

A DESCRIPTIVE ANALYSIS OF PERSONALITY AND  
ACADEMIC CHARACTERISTICS OF FRESHMAN  
STUDENTS AT LANGSTON UNIVERSITY

By

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## CHAPTER I

### PRESENTATION OF THE PROBLEM

#### Introduction

No characteristic of American higher education has undergone more rapid and basic changes than the curriculum. These changes have raised serious questions regarding the nature and organization of the curriculum. Research is needed in all areas of the curriculum to furnish guidelines for future organization and development. Not enough is known about what motivates college students to perform in the academic areas.

Media and technology now have important roles in the instructional process. In the area of the "newer media" the investments are great, and the results can be either disastrous or invaluable. Although social critics differ in their estimates of the possible effect of automation, their theories clearly imply that no system of training for the young can omit consideration of the effects of an increasingly technocratized society (54).

To meet the varied needs of students in today's complex society, educators must not only have a broad picture of the current patterns of college attendance but also information about students' backgrounds and characteristics and the motivational factors behind their college attendance. Because of the apparent contradiction between greatly increased college enrollment and the simultaneous great loss of the

talent of many able young people who enter college and then withdraw, more knowledge is needed concerning the life patterns of youth. Such information would give educators a basis on which to reorganize educational enterprises and make available to young adults reliable facts with which to project what lies ahead (54).

#### Locale of the Problem

Langston University, the only predominately black institution in the state of Oklahoma, is a four-year liberal arts college. It was established on March 12, 1897, by the Territorial Legislature as the Colored Agricultural and Normal University of the Oklahoma Territory. The purposes of the institution were to instruct both male and female black persons in the agricultural, mechanical, and industrial arts; provide training in the art of teaching various branches which pertain to a common school education and in such higher education as may be deemed advisable; and to teach the fundamental laws of the United States as to the rights and duties of citizens (27).

Though the institution was chartered as the Colored Agricultural and Normal University, it has always been popularly known as Langston University. The name of the institution, as well as the name of the village where it is located, was taken from John Mercer Langston, reconstruction congressman from Virginia. In 1941 the Oklahoma Legislature officially changed the name of the institution to Langston University (27). Since May of 1954, Langston University, along with all other state-supported colleges and universities, is open to qualified students of all races; however, Langston University continues to enroll a preponderance of black students.

To strengthen the academic program at Langston University, the Learning Resources Center was established as an adjunct to regular classroom instruction. The computerized dial access retrieval method of transmission was used.<sup>1</sup>

Basic information from eleven general education courses was placed on audio tape for the use of students. There were workbooks to accompany the tapes. A minimum of sixteen tapes and a workbook were prepared for each of the eleven general education courses. Each sequence of tapes and the accompanying workbook were referred to as a "program."

The dial access equipment and the individual study carrels were installed during the fall semester of 1968, and the Learning Resources Center was opened for student use at the beginning of the 1969 spring semester. The tapes were played at the election of the students. Since the tapes were not scheduled to be played at a certain time, the students could choose their own times to study in the Center. The Learning Center operated fifty-nine hours a week during the 1969 spring semester.

The tapes on the dial access system were changed twice each week unless faculty members or students submitted different requests. Careful records were kept of students who used the Learning Resources Center.

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<sup>1</sup>The computerized dial access retrieval method is an automatic approach that permits the student to dial a three digit number from a booth and instantaneously receive any recording that is placed on a master tape deck.

### Statement of the Problem

Consideration was given to a study investigating the relationship of the use of the Learning Resources Center to the academic performance of students. After several attempts were made to design a study, a different approach seemed advisable. Since the Learning Resources Center was established to help students, not for research purposes, no provision was made to conduct a controlled study. No student was denied the use of the Learning Center. Students who chose to use the Learning Center might have used other sources to accomplish the same purpose.

The study concerns obtaining information about the personality and academic characteristics of students at Langston University and their interrelatedness.

The hypotheses will state the specific investigations that were made.

### Hypotheses of the Study

1. There is no relationship between the academic characteristics as measured by the ACT and the personality characteristics as measured by the OPI for the entire group under investigation.

2. There is no relationship between the scores obtained on the Nelson-Denny Reading Test and the scores obtained on the OPI for the entire group under investigation.

3. There is no relationship between the personality characteristics of students as measured by the OPI and their use or non-use of the Learning Resources Center.

4. There is no relationship between the academic characteristics of students as measured by the ACT scores and their use or non-use of the Learning Resources Center.

5. There is no relationship between scores of students obtained on the Nelson-Denny Reading Test and their use or non-use of the Learning Resources Center.

#### Purposes of the Study

The present study was designed to attempt to contribute a dimension, not a conclusion, to the knowledge concerning the academic and personality characteristics of students (15). An effort was made to ascertain in general the personality and academic characteristics of the freshman student body at Langston University and specifically the characteristics of students using the Learning Resources Center. A sample of 163 students for whom all information was available was selected for the study. Statistical analyses were made of the entire group under investigation and subgroups devised from the total group. The data provided should be useful to administrators, teachers, and counselors who are involved with students in an academic setting.

#### Limitations and Assumptions

Findings in the form of additional information about students is limited to the Langston University population. Furthermore, this study assumes that the instruments used are a valid measure of academic and personality characteristics of the Langston population.

## CHAPTER II

### REVIEW OF THE LITERATURE

#### Introduction

In keeping with the purposes of the study, to ascertain in general the personality and academic characteristics of the freshman student body at Langston University and specifically the academic and personality characteristics of students who used the Learning Resources Center, a review of the literature was made. Although numerous studies have been made concerning the academic and personality characteristics of students at various educational levels, the review of the literature for this study was limited primarily to studies that were conducted with college students over the ten year period from 1960 to 1970 that, in the opinion of the writer, were more directly related to the purposes of this study.

Educational institutions felt a greater impact from technological advancement and civil rights legislation during the period from 1960 to 1970 than at any other comparable period in recent history. An attempt was made to select representative samples of studies from the literature that would exemplify this impact.

Since a limited number of studies pertaining to learning resources centers have been reported, some investigations made on the effectiveness of audio-tutorial instruction, a related area, were included in the review of the literature. The techniques and procedures used in

the two methods of instruction are similar; therefore, in the opinion of the writer, the inclusion of the studies gave a clearer picture of what has been done in the area of the newer media.

### Studies Relevant to Personality and Academic Characteristics of College Students

The review of the literature pertinent to academic and personality characteristics of college students will include (1) personality variables and college achievement, (2) self-esteem and self-concept variables, (3) adjusting and coping variables, (4) motivation and aspiration variables, (5) variables relating to creativity, and (6) additional studies related to personality and academic characteristics.

#### Personality Variables and College Achievement

According to a study by Trent (55) the analysis of the data for the personality factors of low ability men yielded no significant differences among the achievement levels. Men of average ability who were average achievers tended to be more apprehensive and depressive than below average achievers. High ability, below average achievers were more happy-go-lucky and impulsive than average or above average achievers.

Analysis of data for female subjects of low ability indicated that below average and average achievers were more outgoing and warm-hearted than above average achievers. Females of average and above average achievement were found to be more abstract in their thinking than were below average achievers.

King (24) made a study to determine the association between se-

lected personality characteristics and college achievement. Three groups were established for the study. The intellectually oriented subjects were referred to as group one, the academically oriented as group two, and those subjects who were both intellectually and academically oriented comprised group three. All groups were found to be homogeneous in their dispersions of scores on measures of personality attributes but were found to differ on individual personality variables. Group one scored higher than group two on esthetic values and on autonomy. Group one scored lower than group three on grade point average. Group two scored higher than group three on economic values and lower on esthetic interests.

Cope (12) made a study utilizing certain scales of the Omnibus Personality Inventory that, in his opinion, were relevant to a liberal arts curriculum. Of the 13 scales described in the 1962 OPI manual, seven scales were selected for the study: thinking introversion, theoretical orientation, estheticism, complexity, religious liberalism, social maturity, and impulse expression.

The scales that distinguished the dropouts from the stayins were religious liberalism, estheticism, and theoretical orientation. In the opinion of the author, the sex differences that were found were more significant than the differences on specific scales. Only the religious liberalism scale was clearly related to dropping out among males, while the scales of estheticism and theoretical orientation were clearly related to dropping out among females.

Cope hypothesized that three OPI scales (complexity, theoretical orientation, and thinking introversion) were related to cognitive styles that were emphasized in liberal arts colleges. He concluded



that the results of the study offered support for the use of the three scales in the study of academic achievement among college age youths, but the results did not differentiate between the dropouts and the stayins.

McCary (34) investigated the interrelationships of the fifteen personality variables of the Edwards Personal Preference Schedule, the cumulative grade point averages, and the composite standard scores of the American College Tests for certain male students at the University of Mississippi. The 520 male subjects who were selected for the study were divided into five student groups on the basis of the composite standard scores earned on the American College Tests.

Using the cumulative grade point average of the subjects as the criterion of academic achievement, each study group was divided into five numerically equal achievement groups.

The most significant finding of the study was that it verified that low achievers were also low on the endurance scale of the Edwards Personal Preference Schedule.

#### Self-esteem and Self-concept Variables

LeUnes (29) concluded that self-concept is generally unrelated to a number of selected variables and that the personality dimension of authoritarianism is relevant in terms of its relationship to father-son interactions and as it pertains to dissatisfactions with the military facet of student life at the university.

Bartee (4) found that the availability of higher education to the disadvantaged, particularly blacks, has had positive effects on their self-esteem and self-concept. The increase in self-esteem from the

freshman to the senior year in college, particularly in the black sample, emphasized the implications of the positive value of higher education for the disadvantaged.

Self-esteem and defensiveness were found to be positively related according to a study made by Lampl (18). High self-esteem subjects were found to be significantly more defensive than low-esteem subjects. Males and females did not differ significantly in level of self-esteem. Females, however, were found to be significantly less defensive than males.

A positive relationship was obtained between dogmatism and manifest anxiety. Females were found to be less dogmatic than males. When males and females were compared on the various measures, females were found to be lower in defensiveness, less dogmatic, and more ready to admit to the presence of feelings associated with manifest anxiety.

A follow-up study of personality characteristics of bright college students at Western Washington State College substantiated the findings of earlier studies (32). Bright college students reported more negative self-views than characterize the norms. The authors of the study felt that the results of the investigation signaled a note of social concern. The writers suggested that further investigations should be launched to determine why bright students viewed themselves more negatively than the students representing the college norms viewed themselves.

The preceding review of the literature concerning the self-esteem and self-concept variables reflects an insistent concern on the part of the writers that too little is known as to why students view themselves as they do or why they behave as they do. That high self-esteem

subjects were more **defensive** than low-esteem subjects and that bright college students reported more negative self-views than their less able colleagues are two of the areas that, in the opinion of the researchers, should be further investigated to determine why these views and behaviors are evidenced.

#### Adjustment and Coping Variables

At the University of Wisconsin, Feinberg (16) found that academically successful students who had much contact with faculty members appeared significantly more extrovertive than did equally successful students who reported little informal faculty contact. The reverse was found to be true of the less successful students. The low achieving students who described considerable faculty contact appeared significantly more introvertive than did comparably achieving students who reported infrequent faculty contact outside the classroom.

Verprani (57) further substantiated the positive relationship between empathy and adjustment but was unable to explain why poorly adjusted people have trouble being empathetic.

A study conducted at the University of Tennessee (35) indicated that black students examined in the study were far from able to enter on an equal footing with their white age-mates into the educational, social, or vocational life of the country. Both the male and the female students scored extremely low on the probability for academic success section of the Cattell Sixteen Personality Factor Questionnaire. The author concluded that the environment in which the students had to interact during the years that their personalities were developing tended to evoke in them the opposite of the personality characteristics

that facilitate academic success.

Abramowitz (1) through use of the Internal-External Control, Guilford Depression, and Maslows-Crowne Social Desirability Scales tested the hypothesis that depression is associated with belief in external control. The hypothesis was supported by the results.

Korner (25) discussed hope as an essentially positive phenomenon necessary for healthy coping. Hoping is differentiated from wishing by hope's reality-oriented focus and from expecting or anticipating by its intense affective component. The author emphasized that hope could be used as an activator of the individual's coping ability.

#### Motivation and Aspiration Variables

From studying peak experiences of both white and black college students Mathis and Clain (33) found that whites had more peak experiences than blacks. Blacks were more concerned with achievement than were whites.

Lettig (30) reported that strong achievement motivation and working class identification were related to aspiration to enter traditionally closed occupations among black college students.

Pietrofessa (43) discovered that a fundamental relationship exists between personality needs and the choice of a college major.

Hunt (20) at the University of New Mexico reported that white varsity athletes were significantly different and ranked higher in ascendency, responsibility, and emotional stability traits when compared to black and white non-athletes. Black varsity athletes were significantly different and ranked higher in responsibility when compared to black non-athletes.

### Variables Relating to Creativity

Weissman (59) studied cognitive, personality, and life history factors of persons showing creative, superior, and adaptive performance and ways of identifying such individuals. He concluded that the desire and the readiness to learn can, in fact, be assessed and that academic performance and verbal intellectual ability play but a partial role in the matrix of factors contributing to such readiness. More inclusive would be an estimate of an individual's critical and creative intellectual effectiveness discovered through the use of attitudinal and personality dimensions.

Taft and Gilchrist (50) studied the relationship between productivity and creative attitudes as two aspects of creativity. They found that students scoring high on both of these aspects saw themselves as unconventional, prepared to take risks, impulsive, observant, imaginative, idealistic, concerned with beauty, and subject to emotional conflicts. According to scores on an experience scale they were high on emotional participation in external events. High scores on creative attitudes alone were correlated positively with traits associated with self-actualization and controlled regressive experiences. On creative productivity alone high scores were more related to lack of self-control and neurotic symptoms.

### Additional Studies Related to Personality and Academic Characteristics

From previous work with the Minnesota Multiphasic Personality Inventory in its relation to birth order, Altus (2) at the University of California, Santa Barbara, hypothesized that some general classes of questionnaire items should appear on any subsequent item analysis

involving birth order at the University of California. He isolated items on the Omnibus Personality Inventory that would measure the effects of birth order in both personality and aptitude.

Peabody (42) critically examined the emphasis on the importance of evaluation in judgment in a study of inferences between traits. The results revealed the secondary importance of evaluation. The evidence suggested that evaluation is typically based on a descriptive judgment of the degree of extremeness.

Using the Omnibus Personality Inventory with a sample of freshman and senior students at the University of Kentucky, Elton and Rose (14) did a factor analysis to determine the dimensions of personality changes in the direction of fulfillment of humanistic educational goals. The results of the study indicated that change did occur in the areas of humanistic thinking, intellectual and social liberalism, emotional growth, and tolerance for ambiguity.

Tennison and Snyder (52) investigated some relationships between attitudes toward the church and certain personality characteristics. Freud's psychoanalytic position on religion is that the relationship of man to his God has an infantile prototype in the relationship of a child to his parents. The results of the investigation tended to suggest some support for the Freudian conceptualization of religion.

Chickering, McDowell, and Campagna (9) made a study on student development at small colleges to determine if there were unique developmental outcomes for students at institutions which have established distinctive images. Thirteen small colleges representing diverse types of programs were selected for the study.

The Omnibus Personality Inventory was administered to entering

freshmen and again after the first and second years. Test-retest data indicated that most change occurred in autonomy, impulse expression, estheticism, and practical orientation. The least change occurred in intellectual interests, social extroversion, and altruism. The pattern of development was essentially the same for both men and women. In the opinion of the authors, a more important finding was that the same type of development occurred among many different kinds of students attending very different institutions.

The authors concluded that the evidence does not support the assumption of campus-wide impacts for the small colleges included in the study, despite their distinctiveness, homogeneity, and sharply different programs and orientations.

#### Studies and Interviews Relevant to Learning

##### Resources Centers

The studies and interviews relating to learning resources centers will include (1) evaluative studies of learning resources centers and (2) studies on audio-tutorial instruction.

##### Evaluative Studies of Learning Resources Centers

North (41) of Oklahoma Christian College made a study of the relative effectiveness of using tape-recorded lectures as a part of the program of instruction in a college level course in speech. Those students who received most of their instruction by the audio tapes improved from 32.27 to 44.23 on a 66-point test. Those who heard the conventional "live" lecture improved from 30.88 to 43.83.

The students in the tape group indicated a strong preference for

including the taped lectures with workbooks in a class program rather than doing all the instruction by conventional lecture. Of the 31 who heard the taped lectures, 26 preferred this method; three preferred conventional systems; and two indicated no preference.

Under the direction of North (40) a study was conducted at Oklahoma Christian College to determine the impact of certain instructional changes on the attitudes and practices of both students and faculty.

The following are some of the conclusions of that study:

1. A college can transform itself from a traditional orientation to one of extensive use of new media in a period as short as two years.
2. Most of the teachers have used some new approach to instruction.
3. The average student used the facilities of the learning center from ten to twenty hours a week.
4. Even though the level of grades given at the college has not increased, the students have maintained the same average grade point with higher standards of grading.
5. The learning center approach has resulted in significant saving of both teacher time and classroom usage.

McConeghy (36), Wayne State University, studied certain time and cost measures involved in the integration of systems for individualized electronic instruction. The purpose of the study was to examine the costs of developing, equipping, and programming a dial access study system, such as the one at Grand Valley State College in Allendale, Michigan.

It was the author's conclusion that, when programmed properly and when used for large group instruction, the cost of the system's opera-



tion compares favorably with the cost of live instruction or the use of the same media forms in other situations.

According to Pimsleur (44), Director of the Listening Center and member of the Romance Language faculty, Ohio State University, Columbus, Ohio, there is four to five times more studying going on since the dial access system went into operation. Students can study when they wish, for as long as they wish, quite often where they are, and they are gaining a better background in language.

#### Studies on Audio-tutorial Instruction

For some time Postlethwait (45), professor of botany at Purdue University, has found tape-recorded material to be effective as part of a botany laboratory program. Better instruction can be given with equal or less staff and space. Grades and student interest have improved at all levels. Costs are reduced for equivalent levels of instruction.

Johnston (23), Iowa State University, investigated audio-tutorial versus traditional instruction in seventh grade mathematics in Boone Junior High School. No significant differences were found in the post-test scores in testing any of the null hypotheses. The factors involved in the experiment did not significantly affect the ability of the students to learn in this experiment.

Seventy-five per cent of the students in the audio-tutorial group expressed a desire to continue with this type of instructional organization. Other advantages which appear evident are (1) more individual teacher-pupil contact, (2) more opportunity for students to review difficult concepts, and (3) more opportunity to work at

their own pace within a given period of time.

Taylor (51), University of Southern California, investigated the value of programmed tapes versus non-programmed tapes in a drill program on arithmetic fundamentals. Thirty-two fifth grade classes in the Pomona Unified School District were assigned at random to three groups. Ten classes used non-programmed tapes. Twelve classes served as a control group. The findings of this investigation indicated that the programmed tapes made a significantly greater difference in the computational skills of the classes using them than the gains of the other two groups.

An experiment to determine the effectiveness of slides and audio-tapes for presenting manipulative demonstrations in graphic arts conducted by Jenkins (22), Texas A & M University, indicated that this method was inferior to live demonstration by the teacher.

The effects of taped instruction on problem-solving skills of seventh grade children was investigated by Sekyra (48) at the University of Alabama. The results indicated that increasing amounts of practice in problem solving, implemented through exposure to taped programs, yielded a significant incremental subject improvement on each of the four problem-solving variables investigated.

An analysis of the relationship of student abilities to level of achievement in an auto-instructional program was made by Meleca (37) at Syracuse University during the 1967-68 academic year. Ninety-one students participated. The experimental group represented 48 students randomly selected. The remaining 43 students, taught by college biology teachers, constituted the control group.

The auto-instructional classroom was available for student use

14 hours per day, four days per week. There were no formal lectures or recitations for participants in the auto-instructional course.

The study pointed to the following general conclusions:

1. Students using auto-instructional materials can demonstrate satisfactory achievements in college biology.
2. Auto-instructional materials prepared for this program provide an effective vehicle for transmission of learning in a college biology course, while maintaining individualized instruction.
3. Aptitude in mathematics and biology are effective predictors of achievement in the auto-instructional course; data do not support this finding for the control group.

#### Summary

A review of the literature concerning the academic and personality characteristics of college students tends to support the conclusion that there is a need for additional study to ascertain in general the personality and academic characteristics of freshman students.

Several studies concerning ability as it relates to achievement and to certain personality traits rendered some interesting results. Men of average ability who were average achievers tended to be more apprehensive and depressive than below average achievers. High self-esteem subjects were more defensive than low-esteem subjects, and bright college students reported more negative self-views than their less able colleagues. Males were more defensive and more dogmatic than females. Females were more willing to admit to feelings of anxiety.

Black students were reported to be less able than their white

classmates to meet the adjustment and academic demands of college, but the reporters warned against using the results to generalize to all black students.

The researchers of institutional differences and student development concluded that future investigation should go beyond measures of central tendency, since college impact on student development is neither simple nor clear cut.

The literature relating to learning resources centers contained just a few studies that were evaluative in nature. The evaluations were concerned with use, effectiveness, or cost. No studies were found that specifically identified personality and academic characteristics of the students who used the facilities.

In view of the rapidly changing times in the society at large and the impact that the changes have had on higher education, investigators expressed the need for continuous assessment of personality and academic characteristics of students to determine how individual institutions could best serve the needs of the students they attract.

The present study should add another dimension to the available research pertaining to the general personality and academic characteristics of college students.

## CHAPTER III

### DESIGN AND METHODOLOGY

#### Introduction

This study was designed to collect data to describe in general the personality and academic characteristics of the freshman student body at Langston University and specifically the characteristics of students using the Learning Resources Center.

The present chapter presents a discussion of the subjects selected for the study, the measuring instruments used to obtain data, the method used to collect data, and the statistical procedures used to analyse the data.

#### Subjects

The subjects for this study were selected from the 1969-70 freshman class at Langston University. The sample was limited to those students for whom scores were available on both the American College Tests and the Nelson-Denny Reading Test.

#### Measuring Instruments

The measuring instruments that were used to collect the data were (1) the Omnibus Personality Inventory, Form F, (2) the American College Tests, and (3) the Nelson-Denny Reading Test.

Omnibus Personality Inventory, Form F

The Omnibus Personality Inventory was constructed to assess selected attitudes, values and interests, chiefly relevant in **the areas** of normal ego-functioning and intellectual activity. Nearly all dimensions included in the inventory were selected either for their particular relevance to academic activity or for their general importance in understanding and differentiating among students in an educational context (19).

The OPI was originally designed as a special instrument to accommodate the research objectives at the Center for the Study of Higher Education, University of California, Berkeley. A program of scale development and refinement which led to the present Form F version of the OPI was begun in 1958 by the staff at the Berkeley Center (19).

No specific, underlying theory of personality was used as a basis for developing the OPI. The theoretical bases encompassed the developmental nature of man and the social context in which current behavior occurs and growth and development take place. The major purposes of the OPI were to provide a meaningful, differentiating description of students and a means of assessing change rather than a device or instrument for testing a specific theory of personality (19).

Through cross validation and item analyses, certain of the OPI scales, particularly those dealing with intellectual functions, are unquestionably superior to their predecessors (6).

Although the authors do not advocate the clinical use of the OPI, the reliability and validity data are about as impressive as for any existing inventories (6). For the purpose of describing and comparing college groups, the norms based on a defined college group are an

attractive feature. Since there is little basis in construct validity for choosing among such questionnaires, workers will probably continue to choose the one containing scales whose names attract them. The OPI is an instrument with scales whose names attract people (6).

The norms for the OPI are based on a large sampling of entering students at diverse institutions of higher education (19). Thirty-seven institutions from fourteen states were selected in order to effect some appropriate representation of schools in the various categories of higher education. Some schools with predominately black enrollments participated in the standardization of the OPI.

The first four scales of the OPI (thinking introversion, theoretical orientation, estheticism, and complexity) are referred to as the primary intellectual scales. The next two scales (autonomy and religious orientation) serve as secondary criteria, or as conditional variables, to make up the intellectual disposition category. The assumption underlying the inclusion of these fifth and sixth scales in the intellectual disposition category is that an expressed interest in intellectual involvement may be severely attenuated or restricted by authoritarian thinking or by the fact of freedom to think independently.

Brief definitions of the fourteen scales of the OPI, Form F, are presented below, along with the letter symbols (in parentheses) and the number of items in each scale:

1. Thinking Introversion (TI) 43 items: Persons scoring high on this measure are characterized by a liking for reflective thought and academic activities. They express interests in a broad range of ideas found in a variety of areas such as literature, art, and philosophy.

2. Theoretical Orientation (TO) 33 items: This scale measures an interest in, or orientation to, a more restricted range of ideas than is true of TI. High scorers indicate a preference for dealing with theoretical concerns and problems and for using the scientific method in thinking; many are also exhibiting an interest in science and in scientific activities.
3. Estheticism (ES) 24 items: High scorers endorse statements indicating diverse interests in artistic matters and activities and a high level of sensitivity and response to esthetic stimulation.
4. Complexity (C) 32 items: This measure reflects an experimental and flexible orientation rather than a fixed way of viewing and organizing phenomena. High scorers are tolerant of ambiguities and uncertainties; they are fond of novel situations and ideas.
5. Autonomy (AU) 43 items: The characteristic measured by this scale is composed of liberal, nonauthoritarian thinking and a need for independence. High scorers show a tendency to be independent of authority as traditionally imposed through social institutions.
6. Religious Orientation (RO) 26 items: High scorers are skeptical of conventional religious beliefs and practices and tend to reject most of them, especially those that are orthodox or fundamentalistic in nature.
7. Social Extroversion (SE) 40 items: This measure reflects a preferred style of relating to people in a social context. High scorers display a strong interest in being with people,



and they seek social activities and gain satisfaction from them.

8. Impulse Expression (IE) 59 items: This scale assesses a general readiness to express impulses and to seek gratification either in conscious thought or in overt action. High scorers have an active imagination, value sensual reactions and feelings; very high scorers have frequent feelings of rebellion and aggression.
9. Personal Integration (PI) 55 items: The high scorer admits to few attitudes and behaviors that characterize socially alienated or emotionally disturbed persons. Low scorers often intentionally avoid others and experience feelings of hostility and aggression along with feelings of isolation, loneliness, and rejection.
10. Anxiety Level (AL) 20 items: High scorers deny that they have feelings or symptoms of anxiety, and do not admit to being nervous or worried. Low scorers describe themselves as tense and high-strung.
11. Altruism (AL) 36 items: The high scorer is an affiliative person and trusting and ethical in his relationships with others. He has a strong concern for the feelings and welfare of people he meets. Low scorers tend not to consider the feelings and welfare of others and often view people from an impersonal, distant perspective.
12. Practical Outlook (PO) 30 items: The high scorer on this measure is interested in practical, applied activities and tends to value material possessions and concrete accomplish-

ments. The criterion most often used to evaluate ideas and things is one of immediate utility. Authoritarianism, conservatism, and non-intellectual interests are very frequent personality components of persons scoring above the average.

13. Masculinity-Femininity (MF) 56 items: This scale assesses some of the differences in attitudes and interests between college men and women. High scorers (masculine) deny interests in esthetic matters, and they admit to few adjustment problems, feelings of anxiety, or personal inadequacies. They also tend to be somewhat less socially inclined than low scorers and more interested in scientific matters. Low scorers (feminine), besides having stronger esthetic and social inclinations, also admit to greater sensitivity and emotionality.
14. Response Bias (RB) 29 items: This measure, composed chiefly of items seemingly unrelated to the concept, represents an approach to assessing the student's test-taking attitude. High scorers are responding in a manner similar to a group of students who were explicitly asked to make a good impression by their responses to these items. Low scorers, on the contrary, may be trying to make a bad impression or are indicating a low state of well-being or feelings of depression.

#### American College Test

During the 1962-1963 school year over 350,000 students completed the American College Test battery, and reports of their scores were

sent to over 725 colleges or universities requiring or recommending the tests as a means of obtaining data useful in admission of students, in placement, in guidance, and in awarding scholarships through affiliated state programs. Colleges in 28 states participated through affiliated state programs. A college having participated in the ACT Research Service receives predictive grade indices for English, mathematics, social studies, natural science, and for overall grade point averages of each prospective student based on weighted combinations of his ACT scores only (6).

Tests of the general educational development type often are criticized because they do not measure the knowledge students possess. According to the rationale of the ACT, knowledge is measured.

Tests of this character do place a high and definite premium on the possession of a rich store of knowledge, but they do so indirectly rather than directly. The tests are **not** constructed to measure the acquisition of subject matter content per se. The questions do not call directly for specific information. Rather, they test the student's ability to use whatever knowledge he possesses in the solution of complex problems (6). The ACT bulletin (53) states that the tests themselves are designed to measure academic potential.

#### Nelson-Denny Reading Test

The Nelson-Denny Reading Test is composed of a 100-item vocabulary section, a 36-item reading comprehension section, and a reading rate score. The format is clear and workable, and, with a few exceptions, the items seem well-constructed and unambiguous (6).

A stratified random sampling procedure was used in standardizing

the test. At the college level enrollment by five types of colleges was used as a basis for stratification (6).

According to the reviewers, the inference that the inclusion of the Nelson-Denny in any college entrance battery should noticeably improve its predictive accuracy is erroneous. There is no evidence to support the inference. Decisions about the usefulness of this test should be made only after careful study of both the test and the students with whom it might be employed (6). Since the validity of the Nelson-Denny Reading Test was assumed at Langston University for a number of years, this same assumption was made for this study.

#### Data Collection

The Omnibus Personality Inventory was personally administered to 180 students at Langston University. The students were asked to complete all 14 categories of the test. Of the original 180 students responding to the inventory, 172 successfully completed the answer sheets for scoring purposes. According to information received from National Computer Services, nine of the answer sheets were invalid because more than 25 items were unscorable.

Entering freshman students at Langston University are required to present scores from the American College Tests or a comparable battery of tests. The Nelson-Denny Reading Test is administered to students after they arrive on campus. The scores from these tests were collected from the testing division of the Career Development Center.

## Statistical Procedures

The answer sheets for the Omnibus Personality Inventory were sent to National Computer Systems to be scored. Raw scores and standard scores were computed for each of the 14 scales. For the first six scales which comprise the Intellectual Disposition Categories, mean score profile patterns were provided.

Means and standard deviations were computed for each of the 14 scales of the OPI and for the ACT scores and the Nelson-Denny Reading scores.

The hypotheses that were tested are restated below:

1. There is no relationship between the academic characteristics as measured by the ACT and the personality characteristics as measured by the OPI for the entire group under investigation.
2. There is no relationship between the scores obtained on the Nelson-Denny Reading Test and the scores obtained on the OPI for the entire group under investigation.
3. There is no relationship between the personality characteristics of students as measured by the OPI scores and their use or non-use of the Learning Resources Center.
4. There is no relationship between the academic characteristics of students as measured by the ACT scores and their use or non-use of the Learning Resources Center.
5. There is no relationship between scores of students obtained on the Nelson-Denny Reading Test and their use or non-use of the Learning Resources Center.

To test the first hypothesis the subjects were placed in two

groups. One group was composed of subjects with ACT scores of 11 and below and the other group with ACT scores of 12 and above. The first ten scales of the OPI were used. The first six scales comprised the Intellectual Disposition Category and the next four the Socio-Emotional Factor.

Hypothesis two was tested in the same manner as hypothesis one was tested. The Nelson-Denny Reading scores were used instead of the ACT scores.

Hypothesis three was tested by dividing the subjects into two groups: those who used the Learning Resources Center and those who did not use the Center. All the scales of the OPI were used.

Hypothesis four was tested by using the ACT scores with the two groups defined for testing hypothesis three.

Hypothesis five was tested in the same manner as hypothesis four. The Nelson-Denny Reading scores were used instead of the ACT scores.

After the raw data collected for each group was used to test the hypotheses, the technique of single classification analysis of variance with an F-ratio of .05 was used to rule out chance accounting for the raw data in 95 per cent of the samples that could be taken.

## CHAPTER IV

### THE FINDINGS OF THE STUDY

Data gathered from administering certain measuring instruments to the selected student body are related to the purposes of this study. Findings are presented concerning the intellectual and personality characteristics of the selected freshman students at Langston University and the results of the tests of the hypotheses.

#### Intellectual Characteristics

Findings concerning the intellectual characteristics of the freshman student body at Langston University include (1) a description provided by the intellectual disposition category of the OPI and (2) information provided by the ACT scores and the Nelson-Denny Reading scores.

#### Intellectual Disposition Category of the OPI

Findings provided by the primary intellectual scales, the autonomy scale, and the religious orientation scale are presented in this section.<sup>2</sup>

Primary Intellectual Scales of the OPI. The standard mean score of 47.46 on the primary intellectual scales of the OPI as compared to

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<sup>2</sup>See pages 24-28 for a description of the OPI scales.

the normative mean of 50 suggests that the average freshman student at Langston University prefers factual information to that which requires organization and interpretation. He would rather have a theory explained to him than attempt to understand it on his own. He prefers the practical man to the man of ideas.

Undertakings that are certain and predictable have more appeal to the average student than projects that may turn out to be a waste of time and energy. Straight forward reasoning is more in line with his way of ~~think~~ing than the search for analogies and metaphors.

Autonomy. The standard mean score on the autonomy scale of 45.63 as compared to the normative mean of 50 describes the typical student as non-independent in his thinking. He works well within the framework of the institution and is not constantly striving in an overt way for additional independence from the restraints placed upon him. He has a high regard for his parents and feels love and gratitude toward them.

Religious Orientation. According to the mean score of 46.97 on the religious orientation scale, the typical Langston freshman student manifests a moderate to strong commitment to religious beliefs and practices. He believes in the existence of God and thinks that what one believes is important. He feels more comfortable with people who profess to be religious and does not want to be called a skeptic or agnostic.

Summary. The mean standard score for the student body under investigation for the primary intellectual scales was low compared to the normative mean. The general consistency in the story across the scores is further substantiated by the scores on scales five and six (autonomy and religious orientation). The profile thus far presented of the



typical Langston freshman student is consistent with the categorizing of the students into the various intellectual groups.

Assignment to Intellectual Disposition Categories. When the OPI profiles for the individual students were completed, each was placed in one of eight intellectual disposition categories according to his scores on the first six scales of the inventory.<sup>3</sup>

A very small percentage (.6 per cent) of students were found in the first three categories. Most of the students (86 per cent) were placed in the middle categories (four, five, and six). Categories seven and eight represented 13.4 per cent of the students.

The distribution of the subjects according to each individual category is presented in Table I.

TABLE I  
DISTRIBUTION OF SUBJECTS IN INTELLECTUAL  
DISPOSITION CATEGORIES

Category	1	2	3	4	5	6	7	8
Per cent	0	0	.6	9.8	21	55.2	11	2.4

ACT and Nelson-Denny

For the student body under investigation the composite mean stan-

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See Appendix A for a complete description of the intellectual disposition categories and Appendix B for samples of individual profiles.

dard score on the ACT was 12.3. This score is slightly higher than the norm (11.4) for the entire student body at Langston University for the same time period. As reported by the testing service (53) the average mean score of first-semester college-bound high school seniors is a composite mean score of 19.

Although the mean ACT score for the students in this study is below the national norm, it compares favorably with reports from other predominately black colleges (39, 17). Moon (38) and Morris (39) commented on the dilemma facing black colleges that, in their opinion, was aggravated by integration. Previous all white colleges have intensified their efforts to recruit the top black students. Counselors, both black and white, are encouraging the better prepared black students to attend predominately white colleges. Black colleges have been forced to enroll the students who are less well prepared and to continue a program of compensatory education.

As revealed by the Nelson-Denny Reading Test, the average reading level of the students in this study is slightly below the tenth grade (9.75) as compared to a national norm of 13. The grade equivalency alone does not indicate that a student cannot do college level work. He may be able to read with comprehension but lacks skill in word attack. No effort was made in this study to diagnose reading difficulties. The scores from the Nelson-Denny Reading Test were included to add another dimension to the overall description of the student body.

#### Personality Characteristics

Additional information concerning the personality characteristics

of the student body was revealed through the interpretation of the practical scales of the OPI. The findings from each of the eight scales will be presented separately.

#### Social Extroversion

According to the mean score of 47.70 as compared to the normative mean of 50 on the social extroversion scale of the OPI, there was more of a tendency toward introversion than extroversion for the student body under investigation. The deviation from the mean, however, was not great enough to describe the students as introverts. In regard to such activities as teas or receptions, they could take or leave them. The students would be fairly comfortable in a crowd but would not seek large gatherings just to be with people. They would not make a special effort to take the lead at social gatherings or always strive to be on the program.

In regard to work habits, the students would probably prefer to work alone and would do better work when they worked alone, but there would be no serious objection to working in small groups.

#### Impulse Expression

The mean score for the group on the impulse expression scale was 51.72. The students, as described by this scale, were near the norm in their desire to express impulses and to seek gratification either in thought or overt action. They would not be inclined to go to the extreme in an aggressive or rebellious manner to register their feelings toward rules and regulations or toward the ideas and behaviors of their friends or acquaintances. They would tend toward expressing

their actual feelings rather than impulses brought about through highly imaginative activity.

### Personal Integration

The mean score on the personal integration scale was 48.16. This score of slightly below the norm of 50 suggests that the students may at times experience some feelings of inadequacy, such as wondering who they really are or what they should be. They may on occasion think that nobody understands them or that there is a barrier between them and others. Even though the scale does not indicate extreme maladjustment or emotional disturbance, there is evidence that the students needed to have counseling services available to help them over the difficult periods when their feelings of inadequacy might have prevented them from meeting the demands placed upon them by the school and the society at large.

### Anxiety Level

The mean score of 47.79 as compared to the norm of 50 describes the students as having a slightly higher than normal level of anxiety. They would at times describe themselves as high strung or tense, restless, or unable to cope with difficulties. They may be sensitive to criticism, even when it is constructive, and take the remarks as a personal affront. The above description would apply especially when the students are placed under undue pressure, such as examination time.

### Altruism

The mean score for the altruism scale was 45.03 as compared to

the norm of 50. The students, according to this scale, described themselves as being less than trustful of the motives of people who work in service organizations. They tend to feel that people are hypocritical, that they pretend to care more about one another than they really do.

If given a choice, the students would prefer to use leisure time improving a favorite skill rather than do volunteer social or public service work. They would prefer not to have the responsibility for the welfare of other people.

#### Practical Outlook

The mean score for the group on the practical outlook scale was 56.49 as compared to the normative mean of 50. The students, as described by this measure, evaluate ideas and activities in light of their utilitarian value. They are likely to ask, "What is in it for me?" Since they are oriented toward practical, applied activities, their criterion of evaluation is often expressed in terms of material possessions and concrete accomplishments.

They dislike uncertainty and unpredictability and are annoyed by a lecturer who will not take a stand on an issue. They prefer facts to philosophical debates.

#### Masculinity - Femininity

The mean score of 53.50 of the male group in this study as compared to the norm of 50 indicates that the men admit to few adjustment problems, feelings of anxiety, or personal inadequacies. They prefer math over poetry and dislike such social activities as teas or recep-

tions.

The women by their low mean score of 43.26 as compared to the norm of 50 admit that they are sensitive and emotional. They like dramatics and find courses in literature and poetry as satisfying as most other subjects.

#### Response Bias

The mean score for the response bias scale was 47.26 as compared to the norm of 50. There was no indication on this scale that the students were trying to make a good impression. The mean score on this scale was almost identical to the mean score on the anxiety level scale. Since the interpretation of the results of the two scales is similar, one may reasonably assume that the students were describing themselves according to the way they felt.

From this scale there were indications of restlessness, difficulty in concentrating, low state of well-being, and feelings of depression. The mean score was not so far removed from the norm to suggest extremes of the traits mentioned above.

#### Summary

Descriptive data relating to the purposes of this study helped to establish a profile of the freshman student body at Langston University regarding their academic and personality characteristics. Although there were individual differences among the students and between some of the scales of the measuring instruments, a general profile evolved.

The typical Langston University freshman is in school for practi-

cal rather than esthetic or intellectual purposes. He prefers factual information to philosophical debate. His energies are used in pursuing his vocational goals, not in staging demonstrations to acquire additional freedom from restraints placed upon him by the University.

The average student respects both God and his parents. He expressed neither the desire to denounce his faith nor to degrade his parents.

He has an ACT score of 12.3 and reads at slightly below the tenth grade level.

He is more inclined toward introversion than extroversion. He would prefer working alone to working with a group.

He is likely to say what he actually feels and thinks regarding the ideas and behaviors of others. He would seldom display extremely aggressive behavior induced by highly imaginative activity.

He has a fairly well-integrated personality, although there are times when he feels inadequate. He occasionally feels that nobody understands him.

He admits to being anxious and restless at times and unable to cope with difficulties. He is sensitive to criticism directed toward him, and, on occasion, may take constructive criticism as a personal affront.

He is skeptical of people who express humanitarian motives. He prefers to use his leisure time improving his own skills rather than doing volunteer social or public service work.

Because of his utilitarian orientation his criterion for evaluating success is in terms of material possessions and concrete accomplishments.

## Tests of Hypotheses

After the data collected for each group was used to test the hypotheses, the technique of single classification analysis of variance with an F-ratio of .05 was used to rule out chance accounting for the raw data in 95 per cent of the samples that could be taken.

The results obtained from applying the statistical technique of single classification analysis of variance was provided by the personnel of the Oklahoma State University Computer Center through the use of computer program BMD01V - Analysis of Variance for One-Way Design-Version of June 15, 1966, Health Sciences Computing Facility, UCLA.

### Hypothesis I

The first hypothesis was stated as follows: There is no relationship between the academic characteristics as measured by the ACT Tests and the personality characteristics as measured by the OPI for the entire group under investigation.

The descriptive statistics and the results of applying the technique of single classification analysis of variance are shown in Tables II, III, IV, and V. There was a relationship between the ACT scores and the first six scales of the OPI, the intellectual disposition category, but there was no relationship between the ACT scores and the OPI scales seven through ten, the socio-emotional factor.

Since a relationship was found between the ACT scores and the intellectual disposition category of the OPI, the hypothesis was rejected.



TABLE II  
 DESCRIPTIVE STATISTICS OF INTELLECTUAL  
 DISPOSITION CATEGORY OPI (1-6)

Treatment Groups	1*	2**
Sample Size	78	85
Mean	46.3889	47.7785
Standard Deviation	3.3560	4.6834

\* ACT scores 11 and below

\*\* ACT scores 12 and above

TABLE III  
 ANALYSIS OF VARIANCE OPI (1-6)

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F
Between Groups	78.5500	1	78.5500	4.667*
Within Groups	2709.7661	161	16.8308	
Total	2788.3161	162		

\* Critical F .05 @ 1 and 161 = 3.91

TABLE IV  
DESCRIPTIVE STATISTICS OF SOCIO-EMOTIONAL  
FACTOR OPI (7-10)

Treatment Groups	1*	2**
Sample Size	78	85
Mean	48.0449	49.5824
Standard Deviation	5.1961	4.8123

\* ACT scores 11 and below

\*\* ACT scores 12 and above

TABLE V  
ANALYSIS OF VARIANCE OPI (7-10)

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F
Between Groups	96.1506	1	96.1506	3.8467
Within Groups	4024.2488	161	24.9953	
Total	4120.3994			

Critical F .05 @ 1 and 161 = 3.91

## Hypothesis II

The second hypothesis was stated as follows: There is no relationship between the scores obtained on the Nelson-Denny Reading Test and the scores obtained on the OPI for the entire group under investigation.

The descriptive statistics and the results of applying the technique of single classification analysis of variance to the data are presented in Tables VI, VII, VIII, and IX. There was a relationship between the Nelson-Denny Reading scores and the first six scales of the OPI, but there was no relationship between the Nelson-Denny Reading scores and scales seven through ten of the OPI.

Since a difference was found between the Nelson-Denny Reading scores and the OPI, the hypothesis was rejected.

TABLE VI

DESCRIPTIVE STATISTICS OF INTELLECTUAL  
DISPOSITION CATEGORY OPI (1-6)

Treatment Groups	1*	2**
Sample Size	79	84
Mean	46.2047	47.9682
Standard Deviation	3.5901	4.4672

\* Nelson-Denny Reading scores 10 and below

\*\* Nelson-Denny Reading scores 11 and above

TABLE VII  
ANALYSIS OF VARIANCE OPI (1-6)

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F
Between Groups	126.6112	1	126.6112	7.6584*
Within Groups	2661.6980	161	16.5323	
Total	2788.3092	162		

\* Critical F .05 @ 1 and 161 = 3.91

TABLE VIII  
DESCRIPTIVE STATISTICS OF SOCIO-EMOTIONAL  
FACTOR OPI (7-10)

Treatment Groups	1*	2**
Sample Size	79	84
Mean	48.3291	49.3333
Standard Deviation	5.2586	4.8126

\* Nelson-Denny Reading scores 10 and below

\*\* Nelson-Denny Reading scores 11 and above

TABLE IX  
ANALYSIS OF VARIANCE OPI (7-10)

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F
Between Groups	41.0562	1	41.0562	1.6204
Within Groups	4079.3406	161	25.3375	
Total	4120.3968	162		

Critical F .05 @ 1 and 161 = 3.91

### Hypothesis III

The third hypothesis was stated as follows: There is no relationship between the personality characteristics of students as measured by the OPI and their use or non-use of the Learning Resources Center.

All scales of the OPI were used to test the hypothesis. The descriptive statistics and the results of the analysis of variance are presented in Tables X, XI, XII, XIII, XIV, XV, XVI, XVII, XVIII, XIX, XX, and XXI. A relationship was found on scale 14, response bias; therefore the hypothesis was rejected.

TABLE X  
DESCRIPTIVE STATISTICS OF INTELLECTUAL  
DISPOSITION CATEGORY OPI (1-6)

Treatment Groups	1*	2**
Sample Size	60	103
Mean	46.8166	47.2863
Standard Deviation	4.3346	4.0480

\* Learning Center Use \*\* Learning Center Dis-use

TABLE XI  
ANALYSIS OF VARIANCE OPI (1-6)

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F
Between Groups	8.3691	1	8.3691	0.4847
Within Groups	2779.9363	161	17.1667	
Total	2788.3054	162		

Critical F .05 @ 1 and 161 = 3.91

TABLE XII  
DESCRIPTIVE STATISTICS OF SOCIO-EMOTIONAL  
FACTOR OPI (7-10)

Treatment Groups	1 *	2 **
Sample Size	60	103
Mean	48.7958	48.8762
Standard Deviation	4.7756	5.2155

\* Learning Center Use

\*\* Learning Center Dis-use

TABLE XIII  
ANALYSIS OF VARIANCE (7-10)

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F
Between Groups	0.2449	1	0.2449	0.0096
Within Groups	4120.1523	161	25.5910	
Total	4120.3972	162		

Critical F .05 @ 1 and 161 = 3.91

TABLE XIV  
DESCRIPTIVE STATISTICS OF ALTRUISM OPI (11)

Treatment Groups	1 <sup>*</sup>	2 <sup>**</sup>
Sample Size	60	103
Mean	44.4000	45.4078
Standard Deviation	8.2199	8.9862

\* Learning Center Use

\*\* Learning Center Dis-use

TABLE XV  
ANALYSIS OF VARIANCE OPI (11)

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F
Between Groups	38.5052	1	38.5052	0.5072
Within Groups	12223.1641	161	75.9203	
Total	12261.6693	162		

Critical F .05 @ 1 and 161 = 3.91

TABLE XVI  
DESCRIPTIVE STATISTICS OF PRACTICAL  
OUTLOOK SCALE OPI (12)

Treatment Groups	1 <sup>*</sup>	2 <sup>**</sup>
Sample Size	60	103
Mean	56.6333	56.4078
Standard Deviation	7.7699	7.6111

\* Learning Center Use

\*\* Learning Center Dis-use



TABLE XVII  
ANALYSIS OF VARIANCE OPI (12)

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F
Between Groups	1.9287	1	1.9287	0.0328
Within Groups	9470.7383	161	58.8244	
Total	9472.6670			

Critical F .05 @ 1 and 161 = 3.91

TABLE XVIII  
DESCRIPTIVE STATISTICS OF MASCULINITY-  
FEMININITY SCALE OPI (13)

Treatment Groups	1 <sup>*</sup>	2 <sup>**</sup>
Sample Size	60	103
Mean	48.6000	48.8544
Standard Deviation	7.1193	6.5819

\* Learning Center Use

\*\* Learning Center Dis-use

TABLE XIX  
ANALYSIS OF VARIANCE OPI (13)

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F
Between Groups	2.4592	1	2.4529	0.0533
Within Groups	7409.1758	161	46.0197	
Total	7411.6350			

Critical F .05 @ 1 and 161 = 3.91

TABLE XX  
DESCRIPTIVE STATISTICS OF RESPONSE  
BIAS OPI (14)

Treatment Groups	1 <sup>*</sup>	2 <sup>**</sup>
Sample Size	60	103
Mean	45.5000	48.3398
Standard Deviation	7.8729	8.8423

\* Learning Center Use

\*\* Learning Center Dis-use

TABLE XXI

ANALYSIS OF VARIANCE OPI (14)

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F
Between Groups	305.7620	1	305.7620	4.2321*
Within Groups	11632.0117	161	72.2485	
Total	11937.7737	162		

\* Critical F .05 @ 1 and 161 = 3.91

Hypothesis IV

Hypothesis four was stated as follows: There is no relationship between the academic characteristics of students as measured by the ACT scores and their use or non-use of the Learning Resources Center.

When the technique of single classification analysis of variance was applied to the data used to test the hypothesis, no F-ratio was found to be significant at the .05 level. The hypothesis was accepted.

The descriptive statistics and the results of the analysis of variance are found in Tables XXII, XXIII, XXIV, and XXV.

TABLE XXII

DESCRIPTIVE STATISTICS OF ACT SCORES (11 or Below)

Treatment Groups	1*	2**
Sample Size	20	44
Mean	8.3000	8.8182
Standard Deviation	2.3864	1.5741

\* Learning Center Use

\*\* Learning Center Dis-use

TABLE XXIII  
ANALYSIS OF VARIANCE ACT SCORES (11 or Below)

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F
Between Groups	3.6920	1	3.6920	1.0659
Within Groups	214.7449	62	3.4636	
Total	218.4369	63		

Critical F .05 @ 1 and 62 = 4.00

TABLE XXIV  
DESCRIPTIVE STATISTICS OF ACT SCORES  
(12 or Above)

Treatment Groups	1 *	2 **
Sample Size	40	59
Mean	14.3750	13.9492
Standard Deviation	2.1446	2.7065

\* Learning Center Use

\*\* Learning Center Dis-use

TABLE XXV

ANALYSIS OF VARIANCE ACT SCORES (12 or Above)

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F
Between Groups	4.3230	1	4.3230	0.6940
Within Groups	604.2214	97	6.2291	
Total	608.5444	98		

Critical F .05 @ 1 and 97 = 253

Hypothesis V

The fifth hypothesis was stated as follows: There is no relationship between scores of students obtained on the Nelson-Denny Reading Test and their use or non-use of the Learning Resources Center.

Two single classification analyses of variance were computed from the data used to test the hypothesis. A relationship was found between the two groups with reading scores of 10 or below. The hypothesis was rejected.

The descriptive statistics and the results of the analyses of variance are presented in Tables XXVI, XXVII, XXVIII, and XXIX.

TABLE XXVI

DESCRIPTIVE STATISTICS OF NELSON-DENNY READING SCORES (10 or Below)

Treatment Groups	1*	2**
Sample Size	22	57
Mean	8.8773	7.1351
Standard Deviation	0.8491	3.8668

\* Learning Center Use

\*\* Learning Center Dis-use

TABLE XXVII

ANALYSIS OF VARIANCE NELSON-DENNY  
READING SCORES (10 or Below)

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F
Between Groups	53.8698	1	53.8698	4.8659*
Within Groups	852.4614	77	11.0709	
Total	906.3312	78		

\* Critical F .05 @ 1 and 77 = 3.96

TABLE XXVIII

DESCRIPTIVE STATISTICS OF NELSON-DENNY  
READING SCORES (11 or Above)

Treatment Groups	1*	2**
Sample Size	38	46
Mean	10.7421	10.9608
Standard Deviation	2.4478	2.3122

\* Learning Center Use

\*\* Learning Center Dis-use

TABLE XXIX  
ANALYSIS OF VARIANCE NELSON-DENNY  
READING SCORES (11 or Above)

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F
Between Groups	0.9957	1	0.9957	0.1766
Within Groups	462.2815	82	5.6376	
Total	463.2772	83		

Critical F .05 @ 1 and 82 = 253

#### Summary

The results of the testing of the five hypotheses that were formulated to carry out the purposes of this study to ascertain in general the personality and academic characteristics of the freshman student body at Langston University and specifically the characteristics of students using the Learning Resources Center have been recorded in this chapter. After applying the technique of single classification analysis of variance to the data used to test the hypotheses, some significant F-ratios were found.

After testing hypothesis one a relationship was found between the ACT scores and the first six scales of the OPI, the intellectual disposition category. There was no relationship between the ACT scores and the OPI seven through ten, the socio-emotional factor.

The results of the testing of hypothesis two indicated a relationship between the Nelson-Denny Reading scores and the first six scales

of the OPI. There was no relationship between the Nelson-Denny Reading scores and the socio-emotional factor of the OPI.

Hypothesis three was tested to see if there was a relationship between the personality characteristics of students as measured by the OPI and their use or non-use of the Learning Resources Center. All scales of the OPI were used. A significant F-ratio was revealed on only one scale: scale 14, response bias.

Hypothesis four was tested to see if there was a relationship between the academic characteristics of students as measured by the ACT scores and their use or non-use of the Learning Resources Center. No relationship was found.

Hypothesis five was tested to see if there was a relationship between the scores of students on the Nelson-Denny Reading Test and their use or non-use of the Learning Resources Center. A relationship was found for students with reading scores of 10 or below.



## CHAPTER V

### SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

#### General Review of the Study

Interest in this study arose from the problem of lack of student involvement in the educational process and from the need for additional information concerning the academic motivation of students. This study was conducted to attempt to ascertain in general the personality and academic characteristics of the freshman student body at Langston University and specifically the characteristics of students using the Learning Resources Center.

A review of the literature concerning the academic and personality characteristics of college students tended to support the conclusion that there was a need for a study of this type. Several studies investigated specific personality characteristics as they relate to academic achievement. Other studies pointed out differences between the sexes rather than differences in students in general. Comparative studies were made between the characteristics of black and white students. Studies were reported on the personality characteristics of students in black colleges in the South, but the researchers warned against using the results to generalize to all black students. Other investigators voiced the need for continuous evaluation of personality and academic characteristics of students because of the rapidly changing times and the impact that the changes have had on students and on

higher education in general.

The review of the literature further tended to support the conclusion that additional research was needed concerning learning resources centers and especially the motivation of students either to use or not use the facilities.

A sample of 163 students for whom Nelson-Denny Reading scores and ACT scores were available was selected for the study. The Omnibus Personality Inventory was administered to each of the subjects.

Five hypotheses were formulated to carry out the purposes of the study.

1. There is no relationship between the academic characteristics as measured by the ACT and the personality characteristics as measured by the OPI for the entire group under investigation.

2. There is no relationship between the scores obtained on the Nelson-Denny Reading Test and the scores obtained on the OPI for the entire group under investigation.

3. There is no relationship between the personality characteristics of students as measured by the OPI and their use or non-use of the Learning Resources Center.

4. There is no relationship between the academic characteristics of students as measured by the ACT scores and their use or non-use of the Learning Resources Center.

5. There is no relationship between scores of students obtained on the Nelson-Denny Reading Test and their use or non-use of the Learning Resources Center.

The findings of the study are as follows:

1. There was a relationship at the .05 level of significance

between the ACT scores and the first six scales of the OPI. There was no relationship between the ACT scores and the OPI scales seven through ten.

Since some differences were found, the hypothesis was rejected.

2. There was a relationship between the Nelson-Denny Reading scores and the first six scales of the OPI. There was no relationship between the Nelson-Denny Reading scores and the OPI scales seven through ten.

The hypothesis was rejected since some differences were found.

3. A significant F-ratio was found for only one scale of the OPI, scale 14, response bias, for the data used to test hypothesis three. Because of the relationship found on one scale, the hypothesis was rejected.

4. There was no relationship between the scores of students on the ACT and their use or non-use of the Learning Resources Center. The hypothesis was accepted.

5. A relationship was found between students' scores of 10 or below on the Nelson-Denny Reading Test and their use or non-use of the Learning Resources Center. The hypothesis was rejected.

The data from the measuring instruments were used to establish a profile of the students. The profile revealed that the orientation of the typical student is utilitarian in nature. It also revealed some problems relating to personal and academic adjustment.

#### Conclusions

Within the limits of this study certain conclusions may be suggested. Of the instruments used to measure academic disposition

there appeared to be some consistency in the results obtained. Both the ACT scores and the Nelson-Denny Reading scores were significantly related to the scores obtained on the intellectual disposition category of the OPI. This finding could have implications for guidance personnel, curriculum planners, and recruiters.

That there was a relationship between low scores on the Nelson-Denny Reading Test and the use or non-use of the Learning Center may suggest that poor readers do seek means other than through reading to gain needed information. This could imply that attention should be given to exploring the potentialities of the Learning Resources Center to determine how this facility may further assist students with reading disabilities. Another possible conclusion is that the reading program should be carefully examined.

Since the majority of the subjects, according to this study, are in school for practical rather than esthetic or intellectual purposes and since many of the students have some problems in personal adjustment, special attention should be given to providing vocational and personal counseling for students. Another implication is that the curriculum should be studied to see if the needs of the students are being met.

#### Recommendations

The results of this study imply the need for further investigation of personality and academic variables as they relate to adjustment and performance in an academic setting. Other types of studies that relate to the academic and personality characteristics of a student body should be considered. Future studies should include

instruments to measure cognitive styles of students as opposed to purely intellectual or esthetic measures. Keeping these general suggestions in mind, the following recommendations are made:

1. Another study should be conducted with freshman students to see if the findings are consistent with the findings of this study.

2. An investigation should be made at the senior level to see if the personality and academic patterns persist from the freshman to the senior level.

3. A study should be made to determine if faculty members view students the way students see themselves.

4. Based on the information gained from studying the students and the faculty, an evaluation of the curriculum should be made to see if it is meeting the expressed needs of the students.

5. An extensive exploration of the potentialities of the Learning Resources Center should be launched to determine how this facility can more efficiently meet the needs of the students.

6. An examination of the guidance and/or counseling services should be undertaken to see if students are receiving the help they need.

7. An examination of the recruiting program should be made to see if different procedures should be considered.

8. A follow-up study on students after they have graduated should be conducted to see if they are performing successfully in their chosen vocations.

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## APPENDIXES

APPENDIX A  
DESCRIPTION OF INTELLECTUAL DISPOSITION  
CATEGORIES

Categories one, two, and three of the intellectual disposition categories represent students with broad intellectual interests. Category one would include students with an interest in literary pursuits in a variety of areas and a high level of esthetic sensitivity and appreciation. These persons, and to a slightly lesser extent those in category two, tend to reach out for a variety of perceptual and cognitive experiences, many of which are intrinsically meaningful. The students in category three are intellectually oriented but resort to rational and analytical thinking in a lesser degree.

Categories four, five, and six represent students that, to some degree, approximate the mean. Category five best defines students who are neutral on the intellectual involvement measure. Some may at times appear to be intellectually involved in their devotion to specific activities or pursuits, but such interest and involvement is limited and more appearance than fact. The absence of intrinsic intellectual interests does not correlate strongly with poor academic achievement; actually, many men and women in category five, as well as four and six, achieve good grades, manifest strong goal orientations, and thrive on the competitive aspects of educational evaluation. In essence, many of these students are certainly motivated, but they pursue learning as a means to an end and seldom for the intrinsic satisfactions gained from the acquisition of knowledge or the process of inquiry.

The patterns of categories seven and eight identify students still less committed to all that is represented or implied by the term "intellectual interests." The label "unintellectual" can definitely be applied to the persons in both categories seven and eight.

They have a need to deal with a tangible world and resort to a pragmatic, generally nonconceptual approach to problems (19).

APPENDIX B  
SAMPLES OF INDIVIDUAL PROFILES

The samples of the Omnibus Personality Inventory profile forms are used with written permission from the Psychological Corporation.



**PLEASE NOTE:**

**Pages 73-78, "Omnibus Personality Inventory, Categories 3-8", copyright 1968 by The Psychological Corporation, not microfilmed at request of author. Available for consultation at Oklahoma State University Library.**

**UNIVERSITY MICROFILMS**

NAME \_\_\_\_\_

SEX \_\_\_\_\_

YEAR OF STUDY \_\_\_\_\_

DATE \_\_\_\_\_

## OMNIBUS PERSONALITY INVENTORY (OPI)

SCALES	RAW SCORE	STD. SCORE <sup>a</sup>	STANDARD SCORES						
			20	30	40	50	60	70	80
Thinking Introversion (TI)	36	64	.....						
Theoretical Orientation (TO)	20	51	.....						
Estheticism (Es)	14	53	.....						
Complexity (Co)	25	68	.....						
Autonomy (Au)	38	67	.....						
Religious Orientation (RO)	15	55	.....						
Social Extroversion (SE)	18	42	.....						
Impulse Expression (IE)	33	58	.....						
Personal Integration (PI)	42	62	.....						
Anxiety Level (AL)	17	60	.....						
Altruism (Am)	23	54	.....						
Practical Outlook (PO)	4	33	.....						
Masculinity - Femininity (MF)	23	42	.....						
Response Bias (RB)	16	56	.....						

<sup>a</sup>. SCORES ABOVE 80 ARE PLOTTED AS 80; SCORES BELOW 20 ARE PLOTTED AS 20.

INTELLECTUAL DISPOSITION CATEGORY: 3 (See manual for explanation.)

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NAME \_\_\_\_\_

SEX **FEMALE**

YEAR OF STUDY \_\_\_\_\_

DATE \_\_\_\_\_

## OMNIBUS PERSONALITY INVENTORY (OPI)

SCALES	RAW SCORE	STD. SCORE <sup>a</sup>	STANDARD SCORES							
			20	30	40	50	60	70	80	
Thinking Introversion (TI)	31	57	.....							
Theoretical Orientation (TO)	19	49	.....							
Estheticism (Es)	15	55	.....							
Complexity (Co)	19	57	.....							
Autonomy (Au)	16	41	.....							
Religious Orientation (RO)	13	52	.....							
Social Extroversion (SE)	32	62	.....							
Impulse Expression (IE)	43	69	.....							
Personal Integration (PI)	15	36	.....							
Anxiety Level (AL)	2	28	.....							
Altruism (Am)	18	45	.....							
Practical Outlook (PO)	21	60	.....							
Masculinity - Femininity (MF)	22	41	.....							
Response Bias (RB)	9	40	.....							

<sup>a</sup>. SCORES ABOVE 80 ARE PLOTTED AS 80; SCORES BELOW 20 ARE PLOTTED AS 20.

INTELLECTUAL DISPOSITION CATEGORY: \_\_\_\_\_ (See manual for explanation.)

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## OMNIBUS PERSONALITY INVENTORY (OPI)

SCALES	RAW SCORE	STD. SCORE <sup>a</sup>	STANDARD SCORES							
			20	30	40	50	60	70	80	
Thinking Introversion (TI)	18	41	.....●.....							
Theoretical Orientation (TO)	21	53	.....●.....							
Estheticism (Es)	10	46	.....●.....							
Complexity (Co)	17	53	.....●.....							
Autonomy (Au)	24	51	.....●.....							
Religious Orientation (RO)	5	39	.....●.....							
Social Extroversion (SE)	13	35	.....●.....							
Impulse Expression (IE)	19	42	.....●.....							
Personal Integration (PI)	33	53	.....●.....							
Anxiety Level (AL)	13	52	.....●.....							
Altruism (Am)	20	48	.....●.....							
Practical Outlook (PO)	20	58	.....●.....							
Masculinity - Femininity (MF)	32	55	.....●.....							
Response Bias (RB)	14	51	.....●.....							

<sup>a</sup>. SCORES ABOVE 80 ARE PLOTTED AS 80; SCORES BELOW 20 ARE PLOTTED AS 20.

INTELLECTUAL DISPOSITION CATEGORY: 5 (See manual for explanation.)

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SEX \_\_\_\_\_

YEAR OF STUDY \_\_\_\_\_

DATE \_\_\_\_\_

## OMNIBUS PERSONALITY INVENTORY (OPI)

SCALES	RAW SCORE	STD. SCORE <sup>a</sup>	STANDARD SCORES						
			20	30	40	50	60	70	80
Thinking Introversion (TI)	24	48	.....						
Theoretical Orientation (TO)	16	44	.....						
Estheticism (Es)	20	65	.....						
Complexity (Co)	13	46	.....						
Autonomy (Au)	16	41	.....						
Religious Orientation (RO)	2	34	.....						
Social Extroversion (SE)	29	58	.....						
Impulse Expression (IE)	32	57	.....						
Personal Integration (PI)	22	42	.....						
Anxiety Level (AL)	10	45	.....						
Altruism (Am)	18	45	.....						
Practical Outlook (PO)	25	66	.....						
Masculinity - Femininity (MF)	22	41	.....						
Response Bias (RB)	10	42	.....						

a. SCORES ABOVE 80 ARE PLOTTED AS 80; SCORES BELOW 20 ARE PLOTTED AS 20.

INTELLECTUAL DISPOSITION CATEGORY: \_\_\_\_\_

6

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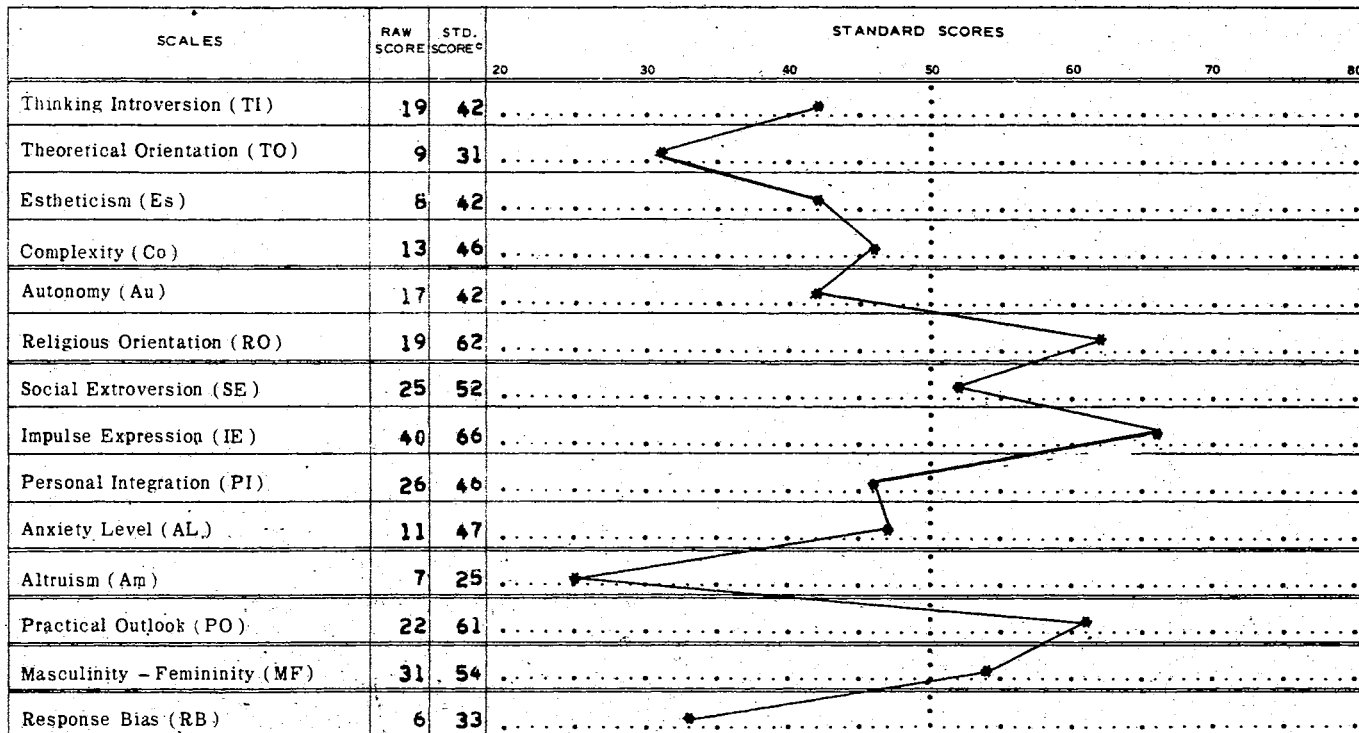
NAME \_\_\_\_\_

SEX \_\_\_\_\_

YEAR OF STUDY \_\_\_\_\_

DATE \_\_\_\_\_

## OMNIBUS PERSONALITY INVENTORY (OPI)



<sup>a</sup>. SCORES ABOVE 80 ARE PLOTTED AS 80; SCORES BELOW 20 ARE PLOTTED AS 20.

INTELLECTUAL DISPOSITION CATEGORY: 7 (See manual for explanation.)

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68-2135

NAME \_\_\_\_\_

SEX **FEMALE**

YEAR OF STUDY \_\_\_\_\_

DATE \_\_\_\_\_

## OMNIBUS PERSONALITY INVENTORY (OPI)

SCALES	RAW SCORE	STD. SCORE <sup>a</sup>	STANDARD SCORES					
			20	30	40	50	60	70
Thinking Introversion (TI)	13	35	.....					
Theoretical Orientation (TO)	9	31	.....					
Estheticism (Es)	7	40	.....					
Complexity (Co)	10	40	.....					
Autonomy (Au)	13	38	.....					
Religious Orientation (RO)	12	50	.....					
Social Extroversion (SE)	16	40	.....					
Impulse Expression (IE)	19	42	.....					
Personal Integration (PI)	35	55	.....					
Anxiety Level (AL)	15	56	.....					
Altruism (Am)	16	41	.....					
Practical Outlook (PO)	24	64	.....					
Masculinity - Femininity (MF)	33	56	.....					
Response Bias (RB)	11	45	.....					

<sup>a</sup>. SCORES ABOVE 80 ARE PLOTTED AS 80; SCORES BELOW 20 ARE PLOTTED AS 20.

INTELLECTUAL DISPOSITION CATEGORY: **8** (See manual for explanation.)

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VITA

MAMIE SLOTHOWER

Candidate for the Degree of

Doctor of Education

Thesis: A DESCRIPTIVE ANALYSIS OF PERSONALITY AND ACADEMIC CHARACTERISTICS OF FRESHMAN STUDENTS AT LANGSTON UNIVERSITY

Major Field: Higher Education

Biographical:

Personal Data: Born in Lucedale, Mississippi, July 14, 1919, the daughter of Mr. and Mrs. William Dickerson.

Education: Graduated from Rocky Creek High School, Lucedale, Mississippi, April, 1937; graduated from Clarke College, Newton, Mississippi, May, 1939; received Bachelor of Science degree in English and Master of Arts degree in secondary education, University of Southern Mississippi, Hattiesburg, Mississippi, 1949, 1951; attended University of Wisconsin, Madison, Wisconsin, summer, 1955; attended Ohio State University, Columbus, Ohio, summer, 1965; completed the requirements for the Doctor of Education Degree at Oklahoma State University in May, 1972.

Professional Experience: Taught English Sumrall High School, Sumrall, Mississippi, 1949-1951; taught English Decatur High School, Decatur, Mississippi, 1951-1954; assistant professor of education Pfeiffer College, Misenheimer, North Carolina, 1955-1957; assistant professor of education Erskine College, Due West, South Carolina, 1957-1958; Lucedale High School, Lucedale, Mississippi, 1959-1964; Dean of Women Lees College, Jackson, Kentucky, 1964-1965; associate professor of education, Langston University, Langston, Oklahoma, 1965-1972.

Professional Organizations: Oklahoma Education Association, American Association for Higher Education, and Association of Teacher Educators.