

The definition of an underprepared student was usually one "who had low ACT or SAT scores" or "who needed the basic skills classes." Other definitions given were, "The kids who cannot cope with freshman courses, English 101, College Algebra and History." "The bulk of the students who go down to the Center." "Kids who have low ACT scores." "Students who lack self-esteem."

The teachers and tutors in the Center were very vocal about underprepared students. "We have to start them out where they are." "Last year we had one student that we had to design a special tutorial for in math . . . She went clear back to fifth grade and we had to

bring her up to college level." "The system all along the line has failed--and parents, too. Parents have not demanded where they should have."

> I have one student who scored so low on the ACT we thought there was some sort of mistake. He was probably a third or fourth grade level. He didn't even know the basic parts of speech. He could not put a simple sentence together. Here is a kid who didn't like English. He didn't like anything about it. But . . . his dad made a deal with a school to do some wiring for them and the student ended up with a 'B'. To me that's a crime . . . That is blatant child abuse.

"We have kids all stressed out because they don't know what is going on in class." One instructor summed it all up, "It's things like these that you take a look at and say, 'Whoa, wait a minute. These kids are here because there are people somewhere down the line, who have not done their job.'"

The majority of the teachers kept good track of their students and if they saw that a student had been in basic skills classes and was not keeping up with their assigned work, they would refer him back to the center for additional tutoring. "Sometimes a kid just gets stuck with one problem or one concept and it becomes a mountain to him." said one. "Then he goes back to the Center, they explain it again and again to him (they are more patient than I am) and he finally understands and does great in my class. I've had this happen several times."

> If I have explained something to a developmental studies student and he doesn't seem to understand, I don't feel threatened, I send him to the Center. After all, they have worked with him before and he feels more secure there.

However, in Large University, some professors interviewed were not impressed with the need for the Center. "Those kids shouldn't even be on this campus!" complained one teacher. "These kids are in college now! We shouldn't have to coddle them." "If they can't do basic arithmetic, they have no business in my class," growled others. And they all suggested, "Let them go to a community college and learn how to study and all the other stuff, then come here for us to teach them college material." Luckily these teachers seemed to be in the minority. Other teachers seemed to be willing to help the students. The coordinator of tutors in the Center had a good reply to the negative comments.

> As long as our institution is open admission and as long as we are receiving Federal funds, I say, 'Honey, you better do whatever it is you can do and do it well, because these kids are coming in disadvantaged and you don't want to send them away.' College should not be an ugly distasteful experience. if it is, there is something wrong.

The definition of underprepared students was well known by administrators and faculty, and most teachers wanted to help these students have a good college experience. However, a few disgruntled teachers thought underprepared students had no place in Large University.

Personal Experience and Feedback

The teachers interviewed who sent underprepared students or students who had small problems to the Center were very pleased with the

learning that took place as well as the feedback they received from the Center. They felt the students were then ready to handle the college work in their classes.

Students have been referred to the Center from teachers in English, mathematics, economics, accounting, Spanish, French, German and history. "I've sent kids down there because they don't know how to study or to write papers." said one teacher. "I've sent them down because some of these students do not know how to listen or take notes." Another elaborated, "Some students think they have to write down everything I say."

Once a month the teachers who sent students to the Center received a report. "That way, we know if Johnny really made it down there." If a student came in on his own, nothing was sent to the teacher, but the director would make note of it for an internal report of progress. The teachers interviewed who had sent students to the center liked the idea of the feedback. "Especially if I send a student down there and he just goes one time, I want to know." said one teacher. If students "just come in the Center one time, miss three times and have not called me," the coordinator said, "I drop them. I tell the kids, 'You have just shot yourself in the foot.'" If a student has been referred by an instructor and the instructor saw that he did not come in anymore, then, "I deal with it directly." declared the instructor.

The teachers answered that they could see definite improvement in the work of the students who regularly attended the Center. "The tutors

are very well trained and know how to work with these lower level kids." said one. "My kids seem to have more self-confidence after they have worked with the tutors down there," said another. "I really can see a difference in the work the students do."

Thus, the teachers who sent students to the Center agreed that the Center had good tutors who made a difference in the work of the students. They appreciated the feedback from the tutors and could see improvement in the students work.

Perception of Learning Center and Staff

The teachers who actually sent students to the Center, thought the Center was successfully fulfilling an important service. They said they could see a difference in their own students and highly recommended the Center. They felt the staff of instructors and tutors were excellent and that many students took advantage of the available services.

"If I have a student who needs a tutor, I tell him to go down to the Center." stated one teacher. "They have tutors for every subject we teach in this university." In checking that out, the coordinator of tutors said, "You name the subject and I will find a tutor." Graduate and undergraduate students are both used to tutor students. Some professors prefer the graduate students, but the director said, "I have some undergraduate tutors that are excellent and I have some graduate tutors who can run circles around a number of instructors."

When the students signed in for tutoring, they had to fill out a request form showing the hours they were available, the number of hours

they were working and the courses they were taking. "Many times we find that students are working too much and do not allow enough time for studying." said one of the student tutors. The tutors worked with the students as many hours as the student requested whether it be for one week, one semester, or one year.

The tutors gave a little assessment to the students to find out if they knew how to take notes, how to listen and how to take different kinds of tests. Once that was established, "we can move forward." said a tutor.

The tutors were trained by the coordinator who was in the process of writing a "How-to" handbook that showed the tutors how to solve different kinds of problems and how to work one-on-one with the students. This center was in the process of becoming a center of "Certified" tutors. "This will give credibility to the program and to our tutors," stated the director. This certification spelled out the levels of tutors, the training required and the training they have received. The director of the center and the coordinator of the tutors were asked to go to other large universities, set up their programs and give talks about their program. They both agreed that Centers "are very big on the west coast," and that center directors "should become more involved in the organizations out west and bring them (that information) back to the south and east."

The teachers interviewed who sent students to the Center were very happy with the programs of the Center. They felt the staff was well

qualified and that they ran very successful programs. With the large number of students who attended the Center, it appeared that many of the underprepared students did use their services.

Knowledge of Developmental Classes

Large University employed non-tenured instructors to teach the developmental studies or basic skills classes who said they enjoyed teaching these classes. Most of the regular faculty were glad these instructors could and did teach the developmental classes. The developmental studies instructors said they "do not feel any kind of stigma for teaching basic skills classes." "I enjoy my work." "I think we get closer to our students than the regular teachers. And I like that!" were some of their comments. In fact, some students said "I wish Mr. _____ was teaching other classes because he makes it so much clearer than Dr. _____ or Mr. _____ the regular teachers." This was reiterated by many students who substituted other instructors and other regular teachers names.

Although they are included in the faculty meetings these instructors were not on a tenured track. The only full-time tenured faculty in the Center were the director and the assistant director who were full professors in other disciplines.

As noted previously, some teachers did not feel there was any need for the underprepared students to be on this particular university campus. Others responded, "I'm very glad there are instructors here who can help these underprepared students." "I know I don't have the

temperament or the patience to be a good basic skills instructor." "I'm glad the administration had the wisdom to start a program for these kids . . . and included teachers who actually were trained to teach basic skills classes." The instructors who taught the basic skills and developmental studies classes enjoyed their work and did not perceive any kind of stigma for teaching these kinds of classes. The regular teaching faculty appreciated the fact that these instructors could and did teach the underprepared students.

Perceived Success

Both the administrators, the teachers and students perceived that the success of the program was due to the instructors and tutors and the work they have done.

Even the professors who saw no need for the Center had to "agree that they (the programs) do help some students." The caring attitude of the Center's faculty and staff, the high quality of teaching and the academic support of the Center were all rated very high. The administrators, faculty and students felt the Center had an excellent advising program because it was a mentor program. "Students who have any problem feel free to go to their adviser." "It gives the kids a sense of security . . . they know there is someone who cares for them." were some comments. These mentors followed the students through their entire college career.

Although the instructors did not officially do any counseling, some students came in to talk because they felt comfortable with these

instructors. "Some kids just come in and close the door and talk." "And if they want to, the feel free to cry. I don't look on them as babies, just kids who are frustrated with college or life." replied the instructors. These caring instructors never turned a student away.

Since Large University itself had an excellent Career Planning program, the center did not do much in the area of career planning. They did have a good program for identifying potential dropouts because many of the at-risk students were in their basic skills classes.

All interviewed said Large University kept the students involved in campus life; mainly because the small college town had nothing for the students to get involved in. On campus they all had something to do and many were involved in the Wesley Foundation.

The administrators, teachers and students interviewed at Large University perceived that the program of the Center did obtain the desired result. Even those professors who were against having underprepared students on Large University campus had to agree that the programs were successful.

5. COMMUNITY COLLEGE

The Learning Resource Center of Community College was probably one of their best known features. An administrator elaborated on how this came about. "The developmental studies program was based on a study called, A Project in Equality that was done a few years ago." A board consisting of a group of "business people and college professors got

together and decided what competencies a person would need to have when he graduates from high school or when he enters college." This board also determined the "competencies a person would need to function in society as a whole even if he does not attend college." These competencies were then published in what was called a Green Book.

This board made recommendations to the State Board of Regents, which was the governing body for Community College in this state. The board in turn required that all students must "make a certain score on the ACT to take college level courses or else must take developmental courses." If they did not make that score, then an assessment test would be given. This state adopted test was given across the entire state. "It is a sequenced test which involves English, Math and Reading. If a person scores at a certain level below college level, he will be assigned to a particular level of developmental studies." The lowest level, 070, was considered to be the same level as the Basic Skills Test high school students must take before they were permitted to graduate. After a student completed levels 080 and 081, he was considered ready to do college level work.

"All entering students over the age of twenty-one are required to take the assessment tests; if they are under twenty-one, and score below a composite ACT of sixteen, they also must be assessed." The assessment testing was free to the students but "they must pay for the ACT themselves." These tests were given to the new students in the summer along with special advisement sessions before registration.

"We generally have three or four special orientations prior to the beginning of fall registration," said one developmental adviser. "If a student scores below college level," he would be placed in a particular level of developmental studies and "he must accept that placement." "We give them a second assessment within three days of attending the classes to confirm the initial assessment," stated an administrator. "If a student needs the developmental courses, he must take them before he is permitted to take college level work."

Location, Clientele and Purpose

All administrators, faculty and students interviewed were aware of the location of the learning center. Administrators and faculty knew who were supposed to go to the center and why they were to go there.

The teachers, administrators and students at Community College were aware that the Learning Center was located on the second floor of the library. They had heard it called the Instructional Materials Center, Learning Resource Center, Learning Lab and even Developmental Studies Center. The term developmental studies was not known by all the students, but they did call them remedial studies.

All students were permitted to attend the learning center; however, it was required for students who were in the developmental courses. A student could request special help in one area, with one particular problem or in many areas. One administrator stated, "The

state funds the developmental program now at a higher rate . . . than any other program in the community . . ." and as a result, "there is no extra charge for the developmental courses."

Since this learning center was located in the library, many regular teachers dropped in to see what was available so they would know how to refer their students who needed special help. In some of the areas, such as English and mathematics, part of the teaching load was for the teachers to spend some time in the lab. The math teachers commented,

> We, in the Math Department, have two people there permanently. They work there and are called Lab Assistants . . . Each person (teacher) from the math department also puts in at least two hours per week in the math lab to tutor . . . We sign up for certain hours when we will be available. We can use it (that required time) as part of our office hours. We put our schedule of office hours on the door with the lab time clearly marked.

This way the students could know when their teacher will be in the lab and could make it a point to see their own teacher if they were having difficulties with any problem. The teachers who sent students to the lab with specific problems received feedback as to what method the tutors used and if it seemed to be effective.

Some students have gone to the Learning Center of their own accord to view videos of certain lessons they missed or that they did not thoroughly understand. Since many of the classes were videotaped, the students could replay the tapes as they needed them and watch a portion not understood or review the whole session.

All those interviewed had been to the learning center and wee aware of the location, which students were supposed to go to the Center and the kinds of help they could receive.

Awareness of Underprepared Students

The administrators and faculty were aware of the definition of underprepared students. The teachers strongly urged the students who needed the extra help to avail themselves of the services offered by the Center.

The definition given most often of underprepared students were students who could not do college-level work. "Basically what they need to know is high school algebra and arithmetic. If they don't know that, they are underprepared." "If they don't have the fundamentals of math, they are underprepared." "We have a lot of students who don't know arithmetic." "I don't know how they can get through high school without learning some of the basics." commented several math teachers.

"Some have been out of high school for several years and they have forgotten grammar. They come back to school and have to take the tests and are placed in these courses. They do all right." "Some come here, though, right out of high school, and they don't know anything." said other teachers.

The teachers and administrators did not attach any disgrace to the students who needed the services of the learning center; however, the did feel that "not all students who should attend the learning center take advantage of it." "There is no stigma. There is no problem

because there are so many other things that go on over at the library. The kids needing help just kind of get lost in the crowd." "Nobody really pays any attention to who goes in the lab," or "whether one student or another is there." stated the teachers.

As teachers became more aware of problems with students, such as poor test scores, homework not done or handed in, they have suggested to the student that he "attend some sessions at the learning center." Again, since many teachers used the learning center as part of their office hours, they "know who is on duty" or even if they were supposed to be on duty during the time when the students could come in for help.

Community College teachers were not aware of the definition of underprepared students, they tried to coax and persuade their students to utilize the services of the learning center.

Personal Experience and Feedback

The teachers and administrators were very well pleased with the learning center and the work of the tutors; however, regular feedback was not sent to the teachers. They did say they could see improvement in the students work.

The teachers and administrators feel that the learning centers were great places for students to receive needed help, but all too often the ones who really needed the help were not the ones who voluntarily went for assistance. "Not only do I verbally send students to the center, sometimes I almost take the student by the hand and personally escort him over there." lamented one teacher. "There is plenty of good

help available, if they will just go over there and take advantage of it." agreed another. "The ones who really want to put forth the effort will go." "If they do go," said one, "I can really see a difference in their scores." The teachers were in agreement that the "good students will go and the other older students will go." However, as in all colleges, there are the few "that are just here to see what it is like. They don't want to be bothered and they fail."

The teachers said they "don't need feedback for the center. I can tell by their work who goes and who doesn't go." In this they were referring to the students who regularly attended the learning center.

The teachers repeatedly said they "can see a difference in scores and self-confidence" when the students regularly attended the learning center. They felt it really fulfilled an important service to the students, but they wished more students would take advantage of this valuable commodity.

Thus, while the teacher did not need specific written feedback regarding the students they sent to the learning center, they could and did see improvement in the work of the students who regularly attended the center.

Perception of Learning Center and Staff

All administration, teachers and students interviewed thought the learning center was successfully filling an important service at Community College. Even though the teacher highly recommended the

center and even had some of their office hours there, still some students still were not using the center as it should be used.

"I send all my students who need extra help over to the center." "All our lab assistants are regular instructors . . . I have no problem recommending them to the students." One teacher hastened to add, "Now don't get me wrong. I don't mind helping my students, but sometimes I don't seem to get through to them. That's when I send them to the center."

Since many of the faculty took turns working in the learning center, they did not feel that there was any stigma attached to working there. Most felt that since there were so many students who needed these services, the could meet them in place other than the classroom and could give the students the necessary help, or an encouraging word, for doing a good job. "When I"m working at the lab and the students can't find me in my office during their free time, and they want to see me over there, that's all right." As the teachers reflected on the times they had spent at the learning center, they mentioned names of students they thought the learning center staff had helped. When asked how it helped the students, their replies were mostly on the improved grades of the students. "If the students take advantage of it and over there, their grades go up." "When they get help, we find out because their grades show improvement." "It definitely helps!" were their comments.

The learning center at Community College was perceived as successfully providing an important service to their students. The teachers highly recommended the students to the center, but still not all students who needed the help took advantage of it.

Knowledge of Developmental Studies

Although not all teachers interviewed taught a developmental studies class, they acted like they would like to teach at least one. Some adjunct teachers were hired specifically for developmental classes, while others were hired for the regular classroom.

Not all the teachers interviewed actually taught a developmental class, although many teachers in reading, English and math, were urged to "be visible in the center" and use a portion of their office hours in the learning center. They all gave the impression that they would enjoy teaching "some of the students in the developmental courses." They realized that not all students wanted to learn, but they "would enjoy the rewards of seeing some students improve."

In this particular Community College, some full-time instructors taught just in the developmental classes, while others taught just one developmental class. Some were considered full-time lab assistants even though they were "hired on in" a specific department. These teachers and administrators did agree that the "best teachers" and the ones "with patience should teach the developmental classes." They also said, "we have been lucky without adjunct teachers," "very fortunate" because "we really have some good part-time faculty."

One administrator, who had taught developmental classes himself, mused, "The new ruling from the state that says teachers with doctorates should not teach developmental classes, is not good. I feel that the best teachers should be the ones to help the developmental students." Other teachers agreed because "Many times adjunct teachers do not have the sympathy that they should have for these slower students." "Many of the underprepared students are also lacking in self-assurance, or self-esteem." The administrator reiterated, "Again I say that the full-time teachers should be the ones to teach the developmental students."

The teachers interviewed who did not teach a developmental studies class implied that they would enjoy teaching at least one of these classes. Administrators and teachers felt they had been very fortunate with their adjunct faculty.

Perceived Success

The perceptions of the faculty, administrators and students of this particular community college were very interesting. Without exception they all agreed that the caring attitude of the faculty and staff of the learning center, the consistent high quality of teaching, and the consistent high quality of academic advising were of high importance. They also felt they had a very excellent counseling service, an excellent system for identifying potential dropouts, and excellent expanded academic support and learning services. They felt

that there was room for improvement for career planning services and that their particular campus needs more student involvement in campus life.

At first mention of the learning center, comments were made about their caring attitude and the high caliber of teaching found in the learning center. "I don't know how they do it . . . they really seem to care for their students." " They are the most caring on campus." "The lab assistants seem to be aware of when a student doesn't understand the problem." "Mrs. _____ takes extra care to see that the students know what they are supposed to be doing before she leaves them on their own." "I didn't understand a problem in statistics but Dr. _____ very patiently went over and over the steps until I could finally do it on my own."

One teacher said that he was a developmental advisor, that is one who "just advises the developmental students." We "spend a lot of time in workshops and preparing the teachers to be good advisers." The developmental advisers "do their main advising during the pre-registration sessions," and "are the adviser for that student until he is out of developmental classes." "They come to see us during the semester and we check on them to see how they are doing. We check their grades whether they are passing and what they are doing." The students received cards in the mail that reminded them to see their adviser and the number to call to make the appointments. Some of the students did call and come in, but there were always some who did not make the effort

to see their adviser. "I call the students and try to urge them to come, but I can't always get them in to see me. That's their prerogative." "We are looking for potential dropouts and try to keep them in school." After meeting with the students, the advisers had to send a report to the chairman of the Developmental Studies Department, listing the student's progress or lack thereof.

Their counseling center was very busy during the first few weeks of school. Any student who was required to take developmental studies classes in all three areas of English, mathematics, and reading, also had to meet with the counselors in group sessions. These groups might include students "right out of high school who never opened a book" to older students who were afraid they were too old to learn. The counselors went over different areas with the students including how to study, how to take notes, time management and how to take tests.

> This way the kids . . . including the older students, can identify with someone who is not going to give them a grade . . . can find a friendly face in the faculty and can relate to other students in their same boat.

One administrator stated that over 75% of their student body had at one time or another attended the learning center. "I hope it goes to 95% or 100%."

Overall, those interviewed perceived that this particular community college was the best one in the state, that they did have a very successful learning center program and that they did meet the needs of their students.

The data presented in this part of the study were collected from the previous case studies and are organized to respond to the last two questions as stated in Chapter I.

8. Did faculty and administrators perceive a successful change in the underprepared students who attended the Learning Center?

Although many different definitions were given for underprepared students, the consensus was, "A student with low ACT or SAT scores," and "a student who cannot successfully do college work." With the exception of the few disgruntled professors from Large University, the teachers, administrators, and other students seemed to be glad the underprepared students had a place where they could receive help.

Without exception, the administrators and faculty replied that one visit to the learning center was not enough to help students who were underprepared. Occasionally a student stuck on one problem or one paragraph of an essay came in one time and was helped enough that he did not have to come back in again. However, this was the exception. Underprepared students needed to attend the learning centers regularly. Usually a one shot visit was not enough. The "greatest concern of the educator was to get these students into the developmental classes early." "They can stay there (in the developmental classes), do the work, then go into college-level work."

Most of the teachers interviewed had sent at least one student to the learning center except those from Small College. All received

feedback from the center indicating how often the student went to the center, the help received and the perceived progress.

"I've sent kids down there because they don't know how to study or to write papers." "I've sent them down because . . . do not know how to listen or take notes." Just telling a student to go to the center is not always enough. "Not only do I verbally send students to the center, sometimes I almost take the student by the hand and personally escort him over there." "There is absolutely no way except by threatening them with grades, to make them go." "One teacher said she could tell the difference in her students because they began to hold their heads "higher and straighter and look the world in the face . . . because they could read and do math." A math teacher said, "Some of these students just needed to have the same thing drilled over and over with them. That's why our center is so nice. They can use the computers or they can be helped by the assistants." Another math teacher in the same school said, "I can tell when they don't understand a new process. It's like someone pulled the shades down in their eyes. They have a blank look and I tell them to go to the lab . . . someone there will help them." They agreed that sometimes they could explain different processes to the students, but the students were so scared of something new, that they could not remember how to do the homework. This college also encouraged their teachers to work in the center and to use part of the time there as office hours. The teachers thought this was great because " . . . kids who are scared to death of me in the classroom, can

come in here and . . . see that I don't bite, and ask me questions. Then after a few times of this, they can ask the questions in the classroom."

English teachers agreed that they too, could see changes in their student's work. One learning center had a Harbrace textbook chart duplicated with teacher notations so the tutors could easily identify errors and better help the students. "This is something the tutor needs to have in his hand. It makes the work so much easier" stated an English tutor.

Not all students who visited the learning centers were going to stay in college until they graduated, but administrators and teachers alike said that ". . . knowing how to read, write and do math can make a person feel better about himself." "Even if they don't stay in college all the way through, they will feel good about themselves and that should make them an asset to society."

Administrators and faculty that were interviewed said that they could definitely see a change in the students who regularly attended the learning centers. They agreed that one visit was usually not enough for the underprepared students. These students should avail themselves of the various methods of learning whether it be the teaching assistants, tutors or computers and should go over the material until they thoroughly understand it.

9. How were selected learning centers and their staffs perceived by faculty, students, and administrators?

The teachers who sent students to the learning center were impressed with what the tutors, lab assistants and instructors had accomplished with their students. The teachers said they could tell a difference in the attitude of the students. "Many times it is trying to get the right attitude with these students, because if you get them to have the right attitude, then you are three-fourths of the way there."

> We have so many students with so many different backgrounds . . . some with very, very poor backgrounds, that no matter how good their attitude is, it is going to take them several quarters to pass, especially reading and English.

However, if the students "are willing to do the assigned work and have the right attitude" they "can and usually do succeed."

A few administrators felt the centers were helping students much more than either the teachers or the lab assistants felt, but they could be getting their information from students or parents who were very well pleased with the program and the help their students had received. The students interviewed thought the programs were very good and many had gone to the centers at least one time for assistance.

The caring attitude of faculty and staff, consistent high quality of teaching, expanded academic support, enrichment, and learning services were perceived to be very high. The only difference was from Large College where many adjunct teachers did not have or "take the time to offer the caring, sympathetic attributes" the full-time teachers thought necessary for this program. The adjunct teachers agreed, "Since

I am just paid to teach, I leave when my class is over." "They don't pay me to stay here forty hours, so I go . . . to another job." Other administrators and teachers felt they were "very fortunate" "lucky with our adjunct teachers," because they "really have some good part-time faculty."

Identifying potential dropouts went along with advising and counseling services in most cases. The advisement program appeared to be one way of looking for potential dropouts. "We are looking for potential dropouts and try to keep them in school" stated one advisee from Community College. After meeting with the students, the developmental advisers sent a report to the chairman of the Developmental Studies Department listing the student's progress or lack thereof. Large College also was ". . . doing something with the potential dropouts particularly the students who are on conditional admission." "We do have an excellent counseling service here and we take the conditional kids there to talk with the counselor." Large University had a program for identifying potential dropouts because many of the at-risk students were in their basic skills classes.

Counseling was listed on the questionnaire and each was asked about in the interview. However, other than agreeing that each institution did have a counseling program and certain students were requested to attend counseling sessions as part of their admission

requirements, those interviewed were reticent to talk about counseling. Possibly because of the Privacy Act they were not comfortable discussing these matters.

None of the students appeared to feel any disgrace or embarrassment about attending the centers. However, there was some condescension towards the teachers who taught the developmental or basic skills classes. But as one teacher said, "Some teachers look down on those who teach composition." Although most of "the instructors who teach developmental or basic skills choose to do so". A few teachers at Large University thought the underprepared students should not come to their campus until they could do regular college work, but they did not treat the students who received help any differently in their classes. In fact, several teachers said they probably did not know which students received additional help. Most teachers thought the teachers who taught the developmental classes were special teachers who had a lot of extra patience and who could work with these special students. They were not thought less of, but instead, were held in high esteem for the work they did.

The teachers praised the tutors and the coordinator for the thorough training the tutors received. "It is a very good service if you have good tutors . . . that is the crucial thing and . . . even here I feel some tutors are better than others." "The tutors are upperclass students who have been carefully screened and trained. "It is crucial that you have someone who carefully selects them and trains them . . .

goes over the things that they want to have the students work on." Some professors preferred graduate students, but one director said, "I have some undergraduate tutors that are excellent and I have some graduate tutors who can run circles around a number of instructors."

There was a positive feeling about the learning center, the people who work there and the students who went there. Most of the teachers recommended the learning center because they felt their programs were successful. The teachers in Large University and Community College were happy with the number of underprepared students who used the learning center facilities. In fact, one administrator stated, "I know that over 75% of our students have attended the learning center and I hope our number goes to 95% or 100%." He felt it was better for the students "to receive help and stay in college" than "not to receive any help and drop out."

Thus, by triangulation the case studies did confirm the information from the survey questionnaires. The learning centers and staff were perceived to be very successful by administrators, teachers, lab assistants and students.

CHAPTER VI

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS FOR FURTHER STUDY

1. INTRODUCTION

Although learning centers were an integral part of two-year and four-year college campuses, little has been done to measure the effectiveness of these learning centers. Many services were offered by learning centers for underprepared students and in many cases, they were the same services for both two-year and four-year colleges. However, since the clientele of the two-year and four-year institutions were different, even these services could not be compared effectively.

The purpose of this study was: 1) to determine the different types of learning centers within two-year and four-year public and private colleges and universities, 2) to determine the services offered to their clientele (underprepared students), 3) to describe programs that serve the underprepared students, and 4) to analyze the level of success of the learning center programs as perceived by students, faculty and administrators.

2. SUMMARY OF FINDINGS

The following summarizes the major findings of the study:

1. The data gathered indicated that although uderprepared students were defined differently by the two-year and-four year

institutions the terms used most often were students with low ACT/SAT scores and students with low high school GPA's.

2. Almost two-thirds of both two-year and four-year institutions agreed that the major focus of their learning centers were developmental--teaching the basic skills. The other third had as their main focus learning assistance--using tutors, counseling or individualized learning activities.

3. Underprepared students were usually considered students who came to college with low ACT or SAT scores and who may have had low high school grade point averages. Many of these students found the learning center on their own accord and availed themselves of the tutors or programmed material that helped them succeed in college.

4. Although some colleges offered many different types of help for underprepared students, the same seven or eight services were the most sought after and the most used whether in a two-year or a four-year institution. Therefore, the most used learning center services included Academic Advising, Counseling, Diagnostic Testing or Assessment, Remedial or Developmental courses, Reading or Writing Improvement, Study Skills and Tutoring. The schools who had selective admissions policies also included Career Planning.

5. Delivery of developmental assistance which included strengthening the basic skills necessary for introductory college level work, was the major focus of learning centers whether from two-year or four-year colleges. A second area of emphasis focused on learning

assistance programs which included tutoring, counseling, or individualized learning activities. Some colleges included enrichment activities, however, these were not perceived to be of major importance for any of the institutions reporting.

6. Referral students and drop-in students received the same considerations after the initial visit to a learning center. The initial visit was used to see what kinds of help the student needed and to plan a program for him, then the student was referred either to a tutor or to the computer programmed material.

7. Colleges varied greatly in the physical location of the learning centers. Some centers were located in very prominent places and were well marked, while others were in out-of-the-way places and had just a small sign on their door.

8. A difference was seen in the work done by students who regularly attended the learning centers as well as a change in their attitude. However, both administrators and faculty agreed one visit was usually not enough for the underprepared students.

9. The administrators and teachers who have sent students to the learning centers have been very pleased with the work the lab assistants and tutors have done. They rated the caring attitude of the center's faculty and staff, the consistent high quality of teaching, the enrichment, learning services and the academic support of the center as

very high. Excellent advising programs were present in all the schools. Some schools had developmental advisers who advised only those at-risk students.

3. CONCLUSIONS

Colleges in general used similar definitions for underprepared students. Learning centers provide valuable individualized instructional services within higher education and should be incorporated into college life through student orientation as well as faculty recommendations.

Since underprepared students were easily identified before they ever attended a class, the services and location of the learning centers should be made available to these underprepared students as soon as possible in their college career.

Learning centers have evolved to be very similar within institutions with seven major services used by most of the learning centers. The services offered are: Remedial/Developmental courses, Diagnostic Testing/Assessment, Academic Advising, Counseling, Tutoring, Study Skills, and Reading/Writing Improvement.

Learning centers were important to the college success of underprepared college students. The centers should be more prominently promoted as a service and should be identified in the college catalog, in the school newspaper and through advisement, and announcements in classes.

The learning centers need to be an on-going supplemental program for many underprepared students during their college career.

Administrators, faculty and students, perceived that learning centers do have expanded academic support and tutoring services which can help students.

Directors of learning centers were reluctant to provide financial data to outsiders about their program.

Availability of financial information varied greatly from institution to institution so that financial cost comparisons were difficult to make.

4. RECOMMENDATIONS FOR FURTHER STUDY

Further research for study in the area of learning centers should follow the design for on-site visits and interviews.

Schools that serve students who are underprepared academically should definitely consider having a learning center as part of their student services program.

Further research to strengthen a study in this area should include data from students who have attended a learning center.

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APPENDIXES

APPENDIX A

QUESTIONNAIRE

Q U E S T I O N N A I R E

Programs for Academically Underprepared Students

Please complete the following items to the best of your ability.

1. Type of institution? ___ 2 year public
   ___ 2 year private
   ___ 4 year public
   ___ 4 year private

2. Nature of freshman admissions policy?

   ___ Open ___ Open--some programs selective
   ___ Selective ___ Highly selective

3. About how many full-time undergraduates attend your college?

   _____

4. What do you consider to be your major focus as a learning center? (Please rank these in order of most use: 1=most use, 3=least use.)

   ___ developmental (basic skills necessary for introductory college level work)
   ___ learning assistance (tutoring, counseling,individualized learning activities)
   ___ enrichment (work beyond the minimum requirements)

5. Please estimate the number of students that your learning center serves each year. _____

6. Whom does your learning center serve? (Check as many as are appropriate.)

   ___ students in remedial courses
   ___ students in regular English courses
   ___ students in regular Mathematics courses
   ___ students in any courses in the college or university
   ___ members of the general public who drop by or phone inquiries
   ___ others (please specify)_____

7. What is the definition of academically underprepared students used on your campus?

___ low ACT/SAT scores
___ low high school GPA
___ GED
___ minority or ethnic background
___ low college GPA
___ other (please describe)

8. How are students selected to participate in your learning center program?

___ low admission standards
___ referred by self
___ referred by college staff
___ low high school GPA
___ low college GPA

9. Services available for academically underprepared students. (Check as many as are appropriate.)

___ academic advising
___ career planning
___ counseling
___ tutoring
___ study skills
___ support groups
___ seminars
___ group workshops
___ study groups
___ diagnostic testing/assessment
___ reading and/or writing improvement
___ remedial/developmental course
___ personal skills
___ summer transition program
___ facilities for self help
___ consultation on a drop-in basis
___ special orientation session
___ other (please specify)_____

10. How are regularly scheduled tutoring sessions staffed?
(Check as many as are appropriate.)

___ not applicable
___ remedial department full-time faculty
___ English department full-time faculty
___ Mathematics department full-time faculty
___ remedial department adjunct or part-time faculty
___ graduate students
___ undergraduate students
___ others (please specify) _____

11. Who handles drop-in students?
(Check as many as are appropriate.)

___ not applicable
___ remedial department full-time faculty
___ English department full-time faculty
___ Mathematics department full-time faculty
___ remedial department adjunct or part-time faculty
___ graduate students
___ undergraduate students
___ others (please specify) _____

12. How many hours is your center open each week?

___ fewer than 20 hours
___ 21-30 hours
___ 31-40 hours
___ 41-50 hours
___ 51-60 hours
___ 61 hours or more

13. Where is your center located?
(Check as many as are appropriate.)

___ in or near remedial department offices
___ in or near English department offices
___ in or near Mathematics department offices
___ in a major classroom building
___ in a learning resources building
___ other (please specify) _____

14. How is your center identified?
(Check as many as are appropriate.)

___ large outdoor sign (18" or more high in front of building)
___ in college catalog
___ advertisement in school paper
___ sign at reception desk
___ sign inside buildings
___ advertisement in yearbook
___ other (please identify) _____

15. Does your learning center have a director?

___ no ___ male
___ yes ___ female

If yes, is your director
___regular teaching faculty
___adjunct or part-time faculty
___full-time
___part-time
___other (please specify) _____

If part-time, how much time or what teaching-load equivalent is designated for learning center work?

___ less than one fourth the normal teaching load
___ between one fourth and one half the normal teaching load
___ between one half and three quarters of the normal teaching load
___ other (please specify) _____

16. Who funds your center?
(Check as many as are appropriate.)

___ remedial department budget
___ English department budget
___ Mathematics department budget
___ college/school budget
___ university budget
___ grant or other outside source
___ other (please specify) _____

17. Does your center have a separate budget?

___ no
___ yes

If yes, how much per year? _____

18. How much do you pay staff for work in the center?
(Fill in the blank and circle the appropriate period.)

regular faculty $_____
per quarter/semester/year/NA

adjunct or part-time faculty $_____
per hour/quarter/semester/year/NA

graduate students $_____
per hour/week/quarter/semester/NA

undergraduate students $_____
per hour/week/quarter/semester/NA

other (please specify) _____

19. Are learning center staff members compensated in other ways?

___ load reduction of _____%
___ other (Please specify) _____

20. Please brag about your center. What do you do that is unique? What does your center do best?

APPENDIX B

LETTER TO REGISTRAR

Date

Registrar
Institution
Street Address
City, State, Zip

Dear

Knowing that Registrars keep up with all that goes on in their particular school, I am writing to you for some very important information. I am working on my dissertation in Educational Administration and Supervision through the University of Tennessee at Knoxville and need to ask some questions of the person in charge of your learning center or remedial center.

I am the director of the Teaching Learning Center here at Southern College of Seventh-day Adventists in Collegedale, Tennessee. Our center is equipped to assist students who are having difficulty with any subject or area. Some colleges have other names for their learning center, such as, College within a College, Developmental Education Center or Learning Environment Center.

Would you please write the name or title of your learning assistance program and the Director's name on the bottom of this letter and return it in the enclosed self-addressed stamped envelope at your earliest convenience. If you do not have a learning assistance program, please indicate that also.

Thank you very much for taking the time from your busy schedule to help me.

Sincerely,

Carole A. Haynes
Doctoral Candidate
The University of Tennessee, Knoxville

APPENDIX C

COVER LETTER TO LEARNING CENTER DIRECTORS

Date

Name
Director of Learning Center
Institution
Street Address
City, State, Zip

Dear

This letter is requesting participation in a dissertation survey studying programs designed to help academically underprepared students succeed through the learning centers of two year and four year public and private colleges and universities.

The identity of each individual participant and institution will be anonymous and kept confidential. The data collected for this study will be utilized in completing the dissertation research requirements of the University of Tennessee at Knoxville.

Although participation is voluntary, your cooperation will be greatly appreciated. The return of the completed questionnaire is to signify your implied consent to participate in this study. Please take a few minutes to answer the enclosed questionnaire and return it to me in the self-addressed stamped envelope at your earliest convenience.

If you would like a copy of the results of the study, please so indicate and a copy will be mailed to you.

Thank you for your assistance in this matter.

Sincerely,

Carole A. Haynes
Doctoral Candidate
The University of Tennessee, Knoxville

APPENDIX D

FOLLOW-UP LETTER

Date

Name
Director of Learning Center
Institution
Street Address
City, State, Zip

Dear

This letter represents a second request for your participation in a dissertation survey studying programs designed to help academically underprepared students succeed through the learning centers of two year and four year public and private colleges and universities.

The identity of each individual participant and institution will be anonymous and kept confidential. The data collected for this study will be utilized in completing the dissertation research requirements of the University of Tennessee at Knoxville.

Although participation is voluntary, your cooperation will be greatly appreciated. The return of the completed questionnaire is to signify your implied consent to participate in this study. Please take a few minutes to answer the enclosed questionnaire and return it to me in the self-addressed stamped envelope at your earliest convenience.

If you would like a copy of the results of the study, please so indicate and a copy will be mailed to you.

Thank you for your assistance in this matter.

Sincerely,

Carole A. Haynes
Doctoral Candidate
The University of Tennessee, Knoxville

APPENDIX E

LIST OF INSTITUTIONS IN SURVEY POPULATION

LIST OF INSTITUTIONS IN SURVEY POPULATION

ALABAMA

Alabama Agriculture and Mining

Gadsden State Junior College

Gadsden State Technical Institute

J. F. Drake State Technical College

Jacksonville State Community College

John C. Calhoun State Community College

Oakwood College

Southern Junior College of Business

Talledega College

University of Alabama at Huntsville

GEORGIA

Berry College

Brenau College

Dalton Junior College

Floyd Junior College

Gainesville Junior College

Kennesau College

North Georgia College

Piedmont College

TENNESSEE

Bryan College

Carson Newman College

Chattanooga State Technical Community College

Cleveland State Community College

Cumberland College

Edmondson Junior College

Hiwassee College

Johnson Bible College

Knoxville College

Knoxville State Vocational Technical College

Lee College

Lincoln Memorial College

Maryville College

Motlow State Community College

McKenzie College

Southern College of Seventh-day Adventists

State Technical Institute

Tennessee Technical College

Tennessee Wesleyan College

Tomlison College

University of Tennessee at Chattanooga

University of Tennessee at Knoxville

University of the South

APPENDIX F

INTERVIEW GUIDE

FACULTY ADMINISTRATOR INTERVIEW GUIDE

A. Knowledge of Learning Center Location, Clientele, and Purpose

1. Where is your learning center located?
2. Who attends the learning center? Is it required of anyone in particular?
3. Can any student attend or just special students?
4. Who pays for this service? What is the charge?
5. Have you personally been to the learning center? What did you think of it?
6. Do you know of any special services the learning center may have to help students with study skills or reading improvement?

B. Awareness of Underprepared Students

1. What is your definition of an underprepared student?
2. How do you feel about underprepared students who need the services of a learning center?
3. If you are made aware of the needs of your students before school starts or early in the semester, do you give them special help or suggest the learning center?

C. Personal Experience and Feedback

1. Have you ever sent any student to the learning center?
2. Did you get any feedback from the learning center about this individual or his needs?
3. Do you now have or have you ever had students in your classes who have attended the learning center?
4. Does their work differ from other students? How or why?

D. Perception of Learning Center and Staff Who Work There

1. Do you think the learning center actually helps students?
2. Do you have any evidence of this?
3. Do you think the learning center is fulfilling an important service? Why?
4. What do they do in the learning center?
5. Would you recommend the learning center to other students?
6. How do you personally feel about the learning center?
7. How do you feel about the people (staff) who work there?
8. Do you think learning center programs are successful? Why?
9. Do you think the underprepared students really use the services of the learning center?

E. Knowledge of Developmental Classes

1. Do you teach a developmental or remedial class?
2. Would you like to teach a developmental or remedial class? Why?
3. How do you feel about teaching developmental or remedial classes?
4. How do you feel about other teachers who teach developmental or remedial classes?

F. Perceived Successful Programs of the School

Rate the following characteristics as to how important you think they are on your campus. Use the scale 1=low importance to 5=high importance.

1.	Caring attitude of faculty and staff	1 2 3 4 5
2.	Consistent high quality of teaching	1 2 3 4 5
3.	Consistent high quality of academic advising	1 2 3 4 5
4.	Excellent counseling service	1 2 3 4 5
5.	Excellent career planning services	1 2 3 4 5
6.	System for identifying potential dropouts	1 2 3 4 5
7.	Encouragement of student involvement in campus life	1 2 3 4 5
8.	Expanded academic support/enrichment/ learning services	1 2 3 4 5

VITA

Carole Ann Schaum Haynes was born on July 19, 1937, in Zanesville, Ohio. She attended public schools through the fifth grade and then attended Seventh-day Adventist schools. She was graduated from Mount Vernon Academy, Mount Vernon, Ohio in 1955 and was graduated from Southern Missionary College, Collegedale, Tennessee in 1970 where she received a Bachelor of Science in Elementary Education.

In 1970 she accepted employment as a classroom teacher in Catoosa County Public Schools, Ringgold, Georgia where she taught in Catoosa Consolidated Elementary School, Ringgold Junior High School, and Ringgold Intermediate School. After five years she entered the graduate program in Education at The University of Tennessee at Chattanooga, Tennessee where she graduated in 1976 with a Master of Education with Reading Emphasis. In December 1979 she became the Assistant Principal of Ringgold Intermediate School, Catoosa County, Ringgold, Georgia.

In October 1982 she joined Southern Missionary College as Director of the Teaching Learning Center. She also began a program of doctoral study at The University of Tennessee, Knoxville in 1982 and was graduated with a Doctor of Education degree in August 1989, with a major in Educational Administration and Supervision and collateral areas of Higher Education and Organizational Psychology.

She is a member of the Association for Supervision and Curriculum Development, the International Reading Association, the Pi Lambda Theta, other professional and civic organizations and is active in her church.