AN EVALUATION OF SELECTION CRITERIA FOR THE GRAN MARISCAL DE AYACUCHO SCHOLARSHIP PROGRAM

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AN EVALUATION OF SELECTION CRITERIA FOR THE

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CHAPTER I

INTRODUCTION

The Gran Mariscal de Ayacucho Scholarship Program* (GMA) was created in 1974 by decree of the President of Venezuela, Carlos Andres Perez. The principal objectives of the program were ". . . the integral training and specialization of Venezuela's human resources, the expansion and transformation of agricultural activities, the development of capital goods and consumer industries and the full utilization of natural wealth in the extractive industries." (29)

In order to accomplish the goals outlined by the President, many students were sent abroad to attend educational institutions, with the Institute of International Education (IIE) being chosen by GMA to administer the program in the United States. The IIE General Information Manual contained the following description of GMA:

> The program offers full scholarship support for up to 10,000 students during its initial period of operation. . . . Since one of the central purposes of this program is to broaden the base from which will come the educated leaders of Venezuela's future, special efforts have been made to assure that the base is indeed broadened. Sixty percent of the scholarships are reserved for those now living outside Caracas. Special account is also taken

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*Gran Mariscal de Ayacucho is translated as the Grand Marshall of Ayacucho and refers to General Antonio Jose de Sucre. In 1824 General Sucre led his troops into a successful and decisive battle at Ayacucho against Spain in the Latin American War of Independence.

> of the variations in the quality and opportunity for education now built into Venezuelan life. For the last decade or so, public primary and elementary education outside of the capital city has been inferior to that available in Caracas (a condition from which few countries in the world have escaped). A carefully planned and rigorously adhered to system has been designed to assure, insofar as possible, that scholarship applicants from rural areas, provincial cities, public schools, and private schools can compete on reasonable terms with the student whose entire educational experience has been in the best Caracas schools. . . . Most students will begin their educational experience in the United States in English language programs. (18, pp. 1-3)

The presidential decree stated that GMA was created ". . . for graduates of secondary, technical, special and higher education from lower income, middle, and working class families for training in technical and scientific disciplines at home and abroad." (29)

Need for the Study

More than thirty-five hundred (3500) GMA students arrived in the United States during 1975 and the first half of 1976 to begin English language programs prior to academic placement, for the scholarship recipients needed to be proficient in English if they were to realize maximum benefit from their academic programs. Ninety of these students were placed in the Oklahoma State University English Language Institute.

Since no formal evaluation of the success of GMA in the United States has been made, GMA in Caracas has received no feedback which might contribute to program modification and strengthening. Ruth Lerner de Almea, just before being named director of the GMA in Caracas, stated in an interview in December, 1975, that "the first thing I would do if named director, because to date I've seen nothing

to indicate it's being done, would be to evaluate what could be called the first stage of the program." (30)

In the absence of such studies it is not known whether factors used by GMA for student selection--such as socioeconomic status, urban or rural residence, number of years of study, type of education (i.e., practical or theoretical), and grade point average--are related to student achievement in the United States. In addition to factors used by GMA, obtainable data such as participants' measured intellectual ability and study habits and attitudes could also be compared with degrees of success to identify criteria that might result in more efficient and effective student selection and placement.

Statement of the Problem

When this study was undertaken, there was no earlier research available which had attempted to analyze whether the selection variables used by GMA were appropriate. Therefore, the problem herein considered was: What relationship exists between student selection variables--both those used by GMA and selected other variables--and student success in learning English?

Purpose of the Study

This study had three purposes. The first purpose was to establish whether there were any significant relationships between GMA student progress rates in learning English and the GMA student selection factors of age, place and type of previous education, socioeconomic status (SES), and Venezuelan grade point average (GPA). The second purpose was to establish whether there were any significant

relationships between GMA student progress rates in learning English and marital status, mental ability, study orientation, study attitudes, study habits, and number of years of education. The final purpose was to attempt to isolate specific factors and/or combinations of factors which might help predict more accurately Venezuelan student progress rates in learning English in the United States.

Significance of the Study

The results of this study may allow both the GMA scholarship program and Oklahoma State University to make more accurate time and cost estimates for teaching English to certain groups of Venezuelan students. The information contained in this study may also be of some aid in further refining the Venezuelan student selection process.

The Hypotheses

1. There is no significant relationship between a student's age and his/her performance on the Comprehensive English Language Test (CELT).
2. There is no significant relationship between a student's marital status and his/her performance on the CELT.
3. There is no significant relationship between where in Venezuela a student studied (i.e., Caracas or another place) and his/her performance on the CELT.
4. There is no significant difference between the CELT scores of bachilleres in science or humanities (theoretical background) and the CELT scores of technical school graduates (practical background).
5. There is no significant relationship between a student's score on the Otis-Lennon Mental Ability Test, Form J, Spanish edition, and his/her score on the CELT.

6. There is no significant relationship between the number of years a student has studied in Venezuela and his/her performance on the CELT.

7. There is no significant relationship between a student's socioeconomic status and his/her performance on the CELT.

8. There is no significant relationship between a student's study orientation as measured by the Brown-Holtzman Survey of Study Habits and Attitudes, Spanish version, and his/her score on the CELT.

9. There is no significant relationship between a student's study attitudes as measured by the Brown-Holtzman Survey of Study Habits and Attitudes, Spanish version, and his/her score on the CELT.

10. There is no significant relationship between study habits as measured by the Brown-Holtzman Survey of Study Habits and Attitudes, Spanish version, and his/her score on the CELT.

11. There is no significant relationship between a student's Venezuelan GPA and his/her score on the CELT.

12. There is no linear relationship between the independent variables, age, mental ability, number of years of education, SES, study orientation, study attitudes, study habits, and GPA and student scores on the CELT.

Theoretical Assumptions

1. It was assumed that the instruments administered actually measured what they purported to measure.

2. It was assumed that Venezuelan grade point averages were valid and reasonably uniform.

3. It was assumed that all students finishing five months of intensive English between August, 1975, and July, 1976, had an equal opportunity to attain the same level of English proficiency.

4. It was assumed that the Otis-Lennon Mental Ability Test, Form J, Spanish edition, and the Brown-Holtzman, Survey of Study Habits and Attitudes, Spanish version, gave uniform results even if administered at different times.

5. It was assumed that the results of the CELT administered for the second time to all students at five months were as valid for those students who took it the first time after three months of intensive English as for those who took it the first time after four months of intensive English.

6. It was assumed that the norms for the English Language version of Examen de Habilidad Mental, Forma J, Mental Ability Test, Form J, were valid for use in this study.

Limitations of the Study

The study did not include students who discontinued their studies before five months in the 1975 English Language Institute and 15 total months in the United States and students who discontinued their studies before five months in the 1976 ELI.

Definition of Terms

The following terms as utilized in this study were defined as follows:

1. Socioeconomic status (SES) was defined as the position of a student's father or guardian on the Manaster and Havighurst International Scale of Occupations, Urban or Rural (see Appendix A) times three plus the same person's position on the educational scale (see Appendix C) times two.

2. Place of formal education was defined as where a student studied for the largest number of years and was either Caracas or another place.

3. Venezuelan grade point average (GPA) was defined as the average of the last two years of study in Venezuela, excluding the six-year primary level.

4. Mental ability was defined as learned or developed verbal, numerical, and abstract reasoning abilities as measured by the Otis-Lennon Mental Ability Test, Form J, Spanish edition.

5. Study habits were defined as student motivation in relation to academic studies as measured by the Brown Holtzman Survey of Study Habits and Attitudes, Spanish version.

6. Study attitudes were defined as mental and emotional positions regarding formal academic studies as measured by the Brown-Holtzman Survey of Study Habits and Attitudes, Spanish version.

7. Intensive English language study was defined as five months of intensive study of the English language at the Oklahoma State University English Language Institute.

8. English proficiency was defined as achievement in the understanding, reading and writing of English as measured by the Comprehensive English Language Test (CELT).

9. Student marital status was defined as either single or married.

10. Bachilleres in science or humanities were defined as graduates of theoretically-oriented General Secondary Schools.

11. Technical school graduates were defined as those who have completed the Technical-Agricultural and Animal Science or Industrial Secondary Schools.

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

The review of the literature focuses on two major areas. The first part will report previous research which investigated the selection factors used by the Gran Mariscal de Ayacucho Scholarship Program (GMA)--i.e., age, place and type of previous education in Venezuela, socioeconomic status (SES), and Venezuela gradepoint average (GPA) in relation to academic success. The second part will report previous research related to factors which have been used successfully in previous studies as predictors of academic success and which might be used as valid predictors in the GMA program at Oklahoma State University. Earlier research which included the variables of mental ability and study habits and attitudes will also be reported.

No literature dealing specifically with Venezuelan students in the United States was available. However, a review of experimental and analytical studies which used age, cross-national SES, mental ability and study habits and attitudes as academic predictors was completed. Descriptive studies of education in Venezuela, including organization, curricula, and the formal grading system, were also

reviewed. The first factor researched was student age when used as a predictor of academic success.

Student Age

During the first year the GMA was in operation, age was used as one of the student selection factors. Earlier research conducted in the United States has indicated that age is a factor in the learning process. Hultsch (17, p. 197) experimentally investigated the recall patterns of older and younger adults in his study:

> A multitrial free recall task was presented to three age groups of men and women (18-34 years, 50-74 years, 65-83 years) under cued and noncued recall conditions to determine if age-related differences in retrieval were attributable to the availability of elementary units (trace-dependent forgetting), the accessibility of higher order units (cue-dependent forgetting), or both.

The results indicated a significant age effect at the .01 level. "In the case of the age effect, the 18-34 year-old group recalled significantly more categories than the 50-64 year-old group or the 65-83 year-old group, but there was no significant difference between the two older groups" (Ibid., p. 199).

Based on the assumption that older adults do not organize new information as efficiently as do younger adults, Susan Gordon (12, p. 5) compared storage and retrieval organization in the retention of related sentences between 50 younger adults (average age 21 years) and 50 older adults (average age 72 years). The learning material consisted of 25 related fictional "historical" sentences which could be organized into three conceptual types, five countries, five decades, and five topics.

Gordon found ". . . large age differences in event recall, as indicated by the significance of the contribution of the age factor [.001], in addition to large age differences in mean scores or event recall (22 vs. 48 on Trial 1, 36 vs. 76 on Trial 2 for elderly and young adults, respectively)." Hence, she concluded that the young did significantly better.

In a study by Holmstrom (16, p. 15) 844 older college freshmen were compared with 1,675 college freshmen under 20 years of age. At the end of four years, fewer of the older than of the younger students had earned their degrees. "Only 38 percent of the older students in universities, 44 percent of those in four-year colleges, and 13 percent of those in two-year colleges had attained the baccalaureate. The corresponding figures for average students were 54 percent, 60 percent and 19 percent." However, Holmstrom did not control the variables of full-time vs. part-time students or students enrolled as degree candidates vs. those enrolled as non-degree candidates. To account for the difference in performance of the two groups, Holmstrom stated:

> Older students differed from average-age students in their activities and experiences while in college. For instance, fewer of the older students were elected to student offices and to academic honor societies, joined fraternities or sororities, or participated in student demonstrations. In some ways older students seemed more stable than average-age students; fewer changed majors or career plans, or transferred to another college (ibid., p. 14).

The same study found that "older students made lower college undergraduate grade point averages than did average-age students, except in two year colleges, where they made slightly better grades than did their younger classmates" (ibid., p. iii).

Urban and Rural Education

A previous quotation from the GMA Manual (10) indicated that 60 percent of all GMA students come from outside Caracas. The GMA Manual also stated that historically the schools in Caracas have been of higher quality than the schools in the rest of the country. In his historical analysis of rural education in Venezuela through 1957, Gonzalez (11, p. 255) concluded that rural education had not met its objectives due to the lack of professional staff and planning, the unstable political and social conditions, and the degree of national disunity. Gonzalez concluded by stating that "once again, it can be noted, the same factors that had hampered the effective development of all educational programs from 1870 to 1932, obstructed the development of all rural programs in the period 1932-1957."

G. F. Burroughs' (5, p. 87) examination of Venezuela education led him to conclude that extreme rural areas in particular were educationally deprived. Burroughs stated that scattered population, lack of financing and an inadequate supply of area supervisor personnel were important causes of low rural educational levels. One of the greatest handicaps, however, was the lack of qualified teachers.

> . . . one finds unemployed, trained teachers in the city and a shortage of them in the countryside. The ministry offers the inducement of counting each year's rural service as equivalent to fifteen months' urban service; even so, the conditions of living, the limited social life, the restricted medical services and limited general supply services of water, electricity, drainage and so on and the near nonexistent cultural and intellectual stimulation . . . are all such as to discourage the lively and ambitious teacher from seeking rural teaching service.

Types of Schools

Since GMA scholarship students are of varied ages and come from all parts of Venezuela, they studied in different types of schools. The six year Venezuelan primary schools have basically the same curriculum regardless of where they are located in the country, although Burroughs noted there is a difference in quality between rural and urban schools. No official primary level student transcripts with gradepoint averages are published by the education system. Unlike secondary education, the primary grades have not undergone changes in recent decades.

The public secondary school system of Venezuela encompasses both theoretical and practical schools. Since 1969, several changes have been instituted at the secondary level. Mrs. Isabel Gouverneur (13, p. 7) described the Venezuelan secondary public school system before 1969:

> "Liceos" are public academic high schools. . . . At present the general purpose of the general high school is to give university preparation. Therefore the programs of study contain mainly humanities and science courses, and are uniform in all "liceos" with little or no elective choice of course. This is the traditional "bachillerato" program which offers a first cycle of three years basic courses common to all students; in the second cycle of two years, majors are offered in Humanities or Sciences.

Mrs. Gouverneur continued by explaining the function of the practical or technical schools:

> Technical . . . courses are given in separate high school programs. Their programs differ from the "bachillerato" program in that they offer fewer academic courses in the basic cycle and more training in the specialty of the school. Also, the courses are divided into areas that permit students to earn varying certificates according to years of study (ibid., p. 7).

Beginning in 1969 changes, as outlined by Burroughs (5, p. 76) were introduced into the Venezuelan secondary system.

> As pupils leave the basic cycle, they are divided into secondary . . . or technical education. Secondary constitutes the academic stream; this is substantially the route to the universities. . . . Under technical education are found a great variety of industrial, commercial, horticultural, and other educational activities of a vocational kind. Each of the levels proceeds to its own two-year cycle of diversified education, satisfactory completion of which culminates in the title of "bachillerato" . . . from the end of October, 1972 the title "bachillerato" is also to be awarded to graduates of the technical schools.

Socioeconomic Status

The GMA students who were in the OSU ELI came from different socioeconomic levels of Venezuelan society. Various studies have analyzed SES in relation to academic performance. Lavin's (23, p. 128) review of research led him to the conclusion that "SES is a significant variable in the study of performance because it summarizes systematic variations in attitudes, motivations, and value systems that are related to such performance."

In the 1966 Coleman Report (3, p. 15) on U.S. education, Bowles and Levin stated: "The family background characteristics of a set of students determine not only the advantages with which they come to school; they also are associated closely with the amount and quality of resources which are invested in the schools." Conlisk (7, p. 157) analyzed 1960 U.S. Census data on school enrollment and school performance of children aged five to nineteen. Enrollment referred to whether a child was or was not enrolled; school performance referred to whether a child was behind, with, or ahead of his

age group in years of schooling completed. Demographic variables, including education of parents, were used to explain variation in school enrollment and performance. The regression analyses were significant at the .05 level predicting that "an increase in parents' income will result in a significant increase in their children's school enrollment and performance."

Sewell and Shah (36, pp. 21-22) surveyed all high school seniors in Wisconsin in 1957 and obtained data which included student mental ability and the socioeconomic status of their families. Seven years later, a follow-up survey was conducted of 10,321 students, or one-third of the original sample. The authors found a correlation between SES and intelligence on the one hand and planning to enter college, attending college, and graduation from college on the other. Concerning SES, Sewell and Shah stated: "Thus, all of the analysis reported in this paper points to the conclusion that one's socioeconomic origins exert a continuing influence on the process of educational selection beginning with planning to enter college, attending college, and finally, graduation from college." Using the significance level of .05, the authors concluded: "When intelligence is controlled in multivariate tables, socioeconomic status is positively, monotonically, and significantly related to planning on college, college attendance, and college graduation for both sexes" (ibid., p. 22).

Manaster and Havighurst (24, p. 165) completed cross-national research with economic status as a factor in Brazil, Argentina, and the United States. The authors concluded that "although in itself

occupation is the single best indicator of an individual's status, adding education level to the scale refines the measure considerably." Two international scales of occupations were used by Manaster and Havighurst, one for rural occupations and one for urban occupations. Six broad categories were defined for each scale and were given a numerical value from 1 (medical doctor) to 6 (unskilled worker) (see Appendix A). The rural occupation scale began at 1 (large land owner with many employees) and ended at 6 (unskilled agricultural laborer) (see Appendix B). By using a scale from 1 (university graduate) to 6 (some primary school) the following formula, which combined occupational and educational levels, was utilized by Manaster and Havighurst to obtain socioeconomic status. "Since the occupational level is a stronger indicator of socioeconomic status, it is reasonable to weight occupation more heavily in the combined socioeconomic status scale. A usual weighting method is occupational level times 3 plus education level times 2 equals SES" (ibid., pp. 165-166). The resulting scale is from 5 (highest status) to 30 (lowest status).

Venezuelan Grade Point Average

GMA has utilized Venezuelan GPA as an important factor in selecting those students who were to be sent to the United States. In considering GPA as a predictor of later academic success, Mrs. Miriam Dernbo (13, p. 13), Supervisor of Venezuelan Professional Education, stated that ". . . grades, traditionally are not very important to most Venezuelan students or educators. Both in high school and at

the university, passing means having mastered the subject. Not much prestige is attached to high school grades. . . ."

Ms. Petra Lina Gonzales (10) of the Venezuelan Ministry of Education stated in an interview that:

> Many times Venezuelan students are not motivated to obtain high grade point averages or to compete for them. The student with an average of 12 on our scale of 1 to 20 may be assured of the job after graduation over the student with an average of 18 due to many other factors operating within the Venezuelan society.

Mental Ability

In attempting to predict academic success, earlier research has found that mental ability tests can be useful predictors. "The English psychologist Spearman devoted most of his distinguished career to studying the important finding that almost any and every test involving any kind of complex mental activity correlates positively and substantially with any and every other test involving complex mental activity. . . ." (6, p. 194).

Regarding the measurement of mental ability Spearman concluded:

> Furthermore, what thus holds good with respect to the activities of life in its ordinary course must evidently do so similarly with respect to the activities artificially provoked in the psychological laboratory. As a consequence, all the ground that has been, or ever can be, covered by mental tests may forthwith be mapped out in at least general outline (38, p. 354).

Jensen (21, p. 72) spoke of educability and intelligence and answered the question, to what extent does one depend on the other?

> The question may seem rather circular, since intelligence tests were devised originally to predict scholastic performance. . . . The correlation between IQ and measures of achievement is quite high, ranging from 0.30 to 0.90 in various studies (the magnitude depending upon many conditions) with an average correlation of about 0.80 when corrected for attenuation. . . .

Jensen continued by saying that "in other words, something over 60 percent of the true variance in individual differences in scholastic achievement is accounted for by individual differences in intelligence" (Ibid., p. 72).

Mental ability tests in Spanish have been developed with as much attention as possible being placed on utilizing common cross-culture experiences. However, as Anne Anastasi (4, p. 215) stated, "since all behavior is thus affected by the cultural milieu in which the individual is reared and since psychological tests are but samples of behavior, cultural influence will and should be reflected in test performance. It is therefore futile to try to devise a test that is free from cultural influences." Anastasi then pointed out that "the present objective in cross-cultural testing is rather to construct tests that presuppose only experiences that are common to different cultures" (Ibid., p. 215).

Study Habits and Attitudes

GMA students at OSU came from different regions of Venezuela, from different social classes, from distinct types of schools, and from schools of varying quality.

In a study at the University of Portland (Oregon), Donna Corlett (8) found that a positive correlation existed between GPA and student study habits and attitudes (SHA). In a study involving 57 students in three classes of Social Foundations in Education, the Brown-Holtzman Survey of Study Habits and Attitudes test, among others, was administered. A multiple regression analysis was used, and the criterion

was the GPA achieved at the end of one semester. The correlation tables showed that the variable SHA was significant at the .05 level, indicating a significant positive relationship between GPA and study habits and attitudes.

Other research has found either no correlation or only a moderate correlation between SHA and academic success. S. Barrilleaux (2, p. 2), in a study involving 210 freshman students at Montgomery College, concluded that "the relationship between the [Brown and Holtzman] Survey of Study Habits and Attitudes and GPA was very low for our sample and adds very little to the accuracy of predicting a student's grades."

The Psychological Corporation's (34, p. 18) research concerning its own SHA test material found that:

> The attitudes and work habits reflected by the [Brown-Holtzman] Survey of Study Habits and Attitudes (SSHA) are significantly related to academic success though only moderately correlated with mental ability or scholastic aptitude. The scores identify those whose habits and attitudes may prevent them from taking full advantage of their educational opportunities.

Summary

No specific literature dealing with Venezuelan students in the United States was available for the review of the literature in this study, although thousands of Venezuelans from all walks of life are studying in the United States and the volume of future students is projected to increase (18). In this chapter earlier research which investigated one or more of the factors that were also utilized by Gran Mariscal de Ayacucho (GMA) for student selection were reviewed.

The variables researched were age, place and type of previous education, socioeconomic status (SES), and Venezuelan grade point average (GPA). Previous research involving the use of mental ability and study habits and attitudes as academic prediction factors was also reviewed, although these factors were not used by GMA for student selection.

In reviewing the literature dealing with age as a factor in learning, Holmstrom (16), Hultsch (17) and Gordon (12) found that older adults learn at a slower rate than younger adults. The success rates in finishing degree programs in higher education within a four year period was higher for younger than for older adults. Older adults, on the other hand, are more stable in their educational objectives than younger adults.

A review of urban and rural Venezuelan education found that there are considerable discrepancies between the higher quality Caracas schools and the rural schools. IIE's research team (18), Burroughs (5) and R. Gonzalez (11) pointed out the historical weaknesses of rural education when compared with urban education in Venezuela. Students from outside Caracas have not had the same opportunity for a quality education as students educated in the Caracas school system.

Burroughs (5) and Gouverneur's (13) descriptions of the school system in Venezuela distinguished two types of education. The theoretical schools prepared students for higher education while the practical schools prepared students for immediate employment.

SES was established as a potentially important academic prediction factor by Lavin (23), Bowles and Levin (34), Conlisk (7), and

Sewell and Shah (37). In all of their research, a high positive correlation between SES and academic performance was found.

Literature describing Venezuelan academic standards and student grades led to the conclusion that there was very little correlation between Venezuelan GPA and student potential. Venezuelan educators Dembo (13) and Gonzalez (10) stated that not much importance is placed on GPA in Venezuela.

Mental ability when used as an academic predictor was researched for application to this study. Cattell (6), Spearman (38) and Jensen (21) all concluded that mental ability was the most reliable and valid academic predictor. Anastasi (4) explained that no test is free of cultural influence and that the objective in cross-cultural testing is to accentuate experiences common to different cultures.

Earlier research using study habits and attitudes as academic predictors has resulted in various conclusions. The Psychological Corporation (34) and Corlett's (8) studies found a positive correlation between SHA and academic performance. Barrilleaux (2) found very little correlation.

Conclusions

A review of the literature found a paucity of research that applied directly to Venezuelans studying in the United States. A general review found that age, place and type of previous education, SES, mental ability, and study orientation may perhaps be used as valid predictors of academic success for Venezuelan students.

However, the studies reviewed that used age as a predictor treated larger ranges of age than the range in this study. Venezuelan GPA was found probably not to be a valid predictor of academic success.

Considering the lack of information, the need was projected for more research on the backgrounds and educational programs of the thousands of Venezuelans coming to study in the United States. This study was designed in light of those needs.

CHAPTER III

PROCEDURE

Introduction

The objective of this study was to establish whether there was a relationship between degree of progress in learning English at Oklahoma State University and certain individual Venezuelan student characteristics. The objective was met by: (1) identifying the student population; (2) identifying the student characteristics to be measured; (3) developing and/or selecting the instruments to be used; (4) administering the instruments; and (5) analyzing the data.

Selection of the Population

For this research, 77 Venezuelan students were used as subjects. The students were treated as two groups for information gathering purposes according to the date they arrived to study English in the Oklahoma State University English Language Institute (OSU ELI) and as one group for the statistical analyses in this study. The first group consisted of 38 students with zero level English proficiency who arrived between March 17 and March 24, 1975. The second group was composed of 39 students, also with zero level English proficiency, who arrived between February 1 and February 8, 1976.

The OSU ELI functions within the Department of Foreign Languages, and English is taught as a foreign language. Minimum requirements to teach in the Institute were native fluency in English, a master's degree, and a working knowledge of at least one foreign language.

The ELI schedule in 1975 and 1976 included four hours daily of English grammar, structure, and pronunciation classes, one hour daily of language laboratory exercises emphasizing the classroom work, and two hours of daily conversation in small groups. The conversation classes were directed by native speakers of English with teaching experience, usually upperclass undergraduate students or graduate students attending OSU.

The requirement for student entry into the ELI was selection by Gran Mariscal de Ayacucho (GMA) for participation in the Scholarship Program. Other eligible Venezuelan students in the ELI who dropped out of the program before all testing was accomplished were not included in this study. Likewise, no student with a previous knowledge of English was included in the research project due to the inequities in English language test scores at given time intervals.

Selection of Student Characteristics

Criteria used by GMA to select those students who were sent to OSU were (1) Venezuelan high school gradepoint average (GPA), (2) place of residence within Venezuela, (3) socioeconomic status (SES) and (4) age. These four factors were chosen for inclusion in this study as independent variables for comparison with the students' progress rate in learning English.

Student characteristics which determined academic placement in higher education in Oklahoma after finishing the ELI were the type of previous education (theoretical or practical) and the number of years studied. These two factors were also included as independent variables in this study.

In consultation with the coordinating and teaching staff of the OSU ELI, International Institute of Education (IIE) officials, and GMA New York personnel, other student characteristics were chosen as being possibly important in effecting student progress. The factors identified by persons and organizations involved with GMA students were marital status and study motivation and attitudes. Marital status data were available for all of the participants of this study and it was included as an independent variable (all but two of the participants were male). Study motivation and attitudes were also considered as possible valid academic prediction factors. For this reason, orientation to study as well as study habits and attitudes were included in this project as independent variables.

Since the review of past research found that mental ability is the most highly consistent factor in academic prediction, measurable mental ability was also included in this study as the final independent variable.

The GMA Scholarship Program sent students to the OSU ELI to have them learn English in order to be accepted into academic programs. English proficiency achieved after five months of study in the OSU ELI was measured and used as the dependent variable of this study.

Selection and Development of the Instruments

While the information for this study was being gathered, the participants were in the process of learning English. It was therefore necessary to seek instruments in Spanish in order to gather data on some of the independent variables.

Survey of Study Habits and Attitudes

An extensive review of past literature and the subsequent search to find an instrument to measure study habits and attitudes resulted in Brown and Holtzman Survey of Study Habits and Attitudes (SSHA), Spanish version, being selected for this research. The SSHA was first published in 1964 and has been widely used at the high school and college levels. The Spanish translation of the SSHA, Encuesta de Habitos y Actitudes hacia el Estudio, has been used throughout Latin America. (34)

The SSHA yields a seven-score diagnostic profile of four basic scales and three combined scores: Delay Avoidance, Work Methods, Study Habits sub-total; Teacher Approval, Education Acceptance, Study Attitudes sub-total; and total Study Orientation score. The two sub-totals are labeled as Study Habits and Study Attitudes, respectively, and were included with Study Orientation as independent variables in this study. The SSHA has 100 questions and takes approximately 40 minutes to complete, although it is not a timed test.

Otis Lennon Test of Mental Ability, Form J

The review of the literature, a search of test catalogs, and contacts with major U.S. publishers were undertaken to locate an appropriate mental ability test for this study. The Otis Lennon Test of Mental Ability, Form J, Spanish edition, was chosen for use because of its reputation and because it has been translated into Spanish and used in Latin America. The publishers supplied all testing materials and requested the results of the study for their use in compiling validity information on the Spanish version of the test.

The Otis Lennon Test of Mental Ability, Form J (Examen de Habilidad Mental, Forma J, emphasizes the measurement of facility in reasoning and in dealing abstractly with verbal, symbolic, and figural test content and samples a broad range of cognitive abilities. The test was constructed to yield dependable measurement of the "g" or general intelligence ability factor. There are 80 questions in the test, and administration time is approximately one and one-half hours or as long as it takes for 90 percent of the examinees to finish.

For this study, all students who had completed 6 years of formal education took the Beginning Level Mental Ability Test, Form J. Students with 7 through 9 years of formal education took the Intermediate Level Mental Ability Test, Form J. Students with 10 years of education or more took the Advanced Level Mental Ability Test, Form J. The English language norms for performance by grade were used to place each student in the corresponding percentile rank.

Manaster and Havighurst Socioeconomic Scale

After reviewing cross-national research using SES as a factor, it was decided that the Manister and Havighurst (24) SES scale was applicable for studies dealing with Latin Americans. The scale has been used for projects in the United States, Brazil and Argentina. The Manaster and Havighurst SES scale was employed in this study to determine each students' socioeconomic position in Venezuelan society.

The Manaster and Havighurst instrument is composed of an urban occupational scale (Appendix A), a rural occupational scale (Appendix B), and an educational scale (Appendix C). Each scale is composed of six categories with numerical values from 1 (highest in society and/or the most education) to 6 (lowest in society and/or the least education).

The parent or guardian with the most education and the highest level occupation from each student's home was placed on one of the two occupational scales and on the educational scale. The numerical value on the occupational scale was multiplied by three and added to the numerical value of the educational scale multiplied by two to give the SES expressed as a number. The resulting numerical values representing SES ranged from five (highest SES) to 30 (lowest SES). Four points were then subtracted from each value for a final scale of 1 to 26 to facilitate computer use.

For example, a student's parent who was an unskilled agricultural worker with some primary school education would be placed on level six of the occupational scale and level six of the educational scale. The numerical value of the SES would be derived as follows:

(occupational level x 3) + (educational level x 2) = SES

(6 x 3) + (6 x 2) = 30

30 - 4 = 26

(26 is the lowest SES level)

Questionnaire

In order to obtain the necessary information to ascertain the student variables SES, marital status, age, and level and place of education, the author developed a questionnaire in Spanish (see Appendix D).

Comprehensive English Language Test for Speakers of English as a Second Language

The Oklahoma State University English Language Institute testing program in 1975 and 1976 included the use of the Harris and Palmer Comprehensive English Language Test for Speakers of English as a Second Language (CELT) for student evaluation. The CELT has also been one of the tests acceptable to institutions of higher education in Oklahoma in determining whether international students have achieved a level of English proficiency that will meet entrance requirements.

The CELT is divided into three categories to test abilities in the use of the English language. The first section of the CELT tests the ability to comprehend spoken English, the second section tests the ability to use English vocabulary, and the third section tests the ability to manipulate English grammar. The examination contains 200 questions and is a timed test of one hour and fifty minutes.

Administration of the Instruments

This study was restricted to those Venezuelan students who arrived at the OSU ELI with no working knowledge of English. A total of 77 students in 1975 and 1976 could not speak or read English and were evaluated by the ELI teaching staff in individual interviews as having zero level English proficiency.

The testing of students who participated in the 1975 ELI took place over a period of 15 months. Students of the 1976 ELI took all of the tests within five months. All of the tests used in this study were administered according to the printed instructions for each test.

1975 ELI: At the end of three months, the 38 participating students in the first group took the CELT. After two more months, the students took the CELT again. The resulting five month CELT score was the dependent variable in this study. Nine months after arriving in the U.S. the Otis-Lennon Examen de Habilidad Mental, Forma J (Mental Ability Test, Form J) was administered to the 38 students. At the same time, each participant filled out the questionnaire which sought personal demographic data. In June, 1976, after 15 months in the U.S., the students completed the Brown-Holtzman Encuesta de Habitos y Actitudes hacia el Estudio (Survey of Study Habits and Attitudes).

1976 ELI: In the fourth month of the ELI, the 39 participating students in this group took the CELT. At the end of five months the students took the CELT for the second time to determine the dependent variable. During the fifth month, the students took the

Otis-Lennon Examen de Habilidad Mental, Forma J (Mental Ability Test, Form J), filled out the Brown-Holtzman Encuesta de Habitos y Actitudes hacia el Estudio (Study Habits and Attitudes), and the questionnaire which sought demographic data.

March 17, 1975 ELI
N = 38

March 1975	Placement in zero level English course	= 1 week
June 1975	CELT	= 3 mos.
August 1975	CELT	= 5 mos.
December 1975	Examen de Habilidad Mental, Forma J	= 9 mos.
December 1975	Questionnaire	= 9 mos.
June 1976	Encuesta de Habitos y Actitudes Hacia el Estudio	= 15 mos.

February 1, 1976 ELI
N = 39

February 1976	Placement in zero level English course	= 1 week
May 1976	CELT	= 4 mos.
July 1976	CELT	= 5 mos.
June 1976	Examen de Habilidad Mental, Forma J	= 4-5 mos.
June 1976	Questionnaire	= 4-5 mos.
June 1976	Encuesta de Habitos y Actitudes Hacia el Estudio	= 4-5 mos.

Analysis of the Data

Three statistical procedures were used to test the hypotheses. Criterion level for acceptance of the hypotheses was set at .05 and Chi Square analyses were used to ascertain whether a relationship existed between level of English proficiency achieved and student age,

marital status, place of education, and type of education. Pearson product-moment correlation coefficients were used to assess whether relationships existed between the variables mental ability, study orientation, study attitudes, study habits, number of years of education, socioeconomic status, and grade point average to each other and to level of English. The third procedure, a multiple linear regression analysis, was used to establish the dependent variable, level of English proficiency achieved, and the independent variables, mental ability, study orientation, study attitudes, study habits, age, number of years of education, socioeconomic status, and grade point average, for indications of the combination of variables most highly related to learning English.

CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

The purpose of this study was to establish whether there was a relationship between certain Gran Mariscal de Ayacucho student characteristics and student achievement in learning English as a second language at the Oklahoma State University English Language Institute (OSU ELI). To test the hypotheses, three statistical procedures were used. Criterion level for acceptance of the hypotheses was set at .05.

The relationships between level of English proficiency and student age, marital status, place of education, and type of education were ascertained separately through Chi Square analyses. Pearson product-moment correlation coefficients were used to assess the relationships of the variables mental ability, study orientation, study attitudes, study habits, number of years of education, socioeconomic status (SES) and grade point average (GPA) to each other and to the level of English proficiency achieved. The third procedure, a multiple linear regression analysis, was used for the dependent variable, achieved proficiency in English, and the independent variables for indications of the combination of variables most highly related to learning English.

Each participant completed a questionnaire which was written in Spanish indicating age, marital status, place, type and number of

years of education, and SES. The Manister and Havighurst international scale of occupations was used to obtain numerical values for SES. Mental ability was measured by the Otis Lennon Mental Ability Test, Form J, Spanish edition. GPA was calculated from each student's transcript using the last two years' grades at the secondary level in Venezuela for those who had completed work beyond the six-year primary level. Study orientation, study attitudes and study habits were measured by the Brown-Holtzman Survey of Study Habits and Attitudes, Spanish version. The Comprehensive English Language Test of English as a Foreign Language (CELT) was used to measure each participant's knowledge of English.

Table I presents the group results of the questionnaire and the tests administered to the 77 participants.

TABLE I

GROUP DATA

1. Participants' Age in Years

N = 77

Range	Mean	Standard Deviation
17-37	24.83	3.75

2. Marital Status

N = 77

Single	Married
51 (66%)	26 (34%)

3. Type of Education

N = 77

Theoretical	Practical	Grade School Only
17 (22.1%)	36 (46.7%)	24 (31.2%)

4. Where the Students Studied

N = 77

Caracas	Other than Caracas
12 (15.6%)	65 (84.4%)

5. Participants' Number of Years of Education

N = 77

Range	Mean	Standard Deviation
6-15	10.43	2.15

6. Socioeconomic Status as Measured by the Manaster-Havighurst International Scale of Occupations

N = 77

Instrument Range	Group Range	Mean
1 (Highest SES) 26(Lowest SES)	1-26	17.66

7. Mental Ability as Measured by the Otis-Lennon Mental Ability Test, Form J, Spanish Edition

N = 77

Instrument Range	Group Range	Mean
%ile Rank 1-100	4-86	44.49

8. Study Orientation as Measured by the Brown-Holtzman Survey of Study Habits and Attitudes, Spanish Version

N = 77

Instrument Range	Group Range	Mean	Standard Deviation
0-200	41-164	119.47	25.17

9. Study Attitudes as Measured by the Brown-Holtzman Survey of Study Habits and Attitudes, Spanish Version

N = 77

Instrument Range	Group Range	Mean	Standard Deviation
0-100	18-84	59.87	13.80

10. Study Habits as Measured by the Brown-Holtzman Survey of Study Habits and Attitudes, Spanish Version

N = 77

Instrument Range	Group Range	Mean	Standard Deviation
0-100	23-88	59.65	13.09

11. Venezuelan Gradepoint Average for the Last Two Years a Student was in Secondary School (Grades 7-12)

N = 53

Total Range	Group Range	Mean	Standard Deviation
1-20	11.26-18.4	13.74	1.31

12. English Language Proficiency as Measured by the Comprehensive English Language Test of English as a Foreign Language (CELT)

N = 77

Instrument Range	Group Range	Mean	Standard Deviation
0-300	74-214	129.16	31.24

Chi Square Analyses

For the Chi Square analyses used in testing the first four hypotheses, the participants' CELT scores were divided into three groups. Each group of CELT scores contained one third of the total, with the lowest third falling into group one, the middle third into group two, and the upper third into group three. Student ages were divided as follows: group one, 17-20 years with seven students; group two, 21-25 years with 40 students; group three, 26-30 years with 26 students; and group four, 31-37 years with four students.

Hypothesis One

There is no significant relationship between a student's age and his/her performance on the CELT.

TABLE II

STUDENT PERFORMANCE ON THE CELT BY AGE

CELT FREQUENCY CELL CH12 PERCENT ROW PCT COL PCT	17-20	21-25	26-30	31-37	
	1	2	3	4	
1	1	15	9	0	25
	0.7	0.3	0.0	1.3	
CELT LOWER THIRD	1.30	19.48	11.69	0.00	32.47%
	4.00	60.00	36.00	0.00	
	14.29	37.50	34.62	0.00	
2	4	11	10	1	
	1.1	0.5	0.2	0.1	
CELT MIDDLE THIRD	5.19	14.29	12.99	1.30	33.77%
	15.38	42.31	38.46	3.85	
	57.14	27.50	38.46	25.00	
3	2	14	7	3	26
	0.1	0.0	0.4	2.0	
CELT UPPER THIRD	2.60	18.18	9.09	3.90	33.77%
	7.69	53.85	26.92	11.54	
	28.57	35.00	26.92	75.00	
TOTAL	7	40	26	4	77
	9.09	51.95	33.77	5.19	100.00

CHI SQUARE = 6.668 WITH 6 D.F., PROB. OF GREATER VALUE UNDER HO = 0.353

The first null hypothesis could not be rejected since the criterion level of .05 was not attained. No significant relationship was found between student age and level of English proviciency after five months of intensive study in the OSU ELI.

Hypothesis Two

There is no significant relationship between a student's marital status and his/her performance on the CELT.

TABLE III

STUDENT PERFORMANCE ON THE CELT BY MARITAL STATUS

CELT FREQUENCY CELL CH12 PERCENT ROW PCT COL PCT	SINGLE 1	MARRIED 2	TOTAL
1	20	5	25
	0.7	1.4	
CELT LOWER THIRD	25.97	6.49	32.47
	80.00	20.00	
	39.22	19.23	
2	15	11	26
	0.3	0.6	
CELT MIDDLE THIRD	19.48	14.29	33.77
	57.69	42.31	
	29.41	42.31	
3	16	10	26
	0.1	0.2	
CELT UPPER THIRD	20.78	12.99	33.77
	61.54	38.45	
	31.37	38.46	
TOTAL	51	26	77
	66.23	33.77	100.00

CHI SQUARE = 3.223 WITH 2 D.F., PROB. OF GREATER VALUE UNDER HO = 0.200

The second null hypothesis could not be rejected since the criterion level of .05 was not attained. No significant relationship was found between marital status and level of English proficiency after five months of intensive study in the OSU ELI.

Hypothesis Three

There is no significant relationship between where in Venezuela a student studied (i.e., Caracas or another place) and his/her performance on the CELT.

TABLE IV

STUDENT PERFORMANCE ON THE CELT BY WHERE STUDENTS STUDIED IN VENEZUELA (CARACAS OR OTHER)

CELT FREQUENCY CELL CH12 PERCENT ROW PCT COL PCT	OTHER THAN CARACAS 1	CARACAS 2	TOTAL
1	20	5	25
	0.1	0.3	
CELT LOWER THIRD	25.97	6.49	32.47
	80.00	20.00	
	30.77	41.67	
2	22	4	26
	0.0	0.0	
CELT MIDDLE THIRD	28.57	5.19	33.77
	84.62	15.38	
	33.85	33.33	
3	23	3	
	0.1	0.3	
CELT UPPER THIRD	29.87	3.90	33.77
	88.46	11.54	
	35.38	25.00	
TOTAL	65	12	77
	84.42	15.58	100.00

CHI SQUARE = 0.695 WITH 2 D.F., PROB. OF GREATER VALUE UNDER HO = 0.707

The third null hypothesis could not be rejected since the criterion level of .05 was not attained. No significant relationship was found between where a student studied in Venezuela and level of English proficiency after five months of intensive study in the OSU ELI.

Hypothesis Four

There is no significant relationship between the CELT scores of "bachilleres" in science and humanities (theoretical background) and the CELT scores of technical school graduates (practical background).

TABLE V

STUDENT PERFORMANCE ON THE CELT BY TYPE OF EDUCATION IN VENEZUELA (PRACTICAL OR THEORETICAL)

CELT FREQUENCY CELL CH12 PERCENT ROW PCT COL PCT		PRACTICAL EDUCATION 1	THEORETICAL EDUCATION 2	TOTAL
1	11	13	1	14
	.	1.3	2.7	
CELT LOWER THIRD	.	24.53	1.89	26.42
	.	92.86	7.14	
	.	36.11	5.88	
2	10	10	6	16
	.	0.1	0.1	
CELT MIDDLE THIRD	.	18.87	11.32	30.19
	.	62.50	37.50	
	.	27.78	35.29	
3	3	13	10	23
	.	0.4	0.9	
CELT UPPER THIRD	.	24.53	18.87	43.40
	.	56.52	43.48	
	.	36.11	58.82	
TOTAL	.	36	17	53
	.	67.92	32.08	100.00

CHI SQUARE = 5.583 WITH 2 D.F., PROB. OF GREATER VALUE UNDER HO = 0.061

The fourth null hypothesis could not be rejected since the criterion level of .05 was not attained. No significant relationship was found between type of education in Venezuela (theoretical or practical) and level of English proficiency after 5 months of intensive study in the OSU ELI.

Pearson-Product-Moment Correlation Coefficients

The second analysis undertaken was an examination of the correlation between the remaining seven independent variables and the dependent variable, level of English proficiency achieved. As can be seen from Table VI, a significant positive relationship was found between the first three independent variables--i.e., mental ability, number of years of education, and SES--and student scores on the English test. As can also be seen from Table VI, the last four independent variables--i.e., study orientation, study attitudes, study habits, and Venezuelan GPA--had no significant relationship with the level of English proficiency achieved after five months of intensive study in the OSU ELI.

Hypothesis Five

There is no significant relationship between a student's scores on the Otis-Lennon Mental Ability Test, Form J, Spanish edition, and his/her score on the CELT.

The fifth null hypothesis was rejected since the observed significance level was .0001. The correlation coefficient .495 showed a significant positive relationship existed between higher measured mental ability and level of English proficiency achieved after five months of intensive study in the OSU ELI (see Table VI).

Hypothesis Six

There is no significant relationship between the number of years a student has studied in Venezuela and his/her performance on the CELT.

TABLE VI

PEARSON PRODUCT-MOMENT CORRELATION MATRIX: COEFFICIENT OF CORRELATION AND OBSERVED SIGNIFICANCE LEVEL BETWEEN AND AMONG ALL RESEARCH VARIABLES

CORRELATION COEFFICIENTS / PROB > |R| UNDER HO:RHO=0 / N =77

		MA	SO	SA	SH	YE	SES	GPA	CELT
Mental Ability	MA								
Study Orientation	SO	-0.067 0.561	____						
Study Attitudes	SA	0.004 0.975	0.934 0.0001	____					
Study Habits	SH	-0.127 0.270	0.917 0.0001	0.722 0.0001	____				
No. of Years of Education	YE	-0.085 0.460	0.106 0.358	0.074 0.521	0.101 0.383	____			
Socioeconomic Status*	SES	-0.190 0.100	0.006 0.956	-0.013 0.914	0.040 0.728	-0.344 0.002	____		
Grade Point Average	GPA	-0.113 0.327	0.186 0.105	0.221 0.053	0.095 0.410	0.029 0.805	0.113 0.328	____	
Comprehensive English Language Test	CELT	0.495 0.0001	-0.026 0.824	-0.0001 0.999	-0.044 0.707	0.293 0.010	-0.231 0.043	-0.025 0.830	____

*Highest SES = 1; Lowest SES = 26

The sixth null hypothesis was rejected since the observed significance level was .010. The correlation coefficient .293 showed a significant positive relationship existed between more years of previous academic study and level of English proficiency achieved after five months of intensive study in the OSU ELI (see Table VI).

Hypothesis Seven

There is no significant relationship between a student's socioeconomic status and his/her performance on the CELT.

The seventh null hypothesis was rejected since the observed significance level was .0430. The correlation coefficient .231 showed a positive relationship existed between higher socioeconomic status and level of English proficiency achieved after five months of intensive study in the OSU ELI (see Table VI).

Hypothesis Eight

There is no significant relationship between a student's study orientation, as measured by the Brown-Holtzman Survey of Study Habits and Attitudes , Spanish version, and his/her score on the CELT. The eighth null hypothesis was significant at the .824 level and could not be rejected at the .05 level. No significant relationship was found between study orientation and level of English proficiency achieved after five months of intensive study in the OSU ELI (see Table VI).

Hypothesis Nine

There is no significant relationship between a student's study attitudes, as measured by the Brown-Holtzman Survey of Study Habits and Attitudes, Spanish version, and his/her score on the CELT. The ninth null hypothesis was significant at the .999 level and could not be rejected at the .05 level. No significant relationship was found between study attitudes and level of English proficiency achieved after five months of intensive study in the OSU ELI (see Table VI).

Hypothesis Ten

There is no significant relationship between study habits, as measured by the Brown-Holtzman Survey of Study Habits and Attitudes, Spanish version, and his/her score on the CELT. The tenth null hypothesis was significant at the .707 level and could not be rejected at the .05 level. No significant relationship was found between study habits and level of English proficiency achieved after five months of intensive study in the OSU ELI (see Table VI).

Hypothesis Eleven

There is no significant relationship between a student's Venezuelan grade point average (GPA) and his/her score on the CELT.

The eleventh null hypothesis was significant at the .830 level and could not be rejected at the .05 level. No significant relationship was found between GPA and level of English proficiency achieved after five months of intensive study in the OSU ELI (see Table VI).

Other Findings from the Correlation Matrix

No significant relationship was found between mental ability and any of the other variables. Study orientation had a significantly positive correlation with study habits and study attitudes at the .0001 level. Number of years of previous education had a significant correlation with socioeconomic status at the .002 level. (Number of years of education increases with higher economic status.) Venezuelan grade point average correlated almost significantly with study attitudes at the .053 level (see Table VI).

Multiple Linear Regression Analysis

Utilizing the eight variables--i.e., age, mental ability, number of years of education, SES, study orientation, study attitudes, study habits and GPA--the third analytical step, a multiple linear regression analysis with CELT as the dependent variables, was run (see Table VII).

Hypothesis Twelve

There is no linear relationship between the independent variables, age, mental ability, number of years of education, SES, study orientation, study attitudes, study habits, and GPA and student scores on the CELT.

The F-test value of 20.68 was significant at the .05 level, and the hypothesis of "no linear relationship" was rejected. Mental ability and number of years of education were deemed significant at the .10 level of significance. Taken together, the two factors of

mental ability and number of years of education explained 35.9% of the variance. By adding the other six factors, only 1.4% was gained, which explained 37.3% of the variance.

TABLE VII

MULTIPLE LINEAR REGRESSION ANALYSIS COMBINING THE VARIABLES "MENTAL ABILITY" AND "NUMBER OF YEARS OF EDUCATION"

R SQUARE = 0.359

	DF	SUM OF SQUARES	MEAN SQUARE	F	PROB F
REGRESSION	2	26588.63	13294.31	20.68	0.0001
ERROR	74	47573.50	624.89		
TOTAL	76	74162.13			

	B VALUE	STD ERROR	F	PROB F
INTERCEPT	43.11			
MENTAL ABILITY	0.78	0.14	31.48	0.0001
NO. OF YEARS OF EDUCATION	4.91	1.36	13.04	0.0006

ONLY VARIABLES (FACTORS) DEEMED SIGNIFICANT AT THE .10 LEVEL WERE INCLUDED IN THE MODEL; ALL OTHER VARIABLES WERE ELIMINATED.

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

Earlier chapters contained the rationale for the study, a review of related literature, the method of analysis, and the findings. This chapter provides a summary of the study, summarizes the findings, presents the conclusions, and makes recommendations for future research.

Summary

The purpose of this study was to establish whether there was a relationship between certain Gran Mariscal de Ayacucho student characteristics and student achievement in learning English as a second language at the Oklahoma State University English Language Institute. The participants in the study were 77 Venezuelan students, 30 of whom arrive at Oklahoma State University in March of 1975 and 39 of whom arrived in February of 1976.

The students were between the ages of 17 and 37, came from various parts of Venezuela, and represented many socioeconomic levels of Venezuelan society; 66% were single and 38% married, 31% had attended only grade school, 47% had "practical" secondary school

backgrounds, and 22% had "theoretical" secondary school backgrounds. Grade point averages for the 69% who had attended secondary school ranged from 11.26 to 18.40 on the Venezuelan scale of 1 to 20.

Chi Square analyses were used to ascertain whether there were significant relationships between level of English proficiency achieved after five months of intensive study in the English Language Institute and student age, marital status, place of education and type of education. Pearson product-moment correlation coefficients were used to assess the relationships of the variables mental ability, study orientation, study attitudes, study habits, number of years of education, socioeconomic status and grade point average to each other and to level of English after five months of study. A multiple linear regression analysis was used for the dependent variable, English proficiency achieved, and the independent variables for indications of the combination of variables most highly related to learning English. Criterion level for acceptance of the hypotheses was set at .05.

Summary of the Findings

There were 11 hypotheses tested to determine the relationship between level of English proficiency achieved after five months of intensive English language study in the Oklahoma State University English Language Institute and the 11 student characteristics selected for this study. One hypothesis was tested for indications of the combination of variables most highly related to learning English. For a list of hypotheses stated in full see pp. 36-45.

Results of Hypothesis One

There was no significant difference in performance on the Comprehensive English Language Test (CELT) by students between the ages of 17 and 37 years old after five months of intensive English language study.

Results of Hypothesis Two

There was no significant difference between the performance of married and single students on the CELT after five months of intensive English language study.

Results of Hypothesis Three

There was no significant difference between the performance of students from the provinces and students from Caracas on the CELT after five months of intensive English language study.

Results of Hypothesis Four

There was no significant difference between the performance of students from technical and agricultural high schools (tecnicos, peritos) and students from college preparatory high schools (bachilleres) on the CELT after five months of intensive English language study.

Results of Hypothesis Five

Higher measured mental ability correlated significantly with higher student performance on the CELT after five months of intensive English language study.

Results of Hypothesis Six

More years of education correlated significantly with higher student performance on the CELT after five months of intensive English language study.

Results of Hypothesis Seven

Higher socioeconomic status levels correlated significantly with higher student performance on the CELT after five months of intensive English language study.

Results of Hypothesis Eight

More positive student orientation to studies did not significantly correlate with student performance on the CELT after five months of intensive English language study.

Results of Hypothesis Nine

More positive student study attitudes did not significantly correlate with student performance on the CELT after five months of intensive English language study.

Results of Hypothesis Ten

More positive student study habits did not significantly correlate with student performance on the CELT after five months of intensive English language study.

Results of Hypothesis Eleven

There was no significant correlation between Venezuelan grade point averages and student performance on the CELT after five months of intensive English language study.

Results of Hypothesis Twelve

Mental ability was the most significant factor in its relationship to student performance on the CELT after five months of intensive English language study. When "number of years of education" was combined with "mental ability," both factors were significant and explained 35.9% of the variance. When the factors age, socio-economic status, study orientation, study attitudes, study habits, and grade point average were added to the equation, only an added 1.4% of the variance was explained, and these variables were considered insignificant as predictors of success in learning English.

Conclusions

It was found in this study that the Gran Mariscal de Ayacucho student selection factors, age and grade point average, had little or no value in predicting achievement in learning English. Although earlier research indicated that age was a factor in learning (17) (12) (16), there was no evidence to support such a conclusion in this research, perhaps due to the narrow age range. In agreement with statements on the Venezuelan grading system by Venezuelan educators (13) (10), there was no correlation between grade point average and achievement in English. Therefore, factors other than age and

grade point average should be considered as predictors of achievement in English. It becomes doubtful also whether grade point average should be given its current emphasis in the GMA student selection process.

Contrary to the conclusions of earlier researchers concerning quality of education, the student characteristics of place of previous education (10) (15) and type of previous education (13) (5), did not significantly correlate with achievement in English. Students from different parts of Venezuela and with different educational backgrouns (peritos, tecnicos, bachilleres) did equally well in learning English. As a result, in its first phase, English language study in preparation for academic enrollment, the GMA Scholarship Program met its objectives in "the training and specialization of Venezuela's human resources" (29) on an equal time and cost basis for students from different parts of Venezuela and with different types of education.

In a search for possible predictors of student achievement in English, the factors mental ability, number of years of previous education, marital status, and study habits and attitudes were compared with test scores in English. In accord with the results of past research (6) (38) (21), mental ability was the most important single and significant factor in predicting student achievement. Number of years of previous education was also a significant predictor, although statistically much less important than mental ability in the percent of the variance it explained. On the other hand, married and single students did equally well, while study habits and attitudes were not significant predictors.

The third significant predictor of achievement in English was socioeconomic status (SES). All literature reviewed for this study indicated that higher SES significantly correlated with higher academic achievement (23) (34) (7) (37). Since SES was partially defined as parents' educational level (24) in this research, it was not surprising that the participants' number of years of previous education correlated with SES. At the same time, when all the variables were analyzed in the multiple regression analysis for the best combination of predicting variables, mental ability and number of years of previous education were the only significant variables. In the same analysis the other variables, including SES, were insignificant in predicting achievement in English. Interestingly enough, there was no significant correlation between the most important predictor--mental ability--and SES, number of years of previous education, or any of the other independent variables.

Students with a range of 6 to 15 years of formal education were all expected to learn English. Since students with as few as six years of education, who had been out of school for five years or more, were competing with experienced students in learning another language in the classroom, number of years of previous education was the next most important predictor of achievement in learning English after mental ability. At the same time level of education was an important factor in the definition of SES. When number of years of previous education was separated from SES, then SES became insignificant as a predictor. However, since mental ability was the most important predictor and was not related to the other independent

variables, and since SES and number of years of previous education change by the very fact that a student receives a scholarship, GMA can continue to fulfill its objectives in the English language phase of its program by sending students from all levels of Venezuelan society.

Recommendations for Further Study

Since this study dealt with a specific group of students at one university, it is recommended that other groups be tested. At the same time, it appears that student characteristics other than those tested in this study play an important role in success in learning English. Contrary to the conclusions of other investigators, mental ability was not significantly correlated with socioeconomic status in this study. More research is needed on those Venezuelan students who choose to apply for scholarships to study in the United States to see if they accurately represent their socioeconomic classes as a whole. There may be certain human factors such as personal motivation or leadership qualities that transcend other characteristics such as socioeconomic class and poor educational background in student achievement. More specific tests such as language aptitude tests might be helpful in the search for valid predictors. A study is also recommended that investigates people who did well in learning English to see if a set of common traits which distinguish them from the others can be distilled. When feasible, a comparison of English scores between male and female participants should also be undertaken. Such an approach was not used in the research because of the extremely small number of women participants, i.e., 2 of 77.

Statements from the students themselves would surely encourage a study of academic progress after sufficient English has been learned to enter higher education. The frequent question-complaint, "What am I doing studying English month after month? I want to be an engineer, and that's mathematics," may be valid when comparing student characteristics with English learned, as opposed to later academic success.

The next specific research proposal recommended as a result of this study would be to establish the correlation of Venezuelan student characteristics, including level of English attained, with success in academic studies.

SELECTED BIBLIOGRAPHY

1. Bailey, N., Madden, C. and S. D. Drashen. "Is there a 'Natural Sequence' in Adult Second Language Learning?" Language Learning, Vol. 24 (December, 1975), pp. 235-243.

2. Barrilleaux, Stephen R. Freshman Study Habits and Attitudes. Rockville, Maryland: Montgomery College, 1972.

3. Bowles, S. and H. Levin. "The Determinants of Scholastic Achievement-an Appraisal of some Recent Evidence." Journal of Human Resources, Vol. 3 (Winter, 1968), pp. 3-24.

4. Bracht, G. H., K. D. Hopkins, and J. Stanley. Perspectives in Educational and Psychological Measurement. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1972.

5. Burroughs, G. E. R. Education in Venezuela. Hamden, Connecticut: Archon Books, 1974.

6. Cattell, R. B. and H. J. Butcher. The Prediction of Achievement and Creativity. New York: The Bobbs-Merrill Company, Inc., 1968.

7. Conlisk, J. "Determinants of School Enrollment and School Performance." Journal of Human Resources, Vol. 4 (Spring, 1969), pp. 140-157.

8. Corlett, Donna J. A Correlational Analysis of Study Skills and Attitudes, Library Skills, and Reading Skills with the Academic Success of Education Students at the University of Portland. Portland, Oregon: Portland University, 1969.

9. Fundacion Gran Mariscal de Ayacucho. El Ayacucho al Dia. New York: Vol. 1, Number 2, 1976.

10. Gonzalez, Petra Lina. Personal Interview. Stillwater, Oklahoma, June 10, 1976.

11. Gonzalez-Baquero, R. "A Historical Analysis of Venezuelan Education with Particular Reference to Rural Education." Microfilm copy. (Unpublished Ph.D. dissertation, Library, University of Michigan, 1960.)

12. Gordon, Susan K. "Adult Age Differences in Storage Retrieval Processes in the Retention of Related Sentences." (Paper presented to the 82nd Annual Convention of the American Psychological Association, New Orleans, Louisiana, August, 1974.)

13. Gouverneur, Isabel M. A Guide to the Evaluation of Venezuelan Academic Credentials. Caracas, Venezuela: North American Association of Venezuela, 1967.

14. Gouverneur, Isabel M. Revised Excerpt From a Guide to the Evaluation of Venezuelan Academic Credentials. New York: Institute of International Education, 1975.

15. Hassan, Mostafa F. Economic Growth and Employees' Problems in Venezuela: An Analysis of an Oil Based Economy. New York: Praeger, 1975.

16. Holmstrom, Engin I. "Older Freshmen: Do They Differ From "Typical" Undergraduates?" Washington, D.C.: American Council on Education, 1973.

17. Hultsch, David F. "Adult Age Difference in Retrieval: Trace-Dependent and Cue-Dependent Forgetting." Developmental Psychology, Vol. 11 (March, 1975), pp. 197-201.

18. Institute of International Education. General Information for English Language Center Directors Regarding the Programa Gran Mariscal de Ayacucho. New York, 1974.

19. Institute of International Education. Briefly. Issue No. 11 (January, 1976).

20. Isaac, Stephen. Handbook in Research and Evaluation. San Diego, California: Robert R. Knapp, 1971.

21. Jensen, Arthur R. Educability and Group Differences. New York: Harper and Row Publishers, 1973.

22. Kogan, Nathan. "Categorizing and Conceptualizing Styles in Younger and Older Adults." Human Development, Vol. 17 (1974), pp. 218-230.

23. Lavin, David E. The Prediction of Academic Performance. New York: Russell Sage Foundation, 1965.

24. Manaster, G. J. and R. J. Havighurst. Cross-National Research: Social Psychological Methods and Problems. New York: Houghton Mifflin Company, 1964.

25. Mancilla, Ramon. "New Exchange Opportunities." (Paper presented to the American Council on Education, Fifty-Eighth Annual Meeting, Washington, D.C., October, 1975.)

26. Mayeske, George W. and Others. Correlation and Factorial Analysis of Items From the Ninth Grade Student Questionnaire of the Educational Opportunities Center. Washington, D.C.: National Center for Educational Statistics, 1968.

27. National Foundation for Educational Research in English and Wales. The Prediction of Academic Success. Sussex, England: King, Thorne and Stace Ltd., 1973.

28. Nie, Norman H. and Others. Statistical Package for the Social Sciences. New York: McGraw-Hill, 1970.

29. Oficina Central de Coordinacion y Planificacion de la Presidencia de la Republica - CORDIPLAN. Programa de Becas Gran Mariscal de Ayacucho. Caracas, Venezuela, 1975.

30. Ordonez, Rosana. "Ruth Lerner de Almea Preside la Fundacion Gran Mariscal de Ayacucho." El Nacional, Caracas, Venezuela, December 19, 1975.

31. Pan American Union. America en Cifras. Washington, D.C.: Organization of American States, 1963 - present.

32. Pare, Ronald R. and J. W. Butzow. "The Reliability and Predictive Validity of a Test of Independence of Work Habits." Educational and Psychological Measurement, Vol. 33 (Winter, 1973), pp. 963-965.

33. Prociuk, Terry J. and L. J. Breen. "Locus of Control, Study Habits and Attitudes, and College Academic Performance." The Journal of Psychology, Vol. 88 (September, 1974), pp. 91-95.

34. Psychological Corporation, Test Catalog. New York, 1974.

35. Republica de Venezuela, Ministerio de Educacion, Direccion de Planeamiento. Instrumentacion del ciclo diversificado en terminos operativos. Caracas, Venezuela, 1972.

36. Sewell, W. and V. Shah. "Socioeconomic Status, Intelligence, and the Attainment of Higher Education." Sociology of Education, Vol. 40 (Winter, 1967), pp. 1-23.

37. Sharon, A. T. "English Proficiency, Verbal Aptitude, and Foreign Student Success in American Graduate Schools." Educational and Psychological Measurement, Vol. 32 (Spring, 1972), pp. 425-431.

38. Spearman, C. The Nature of "Intelligence" and the Principles of Cognition. New York: Arno Press, 1973.

39. Taubman, Paul and T. Wales. Mental Ability and Higher Educational Attainment in the 20th Century. Berkeley California: Carnegie Commission on Higher Education, 1972.

40. Tucker, L. R. Formal Methods for a Central Prediction System. Psychometric Monograph No. 10. Richmond, Virginia: Wm. Byrd Press, 1963.

41. Weil, Thomas E. and Others. Area Handbook for Venezuela. Washington, D.C.: U.S. Government Printing Office, 1971.

APPENDIXES

APPENDIX A

MANASTER AND HAVIGHURST INTERNATIONAL SCALE OF URBAN OCCUPATIONS

1. Medical doctor, lawyer, clergyman, university professor, engineer, owner of a large business or factory, manager of a large business or factory, high military official, high government official.

2. Manager or owner of a business or factory of medium size, accountant, secondary school teacher, primary school teacher with university level of education, commissioned officer in military service from lieutenant to major, journalist, civil servant of executive status, stock broker, insurance salesman.

3. Owner of small business or shop with employees, civil servant of middle level, primary school teacher with secondary level education, traveling salesman, office or bank clerk, trained nurse, laboratory technician, non-commissioned officer in military service from sergeant to lieutenant.

4. Owner of a small fruit or vegetable stand without employees, clerk in a shop, foreman, mechanic, policeman, electrician, other skilled workers, restaurant cook, conductor or driver of a train.

5. Semi-skilled worker, factory worker, truck driver, waiter, barber, soldier, sailor.

6. Unskilled worker, construction worker, street sweeper, stevedore.

APPENDIX B

MANASTER AND HAVIGHURST INTERNATIONAL SCALE OF RURAL OCCUPATIONS

1. Landowner with large land area and large numbers of employees for his particular area or state. Does not do manual work on his land. May have a second house in the city.

2. Intermediate, but still rather large farmer of the "gentleman-farmer" type.

3. Small but independent landowner. May do all of his own farm work with machinery or may have a small number of employees. The administrator of a large hacienda or plantation also falls in this category.

4. Small landowner who does his own work. A foreman on a hacienda or plantation also may fall in this category.

5. One who lives on the land of the owner but has his own house, a small land or animal allotment, and shares crops with the owner or gives the owner a certain number of days' work a year: a mediero or parcelario.

6. Unskilled agricultural laborer who works for wages and probably does not have a guaranteed income. May live in a village and go out to work by the day. Often lives in a small house provided by the owner on his land.

APPENDIX C

VENEZUELAN SCALE OF EDUCATION

1. Some university and graduate (13 years or more).
2. Secondary school graduate (11 to 12 years).
3. Junior secondary school graduate (9 to 10 years).
4. Some junior secondary school (7 to 8 years).
5. Primary school graduate (6 years).
6. Some primary (1 to 5 years).

APPENDIX D

STUDENT QUESTIONNAIRE

1. Nombre_____
2. Edad_____
3. Escolaridad de usted (número de años que usted estudió)_____
4. ¿Donde estudió usted?_____
5. Escolaridad de sus padres (número de años que ellos estudiaron):

   Padre_____ Madre_____
6. Profesión o trabajo de sus padres:

   Padre_____ Madre_____
7. Sueldo mensual de sus padres en Bolívares:

   Padre_____ Madre_____
8. ¿Cuántos hermanos tiene usted?_____
9. ¿Qué era su sueldo mensual?_____
10. Estado civil de usted: Soltero(a)_____casado(a)_____

Translation

1. Name
2. Age
3. Number of years studied
4. Where you studied
5. Number of years your parents studied
6. Parents' profession
7. Parents' monthly income
8. Number of your family
9. Your monthly income
10. Your marital status

APPENDIX E

STUDENT DATA

In Appendix E, the data were obtained from the following sources:

1. Mental Ability (MA): Otis-Lennon Mental Ability Test, Form J, Spanish edition. Test Range = 0 to 100.

2-4. Study Orientation, Study Attitudes, and Study Habits (SO): Brown-Holtzman Survey of Study Habits and Attitudes, Spanish version.
Test Range
Study Orientation = 0 to 200
Study Habits = 0 to 100
Study Attitudes = 0 to 100

5. Age (A): Questionnaire
Range = 17 to 37 years

6. Number of Years of Education (YE): Questionnaire
Range = 6 to 15 years

7. Marital Status (MS): Questionnaire
Single = S
Married = M

8. Place Where Studied (WS): Questionnaire
Caracas or Other

9. Type of Education (TE): Questionnaire
Practical = P
Theoretical = T

10. Socioeconomic Status (SES): Manaster and Havighurst Socioeconomic Scale.
Range = 1 (highest SES) to 26 (lowest SES)

11. Venezuelan Grade Point Average (GPA): Average of last two years' high school grades (grade 7 through 12)
Range = 1 to 20

12. Comprehensive English Language Test for Speakers of a Foreign Language (CELT)
Range = 1 to 300

STUDENT DATA

Student	1.MA	2.SO	3.SA	4.SH	5.A	6.YE	7.MS	8.WS	9.TE	10.SES	11.GPA	12.CELT
1	86	141	77	64	27	12	S	Other	P	18	13.44	192
2	86	075	47	28	26	10	M	Other	P	20	12.08	162
3	83	154	78	76	19	07	S	Other		21		125
4	82	123	61	62	33	10	M	Other	P	21	13.00	198
5	76	144	74	70	24	12	S	Other	T	08	14.45	147
6	76	114	55	59	30	12	S	Other	P	01	12.44	133
7	74	077	36	41	29	12	M	Other	P	16	12.44	153
8	74	122	67	55	21	07	S	Caracas		16		095
9	72	119	60	59	23	06	S	Caracas		26		096
10	71	088	41	47	26	10	S	Other	P	12	12.50	145
11	69	128	61	67	23	10	S	Other	P	21	14.27	166
12	68	146	78	68	21	12	S	Other	P	18	14.75	176
13	65	131	65	66	29	11	S	Other	P	13	14.00	116
14	64	122	62	60	25	12	S	Other	T	18	11.87	159
15	63	129	54	75	27	11	M	Other	P	21	14.00	157
16	63	135	65	70	25	07	S	Caracas		11		101
17	62	041	18	23	20	12	S	Other	T	04	12.56	183
18	62	067	31	36	24	12	N	Caracas	P	23	13.55	167
19	61	117	51	66	23	09	S	Other		21	13.14	214

STUDENT DATA (Continued)

Student	1.MA	2.SO	3.SA	4.SH	5.A	6.YE	7.MS	8.WS	9.TE	10.SES	11.GPA	12.CELT
20	60	128	70	58	20	08	S	Other		23		117
21	59	126	70	56	28	10	M	Other	P	26	13.23	081
22	58	136	67	69	17	12	S	Caracas	T	01	12.16	161
23	58	134	70	64	22	06	S	Other		23		119
24	58	143	72	71	19	09	S	Other		18	13.53	114
25	58	135	71	64	30	14	M	Other	T	17	14.19	100
26	56	113	53	60	24	11	M	Caracas	P	16	13.46	130
27	56	104	52	52	25	12	S	Caracas	P	04	12.11	091
28	54	075	35	40	26	12	M	Other		23	11.64	118
29	54	131	73	58	24	06	M	Other		18		130
30	53	126	64	62	25	07	S	Other		14		110
31	52	152	77	75	27	12	M	Caracas	P	18	18.40	125
32	51	110	64	46	21	11	S	Other	T	26	15.11	122
33	49	100	53	47	21	09	S	Other		21		151
34	49	132	61	71	28	11	S	Caracas	T	06	15.17	146
35	48	094	42	52	28	13	M	Caracas	P	12	11.93	144
36	48	155	80	75	22	08	S	Other		21		130
37	47	096	58	38	22	09	S	Other		18		128
38	46	085	49	36	23	13	M	Other	T	01	16.22	148

STUDENT DATA (Continued)

Student	1.MA	2.SO	3.SA	4.SH	5.A	6.YE	7.MS	8.WS	9.TE	10.SES	11.GPA	12.CELT
39	45	136	71	65	22	11	S	Other	T	18	12.33	149
40	44	129	60	69	24	12	M	Other	T	23	18.40	143
41	44	110	49	61	26	13	M	Other	P	21	13.25	137
42	44	129	66	63	21	12	S	Other	P	23	13.40	178
43	42	114	63	51	36	12	M	Caracas	T	19	12.87	135
44	39	139	74	69	31	12	M	Other	P	14	11.55	175
45	37	129	69	60	24	12	S	Other	P	12	15.13	167
46	37	146	71	75	26	11	S	Other	T	04	12.80	143
47	36	120	60	60	24	11	M	Other	T	09	13.62	155
48	36	068	32	36	23	07	S	Other		18		145
49	36	068	26	42	22	06	S	Other		26		074
50	35	122	66	56	28	12	S	Other	T	21	13.67	172
51	34	075	38	37	22	09	S	Other		16		125
52	32	151	79	72	25	11	M	Caracas	P	18	16.09	150
53	32	140	64	76	18	11	S	Other	T	24	14.18	124
54	32	160	84	76	29	09	M	Other		21	14.86	120
55	30	146	71	75	37	15	M	Other	T	11	13.94	148
56	28	144	72	72	28	08	M	Other		23		138
57	27	131	60	71	23	12	S	Other	T	23	12.50	122

STUDENT DATA (Continued)

Student	1.MA	2.SO	3.SA	4.SH	5.A	6.YE	7.MS	8.WS	9.TE	10.SES	11.GPA	12.CELT
58	26	078	37	51	21	06	S	Other		26		093
59	25	106	56	50	26	10	S	Other	P	23	15.64	112
60	25	112	52	60	22	07	S	Other		26		081
61	24	086	48	38	20	10	S	Other	P	14	13.29	122
62	24	142	71	71	30	12	M	Other	P	21	14.43	116
63	21	136	64	72	25	13	S	Other	P	20	13.20	112
64	21	11	56	56	25	12	M	Other	P	21	12.50	091
65	20	122	68	54	24	12	S	Other	P	11	16.59	122
66	20	124	55	69	30	11	S	Other	P	21	13.82	104
67	20	151	72	79	28	12	S	Caracas	P	14	12.88	092
68	20	128	68	60	26	12	S	Other	P	26	13.85	080
69	19	128	58	70	23	08	S	Other		26		115
70	19	096	47	49	24	10	S	Other	P	18	11.76	080
71	16	123	60	63	22	12	S	Other	P	26	13.60	120
72	15	164	76	88	23	12	S	Other	P	11	11.26	096
73	12	111	51	60	23	08	S	Other		21	13.20	097
74	12	138	70	58	27	12	S	Other	P	15	16.64	093
75	11	114	60	54	26	12	M	Other	P	21	14.19	103
76	11	110	39	71	24	11	S	Other	P	23	13.26	091
77	04	113	65	48	27	08	M	Other	17	17		075

APPENDIX F

BROWN-HOLTZMAN SURVEY OF STUDY

HABITS AND ATTITUDES

The Brown Holtzman test was translated into Spanish and refined for three years in Argentina, Bolivia, Chile, Costa Rica, Mexico, Panama and Peru. The make-up of the current version was finalized using 100 Spanish speaking students from 14 Latin American countries in Our Lady of the Lake College, San Antonio, Texas and the University of Texas, Austin, Texas. The test norms were established using the results obtained by 556 students in Mexico.

Inasmuch as the Brown-Holtzman test did not aid in isolating possible valid predictors in this study, its use was considered as limited.

APPENDIX G

OTIS-LENNON MENTAL ABILITY TEST,

SPANISH EDITION

The Otis-Lennon test has been administered to 8,473 Spanish speaking students in 17 sights throughout the United States. Among the same group of students, 2,422 took the English version of the Otis-Lennon test. As larger numbers take the test, correlations and norms will be developed. The goal of the developers of the test is to administer it to 25,000 students. The test has also been administered to approximately 700 students in Columbia and Venezuela in collaboration with the developers of the test.

The Otis-Lennon test was a useful instrument in this study and aided in isolating a valid predictor of student success.

VITA

George Richards Fletcher, Jr.

Candidate for the Degree of

Doctor of Education

Thesis: AN EVALUATION OF SELECTION CRITERIA FOR THE GRAN MARISCAL DE AYACUCHO SCHOLARSHIP PROGRAM

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