

EVALUATION OF FOREIGN STUDENTS ADMISSION PROCEDURES
USED AT THE UNIVERSITY OF ALABAMA

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A DISSERTATION

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Chapter I

Introduction

Students from foreign countries have long been a part of the scene on United States university campuses. This country has considerable educational wealth and increasing numbers of students have been coming here to benefit from it. American students also benefit from interaction with persons of different cultures, and university campuses have always been very eager to receive foreign students.

The number of students from other countries on American campuses is currently more than 145,000 according to statistics provided by the National Association of Foreign Student Affairs (1972). The number has doubled in the past decade. Administrators in colleges and in universities are now becoming increasingly sensitive to problems faced by some foreign students. They realize that they have reached a stage where more planning and less of a laissez-faire attitude is needed. It is now understood by university administrators throughout the country that the process of selection, admission, and program development for students from other countries should be congruent with the basic goals and purposes of the institution accepting them. Certainly factors such as size, specialization, geographical position, and cultural characteristics of the accepting institution must be considered. Foreign students make substantial demands on staff and

financial resources. Some students may not have adequate command of English. Most need orientation to the American way of life and to the educational system of the United States. In addition there is the recent problem of restrictions placed by the Office of Immigration and Naturalization. Because of the overflow of aliens and the increase in unemployment in this country, students who have a student visa are not allowed to work in the community any more. Therefore, they must find other means to finance their education (NAFSA Newsletter, November, 1974).

Authorities on foreign students 10 and 20 years ago (Cieslak 1955, DuBois 1956, Morris 1961, R. Tyler 1964) stressed the importance of the development of means to evaluate foreign student credentials in a reliable way. Admission officers at that time were faced with a sudden influx of international students about whom they knew little.

Organizations such as the National Association of Foreign Student Advisors (NAFSA) and the American Association of College Registrars and Admissions Officers (AACRAO) have sponsored research and development of reliable guidelines for admission of foreign students. Admissions officers have now in their disposition an impressive series of publications on the educational systems of most countries containing recommendations on admission and advanced placement, English knowledge, and other pertinent information. Tests of English such as the Test of English as a Foreign Language (TOEFL), the Michigan Test of English Language Proficiency, and the American Language Institute of Georgetown University (ALIGU) test have been developed to give reliable measurements of competence in English. All these materials greatly facilitate decision making about whom to admit and whom not to.

Factors of success and failure of a student, however, are countless.

It is practically impossible for an admissions officer to know all the factors and to be able to take them under consideration. When an admissions officer has no direct experience with a particular foreign educational system, he can take very few factors into consideration. He simply lacks the knowledge of connotations that particular grades, diplomas, and institutions may carry, in addition to the factors that influenced a specific student's performance. Many of the foreign systems are very intricate, and they may change often. Misinformed interpretations of credentials have been a common topic of discussion among foreign students.

Supply and demand is an important factor in deciding who is admitted to which university. In recent years foreign students have flooded the United States, but relatively few students have come to the South, particularly to the states of Alabama and Mississippi. The state universities in the South have resources of value to foreign students. The people of the South also could profit from the cultural exchange. Foreign students have been avoiding the Southern states because of rumors about the merit of particular states and their universities. Many students have avoided the South because of the not so distant racial discrimination that marred the reputation of the region throughout the world. The University of Alabama, for example, has repeatedly received hesitant letters from applicants asking whether they would be lynched if they associated with blacks on campus. It seems from student reports that non-southern United States citizens overseas often advise prospective students not to come to this area. There is also evidence that international scholarship organizations may avoid sending their students to the deep South. Whereas universities in other parts of the country

admit only the few most outstanding of thousands of applicants or even close admissions completely for a number of years, southern universities could presently accommodate most or all of the students who satisfy admission and financial requirements.

This discrepancy between the number of foreign students on campus and the number which could be accommodated is evident at The University of Alabama. In the past the number of foreign students has been particularly small. In the Fall of 1970, there were approximately 65 foreign students on campus. By the Fall of 1973, 126 international students were registered out of a total of 15,00 students (The University of Alabama Master Student List, Fall 1973).

The value of foreign students to the University community has been accepted by the administration in recent years. It is now understood that an increase of competent foreign students at The University of Alabama would enhance its reputation outside the United States. It would also offer very useful cultural exchange opportunities to the student body that consists mostly of Alabama residents. Therefore, trained personnel were chosen to deal with these students, their admissions, and the other problems they face. The office handling foreign student matters is designated as the Office of International Student Affairs.

In January 1974, the Office of International Student Affairs launched a project whose purpose was to enhance the international reputation of The University of Alabama. The goals were to bring more and better qualified foreign students to The University of Alabama and to make the University better known and more accessible to a wider variety of countries and social strata of prospective international

students. A first objective to be attained was the increase of the number of students from 123 in January 1974 to approximately 200 in January 1975.

The staff of the Office of International Student Affairs had to deal with many problems of foreign student admissions in order to attain the goals and objectives of this project. The staff members gained considerable experience by dealing with these problems. A number of the issues that arose while dealing with foreign student admissions will be presented below.

Since the advent of international students on The University of Alabama campus, there have been many positive as well as some negative experiences with them. The Office of International Student Affairs has to consider at the time of the admission process possible future negative experiences. The NAFSA and AACRAO publications and information have been of infinite help to this office. However, as expected, the guidelines recommended in the professional literature must be fitted to the needs of this university. A number of students, for example, who are admitted and come to this campus do not perform as well as expected, and in some instances students who entered with less promising credentials have performed more effectively than expected.

Currently there is no problem of too many foreign student applicants for too few openings. The problem is: How can the University predict from the information available on the applicants which ones will probably be successful in this institution and which ones will not? For the benefit of prospective foreign students it is important to identify from the variables that are usually considered when a student applies for admission which ones correlate highly with future

successful performance and which ones appear to show no relationship.

The process of determining foreign student admissibility gives consideration to four sets of variables: 1) academic records and entrance examination scores, if any, 2) knowledge of English as shown by scores on the Test of English as a Foreign Language (TOEFL), 3) letters of recommendation from professors or employees, and 4) financial ability. The first three sets of variables are concerned with the students' academic performance. Lack of financial ability results in the exclusion of many foreign students. The university provides no financial assistance for undergraduate foreign students. All undergraduate students must present at least two satisfactory letters of recommendation. The graduate school has recently cancelled this requirement. The two sets of variables that would be important for prediction of academic success would be academic records and knowledge of English.

The records of foreign students are reflections of widely varying educational systems. Even though professional literature provides assistance in interpreting student records, the persistent problem is that recommendations on admissibility to United States institutions are usually given experientially by experts, i.e. without any detailed studies of achievement in the home country and subsequent performance in the United States. This is admittedly a difficult task because of the numbers of variables involved. But the problem is that after a cutoff point is established, few senior colleges will admit students below that level, so one never finds out how many of the students who did not meet admission standards could perform at a senior college level. Therefore, there is a need to learn whether the recommendations given in these publications satisfy the needs of The University of Alabama. Experience

with student credentials indicates that the University might consider raising the recommended standard for some countries and lowering it for others. Marginal students are a particular problem. Experience with students already admitted has shown that there are both successful and unsuccessful individuals among them. At the individual level, prediction is difficult. If a student is rejected, he may be denied a good education. If a student is accepted and fares badly, the level of instruction and performance at the University may suffer.

Stateside university entrance examination scores are not considered very valid for foreign students because of the heavy cultural bias involved. If a student scores high, this is an encouraging fact, but low scores cannot be received as indication of academic weakness without very close scrutiny of individual circumstances. The University of Alabama Graduate School requires foreign applicants to take the same tests as United States applicants, but the results are used as a diagnostic rather than as a selection device.

English is taught at various levels in various countries ranging from sole use of English throughout school to the teaching of English only as an elective course of secondary importance. Therefore, the students' knowledge of English cannot be correlated to academic performance without considering how much English a student could possibly learn in the home country environment. Furthermore, individual ability for learning additional languages varies. The similarity between the mother tongue and English is also a factor that has to be considered. A Chinese student usually has more difficulty in learning English than a German. Academic achievement should be considered independently from absolute English knowledge, except in cases where a student falls below

the English standards of his or her country.

A student with severe language deficiencies may go to intensive English courses provided in many universities in this country for a period of time before enrollment in the university which accepted the student. If language deficiencies are not severe, the student may be able to attend the regular session at the university while initially taking reduced course load supplemented by an English course for foreign students. The most useful way to assess a student's knowledge of English is considered to be the Test of English as a Foreign Language (TOEFL). This test, developed by the College Entrance Examination Board and the Educational Testing Service, is a requirement for all foreign students applying to The University of Alabama, except in cases of transfers from other stateside institutions. The cutoff score for unconditional admission is 500. If a student scores below 500, satisfactory completion of an intensive English course before enrollment at the University is expected. Also it is recommended that the student score above 50 in the listening comprehension subtest of the TOEFL. However, this is not a requirement.

Foreign student advisors often experience the phenomenon of students improving rapidly in their oral English and listening comprehension after they arrive in the United States. Few foreign students are taught English directly by Americans or have the opportunity to interact with them extensively abroad. Therefore, they cannot be expected to understand everything in an English lecture recording in the listening comprehension section of the TOEFL. If students have not had many opportunities to speak, they will not speak fluently upon arrival, even though they may have studied the language in depth. When presented

with the opportunities to speak and hear American English, a student who has studied the language in depth will increase his or her understanding and will become fluent very soon. However, people who have not had the opportunity to learn a foreign language through exposure have difficulty conceptualizing this. Admissions officers at times tend to underestimate the students' language development in the United States or treat it as static. The intensive English course is an expensive and time consuming venture. Though many students obviously need it, many others would choose to do without it if they had a choice. Since many factors are involved in test taking situations, a number of students who must be referred to an intensive English course according to regulation may not need it. Such was the case of a Pakistani Engineering student with a TOEFL of 470, who came to The University of Alabama to attend an intensive English summer course before registration. Upon arrival he was allowed to register for regular courses, because his English was entirely adequate. The student was later given the Michigan test on which he also performed poorly, but he reports no language difficulties, and he has been well adjusted academically. (Office of International Student Affairs files, 1974)

This and other similar occurrences give some evidence that these tests may measure traits which are not of very great importance to the grades of students in applied fields. Although the TOEFL is considered the most important tool in measurement of English knowledge, it has some major disadvantages. It is given only four times a year; one must register for it six weeks in advance, and it costs \$15 to take. This means that a number of students will have to miss a semester while waiting for the TOEFL to be administered and the results to be published.

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coordinate the work between this office and other offices handling foreign student admissions (Graduate School, Office of Admissions) in order to minimize duplication of work and wastage of resources.

The Office of International Student Affairs has tried in various ways to cope with the above problems and to increase the efficiency of its operations. In January 1975, 196 foreign students were registered, an increase of 63 per cent over the past year. The objective of increasing the number of the students to approximately 200 was attained. Many recommendations of the professional literature and many office operations have been scrutinized during the year 1974-1975. According to theories of Education Administration (Handy and Hussain, 1971; Carter, 1969) at that stage evaluation was necessary. The quality of the newly admitted students had to be assessed through their performance and their knowledge of English. Functions and work load distribution to the staff had to be evaluated and corrections had to be made to insure maximum efficiency. This dissertation was an attempt to make the necessary evaluation.

Statement of the Problem

The problem was that no data existed to allow one to determine foreign students' performance at The University of Alabama. In order to assess the problem, evaluation was conducted, which included assessment of the validity of the criteria recommended for admission of foreign students. These criteria, derived from guidelines used throughout the United States, might not satisfy the particular needs of The University of Alabama. The evaluation also covered the functions

of the Office of International Student Affairs related to foreign student admissions. Feedback from the evaluation process would minimize further the problems that are encountered in foreign student admissions at The University of Alabama.

Purpose of the Study

The purpose of this study was to measure the success of the project undertaken from January 1974 to January 1975 and to produce recommendations for further improvement. Measurements involved two dimensions: 1) a statistical analysis of relationships among variables that foreign students' admission, individual characteristics, (nationality, age, major) and performance at The University of Alabama; and 2) a study of the process of admitting a foreign student at this university. On the basis of these two studies, recommendations were made for improvements in future decision making involved in foreign student admissions.

Limitations of the Study

This study was limited to the current conditions of the admission process of foreign students at The University of Alabama and to the development of a data base for use in evaluating the level of performance of foreign students at The University of Alabama. A review of the literature was presented with emphasis on the materials available for foreign transcript evaluation and assessment of English knowledge, up-to-date research in this field, and the administrative structure and functions of the offices responsible for foreign student admissions. Subjects for this study were the incoming foreign students of Fall semester,

1974, and Spring semester, 1975, who were willing to participate in the study. Criteria for measuring the performance of students have been the grades of the first semester for students who entered in Spring, 1975, and of the first two semesters for students who entered in Fall, 1974.

Methodology

In order to accomplish the evaluation referred to in this study, research was carried out in the following manner.

- 1) Reviewed professional literature, English tests, organizations, and research related to foreign student admission problems.
- 2) Compiled a list of all the students expected to arrive in the Fall of 1974, which will show TOEFL scores, country, major, age, sex, as well as type of diplomas each student has and average grades received.
- 3) Requested students upon arrival to take the Michigan test, a written test of English language achievement. On the same day (most work being done on the days of registration) took samples of oral English ability on tape from newcomers into the country.
- 4) Interviewed again newcomer students and recorded new samples of their oral English ability.
- 5) Compared the initial and final interviews of newcomer students and rated them using criteria formulated on the basis of other English tests.
- 6) Repeated activity blocks 2-5 in Spring 1975 for students who arrived at that time.
- 7) Separated students' home country grades into letter grades of the United States system using equivalencies inferred from various evaluation publications.

- 8) Obtained at the end of Spring semester of 1975 the grade point average for each student. Obtained the grade point average of two semesters separately, so that improvement could be noted.
- 9) Punched computer cards with all of the above measurements (age, country, major, classification, grade point average and hours taken each semester, letter grade of previous performance, Michigan test score, oral English ratings for students new in this country, and TOEFL scores). The Behavioral Sciences Library computer programs were used for data analysis.
- 10) Made a detailed study of the activities of the Office of International Student Affairs concerning foreign student admissions, transfer of applications from employee to employee, and time and resources involved in the process.
- 11) Made a flowchart showing the process of admitting graduate and undergraduate students through the Graduate School, the Office of International Student Affairs, and the Office of Admissions.
- 12) Made recommendations on the basis of the data analysis and of the above studies.

Organization of the Study

There are five chapters in this study.

Chapter I includes the introduction, the background statement of the problem, purpose of the study, limitations of the study, methodology, and definition of terms and acronyms.

Chapter II contains an up-to-date review of the literature and research undertaken in the problems expounded in Chapter I.

Chapter III contains a detailed methodology for the statistical analysis,

which includes subjects, materials, process, data analysis, and discussion.

Chapter IV contains the flowchart of the admissions process of foreign students in the University and the study of activities of the Office of International Student Affairs with suggestions for improvement.

Chapter V presents the summary, conclusions, and recommendations of this study.

Definition of Terms

The following terms are used in this study. The definitions are given as understood by the author.

1. Foreign Students: Citizens of other countries who are studying at a United States university. For the purposes of this study, this definition includes permanent residents to the United States as well. The term is used interchangeably with "International Students."

2. Credentials: Proofs of the students' academic achievements. The term includes transcripts of grades, certificates of degrees or diplomas, test scores, evidence of English knowledge, and letters of recommendation.

4. Evaluation: Assessment of effectiveness and efficiency of the functions of a department or project. It provides feedback, which is used for further improvement.

Definition of Acronyms

AACRAO: American Association of College Registrars and Admissions Officers

AID: Agency for International Development

ALIGU: American Language Institute of Georgetown University

ATGSE: Admission Test for the Graduate School of Business

CEEB: College Entrance Examination Board

ETS: Educational Testing Service

g.p.a.: grade point average

GRE: Graduate Record Examination

IIE: International Institute of Education

LASPAU: Latin-American Scholarship Program for American Universities

MAT: Miller Analogies Test

NAFSA: National Association for Foreign Student Affairs

SAT: Scholastic Aptitude Test

TOEFL: Test of English as a Foreign Language

USEFI: United States Educational Foundation in India

Chapter II

Review of the Literature

This chapter presents: 1) Institutional policies concerning foreign students. 2) An overview of the organizations that devote a large part of their efforts to promote international education, and 3) Research undertaken on academic performance and English knowledge of foreign students in the last three decades.

Institutional Policies Concerning

Foreign Student Admissions

Part of the foreign student problems encountered on various campuses stems from the fact that many institutions do not have a well formulated policy concerning admissions. The size of a university, cost, cultural and religious orientations, geographical positions, and goals are factors that must be taken in consideration when foreign students are to be admitted. The basic task is to admit those students whose objectives can best be served by the resources of a particular university (College, University and Foreign Students, 1974). When students find that their institution does not serve their objectives or when institutions find that their foreign students do not conform to their cultural or religious orientations, much time, effort and money are lost. For this reason, authorities on International Education have long been urging the development of policies for each individual

institution according to its possible foreign student potential (Tyler, 1965; DuBois, 1956; Frey, 1968; Maquiso, 1973).

Five regional workshops sponsored by the International Institute of Education and the College Entrance Examination Board were held in 1965. Their objectives were: 1) to encourage United States Institutions to examine their policies and responsibilities in admitting foreign students, 2) to identify as accurately as possible the problems faced by colleges and universities in admitting foreign students, 3) to assist present practices and resources, 4) to facilitate communication of skills among institutions, and 5) to stimulate cooperative action at the institutional, regional and national levels on foreign student problems (Jacqz, 1965). The workshops established that institutional practices could be improved and made effective only within the framework of a clear institutional policy; furthermore, each institution has to formulate its own policies. Undiscriminating admissions can be damaging to the institution, to the foreign students, and to the reputation of Higher Education in this country (Jacqz, 1965).

An inquiry was made in 1972 into departmental policies and practices in relation to the graduate education of foreign students by the Field Service Program of the National Association of Foreign Student Affairs. Subjects of investigation were 12 universities in six disciplines: Business Administration, Chemistry, Civil Engineering, Economics, Educational Administration, and Electrical Engineering. The universities were a sample taken from all regions of the country, and they were not identified. Institutional and departmental policies, admissions, financial aid, English, and student services were examined. The conclusions of the report were as follows:

The data collected clearly indicate that, for the most part, statements of policy and procedure have not been developed. In some schools, an implied philosophy or rationale exists but there is little evidence of follow-through. In other words, policy statements are rarely translated into practical application. Nor was the impression gained that having a policy would be of great importance. As noted previously, most departments feel content with what they are doing and the results they are obtaining from the foreign student contingent. However, as also noted earlier, there is a growing belief that a thoroughly thought through formulation of institutional commitment and a resultant statement of policy may become of greater importance, perhaps even a necessity in the near future (An Inquiry into Departmental Policies and Practices in Relation to the Graduate Education of Foreign Students, 1972).

Standards of admission should be sought which are flexible enough to attract a foreign student enrollment and rigid enough to maintain the academic integrity of the institution. For both large and small institutions the objective is to admit foreign students who have the academic, financial, and linguistic abilities to complete their educational objectives successfully, and who will benefit from what the institution has to offer. Once standards are developed in support of general institutional policy, the success of the admissions program will be in the hands of the admissions personnel involved, including the foreign student advisor. Their cooperation and sharing of responsibilities are basic to the success of the admission program (Guidelines for Selection and Admission of Foreign Students, 1966).

Cieslak (1955 p. 45) believed that the administrative responsibility for admissions should be given to the foreign student advisor. However, very few of the 677 colleges surveyed by Mathewson in 1968 had an office or program for foreign students.

Hopkins and Christopher (1971) emphasized that a foreign student admissions officer should be internationally oriented by keeping abreast of international developments so that he or she will understand the

problems that applicants face, such as finances, mail hardships, postponements, etc. 20

An example of development of institutional policy was the work undertaken by the University System of Florida under the auspices of the NAFSA Field Service Program (Caplan, 1973). Careful examination of goals and assessment of needs produced beneficial recommendations to the Board of Regents, most important of which were:

- 1) Assignment of faculty members as academic advisors to foreign students.
- 2) Regular substantial financial aid in the form of renewable tuition waivers and low cost loans.
- 3) Low cost and maximum benefit international group insurance.
- 4) Centralized credentials evaluation for the whole University System of Florida.
- 5) Development of special credit courses for sufficient numbers of foreign students.
- 6) Development of centers for teaching English.

International Education Organizations

A number of organizations have played a major part in the development of International Education and in the advent of foreign students in the United States. They have sponsored a large amount of research that has greatly contributed to today's knowledge about foreign student problems. Following is a list of the most important organizations and their functions.

National Association of Foreign Student Affairs (NAFSA)

NAFSA is a non-profit organization that was created in order to help school administrators deal with foreign student problems. It

extends its activities along six dimensions of foreign student affairs: 1) social, 2) admissions, 3) English, 4) advising, 5) United States students' study abroad, and 6) community and junior colleges. There are publications and activities for each one of these dimensions designed to keep the administrators dealing with foreign student affairs as informed as possible. NAFSA publishes a monthly newsletter designed to disseminate the latest information available in all of these dimensions (NAFSA Newsletters 1972-75).

The NAFSA Field Service Program has undertaken many important projects thusfar. One of its functions is to send consultants to campuses where advising on foreign student programs is needed. NAFSA can also finance useful projects proposed by member institutions or individuals (NAFSA Newsletters, 1975).

Among its publications, NAFSA has published "Guidelines," a series that is designed to help Foreign Student Advisors function adequately in their counseling roles. This series covers housing, money matters, emergency situations, selection and admissions, English language proficiency, American-foreign student relationships, international student exchange, academic and personal advising, and initial orientation. It is a most useful tool for foreign student administrators (Guidelines, 1965-1971).

In addition, NAFSA works closely with all the other organizations dealing with various aspects of foreign student affairs, and many cooperative projects are sponsored (NAFSA Newsletters, 1975).

International Institute of Education (IIE)

The International Institute of Education is a leading private non-profit organization in the field of intercultural and international

exchange. Since its foundation in 1919, the institute has been dedicated to disseminating knowledge and developing understanding between the American people and those of other countries through exchange programs for students, scholars, artists, and leaders. Through its New York headquarters, five United States regional offices, three overseas offices and representatives in 25 countries, IIE carries out exchange programs between the United States and 110 other countries. It also provides an extensive information and publications service as well as consultative services on educational and cultural exchange. IIE administers fellowship and scholarship programs under which 850 United States students study abroad and 5,800 foreign students study in the United States each year. These programs are financed by colleges and universities, foundations, corporations, private agencies, and individuals, including United States as well as foreign governments. The institute arranges for university admission of its scholarship recipients. It also arranges summer orientation programs, English language programs, homestays, and seminars for newly arrived students.

The IIE conducts educational research and publishes studies, handbooks, guides, surveys, directories and information brochures on international education. It also conducts regional, national, and international seminars, workshops, and conferences on major international education issues.

Very important to admissions officers is the IIE applicant information service for students who are self-sponsored. Offices in South America, East Africa, and Southeast Asia provide information and counseling to students seeking admission to United States universities. At the request of admissions officers, prospective students can be

interviewed at no cost, and credentials can be evaluated. In this way financial position, English knowledge, motivation, and physical health can be assessed readily (This Is IIE, undated).

American Association of Collegiate Registrars and Admissions Officers (AACRAO)

The American Association of Collegiate Registrars and Admissions Officers has long been sponsoring research on the field of student admissions, and it has devoted a large part of its activities to foreign student admissions. The association publishes its own journal, "College and University," in which research and proceedings of annual meetings are published (College and University, 1974-1975).

A most helpful foreign transcripts evaluation tool is the World Education Series. It is a series of more than 40 publications, each covering the educational system of a country. In them the cultural and historical background that led to the educational system of a particular country is summarized. Then the outline of educational systems and curricula is given in divisions under elementary, secondary, vocational, and higher education. Important secondary and vocational institutions are described, as well as all institutions of higher learning. All degrees and diplomas granted are discussed. Finally, there is an admission and placement recommendations section (Burns, 1974).

These publications are written by expert evaluators who travel to the particular countries and research the systems on site. Often they include statistical information on the percentages of attrition in schools, or numbers of students receiving various degrees and grades. Recommendations are made by comparison of curricula and years of study between the United States and the country in question. A weakness of this system is that recommendations given do not take variations of

the universities that will use them into account. It has been proposed (Burns, 1971) that a number of admission and placement recommendations be given according to policies of various institutions.

Agency for International Development (AID)

The Agency for International Development of the Department of State provides a number of scholarships to students from developing countries to study in the United States. AID has had a number of projects in conjunctions with NAFSA and with AACRAO. Such projects include overseas workshops designed to reach a deeper understanding of particular countries and their educational systems. It also operates a home country employment locator service and coordinated evaluations and placement with NAFSA of AID scholarship recipients (NAFSA, 1974).

College Entrance Examination Board (CEEB)

The College Entrance Examination Board is a non-profit membership organization that provides tests and other educational services for students, schools, and colleges. The Office of International Education of the CEEB has carried out research on the validity of the United States school and college entrance examinations for foreign students such as the Scholastic Aptitude Test (SAT), the American College Testing Program (ACT), the Graduate Record Examination (GRE), and the Admission Test of the Graduate School of Business (ATGSB). CEEB, together with the Educational Testing Service constructs and administers the Test of English as a Foreign Language (Entering Higher Education in the United States, 1974). This organization also publishes a series of booklets that help prospective foreign students in making decisions.

The American Friends of the Middle East is an evaluation organization that places students from Arabic countries, including Iran, who have received government scholarships to United States institutions. It also handles the English training of these students. Arab governments pay AFME a fee for the service. When scholarship recipients are trained, they are usually placed in teaching and administrative positions in universities of their home countries. In the past years 96.5% of the AFME scholars successfully earned their doctorates (Mize, 1974).

On the request of United States institutions AFME has consented to conduct interviews and to evaluate credentials of Arab self-supporting students.

African-American Institute (AAI)

The African-American Institute has two major sponsoring programs of African students: The African Scholarship Program of American Universities (ASPAU), and the African Graduate Fellowship Program (AfGrad). In addition, the African-American Institute has a program for refugee students from minority-ruled African states. The objectives of these programs are to assist the African countries and institutions in the generation of trained personnel in fields of manpower importance and to provide training in fields for which local educational facilities do not exist. The Agency for International Development and the United States Department of State are the main financial contributors covering most educational costs; universities admitting the scholarship recipients are asked to donate tuition. AAI interviews students, makes guidelines of selection, and decides which institutions applicants should attend. Though a

number of applicants withdraw, fail, or do not return, the programs are regarded as largely successful (Wise, 1974).

Asia Foundation

This organization is similar to the Agency for International Development, but it is smaller and private. It administers grants from AID and the Bureau of Educational and Cultural Affairs of the United States Department of State. It deals with graduate student programs only (Woodstock, 1974).

Latin American Scholarship Program for American Universities (LASPAU)

This program sponsors 240 Latin American education students annually. Its purpose is to provide graduate training to qualified teachers. Recipients are graduate students with a minimum of two years teaching experience. Universities in South America are assigned priority fields according to which fields scholarships are given. Ninety-five per cent of the recipients return to their countries. Universities are asked to award tuition scholarships to the recipients (Madre, 1974).

United States Educational Foundation in India (USEFI)

The United States Educational Foundation of India, known also as the Fullbright Foundation, was organized in the 1940's to set up an exchange program for Indians coming to the United States and for Americans going to India. Now the foundation has a credentials evaluation service, and an evaluation, testing, and advising program of Indian applicants. Several university language tests are administered by USEFI. At the request of United States institutions, USEFI conducts interviews with prospective candidates. (Gupta, 1974).

Along with these organizations there are various others that are smaller, and may operate in one country only. The United States Information Service (USIS), American-sponsored schools, embassies and consulates offer counseling and information services to foreign applicants abroad. "Entering Higher Education in the United States: A Guide for Students from Other Countries" (CEER, 1974) gives reference to the existence of such services in several cities of 104 countries. Most students in the world have possible access to information concerning study in the United States (CEEB, 1974).

Credentials Evaluation Services

As part of an effort to pool available information on educational systems, centralized evaluation services have been in existence in recent years. Initially the United States Office of Education had such a service that was given free to institutions that need it, but this service was phased out in 1971-72, because of shortage of funds and personnel (Pyle, 1971). After the demise of this service, a number of concerned registrars created under NAFSA auspices evaluation projects for different regions of the United States that could be used by small institutions that did not have the qualified personnel to evaluate credentials accurately. Institutions having less than 100 foreign students are eligible and the service is given at no charge (Pyle, 1971). Evaluators for the projects are admission officers of several large institutions. However, this service cannot accommodate larger institutions when they need extra information that their sources cannot provide. A non-profit independent service is in operation now, the International Education Research Foundation, which charges a fee for the evaluations (NAFSA Newsletter, June, 1975).

Tests of English Proficiency

Variations in teaching of English in different countries and the importance of adequate English knowledge for United States university attendance have necessitated the use of various tests of English as an admissions requirement for most universities. There are three tests that are used most widely: 1) the Test of English as a Foreign Language, 2) the Michigan Test of English Language Proficiency, and 3) the American Language Test of Georgetown University. Following is a description of each of these tests.

Test of English as a Foreign Language (TOEFL)

The TOEFL was administered for the first time in 1963. It is the joint responsibility of the College Entrance Examination Board and the Educational Testing Service. It is by far the most widely used test of English. In 1971-72, nearly 65,000 students were tested in 120 foreign countries. Advantageous points of this test are tight security measures in administration, high reliability, and availability throughout the world. (Manual for TOEFL score Recipients, 1973).

The TOEFL has five parts, each of which consists of 200 four-choice questions. These are: 1) listening comprehension, 2) English structure, 3) vocabulary, 4) reading comprehension, and 5) writing ability. Administration time is two hours and twenty minutes. A score is reported that is the composite of the five subscores. There is no passing or failing grade. All scores are interpreted as percentiles. The statistical characteristics of the test were computed from scores of 215,486 candidates from 1966 to 1971. Intercorrelations between TOEFL subtests range from .55 to .78. The total split-half reliability

is estimated at .96. The possible range of scores is 204 minimum to 698.8 maximum; the standard error of measurement is 14.77. No validity studies are cited (Manual for TOEFL Score Recipients, 1973).

Policies regarding what scores to accept from students vary among universities. Usually a score of 500-550 is regarded as acceptable.

TOEFL scores may be useful as an aid in interpreting the scores obtained by students in other entrance examinations such as the SAT, MAT, GRE, ACT, ATGSB. If an applicant's TOEFL scores are low, and his or her scores on another test are also low, one can infer the performance on the other test was impaired by poor knowledge of English (TOEFL Manual, 1973). Interpreting relationships between the TOEFL and verbal aptitude tests is more complex. Few foreign applicants approach native proficiency in English; cultural factors as well as differences in educational programs may affect performance. In mathematical tests, performance is not affected as strongly (TOEFL Manual, 1973).

The TOEFL cannot be appropriately used as a predictor of grade point average. Studies conducted in the past have yielded positive relationships between TOEFL scores and grade point average, but such relationships were so low as to be of little value in the admission process (Manual for TOEFL Score Recipients, 1973).

The TOEFL has a number of disadvantages. It is only given at most four times a year in any location outside the United States. Registration must be completed six weeks in advance. Presently it costs \$15, which is a substantial amount of money for prospective students in many countries. Payment mostly must be made in dollars and this creates a problem in countries which limit the amount of exchange. In all, it is a time consuming affair. Often students who apply a few months before they plan to start school miss a semester in order to take the TOEFL.

The Michigan Test of English Language Proficiency

The Michigan test is an instrument of the English Language Institute of the University of Michigan, and it was the first English proficiency test to be used widely with foreign students. There are official forms for use in satisfying admissions requirements of various institutions, which are revised every year. There are also unofficial forms for use as diagnostic instruments in English classes.

The battery consists of an English usage test, a written essay, and an interview. The English usage test contains 100 objectively scored multiple choice items. It tests English, grammatical usage, vocabulary, and reading comprehension. Its administration lasts 75 minutes. For the interview a standard rating sheet is used; fluency, comprehension, and pronunciation are tested.

The Michigan Test forms are equivalent. Performance in different forms can be compared through use of equivalence tables. It is administered by examiners approved by the English Language Institute. Such examiners may be personnel of stateside universities or international organizations abroad.

The scores of the test range from 0 to 100. It is usually hand-scored according to a scoring sheet. Scores are corrected for equivalence. A table of score interpretations is available in the test manual indicating relative ability to pursue academic study in a stateside university according to a student's major and classification.

A split-half reliability coefficient of .96 was computed utilizing 300 students representing 10 different language backgrounds. The mean raw score of this group was 75.35, and the standard error of measurement

was 3.35. As a study for predictive validity, 599 Michigan test scores were correlated with subsequent performance at the University of Michigan. The mean correlation of different schools was .51. Regarding content validity, the reading comprehension test was made to resemble actual tests that would be used by students, but the grammar and vocabulary sections do not represent behavior usually required per se (Michigan Test of English Proficiency Manual, 1962).

This test can be administered upon demand for a current fee (inside the United States) of \$15. Regarding time it is much more convenient than the TOEFL. However, it seems that the security measures for this test are not as high as those of the TOEFL. The samples on which the statistical characteristics were computed are much smaller than the TOEFL samples.

Test of English as a Second Language of the American Language

Institute, Georgetown University
(ALIGU or ALI/GU)

This battery of tests has been prepared for the Agency for International Development and the Bureau of Educational and Cultural Affairs of the United States Department of State. It is designed mainly for use abroad in rating English proficiency of proposed participants for AID training programs. It is also used by the American Language Institute as part of its regular process in placing students in English classes. Upon demand it can be administered to self-sponsored students by organizations such as the United States Educational Foundation of India. For reasons of security, no other use of the ALIGU test is permitted. New test forms are prepared each year. The test battery consists of four separate tests: 1) English usage test, 2) oral rating, 3) listening

test, and 4) vocabulary and reading test. The English usage test, often administered by itself, is a 100-item three-choice test administered in 60 minutes. The oral rating is a 10-15 minute discussion, with the candidate being scored by two raters according to a guide book. The listening test covers 40 four-choice items and it is administered in 25 minutes. The vocabulary and reading test includes 60 four-choice items administered in 60 minutes. The subtest scores range from 0 to 100. An interpretation guide is provided in the manual. Statistical information is based on samples of 200 foreign students of diverse language backgrounds attending the American Language Institute from 1962 to 1972. Split-half reliability ranged from .89 to .95 in different subtests. Standard errors of measurement ranged from 2.54 to 3.88. Intercorrelations between the ALIGU test and the TOEFL produced coefficients of intermediate magnitude (Harris, Interpretative Manual, 1973).

It is possible to use the total ALIGU scores to make a rough estimate of students' probable scores in the TOEFL. A table of correspondence between the total ALIGU scores and estimated TOEFL ranges has been made available by the American Language Institute (1973).

This test is researched and revised often, and this produces an advantage over the Michigan test. However, this test is not easily available to the general population. Wherever it can be given, as in USEFI, the fee is nominal, and it is given upon demand. Both the Michigan and the ALIGU tests are very useful when the TOEFL cannot be administered.

Research Mainly Related to Foreign Student Admissions

A number of researchers have tried to correlate factors of academic achievement and English knowledge and to predict one of these factors from others. Following is the research that has been undertaken on these problems.

Personal Student Variables and Academic Success

Putnam (1952) examined records of graduate students enrolled at Columbia University. He found a definite positive relationship between grade point average and 1) first term grade point average, 2) undergraduate academic achievement, 3) English background, and 4) academic progress beyond the Master's degree. He found little relationship between achievement and 1) sex, 2) years of post-secondary education, 3) years of experience, 4) field of specialization, 5) presence of scholarship awards, and 6) age at entrance. Putnam found no evidence of relationship between academic success and 1) country of origin, 2) undergraduate school, 3) degree earned beyond the Bachelor's degree before doctoral level, and 4) admission status (i.e. regular, unclassified etc.). Putnam also reported that the grade point average of these students was just below B, and that 72 per cent earned degrees.

Moore (1953) studied the causes of failure among 570 foreign students at the University of Minnesota. He isolated four tentative causes of failure: 1) English deficiency, 2) lack of previous specialized training before starting a specialized program in the United States, 3) delayed or improper vocational choice, and 4) cultural imbalance between American culture and the student's home culture.

Hountras (1955) studied the records of 587 foreign graduate students enrolled at the University of Michigan from 1947 to 1949. Using grade point average as a criterion of academic success, he found significant relationships between academic success and 1) marital status 2) country of origin, 3) degree held at time of admission, 4) presence of scholarship, 5) field of specialization, 6) length of residence in the graduate school, 7) performance in the Miller Analogies Test, and 8) performance in the Academic Aptitude test. Hountras found no significant relationships between academic success and 1) sex, 2) age at time of entrance, and 3) attendance at summer school.

Chou (1960) in his study of 297 foreign students at the University of Georgia reported that only 43 per cent received their degrees.

Warmbrunn and Spalter (1962) examined the records of 731 foreign student at Stanford University and reported concerning success and failure that: 1) Approximately one out of ten foreign students experienced failure, the percentage being three times higher than among American students. 2) Students from certain cultures experienced failure in numbers far greater than average. More than one out of five students from Japan, India, and Mexico failed. 3) Largest percentages of failures, in order, occurred among Latin American students, students from the Near East, and the Far East. 3) Failures occurred more in mineral sciences and in business administration. Also failures in political science, economics, and mechanical engineering were above average. 4) Undergraduates failed twice as often as graduates. 5) Strong differentiations in the reasons for failure were not discovered. It seemed that Japanese faced language difficulties, Indians had inadequacy of

previous training, and personality seemed to play a large part among Near Eastern failures.

Maberly (1962) attempted to find the extent of validity of the Graduate Record Examination in relationship to foreign students' academic achievement. His conclusion is that the GRE at that time was widely used with foreign students without any special interpretation of scores, or with applications that were often vague, unrealistic, or unsupportable.

Pavri (1963) reported that only 55 per cent out of 319 students enrolled at the University of Virginia from 1957 to 1961 received their degrees. Forty-five per cent left because of academic difficulties or dissatisfaction. Basic problems that affected academic achievement were factors related to curriculum, lack of sufficient study time, lack of money, insufficient knowledge of English, absence of social life, sickness, and discrimination.

Longest (1969) carried out research with 85 students from Cornell University. He reported that foreign students experience a period of academic and social adjustment that varies between one and two semesters. His subjects profited significantly from initial orientation. He reported positive relationships between English language scores and grades achieved, as well as a positive relationship between previous transcultural experiences and higher grades. He also found that students from underdeveloped countries suffered more academically and achieved lower first term grades.

Thomas (1972) examined the records of 331 foreign graduate students enrolled from 1955 to 1972 at the University of Mississippi. She

compared characteristics of students who succeeded (i.e. graduated) with those who did not. She found that a foreign graduate student had very high probability of success ($p .001$) if he had 1) F-1 visa, 2) cumulative grade point average above $3.4/4.00$ in the final semester of enrollment, 3) had a cumulative grade point average above $3.33/4.00$ in the semester in which a minimum of nine semester hours had been taken, and $3.47/4.00$ in the semester in which a minimum of 24 hours had been accumulated, and 4) had a major in engineering rather than in liberal arts. At the .05 level a student was successful if he had a score of 53 or less in the writing ability section of the TOEFL, received institutional financial aid, and took the GRE after enrollment.

Dremuck (1972) extensively studied the applicability of the Graduate Record Examination to foreign students. He believed that it measures traits that have been conditioned and reinforced in the preceding college years; foreign education does not necessarily reinforce the same skills. He reported that research available and skill have shown that the GRE is not a useful predictor of graduate study for foreign students. This position was upheld by the Graduate Record Examination Board Service Committee in 1968. While English language proficiency is a factor in determining performance, another factor is the American education and cultural orientation of the test. He reported that few universities require the GRE for admission. It is mostly required at the departmental level. The quantitative part is more important than the verbal part, but one encounters factors of knowing terminology, time, and others. He believed that there is no reason for foreign students to take the GRE if it does not help in useful prediction.

Dremuck also reported that already there has been some work in

developing culturally unbiased tests for foreign students. Kirsten and Paraskevopoulos at the University of Illinois have found significant reliability with the Cattell culture-free test for vis-a-vis foreign student selection. In 1968, the Educational Testing Service started administering a Spanish language version of the GRE to LASPAU applicants.

Heil (1974) reports that grades foreign students receive in their countries are not always based on the same criteria as the grades assigned to students in the United States. The use of standardized test scores provides a common data base from which the relative academic proficiency level of foreign students can be evaluated (Howell, 1966). However, no culture-free academic achievement tests exist. Though studies indicate that previous academic records of native language students are the best academic predictor, (Bower 1965; Duff and Aukes, 1965), academic records of foreign students have been found to vary extremely in type and content, depending on country of origin. Most efforts to use these records as predictors of academic success in stateside universities have been unfruitful (Putnam, 1961).

Academic Success and Admission Tests

A number of investigators have tried to predict academic success of foreign students from American college standardized admission tests. Hountras (1956) studied the predictive capability of the Miller Analogies Test. Pitcher and Harvey (1963) studied the predictive use of the Graduate Record Examination. Coffman(1963) reported on the predictive value of the Scholastic Aptitude Test. Howell (1966) studied the predictive value of the SAT and Achievement Tests. Simms (1967) summarized the studies in these areas and reported a median correlation

of about .22 between grade point averages and verbal ability test scores and .28 between grade point averages and quantitative ability test scores. He further pointed out that these studies did not assess the foreign students' proficiency in the use and understanding of English. So the proficiency of English may moderate the relationships between scholastic aptitude and achievement.

Prediction of Achievement during Admission Time

Homan (1973) proposed a different approach to foreign student admission from the one currently in use. From the data available at the time of admission he attempted to distinguish between students who would eventually graduate and students who would not. His basic belief was that it is better to refuse admission to a foreign student who would have succeeded if admitted than to admit a foreign student who would eventually fail. He randomly divided into two groups 527 undergraduate, masters, and doctoral students and performed a discriminant analysis function on the basis of 20 variables. He used the discriminant scores of the one random group to classify the students in the other group. He found that the method he used in classifying students was at least five per cent more accurate than the one presently used for classification. Classification was significantly better than random at the .05 level. Major limitations of his study are that the rejected students could not possibly have been taken into consideration since they were not in school, large numbers of applicants would be required for a school to adapt Homan's system, and a decided change in policy of adapting institutions would be needed.

Foreign Students in Junior Colleges

Kerr and Lornie (1973) in a NAFSA report raise the question of academic standards of foreign students in junior and community colleges and warn administrators that foreign students may choose these two-year colleges because of less stringent admission requirements. Some of them may even use them as an opportunity to enter the United States and marry an American in order to get immigration, or simply to stay in the country longer this way. Sjorgen (1973) studied the responses of 174 foreign students in the community and junior colleges of Michigan and found that they sought admission in junior colleges because these institutions have fewer admissions barriers. He also reported that respondents generally came from relatively affluent families.

Research Primarily Related to to English Knowledge of Foreign Students

Attitude Towards Language

Spoisky (1969) studied the attitudinal aspects of second language learning. He believes that attitude is important as one of the factors explaining the degree of proficiency a student achieves in learning a second language. His study indicated that one-third of the foreign students he examined considers speakers of English to be a more desirable reference group. A person learns a language better when he or she wants to be a member of the group speaking the language. Spolsky's findings may shed some light as to why students tend to learn languages at different rates. Understanding the student's attitude towards the new culture may be a step towards facilitating the learning of English.

Aptitude

Hopkins and Christopher (1971) report that TOEFL subtest scores have been used with great success at Cornell University to determine the aptitude for a given discipline, particularly when the total score was a little lower than the cutoff point. Listening comprehension and writing ability subtests were especially useful when measured against the total score. The report indicates that often students automatically improve once they are in an English speaking environment. The authors recommend the SAT quantitative score as a good evaluation tool for science students. They do not believe that the verbal score is valid.

Proficiency Tests

Kaplan (1971) believes that greater flexibility should be given in evaluating knowledge of English through proficiency tests. He states that a proficiency test does not indicate how long an individual spent achieving that proficiency, how long will be required for the next linguistic item to be learned, and it does not indicate future performance. He recommends that institutions establish cutoff ranges rather than cutoff scores. He believes that it is far more important to consider the profile of a candidate's subscores rather than the total score. When deficiencies are evident, enrollment in an intensive English course should be required for undergraduates, but it should be left to the decision of the graduate students and their departments.

TOEFL as a Moderator Variable

Slocum (1967) presented the view that the TOEFL can be used as a moderator variable for American entrance examination scores. He stated that such tests as the SAT and GRE are more useful in case of a foreign student applicant when their scores are considered in line with their TOEFL scores. However, Sharon (1970) reported inconclusive results in a study which tested the hypothesis that the TOEFL is a moderator variable when combined with the Admission Test for the Graduate School of Business (ATGSB) to predict success in graduate business schools. The predictive validity of the ATGSB was not increased when it was combined with the TOEFL in a linear as well as in a non-linear model. Schrader and Pitcher (1971) reported similar results when they combined the scores of the Law School Achievement Test (LSAT) and the TOEFL. Sharon (1971) tested the TOEFL as a moderator of the GRE scores in prediction of foreign student grade point average in graduate school. The study reported low correlations among the TOEFL, the GRE and the grade point average. The grade point average may not be an appropriate measure of achievement in graduate school, because many students with language deficiencies take a lighter load. Also there is a tendency with many instructors to compensate with language deficiencies by giving linguistically handicapped foreign students a higher grade than they would otherwise earn.

Correlations between TOEFL and Grade Point Average

Maxwell (1965), using a sample of 238 foreign students, reported a correlation of .17 between the TOEFL and subsequent grade point average at the University of California at Berkeley.

Burgess (1970) found a correlation of .48 between the TOEFL and the grade point average on the basis of research conducted at Portland State University.

Chase (1972) suggested that correlations between the TOEFL subtests and grades might be improved if the subtests measured skills that were more highly related to those skills that students would use in college work. He pointed out for instance, that the language behavior required for the English structure subtest does not simulate behavior required by foreign students in an American university. The writing ability test is bound by rules of basic grammar, which do not really indicate whether a student understands a concept. Also Heil (1974) suggested that students distinguish between British English and American English. Many report that their difficulty with the TOEFL is that it tests understanding of American English, and it penalizes them if they have learned British English. He concluded that the TOEFL appears to be no better or worse than the other admission tests used for native American students, and he suggested that it should be improved by becoming more relevant.

Correlations between English Tests

Upshur (1966) conducted a concurrent validity study between the TOEFL and the Michigan test using students from several institutions. He found a correlation of .89 between the TOEFL and the Michigan test. The American Language Institute of Georgetown University (1966) reported a correlation of .79 between scores in the ALIGU test and the TOEFL. In 1971, a correlation of .84 was found between TOEFL and ALIGU test scores. A .89 correlation of the TOEFL with the Michigan test was found by the Educational Testing Service in 1966.

Heil (1974) found correlations between TOEFL subtests to range from .59 to .85. He compared foreign students' TOEFL scores between initial attendance and after four months of English training and course taking and found that there was a significant increase (at the .05 level) in listening comprehension and in the total scores. He also found low but significant correlations between TOEFL subtests and the first and second semester grade point average.

Relationships between the Michigan Test and Grade Point Average

Hamlin (1972) investigated the relationships between the Michigan test and the grade point average of 213 new graduate students at the University of Oregon. She hypothesized that students scoring below 80 (cutoff point for unconditional admission at Oregon State University) would attain a lower grade point average than students scoring above 80. Quality points and hours completed in the first two semesters were considered. There were few significant results when grade point average was used as a criterion measure. However, students who scored above 79 showed significantly higher numbers of academic credits. Hamlin concluded that academic credit is a more reliable measure of academic success than grade point average for graduate students. Relative English test scores are not strong predictors of grade point average.

TOEFL and the West African School Certificate

Osanyinbi (1974) researched the relationship between the English language examination of the West African School Certificate and the TOEFL from a sample of 250 Nigerian students. He found that English essays

in that examination did not predict the TOEFL writing ability score, nor did the comprehension and summary sections of that examination predict the TOEFL listening comprehension score. Multiple choice tests of vocabulary and structure were found to be strong predictors of the vocabulary and structure parts of the TOEFL. Recommendations were given to the West African Examinations Council for more valid and reliable examinations.

Summary of Findings

A large amount of research and effort has been undertaken in acquiring more knowledge concerning foreign student admissions problems and in helping administrators deal with them. Admissions officers and foreign student advisors now have access to a large amount of useful information. However, problems of creating institutional policies and admissions procedures still exist. Generally, evaluation of individual students has become much more efficient in recent years than in the past.

Research conducted on the relationships between English knowledge and academic achievement in the United States has produced inconclusive results. It is obvious that a number of variables are important which have not been assessed yet. Further research must be conducted in order to find out more about these intricate relationships.

Chapter III

Academic Performance of Newly Admitted Foreign Students

The following chapter contains the method, data analysis, and results from the study of academic achievement of foreign students who were admitted and registered at The University of Alabama during the Fall semester of 1975 and Spring semester of 1975.

Method

Subjects

Subjects of the study were 70 foreign students who entered The University of Alabama in the Fall semester of 1974 and in the Spring semester of 1975. Of them, 37 entered in the Fall (first) semester and 33 entered in the Spring (second) semester. Fifty-three were undergraduate students and 17 were graduate students. Of the 70 new students, 31 were newcomers to the United States. They were given individual interviews in order to assess their initial use of English and their improvement in the next few months. Others had come to this country months or years before entrance at the University and it was assumed that a large part of their improvement had already taken place. Therefore they were not given individual interviews.

All newcomer foreign students were asked to take the multiple choice part of the Michigan Test of English Language Proficiency

TABLE 1

CHARACTERISTICS OF THE NEW FOREIGN STUDENT POPULATION

Characteristic	Number of Students
Total Number	70
Undergraduate Students	53
Freshmen	26
Transfers from Abroad	18
Junior College Transfers	19
Graduate Students	17
Male Students	60
Female Students	10
Entered Fall 1974	37
Entered Spring 1975	33
Age Range 17-36 years	70

when they reported to the Office of International Student Affairs.

Tables 1-2 show the characteristics of the new foreign student population. Foreign students in this case were defined as students with other than United States citizenships regardless of their visas, which could be student, exchange scholar, or immigrant. Foreign students whose mother tongue was English (from Canada, Australia, South Africa, Great Britain, West Indies) were excluded from this study, since English was one of the variables assessed. The excluded students were seven

Materials

Materials used in the study were the following:

- 1) A tape recorder and a set of tapes for recording the speech patterns of the newly arrived foreign students.
- 2) The 100-question multiple choice part of the Michigan Test of English Language Proficiency, form D. This is an "unofficial" form, used by English language training centers for diagnostic purposes. It is commonly referred to as the "Michigan test." This name will also be used in this study.
- 3) Transcripts, directories, grade reports and application forms at the Office of International Student Affairs and in the Records Office, used for assessment of the students' previous performance, current performance, age, major, Test of English as a Foreign Language (TOEFL) scores, sex, and classification.

Procedure

In order to assess the entering foreign students' knowledge of

TABLE 2

NEW STUDENTS' COUNTRIES OF CITIZENSHIP

Country	Number of Students	Country	Number of Students
Bolivia	2	Laos	1
Brazil	1	Malaysia	1
Chile	2	Mexico	1
Colombia	2	Nicaragua	1
Cyprus	1	Nigeria	2
Germany	1	Norway	1
Greece	2	Pakistan	3
Guyana	1	Panama	1
Hong kong	8	Poland	1
Japan	1	Rhodesia	1
Jordan	2	R.O.C. (Taiwan)	9
India	2	Thailand	4
Iran	12	Venezuela	1
Israel	6		
Korea	1		

English, the following procedures were undertaken in the Fall semester of 1974 and in the Spring semester of 1975:

- a) Students had been asked to report to the Office of International Student Affairs immediately upon arrival. When they reported, they were asked to take the Michigan test. Test administration lasted 75 minutes. Administrations were individual or in small groups according to the rate students came in. For students who could not stay in the office for the next 75 minutes, an appointment was made for the next few days. Eight students postponed taking the Michigan test repeatedly and finally did not take it. For analysis reasons their scores were substituted with the mean scores for their countries. One student refused to take the test. He was excluded from the sample. A number of students voiced objections because they had attended American institutions previously, but finally agreed to take it. The tests were scored by the investigator through a standard scoring sheet, and scores were checked by the student who interviewed the newcomers for greater accuracy.
- b) A measure of oral English was taken from the students who had entered the United States for the first time the week preceding registration. During the two days of registration all foreign students were asked to report to the registration table of the Office of International Student Affairs for approval of their course schedules according to immigration laws. When newly arrived students came, they were ushered into a quiet room where a male student interviewed them. Interviews were held individually. The interviews were handled by a different student each semester, because the same student could not complete both semesters due to academic reasons. None of the two interviewers had a "southern accent"

that might have given difficulty to newcomers. Instructions were given to each interviewer that he was to try to put the students at ease and thus to encourage them to express themselves in English.

The interviewers asked the students about their trips. The students were encouraged to talk about their departure and flight, their arrival, customs, impressions from this country, their expectations concerning the university and their studies, and their housing accommodations. Their answers were recorded. The tape recorder was concealed so that the students' performance would not be affected by lack of self-confidence resulting in knowing that they were being recorded. However, they were not recorded as they said their names. They could not be identified from tape only.

Then an effort was made to simulate a lecture in English. At that time, the interviewer read to the students at normal speed a passage from an English composition textbook. The passage was the following:

The other day I heard a professor of education at an important Midwestern university give a talk to a group of his colleagues on his experiences in a foreign country, where he had been for over a year advising on education. In shocked tones he told his audience that in some foreign schools the pupils have to pass an examination before they can be moved up from one grade into the next. He added that the American team out there were trying to remove this dangerously undemocratic practice, and so enable a much higher percentage of pupils to move up each year and complete their schooling..... At another point in his talk he said that foreign education was too "intellectual" and not sufficiently practical and vocational: no garage mechanic in that country was really competent to do automobile repairs..... In general, he seemed to regard education as either a) the moving up a ladder to the top, regardless of what was done or learned in the process of moving, or b) training to do a particular job of work, which will be the pupil's means of livelihood in afterlife. (Daiches, 1957 in "Contexts for Composition, 1972).

In the above passage the name of the country was substituted with "a foreign country" and two statements with anti-communistic content were deleted from the passage read to the students in an effort to make the

examination non-political.

After the passage had been read, students were asked to give an account of what the passage was about, i.e. to recall what they had understood.

c) Approximately two months after the students' registration, the interviewer discussed with the students again. Interviews at that time took place in the students' residences by an appointment. The goal was to interview the students two months after the school had started. Not all students, however, could be contacted and interviewed at the same time, and interviews were carried out in a time span of three weeks. The tape recorder could not be concealed on that occasion, and students knew that they were being recorded. Again, the main purpose of the interview was to induce the students to express themselves. The interviewer asked questions concerning the students' adjustment at the University, their academic expectations, friends that they had made, and suitability of their housing accommodations. Finally the same passage was read to the students and they were asked to recall what they understood. It was felt that after the passing of two months, students who had not understood much in the first interview would not remember the passage. Students who had understood the passage in the first interview and could possibly remember it had performed well in the first place. Use of the same passage made comparison of listening comprehension improvement possible.

d) After all interviews had been completed, the investigator, the interviewer, and a third American student listened to the tapes produced during both semesters and scored the students who had been interviewed. A total of 31 students had been interviewed in the course of two semesters. Behaviorally oriented criteria were established to help score the students' use of oral English. In order to formulate the criteria, two other oral

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rating sheets were considered the USEFI Conducted English Proficiency Test Form for Rating Language Proficiency in Speaking and Understanding Spoken English, and the Examiner's Evaluation of Interview of the English Language Institute (form 8451). As a result the following rating scale was used:

Fluency

- 1) Speaks fluently with no errors. Speech speed, sentence length, vocabulary, and idioms are those of a native speaker. Can hardly be distinguished from a native speaker.
- 2) Speaks very well and with little conscious effort with occasional grammatical or word-order errors, and rarely has trouble expressing himself or herself.
- 3) Speaks understandably, even though he makes noticeable errors. Meaning is occasionally obscured by grammatical, word-order errors or by inappropriate words. Conscious effort to construct complex sentences is often obvious.
- 4) Speaks only with considerable conscious effort, frequently uses the wrong words. Speech limited to simple vocabulary. Speed of speech and length of utterance are affected by difficulties and native language habits. Does not construct correct complex structures.
- 5) Speaks very little and only with great effort. Errors of grammar, word-order and vocabulary make comprehension difficult. Length of speech and utterance is far from normal.

Pronunciation

- 1) Has few, if any, traces of foreign accent.
- 2) Has a definite accent, but communication is not hindered.
- 3) Has a considerable foreign accent, which leads to occasional misunderstanding. Words and sentences must be repeated sometimes.
- 4) Many serious errors in pronunciation, word accents, length of vowels, and sentence pitch. Frequent repetitions are required.
- 5) Pronunciation is practically unintelligible because of sound, accent, and pitch difficulties.

Comprehension (or recall of the above mentioned passage)

- 1) Was able to give an accurate account of the content of the passage. Made mistakes in meaning of text.

- 2) Make some mistakes in the meaning of the text, but the recall was largely accurate.
- 3) Largely misunderstood, but had an idea of the meaning of the passage and made efforts to express it.
- 4) Recalled words but did not seem to understand the meaning of the passage.
- 5) Recalled nothing.

Direct comparison was achieved by playing the initial and final interviews alternately on two tape recorders. The investigator did not participate in the rating process so that the possibility of bias could be avoided.

- e) A card was made for each student and all related information available on the student was recorded. Permission from the Executive Director of Enrollment Services was received for the extraction and use of confidential student information. It was stipulated that use of this information would conform to the highest degree of professional ethics.

Variables that were recorded on the card and used for data analysis were the following:

- 1) Age of student at the time of registration.
- 2) Country or geographical area that the student came from. Since there were not enough students from each country to produce a meaningful data analysis, an effort was made to group similar educational and grading systems from neighboring areas which preferably had the same language. Similarity of educational systems was assessed through professional literature. Countries and geographical areas that were considered were:
 - a) Europe (7 students), including Greece, Cyprus, Norway Germany, Poland
 - b) Iran (12 students)
 - c) Israel (6 students)
 - d) Jordan (2 students)
 - e) India-Pakistan (5 students)
 - f) South America including Bolivia, Brazil, Chile, Colombia, Mexico, Nicaragua, Panaman, Venezuela (11 students)
 - g) Hong Kong (9 students)
 - h) Republic of China or Taiwan (9 students)
 - i) Countries where the General Certificate of Education (GCE)

is primarily used and the official language is English (3 students), including Nigeria, Rhodesia, Guyana.

j) Thailand (4 students)

Korea (1 student), Laos (1 student) fit no group

3) Major field of study. Four groups of majors were considered according to the commonalities of major fields. An important factor in separating the majors into groups was the extent that English must be used in reading, writing and communicating in the courses. So liberal arts and education courses were grouped together, since they required an extensive use of reading and vocabulary. Business majors must have both verbal and quantitative skills, and they were a separate group. The groups formulated were:

- a) Engineering (34 students)
- b) Sciences (19 students), including mathematics, chemistry, Physics, and nutrition.
- c) Liberal arts (9 students) including English, foreign languages, political science, education, and social work.
- d) Commerce and Business Administration (13 students)

4) Classification. Students were classified as either graduate or undergraduate. A constant classification of "transfer" was avoided because of differences between junior college transfer students and transfers from foreign universities.

5) First semester grade point average (g.p.a.)

6) Number of hours attempted during the student's first semester at the University.

7) Second semester grade point average for students who completed two semesters at the University (who entered in the Fall of 1974).

8) Number of hours attempted during the second semester at the University for students who completed two semesters (who entered in the Fall semester of 1974).

9) A rating of students' previous performance based on their previous academic records. Equating totally different educational systems has been a major problem in the past. As it has been explained in Chapter I, few variables can be considered. On the basis of scales and recommendations provided by the professional literature on various educational systems and on the basis of class ranks where provided, an estimation was made of the students' previous performance. A six-point scale equivalent to United States grades was used. Students who had grade point averages from United States institutions could therefore be readily placed. The scale was as follows:

- A (1) 5 students
- B+ (2) 13 students
- B (3) 22 students
- C+ (4) 16 students
- C (5) 16 students
- D (6) 1 student, lowest passing grade

- 10) Raw Michigan test scores. Raw scores were used because they illustrate actual differences in numbers of items answered correctly by students. Since no comparison with another form was attempted, it was felt that scores corrected for comparison with other Michigan test forms were not needed.
 - 11) Previous grade point average for students who were transfers from junior colleges. Scores on a four-point scale were converted to a three-point scale for comparison with grade point averages received at the University of Alabama. All junior colleges whose records were used had a four-point scale system.
 - 12) Number of semester hours attempted at the junior college. Quarter hours were converted to semester hours.
 - 13) Number of semester hours passed at the junior college. Quarter hours were converted to semester hours.
 - 14) Percentage of semester hours in which a grade of W was reported in the transcript. A number of junior colleges extend the period of withdrawal from a course up to the examination period as part of their flexible curriculum, such as Jefferson State Junior College (Jefferson State Junior College Bulletin, 1973-74). For this reason a number of students' W grades might have been D's or F's if such policies were not in effect.
 - 15) Ratings of oral English from the initial and final interview. In all six ratings were produced for each student.
 - 16) Subscores and total score of the Test of English as a Foreign Language (TOEFL). There are five subscores in the TOEFL: Listening comprehension, English structure, vocabulary, reading comprehension, and writing ability. A TOEFL score was available for most incoming students. It was mostly not available for students who had previously attended United States or British institutions or had G.C.E. passes at the "Ordinary" or "Advanced" level in English language or literature.
- The sex of the new students was omitted as a variable because there were not enough females to make a meaningful comparison with males possible (see Table 1).
- The variables to be considered were 26. When all information was collected, it was transferred to computer cards. Statistical analysis as carried out through computer programs of the Behavioral Sciences Statistical Program Library of The University of Alabama on a UNIVAC 1110 computer.

Below is a list of specific questions whose answers were expected to be given by the data analysis.

- 1) How much agreement was there between the two judges that rated the oral English interviews?
- 2) How many dimensions were discernible from the variables considered and what were they?
- 3) What were the relationships of every variable with each other? Which variables correlated highly (above .30) with each other?
- 4) How different from each other were various ethnic groups on the basis of performance and English knowledge? How different from each other were groups based on major or classification on the basis of performance and English knowledge?
- 5) Can initial performance (first semester grade point average) be predicted from previous performance, number of hours taken during the first semester, major, classification, nationality, and Michigan test score?
- 6) Can second semester performance be predicted from first semester performance?
- 7) Can initial performance be predicted from TOEFL scores or from oral English ratings?
- 8) Can previous performance of junior college transfers predict performance at The University of Alabama?
- 9) What are the relationships among the three English knowledge measurements received in this study? Can one be predicted from others?
- 10) Is previous academic performance related to present performance data?
- 11) Are Iranian and Chinese (Republic of China) grades of previous performance in the home country related to present performance

data? (Iranian and Chinese were chosen because of larger numbers of students of these nationalities present in this population).

12) Is there an improvement in fluency, pronunciation, and comprehension of English between the initial and final interviews of students newly arrived in this country?

13) Is there an improvement in the general grade point average (g.p.a) of the new foreign students after a semester of attendance at the University?

14) Is the number of hours carried each semester a good indicator of a student's academic performance?

15) Are there any specific academic or language problems that particular groups of foreign students tend to face?

Results

Thirty-one computer printouts were generated in the data analysis process. Because students had different backgrounds, the variables mentioned in the procedure section were not available for all of them. For this reason the data had to be examined in a piecemeal way. Following is a list of the statistical tests applied on the data.

- 1) Kendall Coefficient of Concordance
- 2) Principal Axis Factor Analysis with Varimax rotation
- 3) Intercorrelation Matrix
- 4) Cattell's Pattern Similarity Index
- 5) Canonical Correlation.
- 6) Multiple Regression
- 7) Discriminant Analysis
- 8) Treatment by Subjects Analysis of Variance

TABLE 3

MEANS AND NUMBER OF SUBJECTS OF EACH VARIABLE

Variable	Mean (mode)	Number of Subjects
age	23.46	70
geographical area	12 (Mode, Iran)	70
major	36 (Mode, Engineering)	70
classification	57 (Mode, Undergraduate)	70
first semester g.p.a.	1.71	70
first semester # hours	12.09	70
second semester g.p.a.	1.86	33
second semester # hours	14.27	33
previous (letter) grade	3.39	70
Michigan test score (raw)	64.19	70
previous g.p.a. (junior college)	1.75	19
# of hours attempted, total (junior college)	62.57	19
# of hours passed, total (junior college)	60.78	19
% of W grades	9.00	19
initial oral interviews		
fluency	3.06	31
pronunciation	3.02	31
comprehension	3.24	31
final oral interviews		
fluency	2.62	31
pronunciation	2.45	31
comprehension	2.61	31
TOEFL test scores		
listening comprehension	51.76	25
structure	53.96	25
vocabulary	57.16	25
reading comprehension	55.80	25
writing ability	54.24	25
composite TOEFL	547.72	25
Chinese university grades	79.23	9
Iranian high school grades	14.88	6
GRE scores		
Verbal	294.00	11
Quantitative	640.00	11

Kendall's Coefficient of Concordance

This method, applied to test the degree of agreement between the two judges of oral English, produced correlations ranging from .93 to .99. Agreement between the two judges was very high. The following table serves to illustrate the findings.

TABLE 4

AGREEMENT BETWEEN JUDGES OF ORAL ENGLISH RATINGS

Measurement	Coefficient of Concordance	χ^2
initial interview		
fluency	.94	54.61**
pronunciation	.97	56.20**
comprehension	.99	57.11**
final interview		
fluency	.95	55.24**
pronunciation	.93	53.91**
comprehension	.98	56.65**

**p < .01

The high agreement between judges provides evidence that the ratings scales were objective enough for the recorded speech to be adequately described. The number of students whose speech was rated was 31.

Principal Axis Factor Analysis

A Principal Axis Factor Analysis program was applied on the data in an effort to clarify what dimensions defined the variables and what the important variables were.

Initially as many factors as variables were extracted from the data.

However, many of the factors extracted were of little significance and for this reason a selection of the number of important factors was made through the SCREE test (see Figure 1). Then factor analysis was applied again extracting the three most important factors only and rotating these to a Varimax criterion. Through the principal axis analysis it was found that the three factors extracted accounted for 66.34 per cent of the variance. Factor loads were determined through Varimax rotation analysis.

It was found that all variables "loaded" .30 or above on at least one of the factors, i.e. all variables contributed to the basic dimensions measured in this analysis to some extent. However, 10 out of 24 variables were impure, i.e., they "loaded" on more than one factors. This makes interpretation of what each variable really measures difficult. The factors or dimensions isolated and the variables that loaded on only one (and therefore defined that factor) are illustrated on Table 5.

TABLE 5
IMPORTANT DIMENSIONS IN THIS STUDY

Factor 1 (Oral communication skills)		Factor 2 (English knowledge)		Factor 3 (Academic performance)	
Load	Variable	Load	Variable	Load	Variable
.98	(initial) fluency	.75	(TOEFL subtests) structure	-.31	(junior college) # hours attempted
.96	pronunciation	.81	reading	-.44	# hours passed
.94	comprehension	.90	vocabulary	-.30	% of W grades
	(final)	.83	writing ability		
.92	fluency	.96	Composite TOEFL		
.90	pronunciation				
.90	comprehension				

From the variables loading on each factor, factors can be named:
Factor 1 "Oral communication skills," Factor 2 "English knowledge skills,"

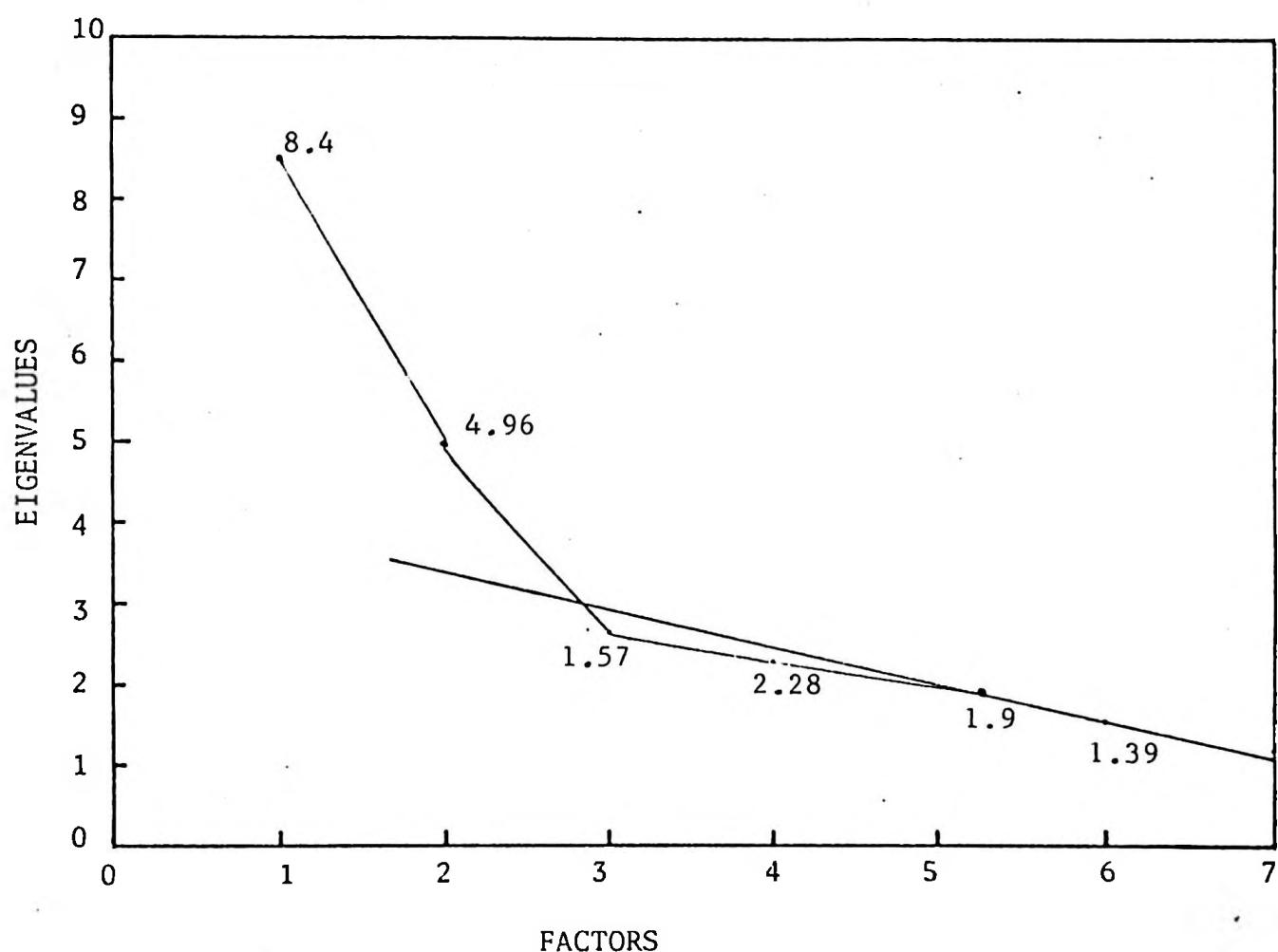


FIGURE 1. SCREE Test

and Factor 3 "Junior college academic performance." These are the three basic dimensions that this study appears to involve.

It must be noted again that unequal numbers of subjects existed for every variable. The principal axis factor analysis program did not take into account the fact that there were missing data. If all measurements were taken on every subject, possibly different dimensions would appear.

In the factor analysis measures that were in the nominal scale (i.e. geographical area and major) were not included. Classification was included, since an underlying continuous scale can be assumed. Graduate students were more advanced in their studies than undergraduates. The total number of variables that this program dealt with was 24.

Intercorrelation Matrix

Correlations of each variable with each other variable were determined by the principal axis factor analysis program. Table 6 is a listing of all significant correlations (.30) and above. Correlations are listed under the smaller serial number of the two correlated variables. This method of illustration had to be adopted because a 26X26 matrix is difficult to reproduce. The oral English usage and the previous (letter grade) performance are rated so that low performance is designated with a large number, i.e. 5 is the lowest rating. Therefore negative correlations with the above variables show a positive relationship and vice versa.

Cattell's Pattern Similarity Index

This method was applied on grouped data in order to find out whether

TABLE 6
SIGNIFICANT CORRELATIONS

1. Age: .34(2), -.30(8), .43(13), .44(15), .42(16), .38(17), .37(18),
-.73(19), -.32(24)
2. Classification: .59(3), -.56(4), .57(5), -.35(6), .33(13), .41(15),
.35(16), .36(18), -.54(19)
3. First semester g.p.a.: .77(5), -.34(7), .34(9), .45(20), .32(21),
.50(22), .52(23), .43(24)
4. First semester number of hours: .33(11), .37(12), -.37(13), -.42(15),
-.36(16), -.41(18), .53(19), .35(20), .32(21), .40(24)
5. Second semester g.p.a.: .63(12), .57(13), .64(14), .55(15), .52(16),
.62(17), .42(18), .34(21)
6. Second semester number of hours: -.76(13), -.38(21)
7. Previous letter grade: -.67(9), -.38(12), .30(13), -.36(20), -.38(24)
8. Michigan test score: .38(12), -.59(13), -.65(14), -.64(15), -.70(16),
-.60(17), -.68(18), .49(19), .64(20), .71(21), .72(22), .65(23),
.79(24)
9. Previous g.p.a.: .30(12), -.86(13), .87(14), .72(15), -.67(16), -.55(17)
-.67(18), .75(19), .86(20), .66(22), .85(24)
10. Number of hours attempted: .95(11)
11. Number of hours passed: .95(10)
12. Percentage of W grades:
13. Initial fluency rating: .88(14), .93(15), .90(16), .86(17), .88(18),
-.40(19)
14. Initial pronunciation rating: .86(15), .86(16), .91(17), .86(18), -.42(19)

(Table 6 continued)

15. Initial comprehension rating: .88(16), .85(17), .91(18), -.52(19)
16. Final fluency rating: .86(17), .94(18), -.47(19), -.30(21), -.30(24)
17. Final pronunciation rating: .80(18)
18. Final comprehension rating: -.49(19), -.30(21)
19. Listening comprehension TOEFL subscore: .35(20), .33(21), .46(22),
.62(24)
20. English structure TOEFL subscore: .69(22), .67(23), .81(24)
21. Vocabulary TOEFL subscore: .69(22), .67(23), .81(24)
22. Reading comprehension TOEFL subscore: .73(21), .89(24)
23. Writing ability TOEFL subscore: .80(24)
24. Composite TOEFL:

Correlations between two variables are listed with the variable that has the highest serial number of the two.

groups have different profiles regarding common variables. In this case variables common to all students were 1) age, 2) geographical area, 3) major, 4) classification, 5) first semester g.p.a., 6) first semester number of hours carried, 7) previous letter grade performance, and 8) raw Michigan test score.

A significant negative correlation coefficient indicates that the groups separate to a degree rarely occurring by chance alone. A significant positive correlation indicates that the groups are similar to a degree rarely occurring by chance alone. When two groups are as similar as any two groups encountered in the general population, the correlation is 0.00. The raw score means for each of the variables are shown in figures 2, 3, and 4. Tables 7, 8, and 9 depict the extent to which particular groups differ. Averaging geographical areas and majors is not meaningful since the data are in the nominal scale, so these variables do not appear in the figures.

The Cattel Pattern Similarity Index was applied three times in succession to groups separated on the basis of 1) geographical area, 2) major, and 3) classification.

Separation of groups according to geographical area showed several significant differences among groups on the basis of the above variables (geographical area was considered as the independent variable in this case). Students from the Republic of China (R.O.C. or Taiwan) seemed to be the most divergent group. Correlations with all other groups were highly negative, including the correlation with Hong Kong students (-.76), which has a British-type educational system. Almost all Chinese (R.O.C.) students were graduates, had high g.p.a. (mean 2.42) and the lowest number of hours taken (mean 8.56) as it can be seen in figure 2. The

TABLE 7

SEPARATION OF GROUPS ACCORDING TO GEOGRAPHICAL AREA

Groups compared	Coefficient of Pattern Similarity
Europe (1)	
1,2	-.36
1,3	-.40*
1,4	-.62***
1,5	-.59***
1,6	-.00
1,7	-.46**
1,8	-.45**
1,9	-.64***
1,10	+.33
Iran (2)	
2,3	-.59***
3,4	-.18
2,5	-.66***
2,6	-.09
2,7	-.62***
2,8	-.75***
2,9	-.69***
2,10	-.23
Israel (3)	
3,4	-.71***
3,5	-.66***
3,6	-.31
3,7	+.13
3,8	-.77***
3,9	-.65***
3,10	-.48**
Jordan (4)	
4,5	-.61***
4,6	-.40*
4,7	-.64***
4,8	-.82***
4,9	-.73***
4,10	-.50***

(Table 7, continued)

India-Pakistan (5)

5,6	-.44*
5,7	-.48**
5,8	-.72***
5,9	+.00
5,10	-.37

South America (6)

6,7	-.21
6,8	-.61***
6,9	-.53***
6,10	+.07

Hong Kong

7,8	-.76***
7,9	-.57***
7,10	-.46**

Republic of China (8)

8,9	-.76***
8,10	-.56***

G.C.E. system countries (9)

9,10	-.47**
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Thailand (10)

*p<.05
**p<.02
***p<.01

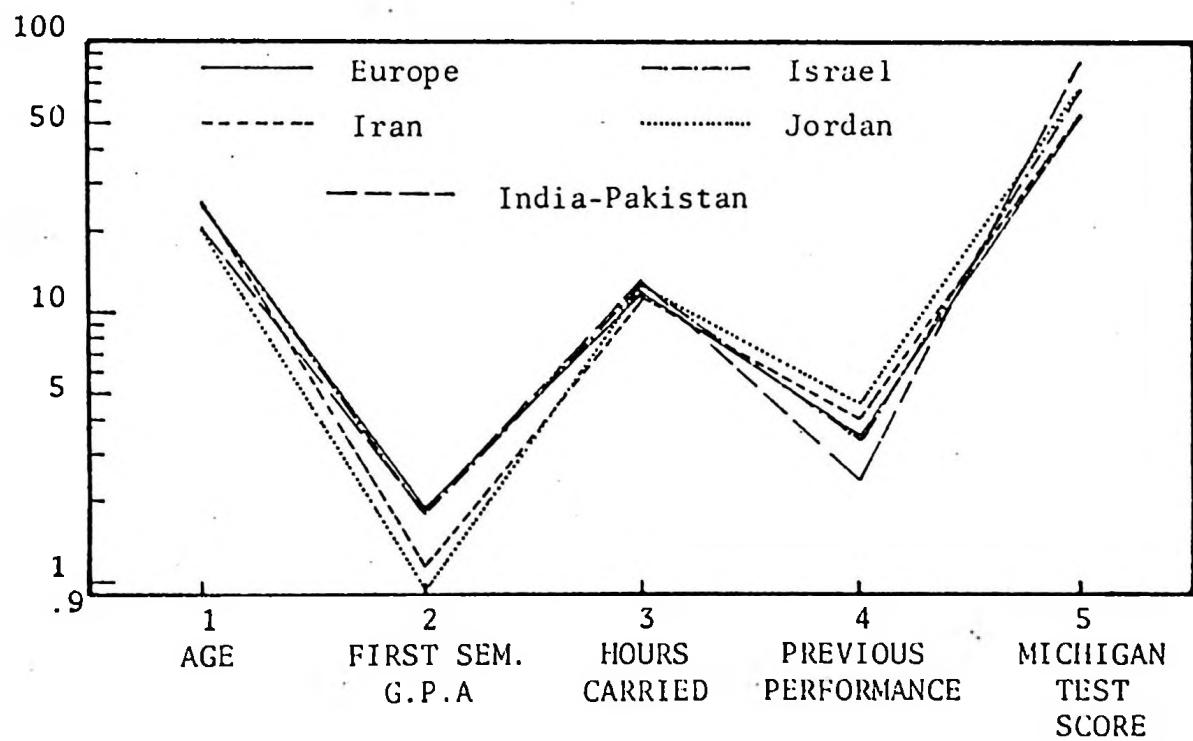
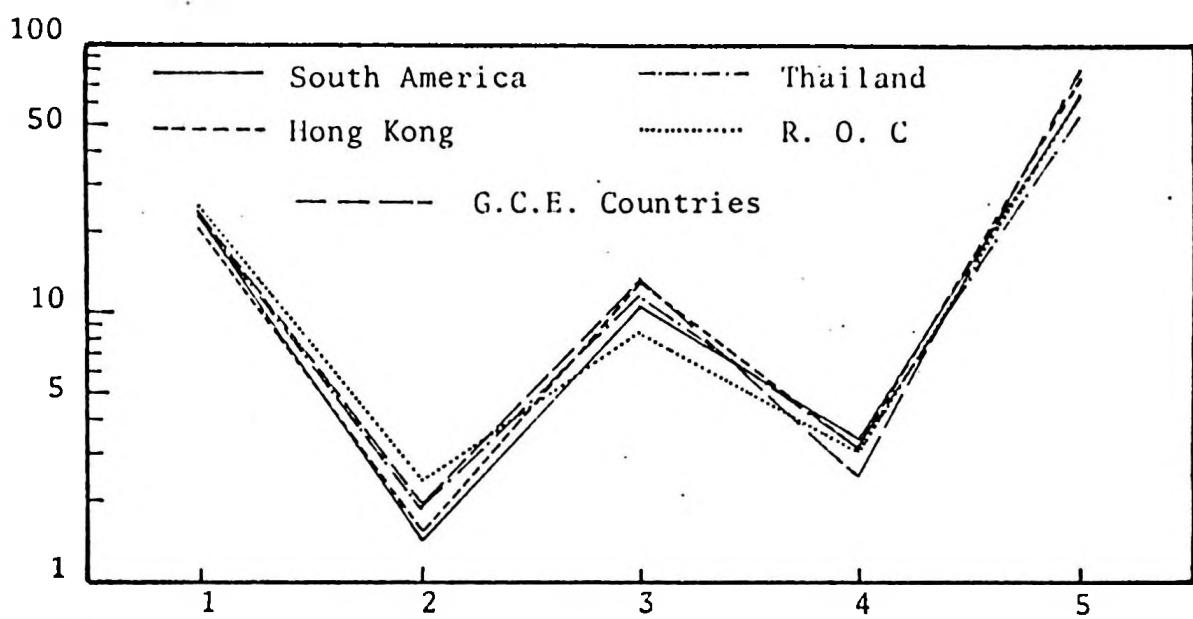


FIGURE 2. Classification According to Geographical Area

highest Michigan scores were achieved by the students of countries where the British educational system is followed (General Certificate of Education or G.C.E.) and English is the official language, as in Nigeria, Rhodesia, and Guyana (mean 80). They seemed to perform best in English. Europeans and Iranians had the lowest Michigan test scores (53.43 and 53.83 respectively). It is noteworthy, however, that all Europeans were newcomers to the United States, while all Iranians except for one were junior college transfers. The groups with the lowest grade point average were Jordan (.98), which had only two students, both junior college transfers, and Iran (1.18). Students from the G.C.E. system were estimated to have the highest previous academic performance (there were only three students in that group), and Iranians had the lowest previous academic performance (mean 4.08).

Generally all groups were very different from each other. The fact that some groups had very small numbers is a disadvantage because results are difficult to generalize. It also indicates a need for a data bank which will have large numbers of students and from which generalizations will be possible.

Separation of groups according to major. Separation according to types of majors showed very distinct differences among group profiles. Only the Engineering and Business Administration groups proved to be slightly more similar than expected by chance. Engineering students had the lowest g.p.a. (mean 1.50) followed by Business Administration students (mean 1.55). The science group had the highest g.p.a. (mean 2.21), which may be due to the fact that most science students were graduate students. Engineering showed the lowest Michigan test score mean 60.53). Table 8 and Figure 3 illustrate the differences among groups.

TABLE 8

SEPARATION OF GROUPS ACCORDING TO MAJOR

Groups compared	Coefficient of Pattern Similarity
Engineering (1)	
1,2	-.77**
1,3	-.40*
1,4	+.16
Sciences (2)	
2,3	-.66**
2,4	-.81**
Liberal Arts (3)	
3,4	-.42*
Business Administration (4)	

*p<.05

**p<.01

TABLE 9

SEPARATION OF GROUPS ACCORDING TO CLASSIFICATION

Groups compared	Coefficient of Pattern Similarity
Freshmen & transfers from abroad (1)	.
1,2	-.61**
2,3	-.85**
Junior College transfers (2)	
2,3	-.89**
Graduate students (3)	

* p<.05

**p<.01

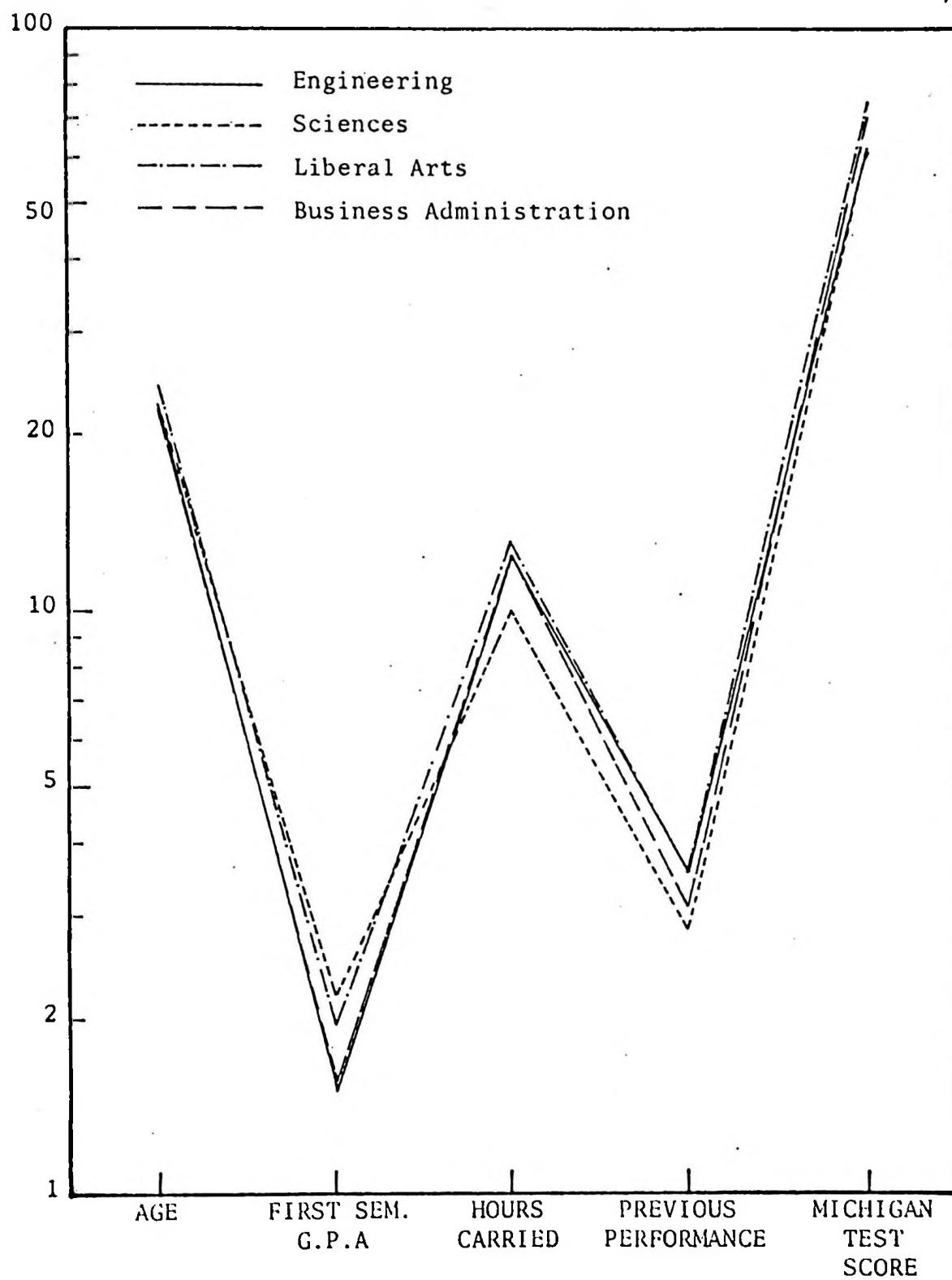


FIGURE 3. Classification According to Students' Major

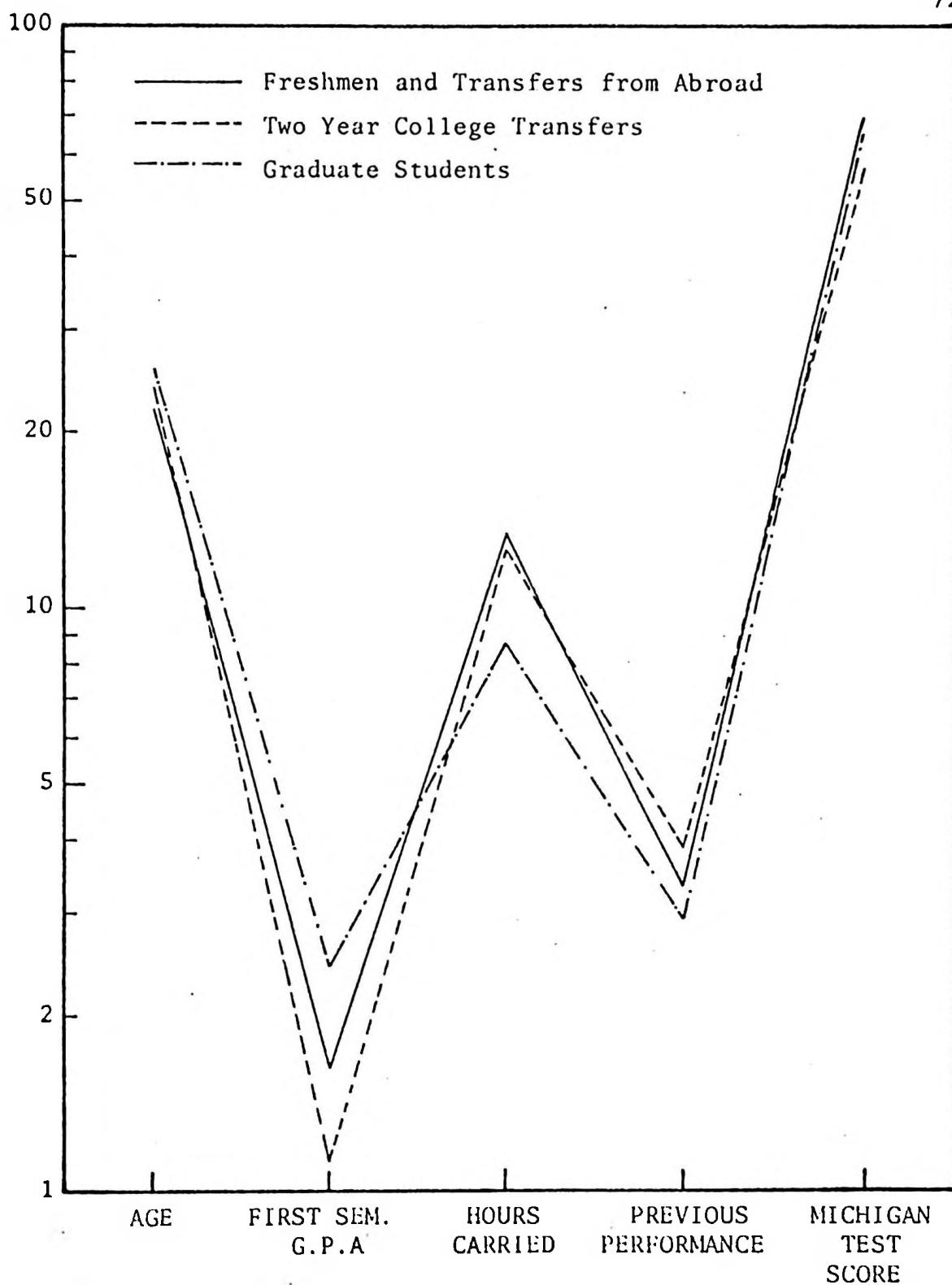


FIGURE 4 . Separation of Groups According to Classification

Separation of groups according to classification. Students were classified as freshmen and transfers from abroad, junior college transfers, and graduate students. These groups proved to be widely different as Table 9 and Figure 4 indicate. The junior college transfers had the lowest g.p.a. (mean 1.12), and graduate students had the highest g.p.a. (mean 2.46). The junior college transfers had the lowest previous academic performance (mean 3.89 or C+) and the lowest Michigan score (57.05). The highest Michigan score was achieved by the newcomer freshmen and transfers from abroad. Graduate students had the smallest number of hours carried during the first semester (mean 8.76) and the highest previous academic performance.

Canonical Correlation

This method was used for relating a set of variables to another set of variables. Canonical correlations were computed in the following sets of variables:

Prediction of second semester grade point average and number of hours carried from first semester g.p.a. and number of hours carried. The effort to predict the second semester grade point average and number of hours carried from the first semester grade point average and number of hours carried was partially successful. The two roots extracted showed that g.p.a. accounted for almost all the variance in one root (.97-.99). Canonical correlations were .79 and .27 respectively for the two roots. The probability level for the first root was .00 based on χ^2 . The χ^2 for the second root was not significant. The test was based on 33 subjects (see Table 10).

Prediction of junior college transfer students' first semester g.p.a. and number of hours carried from students' age, Michigan test score, previous cumulative g.p.a., cumulative numbers of hours attempted and passed at the junior college, and percentage of W grades. The effort to predict junior college transfer students' present performance from past performance produced canonical correlations of .82 and .45 for the two roots respectively. The first canonical root was significant at the .02 level on the basis of a χ^2 test. The second root was not significant. From correlations between variables and the two canonical roots extracted it was apparent that age accounted for a fair amount of variance on both roots (correlations .18 and -.41). The Michigan test and the number of hours passed correlated -.36 with the first root. Although the collection of these variables is significant, none of the variables accounts for a large amount of variability. This test was carried out with 19 subjects only (see Table 11).

Prediction of GRE scores from students' first semester g.p.a., number of hours carried, and Michigan test scores. This test was done with only 11 subjects, and at best it can only be suggestive. Canonical correlations of .80 and .43 were generated for the verbal and quantitative parts of the test. The first canonical root was significant at the .01 level, based on χ^2 , but the second was not significant. The three predictor variables correlated highly with the roots extracted. However, besides the small number of subjects, these results may be an artifact of the small range of the GRE scores. Most of the students on whom a GRE score was available were Chinese, and their verbal GRE scores ranged from 220 to 460. Quantitative

TABLE 10

CANONICAL CORRELATION: RELATIONSHIPS BETWEEN PERFORMANCE OF FIRST AND
SECOND SEMESTERS

Correlation Between Variables and Canonical Variates

	1st Root	2nd Root
First Semester g.p.a.	.97	-.22
Number of Hours	.00	1.00
Second Semester g.p.a.	.99	.09
Number of Hours	-.15	.98
Roots	.61	.07
Canonical Correlations	.78	.26
χ^2	29.22	2.30
Degrees of Freedom	3	1
Probability	0.00	.12

TABLE 11

CANONICAL CORRELATION: RELATIONSHIPS BETWEEN PRESENT AND PAST
PERFORMANCE OF JUNIOR COLLEGE TRANSFER STUDENTS

Correlation Between Variables and Canonical Variates

	1st Root	2nd Root
Age	.18	-.41
Michigan Test Score	.21	.04
Previous g.p.a.	-.36	.02
# of Hours Attempted	-.22	.37
# of Hours Passed	-.36	.27
% of W Grades	.14	.50
First Semester g.p.a.	-.72	.69
Number of Hours	-.87	.48

(Table 11 Continued)

	1st Root	2nd Root
Roots	.68	.20
Canonical Correlations	.82	.45
χ^2	16.68	3.30
Degrees of Freedom	7	5
Probability	.02	.65

TABLE 12

CANONICAL CORRELATION: RELATIONSHIP BETWEEN PERFORMANCE AND GRE SCORES.

Correlation between Variables and Canonical Variates

	1st Root	2nd Root
First Semester g.p.a.	.53	-.76
Number of Hours	-.78	-.58
Michigan Test Score	.19	-.66
Verbal GRE Score	.94	-.31
Quantitative GRE Score	.40	.91
Roots	.79	.18
Canonical Correlations	.89	.43
χ^2	19.59	3.25
Degrees of Freedom	4	2
Probability	.01	.15

scores showed more variability. They ranged from 490 to 760, but the range was still short (see Table 12).

Multiple Regression Coefficient

This method was used to predict a single variable from a set of variables. Multiple regression coefficients were computed for the following sets of variables:

Michigan score and oral English ratings predict TOEFL score. This attempt produced a multiple regression coefficient of .82 (Sanforized R=.68), significant at the .05 level on the basis of an F-test. Beta weights produced in the course of the solution showed that the Michigan test scores and final rating on comprehension mostly contributed to the prediction (.91 and .93 respectively). The other Beta weights ranged from .14 to .42. The test was applied on 31 subjects.

TOEFL score and subscores predict Michigan score. An approach somewhat reverse to the previous one was tried, and it produced highly significant results. A multiple regression coefficient of .85 was generated (Sanforized R=.80), significant at the .0004 level through an F-test. From the Beta weights it appeared that all variables contributed a great deal to the prediction (range .46-.94). The fact that the TOEFL is a complete and structured test, valid and reliable, probably contributed to better prediction than the combination of the Michigan score and the oral English ratings. The Michigan test and composite TOEFL score correlate .79 in this study. This test was applied on 25 subjects.

Oral English ratings predict Michigan test score. This attempt also produced highly significant results. A multiple regression coefficient

of .74 was generated (Sanforized $R=.66$). The probability, based on an F-test, was at the 0.002 level. It seems that fluency both in the initial and in the final interview largely accounted for the variance (Beta weights .73 and .93 respectively). Beta weights for other variables ranged from .18 to .56. The test was applied on 31 subjects.

Prediction of first semester g.p.a. from number of hours carried, previous performance, and Michigan test score. This attempt produced a multiple regression coefficient of .50 (Sanforized $R=.46$), which was significant at the .00 level on the basis of an F-test. Beta weights ranged from .25 to .31. No variable accounted for a large amount of variance. This test was carried out using 70 subjects.

Relation of previous performance to first semester performance, number of hours carried, and Michigan test score. This effort produced a regression coefficient of .38 (Sanforized $R=.32$), which was significant at the .01 level on the basis of an F-test. Although results were reliable, a relatively small amount of variance was accounted (14 per cent). Beta weights for all three variables were below .30. This test was carried out using 70 subjects.

Prediction of first semester g.p.a. from TOEFL subscores and total score. This attempt produced results which were not significant. A regression coefficient of .67 was generated (Sanforized $R=.58$), which was not reliable because the F-test was not significant (probability <.069). This result may be due to the fact that the test was carried out with only 25 subjects.

Prediction of first semester g.p.a. from oral English ratings. The results of this effort were also not significant. A regression coefficient of .18 was produced. The test was carried out with 31 subjects.

Relation of first semester g.p.a. and number of hours carried to previous Chinese university grades. This was a very tentative study, carried out with only 9 subjects in order to see if a trend is visible. A multiple regression coefficient of .30 was extracted. On the basis of an F-test it was found not to be significant.

Relation of first semester g.p.a. and number of hours carried to previous Iranian high school grades. This test was carried out with only 6 subjects and it was completely tentative. A multiple regression coefficient of .87 was produced, but the F-test was not significant.

Discriminant Analysis

This method was used in order to find the effects of one independent variable on several dependent variables. In this case the effects of geographical area, major, and classification on performance were examined. The number of subjects used was 70.

Discriminant analysis of geographical area groups on the basis of age, first semester g.p.a., number of hours, previous performance, and Michigan test score. This attempt produced significant results. The Wilks Lamda was significant at the .00 level on the basis of an F-test. Two significant factors were extracted, which accounted for 80 per cent of the variance. Correlations between discriminant scores and the above variables ranged from -.39 to .80, all correlations except for two being above $\pm .30$. Examination of each individual variable on the basis of an F-test showed that all variables with the exception of age showed significant differences on the basis of geographical areas. Probability levels ranged from .002 to .01. Most highly significant were differences in g.p.a.

Discriminant analysis of majors on the basis of age, first semester g.p.a., number of hours carried, previous performance, and Michigan test score. This attempt also produced significant results. The Wilks lamda was significant at the .01 level. One significant factor was extracted, which accounted for 69 per cent of the variance. Age, g.p.a. and hours carried correlated highly with the discriminant scores (-.62, -.78, and .50 respectively). Examination of individual variables on the basis of F-tests showed that only age and g.p.a. (probability levels .05 and .00) were affected when different major fields of study were considered.

Discriminant analysis of graduate and undergraduate students on the basis of age, first semester g.p.a., number of hours carried, previous performance, and Michigan test score. This attempt also produced highly significant results. The Wilks lamda was significant at the .00 level. One factor accounted for 100 per cent of the variance and was significant at the .00 level. Number of hours and g.p.a. were highly correlated with the discriminant scores (.72 and .76 respectively). Examination of individual variables showed significant differences between graduates and undergraduates on the basis of g.p.a., age, and number of hours carried. Previous performance tended to significance ($p .07$), and no differences were shown in the Michigan test score between graduates and undergraduates.

Treatment by Subjects Analysis of Variance

This method pinpoints differences among a number of variables whose variances are additive when the variables are repeated measurements on a number of subjects. It was applied to the following sets of data:

Differences between initial and final oral English ratings. The F-ratio (17.06) was significant at the .01 level. Variances were homogeneous. Obviously the two-month period in this country has significantly affected the newcomer students' speaking abilities.

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Differences among initial oral English ratings. In this test the

F-ratio for variables was not significant ($F=2.51$). The variances were homogeneous. Initial English ratings were quite similar for each student.

Differences among final oral English ratings. As in the previous case, the F-ratio was not significant. Variances were homogeneous. It seems that every student was assigned similar final oral English ratings.

t-Test for Subject as Own Control

A number of t-tests were applied on the data in order to investigate changes from initial to final ratings. The sets of ratings compared are the following:

Comparison between initial and final oral English ratings on fluency, pronunciation, and comprehension. Three t-tests were applied on 33 subjects. The results were as follows:

TABLE 13

DIFFERENCES BETWEEN INITIAL AND FINAL RATINGS

Rating	t-ratio	df
fluency initial-final	6.34**	30
pronunciation initial-final	4.59**	30
comprehension initial-final	6.07**	30

** $p < .01$ critical value 2.75

Performance in oral English interviews improved significantly within a period of approximately two months. The least amount of improvement was noticed in pronunciation.

Differences between the g.p.a.'s of the first and second semesters.

For this only the 33 students who had been at the University two semesters

were considered. A t-test of -2.87 was generated, significant at the .01 level (critical value 2.79). Second semester improvement was considerable.

Differences between the number of hours carried in the first and second semesters. This test was significant at the .05 level (t-ratio was -2.79, and critical value was 2.03). Both g.p.a. and number of hours carried increased during the second semester.

Differences between first semester g.p.a. at The University of Alabama and cumulative previous g.p.a. for junior college transfers. The t-ratio was significant at the .01 level (t-ratio -4.37, critical value 2.88). The cumulative junior college g.p.a. was significantly higher than the g.p.a. earned during the first semester at The University of Alabama. This may not be a just comparison, since students transferring from junior colleges may be experiencing a period of adjustment in the new system. The mean g.p.a. at the University was 1.12 and at the junior colleges it had been 1.75.

Differences between second semester g.p.a. at The University of Alabama and cumulative previous g.p.a. for junior college transfers. The t-test was applied on the 9 students who had been at the University for two semesters. Their second semester mean g.p.a. was 1.20 and the mean cumulative g.p.a. at the junior college for this group was 1.89, higher than that of the total population of junior college transfers to the University. A t-ratio of -4.2 was generated, which was significant at the .01 level (critical value 3.35). The mean first semester g.p.a. for this group of students was 1.04. Improvement was very little during the second semester.

Discussion

The major disadvantage of this study is the small number of subjects per variable. According to Nunnally's rule, (Nunnally, 1967), there should be at least 10 subjects per variable for multivariate studies. In this case there were 26 variables and only 70 subjects. This requirement however, was met in instances where all 70 subjects were measured in combinations of six or seven variables. The results of this study must remain tentative concerning the general foreign student population due to shortage of the required number of subjects. However, they serve the purpose of evaluating the performance of foreign students admitted in the University during the Fall semester 1974 and Spring semester 1975.

Following is an analysis of the findings on each variable and its relationship with other variables. The means of each variable can be found in Table 3. Correlations with previous letter grade performance and with the oral English ratings will be discussed according to the meaning of the variable (i.e. high performance-low performance). A correlations with these variables that appears negative on Table 6, is actually positive, and will be discussed here as such.

Variables

Age. Age correlates negatively and significantly with classification, Michigan test score, oral English ratings, composite TOEFL score, and quite highly with the listening comprehension subtest of the TOEFL. This information suggests that maturation may be an obstacle in learning of a foreign language and performing well in English language tests.

Geographical area. Geographical area seems to be a very important variable. It was shown through the Cattell Coefficient of Pattern Similarity that most nationality group profiles were different from each other. A discriminant analysis showed that nationality is highly related to first semester g.p.a. and number of hours carried, to previous performance, and to knowledge of English.

Major. Major was found to be related through discriminant analysis to g.p.a. and age. From the Cattell Pattern Similarity Index it can be seen that Business Administration students have the lowest g.p.a. followed by Engineering students (figure 3). Students in sciences had the highest g.p.a. although their Michigan test score was the lowest. Since most students in sciences are graduate students, this finding reflects differences in g.p.a. between graduates and undergraduates.

Classification. Profiles of graduate and undergraduate students were found to be very different through the Cattell Pattern Similarity Index. Discriminant analysis indicates differences in first semester g.p.a. and number of hours carried, as well as in age. These differences are expected, since graduate students must have at least a B average to be in good standing, and normal course load is 9 to 12 hours per semester.

First semester g.p.a. This variable correlates highly with the second semester g.p.a. and with the TOEFL subscores, and shows a low but significant relationship with the Michigan test. This shows a relationship between the knowledge of English and performance during the first semester. First semester g.p.a. was found to differ among geographical area groups, as it can be seen in Figure 2. It is particularly high for the Republic of China (all Chinese students are graduate) and particularly low for

Iran and Jordan (two Jordanian subjects only, both junior college transfers). A number of variables are related to grade point average as it can be seen from the canonical correlations reported. Such are geographical area, major, classification, previous performance, and knowledge of English. Therefore, it is important to consider these variables collectively when an effort is made to predict whether a student, if admitted, will perform well in the future. It is also important to note that none of these variables is a predictor of performance by itself.

Second semester g.p.a. The grade point averages of the two semesters correlate highly (.76), which shows that there is no great fluctuation in general performance. There is a significant negative correlation with the percentage of hours dropped at the junior college level. The second semester g.p.a. correlates negatively with oral English performance, which indicates that students who performed poorly in oral English, performed well academically during the second semester. It also indicates that students who were rated highly in oral English did not necessarily perform as well as expected during the second semester. Correlations of oral English with first semester g.p.a. in contrast were low. The t-test between the g.p.a. of the two semesters showed that students improved during the second semester in general. This supports Longest's (1969) findings that new foreign students in general experience a period of adjustment that may last one or two semesters. Evidently after a period of adjustment students are able to perform better.

Number of first and second semester hours carried. The number of hours carried correlates with classification and English knowledge.

The more English students know, the heavier the course load they tend to take. Canonical correlations showed that the number of first semester hours can be predicted from the same variables that predict the g.p.a. and can be used as a criterion of performance in conjunction with the g.p.a. However, it is not as well predicted as the g.p.a. A more accurate criterion of performance is a combination of these two variables.

Letter grade of previous performance. The average previous performance was rated as B-C⁺. It correlated positively but not highly with the first semester g.p.a. (.35). Efforts to predict the students' previous performance from the g.p.a., number of hours carried, and classification, produced borderline results. The g.p.a. was predictable from the above variables, but previous performance accounted only for 17 per cent of the variability. The fact that the correlation between the g.p.a. and previous performance is low may be due to the use of different criteria in grading, as Heil (1974) suggests, and to error in interpretation of credentials. If previous performance is to be used as a predictor in the form of a letter grade, it must be used in conjunction with other variables. Further research is needed in this topic. If large numbers of students from one country only can be used, then the home country grading system will be usable, and error in interpretation of credentials will be reduced..

Michigan test score. This variable has been found to correlate quite highly with all measures of English language (see Table 6). It was found to correlate .79 with the composite TOEFL score. This is in agreement with the correlation of .89 reported by the Educational Testing Service (1966). This test, which was the common measure of

English knowledge for all students, was found to be a good predictor of first semester g.p.a. However, this predictability seems to be valid only in the initial stages of a student's university attendance. Correlation between the Michigan test and second semester g.p.a. was lowered to .00 while it was .29 between the Michigan test and first semester g.p.a. Similarly the correlation with number of hours of the first semester was .30, but with number of hours of the second semester it was -.04. This indicates that language problems are mostly evident during the first semester of attendance; later they tend to be less important. Because of the Michigan test's high correlation with the composite TOEFL, it can be hypothesized that the Michigan test largely measures the same traits. Factor analysis showed that the Michigan test as a variable was composed of oral communication skills (Factor 1), and English knowledge (Factor 2). As such, it may be a useful measure of English when a TOEFL score is not available.

Junior college cumulative g.p.a. This variable correlated positively with the first semester g.p.a. and negatively with the first semester number of hours carried. It also correlated .67 with the letter grade assigned to each student's previous performance. Lack of greater agreement is probably due to the fact that the letter grades (A, B+, B, C+, C, and D) were expressed in numbers ranging from 1 to 6 and ratings were given in a discontinuous fashion. The grade point average on the other hand, uses an explicitly continuous scale. There were six cases in which transfers from American-patterned colleges abroad had a g.p.a. computed. For those cases high correlations between previous g.p.a. with TOEFL and oral English ratings were found, showing a relationship between previous academic achievement and knowledge of

English. Since English was an academic subject for these students, previous performance in English would be expected to be at the same overall level as performance in other subjects.

Numbers of hours attempted and passed at the junior college. These two variables were found to correlate .95 with one another, but no other variable was found to correlate significantly with them. The number of hours passed was found to be one of the important predictors of the first semester g.p.a. for junior college transfers along with the previous cumulative g.p.a.

Percentage of hours dropped in the junior college. This percentage was found to correlate with the students' geographical area and the number of hours the students carried at the University. However, for the first semester the number of hours correlated .34 with the percentage of W grades received, but in the second semester the correlation was changed to -.75. It seems that students who had dropped courses at the junior colleges were taking a lighter load in the second semester, but these students were only 6 and generalization is difficult.

This variable also correlates positively with the Michigan test score, the second semester g.p.a., and previous performance. This variable was found to be important in the academic performance factor (see Table 5). It seems to be a very ambivalent indicator of academic performance, and this is probably due to the small number of subjects available for this variable.

GRE verbal and quantitative scores. GRE scores were available on 12 graduate students, all of whom except for one were newcomers to the country. They were mostly Chinese. The mean verbal score was 294.54 and the mean quantitative score was 640.90. In an effort to

predict these scores from the Michigan test, g.p.a. and number of hours of the first semester, only the verbal score could be predicted. This was probably found because the verbal score was uniformly low for all graduate students. Verbal and quantitative scores correlated .10 between them. The verbal score correlated .56 with the first semester g.p.a. The Michigan test score correlated low with both verbal and quantitative parts, indicating perhaps that it tests a different type of English knowledge than what is required for the GRE. The standard deviation for the verbal part was 58 points, and all scores were concentrated on the GRE scale.

This information indicates that the GRE does not discriminate between high and low academic performance with this type of population. These findings, although involving few subjects, are in agreement with Maberly (1962), Pitcher and Harvey (1963), and Dremuck (1972), who found that the GRE has little predictive validity with foreign students.

Oral English ratings. These ratings were quite uniform in the way they rated with other variables. Though they correlated low with the first semester g.p.a., they showed a significant negative correlation with the second semester g.p.a. This may indicate that students who were weak in speaking ability performed consistently well in the second semester. Oral English ratings also correlated highly with the Michigan test score, but not as highly with the TOEFL subscores and composite TOEFL. Correlations of initial and final comprehension with listening comprehension of the TOEFL were only .47 and .49. It appears that the listening comprehension subtest of the TOEFL did not test the same traits as these ratings. While these interviews were personal, the TOEFL

listening comprehension subtest involves a recorded lecture on which applicants must answer a number of multiple choice questions.

Students were found to improve noticeably after two to three months at the University. Pronunciation showed the least improvement, but foreign students without foreign accents are rare. Significant differences noted between initial and final oral English ratings may serve to indicate that a student's language habits when he or she enters an English-speaking environment are dynamic and not static. The fact that significant change is shown within two months of residence may indicate that cutoff scores that will determine which students go to an intensive English course and which students take regular classes, such as recommended at the Michigan test manual (1962), may not be realistic.

TOEFL subscores and composite score. These variables showed a negative correlation with age and a positive correlation with previous performance. Correlation of the composite TOEFL with the first semester g.p.a. was .43, which approaches the correlation of .48 reported by Burgess(1970). However, correlation with academic performance diminished during the second semester. This, as in the case of the Michigan test scores, shows progressive independence of grades from English knowledge. It accentuates, however, that initial grades of foreign students depend to an extent on the amount of English they can use. Intercorrelations among the TOEFL subscores ranged from .20 to .88. The TOEFL is a well structured test, and each subtest measures different aspects of English knowledge.

In the course of the data analysis it was seen that classification

determined students' characteristics and performance in many ways. 91

Below is a summary of information on classification of students.

Classification

Freshmen and transfers from abroad. This group of students performed quite adequately. Their first semester g.p.a. was 1.66, but it rose to 2.23 during the second semester. These averages compare favorably with the Spring 1975 g.p.a. of 1.696 for all undergraduates as announced by the Records Office. Although some students' English was less than adequate, they performed satisfactorily and improved. Only two students were placed on academic probation. General previous performance for this group was B-C⁺.

Junior college transfers. This group had been in the United States for one or two years preceding enrollment at The University of Alabama. However, the mean Michigan test score for the group was the lowest of the three (see Figure 4). Previous performance was 1.79/3.0, rated as C⁺. Performance at The University of Alabama was lowered to 1.12 during the first semester and to 1.2 during the second semester. There was no great improvement. Furthermore six out of the 19 students were placed on academic probation (five during their first semester and one during his second semester). General performance of this group is well below the general undergraduate g.p.a. Presently the greatest number of junior college transfers come from Iran. As such they may have increased problems of English reading, since the Arabic alphabet is not related to the Latin alphabet. Even though these students are fluent in English, their Michigan test scores were quite low. As an

example, two such students hesitated to take the Michigan test on the grounds that their English was good. When they finally took it, they found to their own amazement that their scores were in the range of 40 and 50. Obviously these students have much more experience in speaking and using idioms than newcomer students whose English is "bookish".

The policy of the University is to admit transfer students whose overall collegiate work is at least 1.00/3.00. As such, many foreign junior college transfers may qualify, but their general performance drops dramatically when they enter The University of Alabama.

Graduate students. As expected, graduate students had the highest g.p.a. of the three groups, and they carried the least number of hours. Their previous performance was also the highest, rated as B. The second semester performance of the 9 students who completed two semesters was 2.44. First semester performance was 2.46. Although this group did not improve, performance was satisfactory during both semesters. The majority of the graduate students were Chinese (see Figure 2). The World Education Series book on Taiwan (AACRAO, 1967) indicates that students with Chinese university scores of 80 and above or in the high 70's should be admitted. Five out of the 9 Chinese students had scores ranging from 68 to 78 and performed satisfactorily. However, the sample is too small to generalize.

Another characteristic of graduate students is their scant knowledge of English. Some are admitted through the mediation of their department who are interested in their research capability, and little attention is paid to English. However, all graduate students admitted performed satisfactorily. Possibly they had to take fewer hours in order to do so, as the small number of hours of this study indicates.

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Performance constitutes evidence that English language skills may not be as important for graduate students in science fields as for undergraduates in the same fields who have to take liberal arts requirements and electives.

The above information offers evidence that there are other variables determining performance besides measured knowledge of English when English is substandard. The field the students are in, their background and alphabet, the extent to which they use their mother tongue in the United States, and personal perseverance may be very important. For these reasons cutoff scores in English tests should be supplemented with other information for decision making.

Chapter IV

Foreign Students Admission Process at The University of Alabama

This chapter presents a review of the administrative procedures of admitting foreign students at The University of Alabama in the following order: 1) a brief overview of the Office of International Student Affairs, 2) research undertaken on foreign student problems at The University of Alabama, 3) a systems approach to the problem, 4) presentation of the admission process of graduate and undergraduate students, and 5) an evaluation of the admission process carried out by the Office of International Student Affairs.

The Office of International Student Affairs (OISA)

The purposes of the Office of International Student Affairs at The University of Alabama are to provide information, services, and counseling to students from foreign countries and to exchange visitors under the exchange contract which the University has with the United States Department of Justice (Office of Student Affairs Manual, 1974).

The objectives of this office are 1) to utilize all possible programs and organizations -social, cultural, academic, and physical- to promote the successful completion of the social and academic expectations of international students and faculty, and 2) to perform the necessary routine functions of any office of foreign student services.

Functions of this office are:

- A. To make a preliminary decision as to whether the student is admissible to the University.

- B. To follow-up prospective students and assemble all undergraduate students' papers before submission to the Admissions Office.
- C. To refer prospective graduate students to the appropriate department head.
- D. To provide services and direction to students in immigration matters involving entry, departure and re-entry, extensions of stay, change of status, revalidation of travel documents, and permission to work.
- E. To advise students concerning personal income tax information.
- F. To assist students in cooperation with the University Housing Office in locating living accommodations.
- G. To furnish information concerning registration.
- H. To conduct special orientation for students from outside the continental United States.
- I. To refer students for academic advising.
- J. To assist students with budgetary and other financial problems.
- K. To offer assistance in planning for use of vacation periods.
- L. To provide information for entry, departure and vacation travel.
- M. To organize a home hospitality program.
- N. To work with committees of community organizations in coordinating social and instructional programs for international students and their families.
- O. To counsel with students on personal problems.
- P. To administer speaking engagements.
- Q. To assist the faculty in providing student translators for correspondence, scientific papers, transcripts, etc.
- R. To serve as the responsible office for the United States Department of State Exchange-Visitor Program (students and visiting teaching and research faculty).
- S. To advise the International Student Association.

(Office of Student Affairs Manual, 1974)

The staff of this Office consists of 1) The Director of International Student Affairs, 2) a full-time secretary 3) a half-time graduate student

assistant, and 4) two to four students who are on the Work-Study financial aid program (work-study students), working 15 hours a week each. Figure 5 illustrates the organizational chart of the Office of International Student Affairs. Figure 6 illustrates the position of the Office of International Student Affairs in the University hierarchy.

The director supervises the function of the office. Standard problems are handled by the director. The director also evaluates the recommendations given by the assistant on students' admissibility.

The assistant is responsible for the activities of the office pertaining to foreign student admissions. The assistant reviews the files of prospective students, researches professional literature, carries out correspondence with the applicants until they are admitted, and makes recommendations to the director concerning their admissibility. Graduate applicants are referred to the Graduate School for approval.

The secretary handles most of the clerical work involved in functions other than admissions. She also supervises the work-study students and she writes the visa forms for the students who have been admitted.

The work-study students receive instructions from the assistant concerning clerical work involved in the admissions procedure. They also handle general clerical work in the office.

The Office of International Student Affairs is not the only office that handles foreign student credentials. Actually this office has only an advisory role. Decision on whether to admit a student is made by the Director of Admissions, to whom student credentials are sent when all admission requirements have been met. The Graduate School processes the

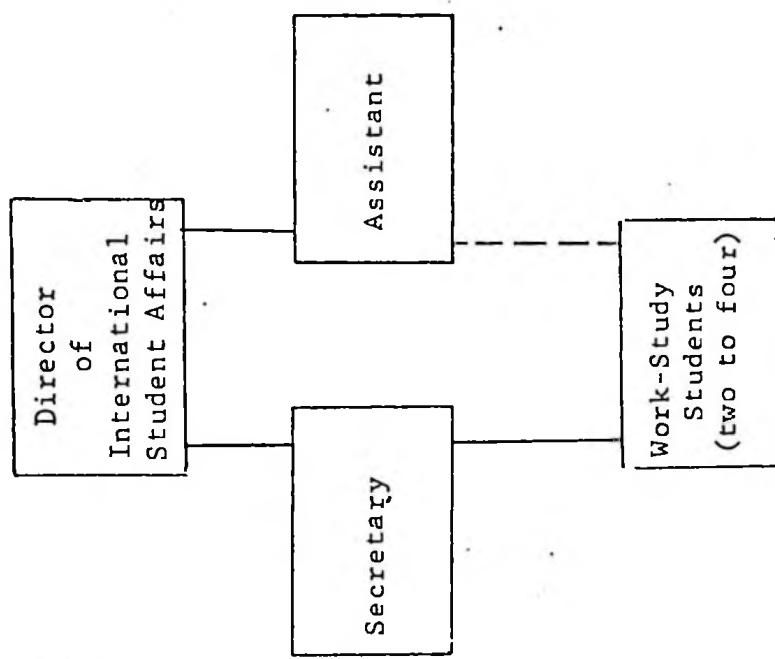
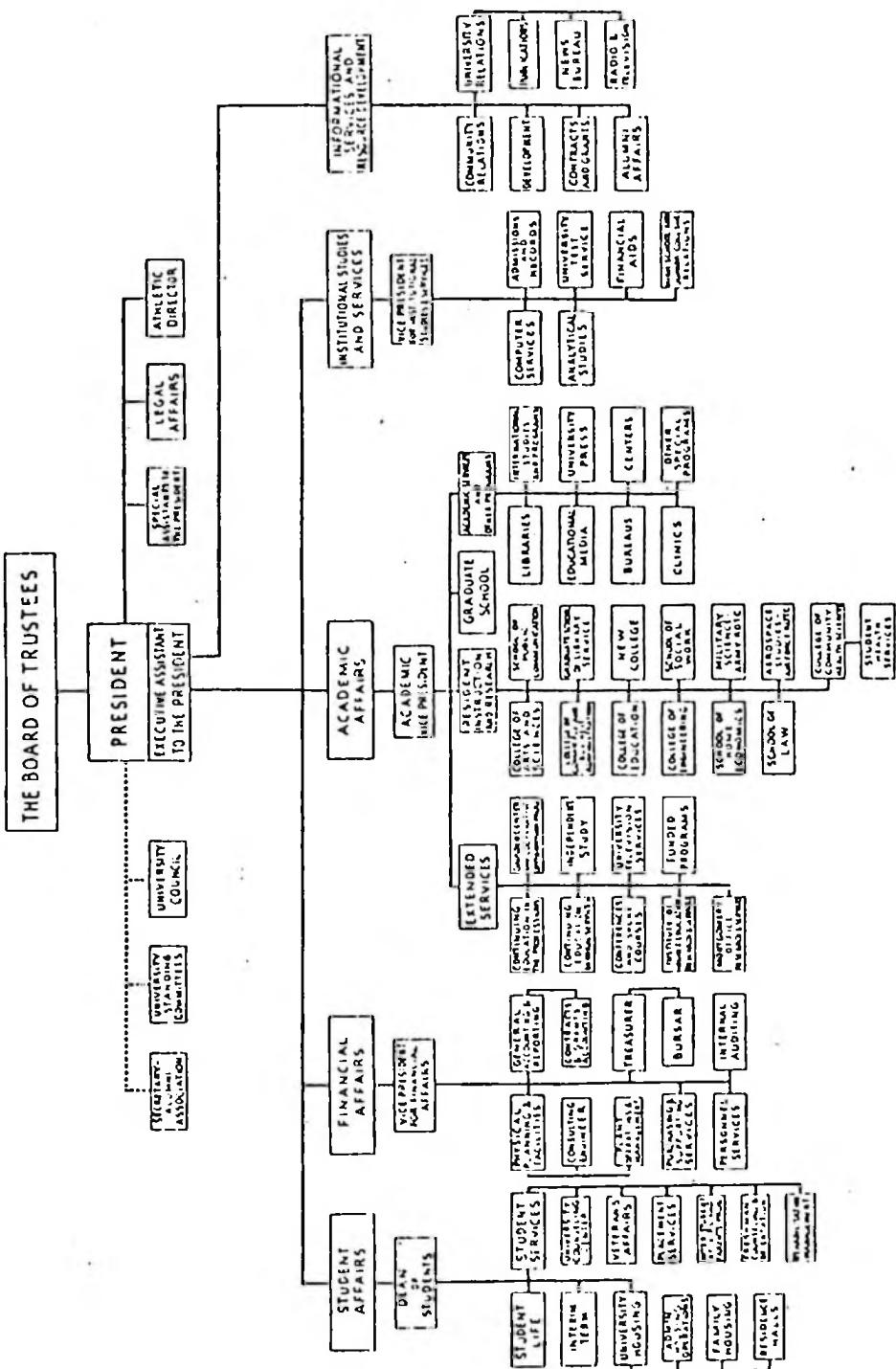


FIGURE 5. Organization of Personnel at the Office of International Student Affairs

FIGURE 6. Administrative Hierarchy at The University of Alabama (Student Handbook, 1974-75)



applications of the graduate students in conjunction with their prospective departments. There are several differences in the requirements and processing of applications between graduate and undergraduate students. Outlines of the different processes will be presented later in this chapter.

Research Undertaken on Foreign Student Problems
at The University of Alabama
and Its Impact

Melchizedek Maquiso (1973) developed as part of his doctoral dissertation a process model to summarize the peculiar problems of foreign students at institutions of higher learning in the United States. As part of his research he developed a questionnaire which he distributed to foreign students at The University of Alabama. The questionnaire dealt with many aspects of the students' life: language problems, adjustment, academic advising, housing, orientation, and efficiency of their admission process. He then analyzed the responses and discussed his ideas with several members of the administration. Having received an input from them, he developed the model to deal with the problems that he found most prominent. His model includes several programs that necessitate intermediate range planning, development of policies, development of alternatives, implementation of most feasible alternatives, and evaluation. The four programs he placed most emphasis on are:

1) Admissions program, 2) Housing program, 3) Orientation program, and
4) Extension program for returning students.

Very important to the present research effort are his observations concerning admissions processes at The University of Alabama. He saw two flagrant problems: 1) lack of coordination between

the offices concerned, and 2) slow as well as duplicative efforts in processing applications and sending materials to applicants. Twenty-two per cent of 67 respondents indicated that the University had either acted fairly or very slowly on their applications. Twenty-five per cent of 44 respondents indicated that they wrote three or more letters before they received a reply. When they finally received a reply, more than one office answered. Thirty-four per cent of 61 respondents indicated that the materials they received were not adequate to their needs. Twenty per cent of 62 respondents expressed dissatisfaction with placement. There seemed to be no standard English test requirements for the graduate' and undergraduate foreign students. About 25 per cent of 44 respondents indicated that they were required to take the Test of English as a Foreign Language. Responses were also low on academic and non-academic advising. More than one half of 61 respondents indicated that they were not informed of university housing arrangements before coming to the campus. The Office of International Student Affairs is responsible for sending Housing booklets to foreign students. Maquiso made several recommendations, the most pertinent of which were:

- 1) Further research on the validity of the process model should be undertaken.
- 2) Special programs should be established to suit the unique needs of foreign students. Foreign students should become familiar with the requirements of such programs before admission.
- 3) An admissions officer for foreign student applications must be assigned to the admissions office of this institution, not only to expedite the admission process, but also to pinpoint responsibilities. The functions of the admissions officer are distinct from those of the Director of International Student Affairs.
- 4) A centralized office for foreign student programs should be established.
- 5) Institutions of higher learning in the United States which admit foreign students should set goals, formulate policies, develop

programs, and establish procedures relating to foreign students through the process model developed in this study (Maquiso 1973).

It is possible that the small number of students at the University until 1973 was due partially to the inefficiencies Maquiso found in the administrative process. Records of foreign student population in the past years are scant, but they give evidence of a rather slow rise in number. In 1970, there were 65 students. Maquiso reported that he was able to locate only 93 students in 1972-73, though the list available at the Office of International Student Affairs contained 117. In the Fall of 1973, there were 126 students registered, including including post-doctoral fellows. In the Spring of 1974, when systematic efforts to bring more foreign students on campus were started, there were 123 students registered. In the Fall of 1974 the number rose to 171, and in the Spring of 1975 to 196. In the Fall of 1974, 35 per cent of all admitted students came to the University (Foreign Student files). This percentage compares very well with 2 per cent and 5 per cent reported by large state universities at the NAFSA-AACRAO Colloquium in 1971.

According to Maquiso's recommendations, a graduate student assistant was employed by the Office of International Student Affairs in January, 1974. Since then the Director of International Student Affairs has been alleviated from much detailed work related to admissions and greater emphasis has been placed on minimizing clerical problems such as had been reported to Maquiso. Emphasis has also been placed on acquiring additional information and insight into foreign educational systems, and on speeding up the admission process as much as possible. There also has been a great effort to make the process as individualized as possible. Extensive correspondence is now carried out with each student, and individual problems are being dealt with carefully. Applicants

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who have not studied in the United States are required to take the Test of English as a Foreign Language (TOEFL), and when this is not possible, the Michigan or ALIGU tests are accepted.

The first graduate assistant was a foreign student. It was felt that a foreign staff member could be more empathic with foreign admission problems, and therefore could deal with them more effectively. For correspondence purposes, the graduate assistant is referred to as Foreign Transcripts Evaluator.

The combination of all these changes in attitude and practice brought about the dramatic increase in the international student population. The number of graduate students did not increase significantly, since most graduate students can only come if financial aid is available. At this point the graduate students and post-doctoral fellows constitute only 43 per cent of the international population. In most institutions the percentage of graduate students is greater than 50%. (College Entrance Examination Board, 1967).

In July, 1974, a search in the inactive files of students who had applied but had never come was undertaken by the office staff. Applicants were sent notices asking them why they had not come to the University after admission. The search produced the following results:

Financial problems: 32 students

Preferred another university: 54 students

Personal: 19 students

English problems: 4 students

Job opportunities rather than college: 3 students

Too late to get a visa: 2 students

Passport complications: 1 student

No advanced placement given: 1 student

Unknown reasons: 63 students

The number of students who had preferred another university in the past was by far the most frequent reason why applicants did not come. Such data partially corroborate the hypothesis that The University of Alabama has a poor international reputation. Previous inefficiencies in the admission process must have compounded the negative impact of the University to prospective students.

A Systems Approach

The problems of the small numbers of foreign students at The University of Alabama and of the inefficiency of the admissions procedure have been dealt with through the systems approach. According to Carter (1969) the systems approach to education is a method of problem solving. Carter lists eight steps. These are:

- 1) State the real need you are trying to satisfy.
- 2) Define the educational objectives which will contribute to satisfying the real need.
- 3) Define those real world limiting constraints which any proposed system must satisfy.
- 4) Generate many different alternative systems.
- 5) Select the best alternative(s) by careful analysis (selection criteria should be a) performance, b) cost/effectiveness, c) time, d) risk, and e) policies).
- 6) Implement the selected alternatives for testing.
- 7) Perform a thorough evaluation of the experimental system..
- 8) Based on the experimental and real world results, produce feedback on required modifications and continue this cycle until objectives have been attained.

In the case of foreign student problems at The University of Alabama, each step of the systems approach has been applied as follows:

- 1) Need: The international reputation of The University of Alabama must be enhanced.
- 2) Objective: A large number of qualified foreign students must be induced to enroll at The University of Alabama. These students will help enhance the international reputation of the University through their future achievements and reports about the University.

- 3) Constraints: a) Number of applicants at any given time
b) Quality of applicants
c) Financial situation of applicants
- 4) Alternatives: a) Make admission process as efficient as possible so that initial impression of the University will be favorable and so that the needs of the applicants will be met.
b) Disseminate information on programs and cost of the University to embassies, consulates, and educational organizations abroad.
c) Provide some financial aid in the form of out-of-state tuition fee waivers for needy, qualified students.
d) Give all possible assistance to students when they arrive so that their educational and personal needs will be met as much as possible.
- 5) Selection of Best Alternatives: The above alternatives were not contradictory and could all be undertaken. However, only a, b, and d could be carried out by the Office of International Student Affairs. Action on out-of-state fee waivers could only be undertaken by the Board of Trustees.
- 6) Implementation: a) A half-time graduate assistant was hired to handle applications and transcript evaluation of undergraduate students. Previous procedures were reviewed and revised. Emphasis was placed on:
1) diminishing application time, 2) dealing with individual problems of applicants, 3) following up on students who seemed to have dropped out of the application process, 4) collecting more information about educational systems, and 5) reducing postage costs through efficiently designed application packages and correspondence procedures.
b) All requests for information from educational organizations abroad were promptly executed. Information was sent to well-known institutions abroad for dissemination.
c) Recommendations were made to the Dean of Students concerning out-of-state fee waivers.
d) Detailed English and academic testing and orientation were given to incoming foreign students along with individual counseling.
- 7) Evaluation: This is the process performed in this dissertation.
a) To what extent the increased student enrollment has brought well qualified students to the University.
b) To what extent administrative procedures used for foreign student admissions are effective and efficient.
- 8) Feedback: The recommendations of this dissertation constitute the feedback and will be submitted to the administration for consideration.

Following are the processes of admission for undergraduate and graduate students. The Office of International Student Affairs is intricately involved with both categories of students.

The following flowscript covers the procedure from the time an initial request for information is received to the time a student is ready to register if admitted.

All inquiries from prospective students are forwarded to the Office of International Student Affairs. The assistant then decides for what level the applicant is eligible.

Step 12.0 Foreign applicant sends initial letter of request.

Step 12.1 Assistant receives letter.

Step 12.2 Assistant determines whether:

- 1) a student has acceptable credentials (if information is available)
- 2) a student has adequate financial resources
- 3) the curriculum a student needs is available

Step 12.3 Assistant instructs the work-study students to send the following:

A. Preliminary application form that will enable preliminary evaluation of student credentials and financial position. Full applications are not sent at this stage because of the expense involved in mailing packages by both applicants and University.

B. An information brochure written especially for foreign applicants that contains:

- 1) a brief description of the University
- 2) deadlines of admission for each semester
- 3) a listing of degrees and major fields of study
- 4) a breakdown of expenses for one academic year including vacation and summer school expenses
- 5) a summary of the admission process
- 6) admission tests required, minimum scores, and information on how to take them
- 7) financial aid opportunities for graduate students (no financial aid is available for undergraduates)
- 8) issuance of visas that will enable the students to enter the United States

(Information for Prospective Students Abroad, 1974)

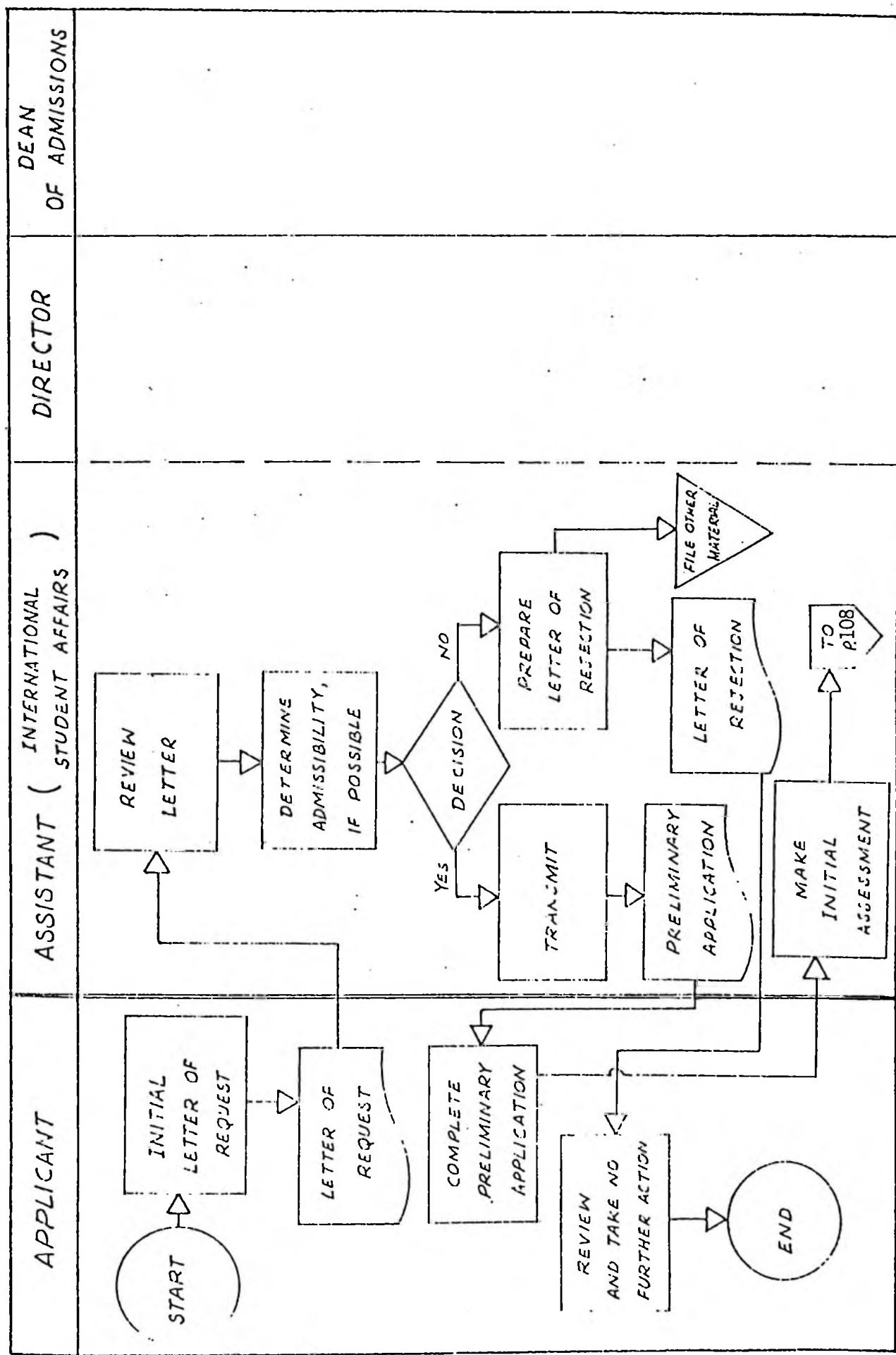


FIGURE 7 : Initial Admission Process, Common to All Applicants

Step 12.4. When the completed preliminary application is received from the applicant, the graduate assistant makes an initial assessment of the applicant's admissibility.

Admission Process for Undergraduate Students Only

Step 1.5. If an undergraduate student is deemed admissible, the graduate assistant instructs the work-study students to send the student a package with the following requirements.

- 1) A \$10 application fee (In cases where difficulty in sending the fee at the time of application arises, payment may be deferred to arrival time).
- 2) A computer form showing temporary and permanent address, birth date, racial background, date of high school graduation, and other items of personal information.
- 3) A personal information sheet showing academic information, citizenship, and names of parents.
- 4) A certified copy of all diplomas and marksheets received.
- 5) Evidence of English proficiency through the TOEFL score.
- 6) Scores of the American College Test (ACT) for freshmen. Because of scarcity of ACT testing centers outside the United States, many foreign freshmen are given conditional admission and take the ACT in the process of freshman orientation. The Scholastic Aptitude Test (SAT) may be used for preliminary consideration of foreign freshmen.
- 7) Two letters of recommendation, preferably from an employer or a teacher.
- 8) A signed and notarized statement that the applicant has adequate financial resources for study at the University.
- 9) A brief essay stating reasons for application and study at the University.

Requirements 1, 2, 3, 4, 6, and 7 are required for United States applicants as well.

Step 1.6. The foreign applicant receives the admission package. If the applicant is still interested in attending the University, submits the applications and the required materials to the Office of International Student Affairs.

Step 1.7. The graduate assistant evaluates the credentials with the help of professional literature and determines their authenticity and completeness of file. Though deadlines are established, an effort is made to accommodate students who apply after the deadline.

Step 1.8. The graduate assistant confers with the Director of International Student Affairs concerning the student's admissibility.

Step 1.9. The Director evaluates.

Step 1.10. If the applicant is admissible, applications and credentials are forwarded to the Director of Admissions.

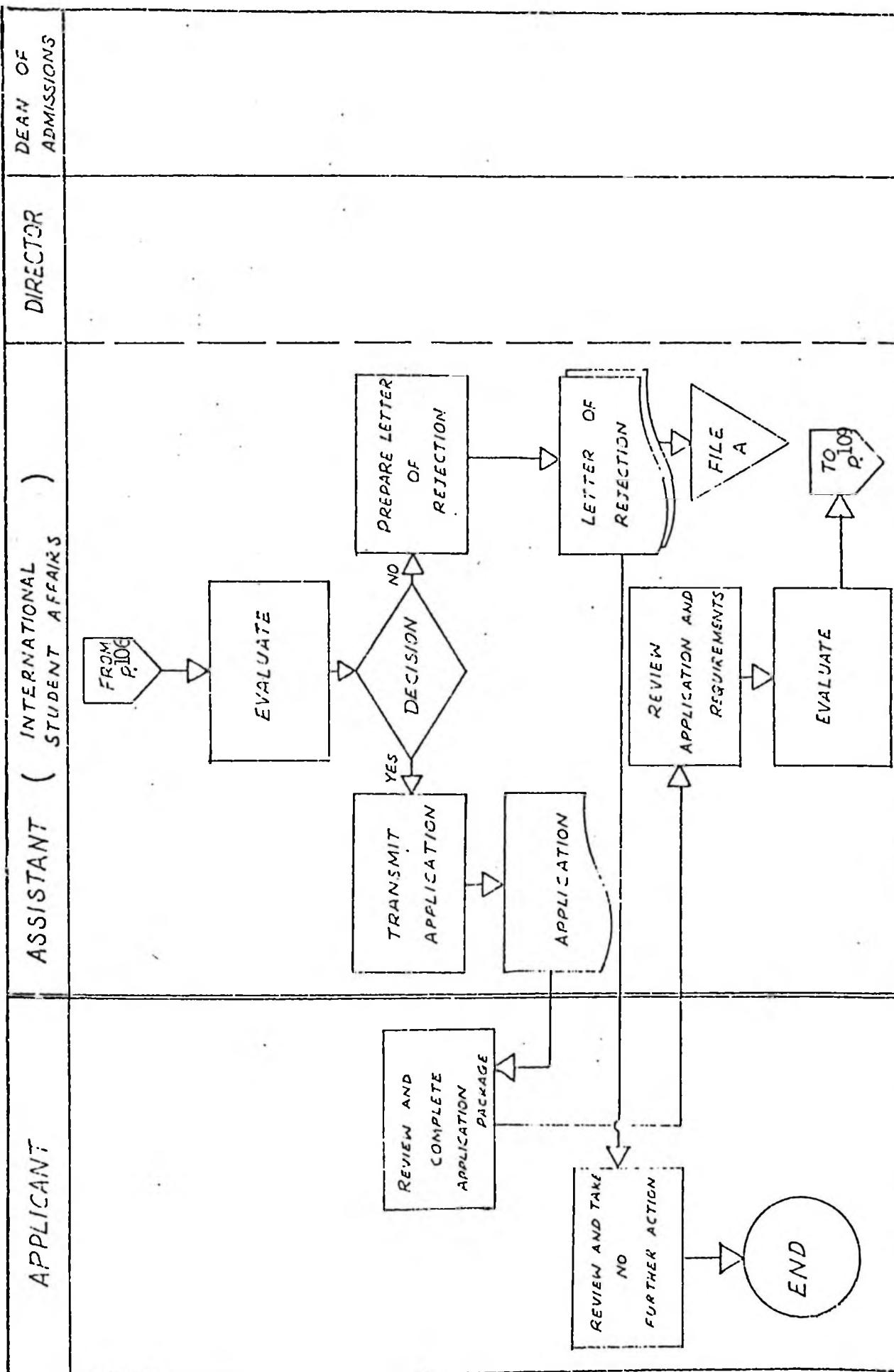


FIGURE 8: Admission Process for Undergraduate Students

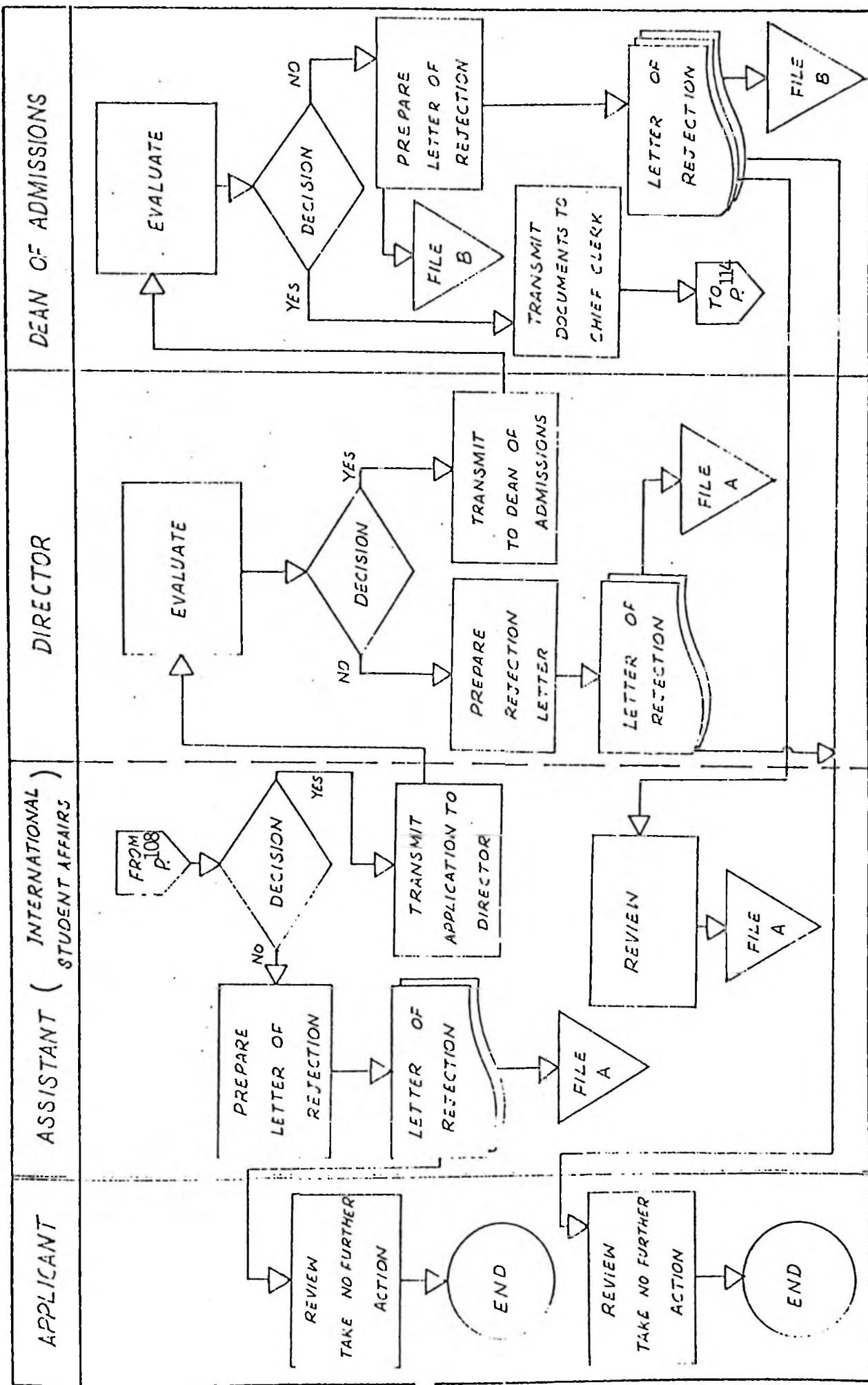


FIGURE 8. Continued

Step 1.11. The Director of Admissions or the Assistant Director of Admissions reviews the credentials.

Step 1.12. If the applicant is admissible, the Director or Assistant Director forwards the credentials to the Chief Clerk.

Admission Process for Graduate Students Only

Step 2.5. The preliminary application is forwarded by the assistant to the Graduate School.¹

Step 2.6. If admissible, the applicant is sent an admission package. The following items are required:

- 1) A \$10 application fee (In cases where difficulty in sending the fee at the time of application arises, payment may be deferred to arrival time).
- 2) A computer form showing temporary and permanent address, birth date, racial background, date of high school graduation, and other items of personal information.
- 3) A certified copy of all diplomas and marksheets received since secondary school.
- 4) Results of an entrance examination recommended by the prospective department. Entrance examinations can be the Graduate Record Examination (GRE), the Miller Analogies Test (MAT), or the National Teachers' Examination (NTE).
- 5) Medical certification.
- 6) Evidence of English proficiency through the TOEFL score. This requirement can be waived if the applicant has been studying in an English-speaking country such as Canada, United States, Great Britain, Australia etc.
- 7) Statement of financial support. Since many applicants apply for departmental assistantships or out-of-state fee waivers, partial lack of financial support does not disqualify graduate applicants at this stage.

Step 2.7. If an applicant is still interested in the University, he or she completes applications and sends the required materials to the Graduate School.

Step 2.8. The Graduate School Registrar receives applications, evaluates credentials, and checks them for authenticity and completeness.

¹. Some departments such as Business Administration, prefer to screen their applicants before the Graduate School asks them to complete applications. On such occasions, applications are forwarded to those departments.

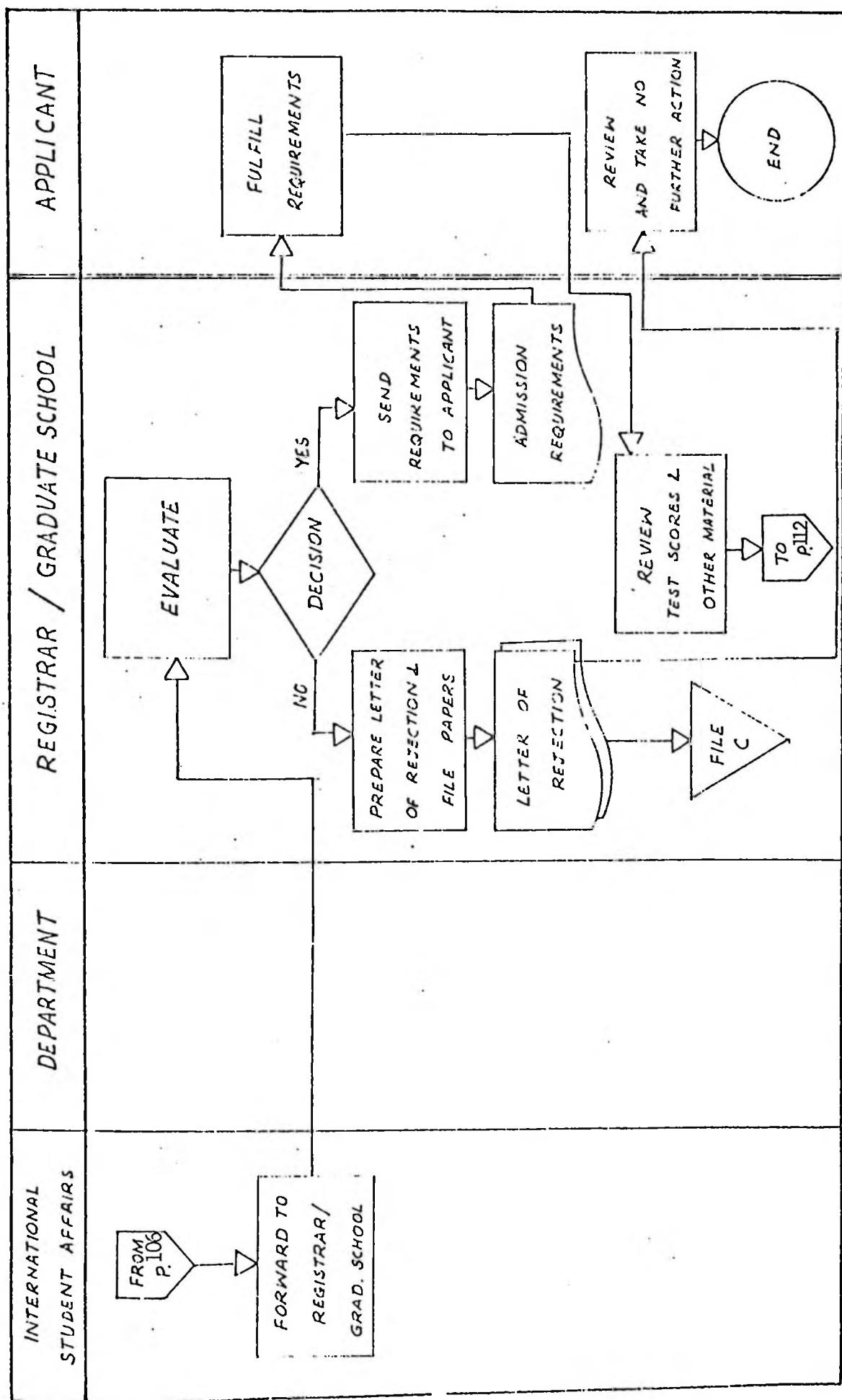


FIGURE 9: Admission Process for Graduate Applicants

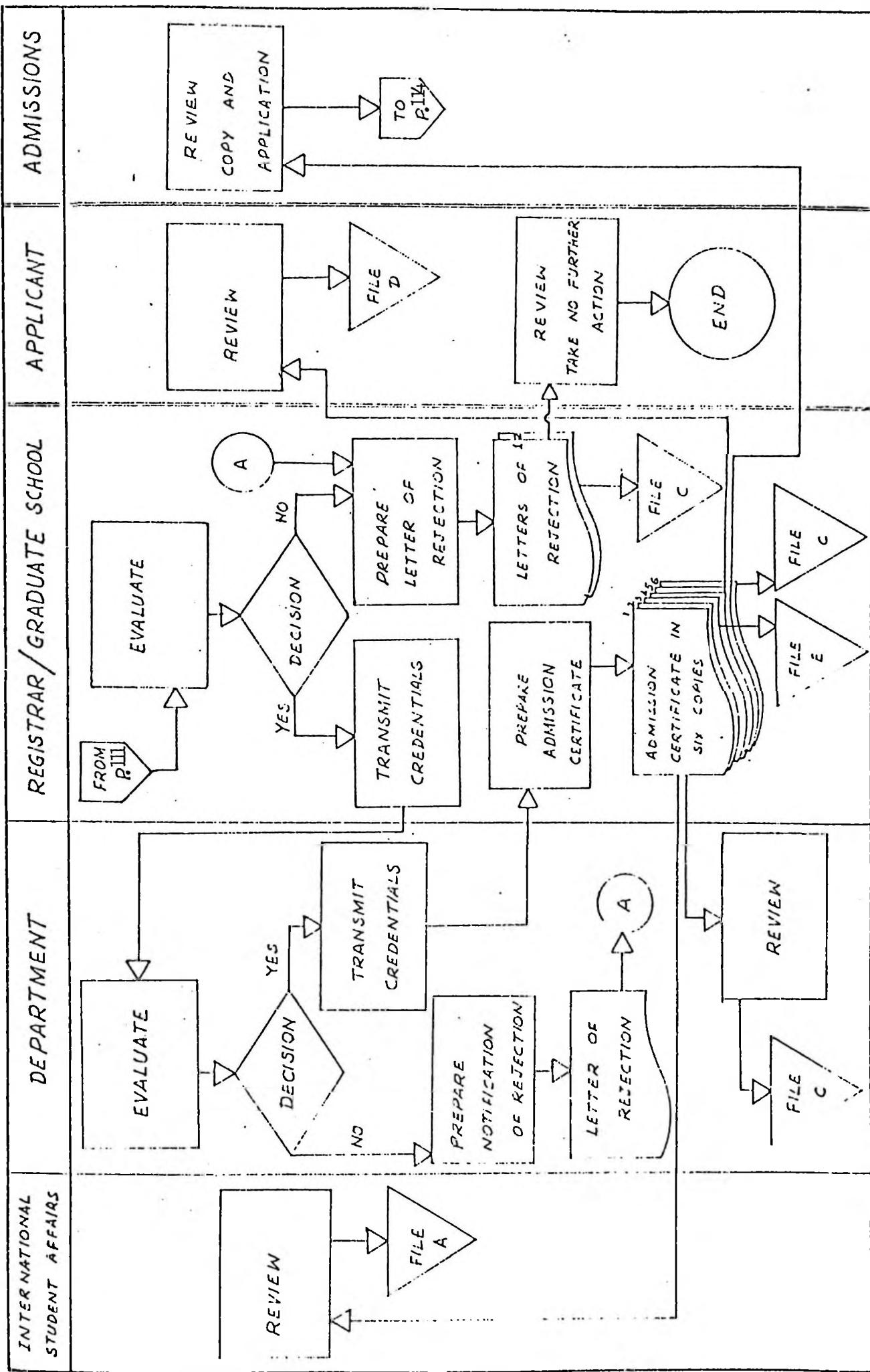


FIGURE 9: Continued

Step 2.9. If the applicant is admissible, the applicant's folder is sent to the appropriate department.

Step 2.10. The department makes a final evaluation and recommendation.

Step 2.11. The folder returns to the Graduate School.

Step 2.12. An admission certificate is prepared in six copies. These go to:

- 1) Admissions Office
- 2) Graduate School
- 3) Department
- 4) Applicant
- 5) Office of International Student Affairs
- 6) Applicant's file

Step 2.13. The computer sheet, the admission certificate, the application fee and a speed memo checking these items are sent to the Office of Admissions.

Admission Process for both Graduate and Undergraduate Students

Step 12.5. The Chief Clerk checks the correctness of the computer

Step 12.6. Information of the computer application is put on computer tape.

Step 12.7. Tape is taken to computer center, where a student number is assigned, and a printout is made of the applicant's personal information, called validation sheet.

Step 12.8. Student number, application, a validation sheet in triplicate, and address labels are sent to the Chief Clerk.

Step 12.9. Batches are made for each applicant and are put in student folders.

Step 12.10 The applicant is sent a student number, a validation sheet, and housing information. These materials are first sent to the Office of International Student Affairs.

Step 12.11. The secretary of the Office of International Student Affairs types the visa form that will enable the applicant to enter the United States as a student (I-20 or DSP-66 form). The form is signed by the Director of International Student Affairs. This form is a legal voucher assuring an American consulate that:

- 1) an applicant has been admitted
- 2) his or her English knowledge is adequate; if not, that arrangements have been made for special instruction
- 3) the applicant has adequate self support or that financial aid has been given.

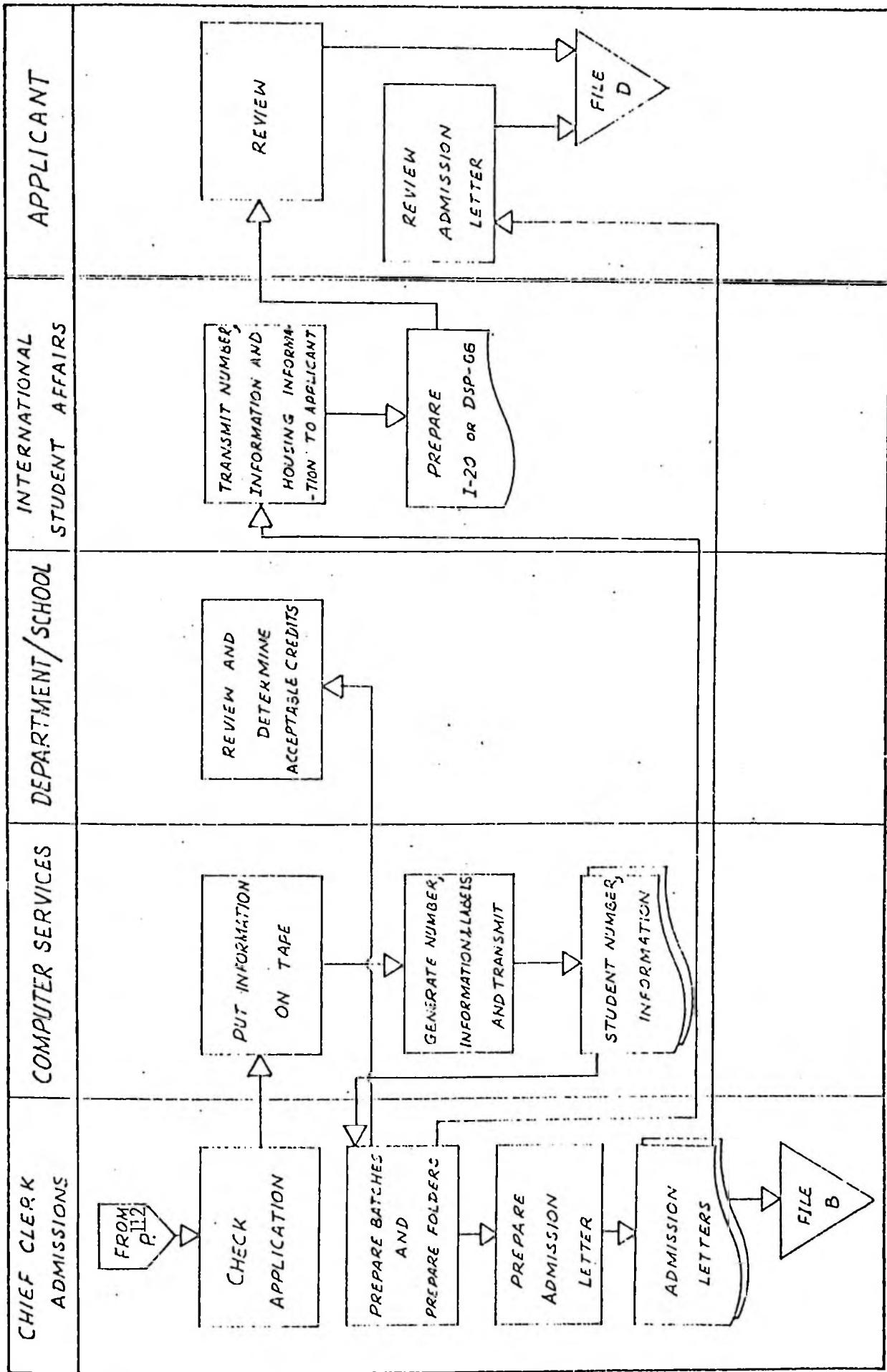


FIGURE 10: Admission Process for All Applicants. Final Stages

Step 12.12. Package is sent to the student.

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Step 12.13. Office of Admissions generates letter of admission.

Step 12.14. Office of Admissions sends the applicant a letter of admission.

Step 12.15. Credentials of transfer students are sent to the appropriate schools or departments for evaluation of credit. Freshmen applications are filed, and labels with information are sent to the Office of Freshmen Services.

Student numbers and validation sheets are created for United States students before their process of admission is complete. However, since the admission process for foreign students is more complex, these details are taken care of at the end.

Analysis of Admission Procedures
at the Office of International Student Affairs

Following is a review and analysis of the admission procedures undertaken by the Office of International Student Affairs and the Office of Admissions. The procedures apply to undergraduate applicants, who are evaluated by the Office of International Student Affairs, and the Director of Admissions or the Assistant Director of Admissions.

The format used for the analysis is a modification of the "Flow Process" form DA 684 presented in the booklet "Techniques of Work Simplification," published by the Department of the Army in 1967. The form has two versions: the present process and the proposed process. Steps are listed along with indicators for the kind of process, as well as the time and distance required for it, notes and comments. A summary table enables one to see at a glance the differences between the present and the proposed method.

The following process flow is based on a completely regular application procedure. Times listed are average, and are parts of an eight-hour day.

FLOW PROCESS CHART

Process: Foreign Student Admissions		SUMMARY						
		ACTIONS		Present	Proposed	Difference		
		No.	Time	No.	Time	No.	Time	
○ Operations	10	112	11	64	1	48		
▷ Transportation	19		19		0			
□ Inspections	6		5		1			
D Delays	6	36		36	1	0		
▷ Storages	2		2		0			
Distance Traveled (ft.)		1046		1016		30		
Organization:								
The University of Alabama								
DETAILS OF PRESENT METHOD		OPERATION	TRANSPORTATION	TIME	DISTANCE (ft.)	TIME	NOTES	
		INSPECTION	DELAY					
		DELAY	FILING					
1	Letter of request arrives	○	□ D	▽				
2	Secretary opens letter	○	□ D	▽				
3	Secretary places it on assistant's desk	○	□ D	▽	10			
4	Letter on assistant's desk	○	□ D	▽	6			
5	Assistant evaluates	○	□ D	▽				
6	Places letter on work-study desk	○	□ D	▽	3			
7	Preliminary application sent to student	○	□ D	▽		50 ft. to mailbox		
8	Letter is filed	○	□ D	▽		Letter filed in a collective file		
9	Preliminary application comes back	○	□ D	▽		usually after 2-3 weeks		
10	Secretary opens the application	○	□ D	▽				
11	Secretary places it on assistant's desk	○	□ D	▽	10			
12	Application on assistant's desk	○	□ D	▽	6			
13	Assistant evaluates	○	□ D	▽				

FIGURE 11. Present Undergraduate Foreign Student Admission Process

	DETAILS OF PRESENT METHOD	OPERATION TRANSPORTATION INSPECTION DELAY FILING	DISTANCE (ft)	TIME (hours)	NOTES	ELIMINATE COMBINE SEND PLACE PERIOD HARVEST
14	Application with instr. placed on work-study desk	○ <input checked="" type="checkbox"/> D <input type="checkbox"/> V	3			
15	Application stays on desk	○ ○ <input type="checkbox"/> D <input type="checkbox"/> V		6		
16	Application package is sent (or other instruction)	○ <input checked="" type="checkbox"/> D <input type="checkbox"/> V			50 ft. to mailbox	
17	File is made by work- study students (folder)	○ <input type="checkbox"/> D <input type="checkbox"/> V				
18	Materials are filed	○ ○ <input type="checkbox"/> D <input type="checkbox"/> V				
19	Application package returned completed	○ <input checked="" type="checkbox"/> D <input type="checkbox"/> V			usually after 2-3 weeks	
20	Secretary opens package	○ <input checked="" type="checkbox"/> D <input type="checkbox"/> V				
21	Secretary finds folder	○ <input checked="" type="checkbox"/> D <input type="checkbox"/> V	10			
22	Places package and folder on assistant's desk	○ <input checked="" type="checkbox"/> D <input type="checkbox"/> V	10			
23	Package and folder on the desk	○ ○ <input type="checkbox"/> D <input type="checkbox"/> V		6		
24	Assistant evaluates	○ ○ <input checked="" type="checkbox"/> D <input type="checkbox"/> V				
25	If acceptable, materials given to director	○ <input checked="" type="checkbox"/> D <input type="checkbox"/> V	30			
26	Materials stay on director's desk	○ ○ <input type="checkbox"/> D <input type="checkbox"/> V		4		
27	Director evaluates	○ ○ <input checked="" type="checkbox"/> D <input type="checkbox"/> V			Evaluation should be final	x
28	Assistant confers with director	○ ○ <input type="checkbox"/> D <input type="checkbox"/> V				
29	Folder waits to be taken to the Director of Adm.	○ ○ <input type="checkbox"/> D <input type="checkbox"/> V		8	Should be done sooner	x
30	Folder goes to the Director of Admissions	○ <input checked="" type="checkbox"/> D <input type="checkbox"/> V	400		runner (work-study student)	
31	Director or Assistant Director evaluates	○ ○ <input checked="" type="checkbox"/> D <input type="checkbox"/> V		56		x
32	Director gives folder to chief clerk	○ <input checked="" type="checkbox"/> D <input type="checkbox"/> V	30			x

FIGURE 11 Continued

	DETAILS OF PRESENT METHOD	OPERATION TRANSPORTATION INSPECTION DELAY FILING	DISTANCE (ft.)	TIME (hours)	NOTES	ELIMINATE COMBINE SEQUENCE PLACE PERSON IMPROVE
33	Chief Clerk checks application form	○○□DV				
34	Application form goes for computer tape	○●□DV	50		runner	
35	Information goes to computer tape	●○□DV		24	done by Test Service	
36	Tape is taken to computer center	○●□DV	50		runner	
37	Information is printed out	●○□DV		24		
38	Information returns to Chief Clerk	○●□DV	50		runner	
39	Student folders are set up	●○□DV				
40	OISA is sent student number and info. sheets	○●□DV	400		Intra-campus mail	
41	OISA secretary checks address, types visa form	●○□DV		8		
42	Package is mailed to applicant	○●□DV			50 ft. to mailbox	
43	Admissions office sends credentials to school/dept	○●□DV				
		○○□DV				
		○○□DV				
		○○□DV				
		○○□DV				
		○○□DV				
		○○□DV				
		○○□DV				
		○○□DV				

FIGURE 11 continued

FLOW PROCESS CHART

Process: Foreign Student Admissions		SUMMARY							
		ACTIONS		Present	Proposed	Difference			
No.	Time	No.	Time	No.	Time	No.	Time		
○ Operations	10	112	11	64	1	48			
▷ Transportation	19		19		0				
□ Inspections	6		5		1				
D Delays	6		6		0				
▷ Storages	2		2		0				
Distance Traveled (ft.)		1046		1016		30			
DETAILS OF PROPOSED METHOD		OPERATION	TRANSPORTATION	INSPECTION	DELAY	FILING	TIME (hours)	NOTES	ELIMINATE COMBINE SEQUENCE PLACE PERSONNEL IMPROVE
1 Letter of request arrives		○	●	□	○	△			
2 Secretary opens letter		●	○	□	○	△			
3 Secretary places it on assistant's desk		○	●	□	○	△	10		
4 Letter on assistant's desk		○	○	□	○	△	6		
5 Assistant evaluates		○	○	■	○	△			
6 Places letter on work-study desk		○	●	□	○	△	3		
7 Preliminary application sent to student		○	●	□	○	△		50 ft. to mailbox	
8 Letter is filed		○	○	□	○	△		Letter filed in a collective file	
9 Preliminary application comes back		○	●	□	○	△		usually after 2-3 weeks	
10 Secretary opens the application		○	○	□	○	△			
11 Secretary places it on assistant's desk		○	●	□	○	△	10		
12 Application on assistant's desk		○	○	□	○	△	6		
13 Assistant evaluates		○	○	■	○	△			

FIGURE 12. Proposed Undergraduate Foreign Student Admission Process

	DETAILS OF PROPOSED METHOD	OPERATION TRANSPORTATION INSPECTION DELAY FILEING	DISTANCE (ft)	TIME (hours)	NOTES	ELIMINATE COMBINE SERVICE STAFF WITNESSES
14	Application with instr. placed on work-study desk	○ <input checked="" type="checkbox"/> D V	3			
15	Application stays on desk	○ ○ <input checked="" type="checkbox"/> D V	6			
16	Application package is sent (or other instruction)	○ <input checked="" type="checkbox"/> D V			50 ft. to mailbox	
17	File is made by work-study students (folder)	○ <input checked="" type="checkbox"/> D V				
18	Materials are filed	○ ○ <input checked="" type="checkbox"/> D V				
19	Application package returned completed	○ <input checked="" type="checkbox"/> D V			usually after 2-3 weeks	
20	Secretary opens package	○ <input checked="" type="checkbox"/> D V				
21	Secretary finds folder	○ <input checked="" type="checkbox"/> D V	10			
22	Places package and folder on assistant's desk	○ <input checked="" type="checkbox"/> D V	10			
23	Package and folder on the desk	○ ○ <input checked="" type="checkbox"/> D V	6			
24	Assistant evaluates	○ ○ <input checked="" type="checkbox"/> D V				
25	If acceptable, materials given to director	○ <input checked="" type="checkbox"/> D V	30			
26	Materials stay on director's desk	○ ○ <input checked="" type="checkbox"/> D V	4			
27	Director evaluates	○ ○ <input checked="" type="checkbox"/> D V				
28	Assistant confers with director - doublecheck	○ <input checked="" type="checkbox"/> D V				
29	Director gives folder to secretary	○ <input checked="" type="checkbox"/> D V	10			
30	Secretary prepares visa form and admission letter	○ <input checked="" type="checkbox"/> D V	8			
31	Folder waits to be taken to Admissions Office	○ ○ <input checked="" type="checkbox"/> D V	8		Delay at this stage is not as important	
32	Application goes to chief clerk	○ <input checked="" type="checkbox"/> D V	400			

FIGURE 12 Continued

	DETAILS OF PROPOSED METHOD	OPERATION TRANSPORTATION INSPECTION DELAY FILING	DISTANCE (ft.)	TIME (hours)	NOTES	ELIMINATE COMBINE SEQUENCE PLACE PERSON IMPROVE
33	Chief Clerk checks application form	○○ DDV				
34	Application form goes for computer tape	○ D DV	50		runner	
35	Information goes to computer tape	●○ D DV		24	done by Test Service	
36	Tape is taken to computer center	○ D DV	50		runner	
37	Information is printed out	●○ D DV		24		
38	Information returns to Chief Clerk	○ D DV	150		runner	
39	Student folders are set up	●○ D DV				
40	OISA is sent student number and info. sheets	○ D DV	400		Intra-campus mail	
41	OISA secretary checks address	●○ D DV		8		
42	Package is mailed to applicant	○ D DV			50 ft. to mailbox	
43	Admissions office sends credentials to school/dept	○ D DV				
		○ D DV				
		○ D DV				
		○ D DV				
		○ D DV				
		○ D DV				
		○ D DV				
		○ D DV				

FIGURE 12 Continued

Applications are processed quickly at the Office of International Student Affairs now, since there is an assistant and two or three work-study students that deal almost exclusively with them. However, the process is considerably slowed down when it reaches the other applications to The University of Alabama.

The Office of International Student Affairs has at this stage a clerical, or, at most, an advisory role. In practice, applicants can be rejected by this office, but cannot be admitted. The Office of International Student Affairs utilizes the same information on International Education as the Admissions Office. According to experience during the past year, there is virtually complete agreement on applicant admissibility between the two offices.

A crucial prerequisite for a foreign student's attendance at a United States University is the Eligibility Form I-20 or DSP-66. These forms will enable a prospective student to receive a student visa from an overseas consulate or embassy. None of these forms can be issued without a definite decision that the applicant is admitted. Issuance of visas is an extremely time consuming process for the prospective student. It often takes two or three months, particularly in Africa. As the present process is, the Office of International Student Affairs cannot issue any of these forms until step 40 of Figure 11, when labels and student information arrive at the Office. In cases of emergency, the Director of Admissions is contacted by telephone and verbal confirmation of admission is given. Generally, however, it takes a week on the average until foreign student records in the pool of all other applicants are evaluated. It will be of great help to many students if the activity of evaluating credentials is revised as it is

shown on Figure 12: The evaluations of the assistant will be doublechecked by the Director of International Student Affairs, and transcripts will be then forwarded to the Chief Clerk of Admissions rather than being evaluated a third time. In that way an Eligibility Form can be prepared immediately. A series of guidelines can be established between the Director of International Student Affairs and the Director of Admissions that will obviate additional reviewing.

Chapter V

Summary, Conclusions, and Recommendations

Summary

The purpose of this study was to evaluate the current admission procedures for foreign students at The University of Alabama. As part of the study, a literature search was undertaken, which showed that 1) great efforts have been made in the past to make foreign transcript evaluations as accurate as possible, 2) there is a large amount of professional literature available to help administrators be as informed as possible, 3) there are at least three tests of English for foreign students that can be used for assessment of applicants' English knowledge, 4) entrance examination tests such as the Scholastic Aptitude Test or the Graduate Record Examination seem to have little predictive validity for foreign students, 5) correlations between predictors of performance and actual performance in stateside universities are fairly low, and 6) previous research was made on foreign student problems at The University of Alabama and recommendations for improvement were made.

The evaluation was carried out in order to assess the extent to which recent changes in foreign student admission 1) had resulted in an increase of qualified foreign students on campus and 2) had brought about efficiency in handling foreign student credentials. Student records and English knowledge of foreign students were examined in order to evaluate their academic performance.

In order to evaluate the administrative procedure of foreign students' admission process, a flowchart of the processes at the graduate and at the undergraduate level was constructed. Also, a process study of the undergraduate foreign student admissions was carried out in order to evaluate the personnel functions and the time span involved in the various steps.

Conclusions

Examinations of student records and English knowledge of foreign students showed that the overall performance level of the new students was satisfactory. However, particular groups of students seemed to differ in performance from others; Junior college transfer students seemed to have the lowest overall performance.

The grade point average was found to be predictable on the basis of several variables (major, geographical area, previous performance, English knowledge). The number of hours carried was not as predictable from the above variables as the g.p.a. Measurements of English knowledge showed that several aspects of English skills were tested. First semester performance was related to an extent to knowledge of English, but second semester performance was not. Low English knowledge was not necessarily related to performance, particularly at the graduate level. A progressive independence from initial knowledge of English is evident.

The study of the admission process of foreign students showed that at the undergraduate level the completed undergraduate application is evaluated three times, and the Office of International Student Affairs,

which evaluates it twice, has a decision-making role only in rejecting students. Its capacity in admitting students is only clerical or advisory. Minimum additional time of one week is needed for the third evaluation, which may detain some students from entering during the semester desired. If the Office of International Student Affairs is given the authority to accept foreign students, as well as to reject them, unnecessary delay will be limited.

The departments involved in foreign student admissions, the Graduate School, the Admissions Office, and the Office of International Student Affairs, have been very cooperative and understanding concerning foreign student problems. Special problems of students were viewed in light of the circumstances, and they were given special consideration. The TOEFL cutoff points, officially a requirement of the University (Graduate School Catalog, 1974), were not strictly enforced. Students who had a TOEFL score slightly below 500 were asked to take an English course for foreign students on campus. On some occasions, students were accepted on the basis of ALIGU scores if they could not take the TOEFL. Graduate students with GRE and MAT (Miller Analogies Test) scores below those of United States citizens were admitted and performed well. Chinese students with grades that were borderline according to recommendations of professional literature were admitted and performed well. Deadlines for submission of applications were not strictly enforced, either, and every help was give to students who, for various reasons, had to apply after the deadlines. Efforts were also made to give some financial assistance to needy undergraduate students, but very little was available. Through lenience and personalized admissions a number of students were able to profit from

attending the University that might have been rejected through more rigid procedures.

The institutional policies of the University appear in the Graduate School Catalog (1974) and in the booklet "Information for Prospective Students from Other Countries," which is sent to all foreign applicants. Policies are fairly well formulated. The University of Alabama at this time seems to be very favorable towards accepting foreign students.

Academic recommendations given by professional literature have been found to meet the needs of the University.

Recommendations

- 1) Higher admission standards should be set for junior college transfers. A minimum of g.p.a. of 2.00/3.00 may be needed. The number of hours dropped should be examined, and students should be asked to take the Michigan test upon arrival. Remedial English should be recommended for those scoring in the area of 70-60 or below (raw score, form D).
- 2) Financial assistance should be provided to needy undergraduate students in the form of out-of-state fee waivers. Presently most graduate students hold assistantships or waivers allocated by the Graduate School, but undergraduate students have virtually no financial assistance resources. They cannot hold jobs in the community, and most jobs on campus are given to work-study students, who must be United States permanent residents or citizens. For this reason, students presently enrolled at the University mostly belong to the upper classes in their countries. It may be more useful to this institution and to the countries from which students come if

members of the middle classes are attracted to The University of Alabama. This can only be done if some out-of-state fee waivers are allocated to be given as partial scholarships for deserving foreign students who can pay for part of their expenses but not for the full amount.

2) Foreign transcripts evaluation at The University of Alabama should be centralized. The information and experience needed to evaluate credentials from 126 different countries actually is too vast to be distributed and partially held by three departments of the University as it is done now. If one office has all the information needed and due authority, that office will be able to process all foreign applications and at the same time collect data and update information and admission standards. The foreign transcripts evaluator should be given full-time status and should have sufficient experience and education, since this position involves decision-making. A graduate assistant and three or four work-study students should be allocated to the evaluator. The foreign transcripts evaluator will process graduate and undergraduate admissions, communicate with departments, and advise on transfer credit. This function should belong to the Office of International Student Affairs, which at present has a large amount of the information and work responsibility. Besides collection of credentials for undergraduate students, this office has to assess the financial situation of the graduate students after they have been admitted and to issue visa forms to all admitted applicants so that they can enter the country. This office also arranges for housing for all students.

In order to satisfy requirements for authority and responsibility, the full-time evaluator can belong one-third time to the Graduate

School, one-third time to the Office of Admissions, and one-third time¹²⁹ to the Office of International Student Affairs. Salary will be shared accordingly, and the employee will be responsible to each office for the work belonging to that office. Students admitted will be directed to the chief clerk of the Admissions Office for processing. This way, one office will take care of all international student affairs and will have the expertise needed for any department of the University.

An alternative to centralization of foreign student admissions to the Office of International Student Affairs will be centralizing the admissions function in the Admissions Office. In that case the Office of International Student Affairs will only have the function of personal counseling, since visa issuance and assessment of finances is part of the admission process. One basic problem with this alternative is that it is difficult to counsel foreign students when one does not know their background, admission, and financial circumstances. The evaluator and the Director of International Student Affairs have correspondence with the students and evaluate them before the students appear for counseling. Direct feedback into the admission process of problems faced by students is also very important. It cannot be carried out when the admission process is removed from contact with the students. These are the reasons why this alternative is not practical. One department should handle all foreign student affairs, as Cieslak (1955) believes.

A first step towards centralization and less delay for applicants should be the giving of authority to the Office of International Student Affairs to admit foreign students. At this stage, few administrative arrangements are needed. The assistant in the office can be made partially responsible to the Office of Admissions and the

assistant's evaluations will be reviewed by the Director of International Student Affairs.

Recommendations for Further Research

Concerning improvement of performance of students who will enter the University in the future, the following recommendations are made:

A data bank should be established, starting with the data collected in this study. After a period of three to four years, enough data will be in store on various countries to enable the Office of International Student Affairs to correlate performance at the University with grades produced by the home country system and with knowledge of English as demonstrated by students from particular countries. Then admission standards will be set through observation of large numbers of students for the use of The University of Alabama. ALIGU test scores must be examined and standards must be developed for the University, so that the ALIGU or the Michigan test will be offered as a clear alternative to students who cannot take the TOEFL.

Although the administrative problems of foreign student admissions are yet to be solved completely, in general, The University of Alabama has been quite successful in admitting capable foreign students. The number of applicants is growing and the foreign student population is expected to multiply in the near future. The University of Alabama has many resources to offer to its students, and it is hoped that more citizens of other countries will be able to benefit from it.

References

American Language Institute. A report of the results of English testing during the 1966 pre-university workshop at the American Language Institute. Unpublished manuscript, Georgetown University, 1966.

Barker, H. R. Behavioral Sciences Statistics Program Library. University, Alabama: The University of Alabama, 1973.

Bowers, J. A five-semester follow-up of Fall 1962 beginning freshmen at the University of Illinois. Research Memorandum 65-4. Urbana, Illinois: University of Illinois, Office of the University Dean of Admissions and Records, 1965.

Burns, D. (Chm.) The future of World Education Series. Proceedings of the 60th Annual Meeting of the American Association of Collegiate Registrars and Admissions Officers. College and University, 1974, 49, 623-624.

Burgess, T. C. English language proficiency and academic achievement among students of English as a second language at the college level. Portland, Oregon: Portland State University, 1970.

Caplan, R. Foreign students in the State University System of Florida: Report of the consultation of the State University System of Florida, conducted under the auspices of the Field Service of the National Association for Foreign Student Affairs. Washington D.C: National Association for Foreign Student Affairs, 1973.

Carter, L. F. The systems approach to Education: Mystique and reality. Educational Technology, 1969, 3, 23-32.

Chase, C. I. Review of the Test of English as a Foreign Language. In Buros (Ed.) The Seventh Mental Measurements Yearbook, 1972, 1, 266-267.

Cieslak, E. C. The foreign student in American colleges. Detroit: Wayne University Press, 1955.

Clayes, S. A. & Spencer, D. E. Contexts for composition. (3rd ed.) New York: Appleton - Century - Crofts, 1972.

Coffman, W. E. Evidence of cultural factors in responses of African¹³²
students to items in an American test of scholastic aptitude.
Princeton, New Jersey: Educational Testing Service for the
College Entrance Examination Board, 1973.

College Entrance Examination Board. Entering Higher Education in the
United States: a guide for students from other countries.
(Rev. ed.) New York: College Entrance Examination Board, 1974.

College Entrance Examination Board. Foreign graduate student: Priorities
for research and attention. New York: College Entrance
Examination Board, 1971.

Dremuck, R. H. The Graduate Record Examination and its applicability
to foreign students. College and University, 1972, 47,
621-624.

Du Bois, C. Foreign students and Higher Education in the United States.
Washington, D.C: American Council on Education, 1956.

Duff, F. L. & Aukes, L. E. The relationships of the Graduate Record
Examination to success in the graduate college. Research
Memorandum No. 103. Urbana, Illinois: University of Illinois,
Bureau of Institutional Resources, 1965.

Educational Testing Service. Manual for TOEFL score recipients.
(Rev. ed.) Princeton, New Jersey: Educational Testing
Service, 1973.

Educational Testing Service. Test of English as a Foreign Language
research-Correlations among TOEFL, ALI, and Michigan tests.
Princeton, New Jersey: Educational Testing Service, 1966.

English Language Institute. Michigan Test of English of English
Language Proficiency Manual. Ann Arbor: English Language
Institute, 1962.

Field Service Program, National Association for Foreign Student Affairs.
An inquiry into departmental policies and practices in relation
to the graduate education of foreign students. Washington,
D.C: National Association for Foreign Student Affairs, Central
Office, 1972.

Frey, J. F. Report on the feasibility of establishing a central foreign
credentials evaluation service under non-government auspices.
Washington, D.C: Office of Education, Health, Education, and
Welfare Bureau of Research, 1969.

Gupta, P. The United States Educational Foundation of India.
Proceedings of the 58th Annual Meeting of the American
Association of Collegiate Registrars and Admissions Officers.
College and University, 1971, 46, 494-495.

- Hamlin, E. C. An analysis of the relationships between the English language proficiency scores of entering foreign graduate students and their academic achievement. Dissertation Abstracts, 1972, 33, 2125-2126. (Abstract)
- Handy, H. W. & Hussain, K. M. Network analysis for educational management. Englewood Cliffs, New Jersey: Prentice Hall, 1969.
- Harris, D. P. Interpretative manual for the test of English as a second language of the American Language Institute of Georgetown University. Washington, D.C.: American Language Institute, 1973.
- Headquarters, Department of the Army. Techniques of work simplification. Washington, D. C.: Department of the Army, 1967.
- Homan, J. C. Foreign student admissions: A discriminant analysis approach. Dissertation Abstracts, 1973, 34, 3559A. (Abstract)
- Hopkins, C. W. & Christopher, Bro. F. Guidelines for foreign student admissions. Proceedings of the 58th Annual Meeting of the American Association of Collegiate Registrars and Admissions Officers. College and University, 1971, 46, 630-637.
- Hountras, P. T. Factors associated with the academic achievement of foreign graduate students at the University of Michigan from 1947-1949. Unpublished doctoral dissertation, University of Michigan, 1955.
- Hountras, P. T. Improving the selection of foreign graduate students. North Central Association Quarterly, 1956, 10.
- Howell, J. J. Prediction of freshman grade point average of foreign students at United States institutions of Higher Learning-a pilot study. Princeton, New Jersey: Prepared for the College Entrance Examination Board by New Jersey Educational Research, 1966.
- International Institute of Education. This is IIE. New York: United Nations Plaza, undated.
- Jacqz, J. U.S. college and university policies, practices, and problems in admitting foreign students. New York: College Entrance Examination Board and Institute of International Education, Publications Division, 1965.
- Jefferson State Junior College. Jefferson State Junior College Bulletin. Birmingham, Alabama: Jefferson State Junior College, 1971-1972.
- Kerr, L. & Lornie, M. Foreign students in community and junior colleges. Washington. D. C.: National Association for Foreign Student Affairs, 1973.

- Longest, J. W. Evaluating orientation for foreign students. Ithaca, New York: State University of New York, 1969.
- Maberly, C. The validity of the Graduate Record Examination as used English-speaking foreign students. Dissertation Abstracts, 1963, 23, 2424A-2425A.
- Madre, J. Latin American Scholarship Program for American Universities. Proceedings of the 60th Annual Meeting of the American Association of Collegiate Registrars and Admissions Officers. College and University, 1973, 48, 647.
- Maquiso, M. The development of a process model to minimize the peculiar problems of foreign students at institution of Higher Learning in the United States. Unpublished doctoral dissertation, The University of Alabama, 1973.
- Matthewson, D. E. A national survey of international students and programs in community and junior colleges in the United States. Washington, D. C.: National Association for Foreign Student Affairs, Junior College Committee, 1968.
- Maxwell, A. A comparison of two English as a foreign language tests. Unpublished manuscript, University of California, (Davis), 1965.
- Mize, D. American Friends of the Middle East. Proceedings of the 60th Annual Meeting of the American Association of Collegiate Registrars and Admissions Officers. College and University, 1974, 49, 638, 641.
- Moore, F. G. Factors affecting the academic success of foreign students in American universities. Unpublished doctoral dissertation, University of Minnesota, 1953.
- Morris, R. T. The two-way mirror: National status in foreign students' adjustment. Minneapolis, University of Minnesota Press, 1960.
- National Association for Foreign Student Affairs. The college, the university, and the foreign student. Washington, D.C.: National Association for Foreign Student Affairs, 1974.
- National Association for Foreign Student Affairs. Guidelines. Washington, D. C.: Field Service Publications, 1965-1971.
- National Association of Foreign Student Affairs. Guidelines for selection and admission of foreign students. Washington, D.C.: NAFSA Field Service Program, 1966.
- National Association for Foreign Student Affairs. Newsletter, 1975, 9, 1-16.
- Nunnally, J. C. Psychometric Theory. New York: McGraw-Hill, 1967.

Office of International Student Affairs. Foreign Student Files.
University, Alabama: The University of Alabama, 1974-1975.

Osanyinbi, J. A. A concurrent validity study of the West African School Certificate and General Certificate of Education English language examination, using Educational Testing Service's Test of English as a Foreign Language as a criterion measure. Dissertation Abstracts, 1974, 35, 5130A. (Abstract)

Pitcher, B. & Harvey, P. The relationship of the GRE aptitude test scores and graduate school performance of foreign students at four American graduate schools. Special Report 63-1. Princeton, New Jersey: Educational Testing Service, 1963.

Putnam, I. Admission data and the academic performance of foreign graduate students at Columbia University. Unpublished doctoral dissertation, Columbia University, 1952.

Putnam, I. Academic performance of foreign students. The Annals of the American Academy of Political and Social Sciences, 1961.

Pyle, C. Foreign application evaluation: Mobilization of a nationwide program. College and University, 1971, 46, 490-494.

Sharon, A. T. The effectiveness of TOEFL and ATGSB as combined predictors of foreign student success in graduate business schools. Unpublished manuscript. Princeton, New Jersey: Educational Testing Service, 1970.

Sharon, A. T. The Test of English as a Foreign Language as a Moderator of Graduate Record Examination scores in the prediction of foreign students' grades in graduate school. Unpublished manuscript, R 13-71-50. Princeton, New Jersey: Educational Testing Service, 1971.

Shrader, W. B. & Pitcher, B. Interpreting performance of foreign law student on the Law School Admission Test and the Test of English as a Foreign Language. Statistical report 20-25. Princeton, New Jersey: Educational Testing Service, 1970.

Sims, A. G. Research related to the admission of foreign students to the U.S. colleges and universities. Paper presented at the Seminar on Research in Programs for Foreign Students. Lansing: Michigan State University, 1967.

Sjorgen, C. F. Foreign students in the Michigan community and junior colleges: An analysis of present conditions, experiences, and expectations. Dissertation Abstracts, 1973, 33, 6101A.

Slocum, J. B. Using the TOEFL in foreign student admissions. Paper presented at the Annual Meeting of the College Entrance Examinations Board, 1967.

- Spolsky, B. Attitudinal aspects of second language learning. Paper presented to the Second International Congress of Applied Linguistics. Cambridge, England, 1969.
- Thomas, M. M. A descriptive analysis of foreign graduate students and the relationship of their characteristics to academic achievement at the University of Mississippi. Dissertation Abstracts, 1973, 33, 6140A.
- Tyler, R. W. (Chm.) The foreign student: Whom shall we welcome? The report of the Educational and World Affairs Committee on Foreign Student Affairs. New York: Educational and World Affairs, 1964.
- United States Educational Foundation in India. Form for rating language proficiency in speaking and understanding spoken English. New Delhi: USEFI, undated.
- University of Alabama. General Information for Students. University: The University of Alabama 1974.
- University of Alabama. Graduate School. University: Alabama, Catalog, 1974.
- University of Alabama. Information for prospective students abroad. University: The University of Alabama, undated.
- University of Alabama. Office of Student Affairs manual. University: The University of Alabama, 1974.
- University of Alabama. Student Handbook. University: The University of Alabama, 1974-1975.
- University of Alabama. Student Information Listing. Unpublished document. University: Office of Records, Fall 1975.
- Upshur, J. A. Comparison of performance on the Test of English as a Foreign Language and the Michigan Test of English Language Proficiency. Unpublished manuscript. Ann Arbor: University of Michigan, 1966.
- Warmbrunn, W. & Spalter, C. An exploration of distribution of academic failure of foreign students at Stanford University. Selected studies in intercultural education (Porter, ed.) New York: National Association for Foreign Student Affairs, 1962.
- Wise, S. African-American Institute. Proceedings of the Annual Meeting of the American Association of Collegiate Registrars and Admissions Officers. College and University, 1974, 49, 641-646.
- Woodstock, J. The Asia Foundation Proceedings of the Annual Meeting of the American Association of Collegiate Registrars and Admissions Officers. College and University, 1974, 49, 646.

World Education Series. Taiwan. American Association of Collegiate Registrars and Admissions Officers, 1967.