

A COMPARATIVE ANALYSIS OF STUDENT PERCEIVED  
INTRACOLLEGE ENVIRONMENTS AT OKLAHOMA  
PANHANDLE STATE COLLEGE

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PANHANDLE STATE COLLEGE

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## CHAPTER I

### INTRODUCTION

This is a study of student perceived undergraduate environments of the six undergraduate divisions at Oklahoma Panhandle State College of Agriculture and Applied Sciences. The investigation sought to determine if the student perceived environment differs from division to division, and the extent to which the non-intellectual factors in the environment differ.

The investigation also sought to reveal differences in student perceived environments in the following sub-groups: juniors versus seniors, males versus females, those students living on campus versus those students living off campus, and those students in varying grade-point-average groups.

#### Nature of the Problem and Need for the Study

Researcher's are making increased efforts to identify and study the many forces which operate and influence the college student. These forces include those which are psychological.

Much of the recent research energy spent in the area of psychological measurement and evaluation has focused attention on gaining a better understanding of the individual, and in the university (or college) setting a better understanding of the type of students enrolled at a particular institution.

Currently some research emphasis is on comparisons of environmental characteristics from institution to institution. Many times the geographical locations of the institutions are diverse. Many researchers, however, have claimed success in making interinstitutional comparisons. Relatively few studies have dealt with intrainstitutional environments. In 1962 Stern (46) and in 1967 Larkin (23) chose to focus on this notion of comparing environments within a single institution. (Other investigators will be mentioned in Chapter II.) Stern said:

One of the tasks ahead is to determine the consequences of practices now based on preference rather than purpose. An environment must be suited to the species; if it isn't, the organisms either die or go elsewhere. The characteristics of the student and of the educational objectives must both be employed as a guide in the design of maximally effective environments for learning. (46, p. 727)

Larkin stated:

While many and frequent attempts are made through counseling and advisement to guide students during their college careers, these methods do little in terms of measuring or evaluating the non-intellectual factors present, or the absence of such, in meeting student needs.

. . . This advisement and guidance process often involves helping a student select a major, and it frequently involves students who desire to change their major field of study. This decision will usually be made on the basis of knowledge of the curriculum and the student. This study [Larkin's dissertation] would add another dimension to the decision making process--that of the characteristics of the environment which may enhance or deter the student's progress toward his goals. (23, p. 2)

Larkin's study was made at Oklahoma State University, a large complex university, composed of six undergraduate colleges, a Graduate College, a School of Veterinary Medicine, and a Technical Institute. Included in Larkin's "Findings and Conclusions" was the idea that some differences in environmental conditions within a particular institution may be desirable and further study was needed to provide additional information (23).



This study will help to satisfy that need. It was conducted on the campus of Oklahoma Panhandle State College, a small four-year college (enrollment of approximately 1400) composed of six undergraduate divisions. The two institutions, Panhandle State College and Oklahoma State University lie in the same state and are under the same Board of Regents. The basic need for the study, a singular item in the area of college-self-study, is, in Larkin's words, "to add another dimension to the decision making process--that of the characteristics of the environment which may enhance or deter the student's progress toward his goals." (23, p. 2)

#### Significance of the Study

Although this study is unique to the Oklahoma Panhandle State College setting, it may be considered, in part, to be the first step in a downward extension of Larkin's study of some intrainstitutional environments at a large complex university. This study of a small college counterpart will help to bring the statewide picture of student perceived environments into sharper focus.

Educators in the undergraduate Divisions at Panhandle State College can use these data as a partial measurement of environmental factors the subjects comprising the 1969-70 junior-senior population perceived as present or missing in their division.

It is felt that a better understanding of the students' perception of their environments will provide a supplement to the orientation, advisement, and guidance functions indigenous to Oklahoma Panhandle State College.

It is also felt that a measure of the perceived environment will

be useful in evaluating existing goals set for students, as well as aiding in the formation of new goals and objectives.

#### Specific Statement of the Problem

The primary objective of this research project is to compare and contrast the six undergraduate division environments and to gain some understanding as to how the student perceived environment differs from division to division at Oklahoma Panhandle State College as indicated by scores made by juniors and seniors on the College Characteristics Index (CCI).

A second objective is to acquire knowledge of differences in student perceived environments in four additional college sub-cultures: juniors versus seniors, males versus females, on and off campus housing, and varying grade-point-average groups

#### Definition of Terms

##### General terms and concepts:

1. College - refers to the Goodwell campus and the adjacent College Experimental Farm of Oklahoma Panhandle State College.
2. Division - refers to the various administrative units and academic disciplines, specifically the six undergraduate divisions at Oklahoma Panhandle State College:

The Division of Agriculture  
The Division of Business  
The Division of Home Economics  
The Division of Industrial Education  
The Division of Music  
The Division of Science and Literature

3. Resident students - those who designated themselves as such on their enrollment cards and who have spent the Fall Semester of 1969-70 at Oklahoma Panhandle State College.
4. Juniors and Seniors - those who designated themselves as such on their enrollment cards and who have spent the Fall Semester of 1969-70 at Oklahoma Panhandle State College
5. Full-time students - those students enrolled in twelve or more semester hours of course work at the college.
6. Press - is "a general label for stimulus, treatment, or process variables; that is, the set of demands upon the individual" (30, p. 124).
7. Press of a college environment - using Murray's taxonomy, "represents the students' perception of what they face and deal with in the division or other college sub-culture." (30, p. 124)
8. Residence Hall Housing - includes all on-campus housing for single students.
9. On-Campus Housing - includes all Residence Hall Housing and all Married Student Housing on the campus and on the College Farm.
10. Off-Campus Housing - includes those apartments, rooming houses, and trailer parks in the city of Goodwell rented to undergraduate students enrolled at Oklahoma Panhandle State College.

Definitions of terms as variables:

The factors of the College Characteristic Index are: (48, pp. 18-21), (45), (47), (49)

1. Aspiration Level - A high score on this factor indicates that the college encourages students to set high standards for themselves in a variety of ways. These include opportunities for students to participate in decision-making processes involving the administration of the school, and the administration's receptivity to change and innovation, thus implying that a student's efforts to make some impact on his environment have some probability of being successful.
2. Intellectual Climate - The various items contributing to this factor reflect the qualities of staff and plant specifically devoted to scholarly activities in the humanities, arts, and sciences.
3. Student Dignity - This factor is associated with institutional attempts to preserve student freedom and maximize personal responsibility. Schools with high scores on this factor tend to regulate student conduct by means other than legislative codes or administrative fiat. There is a minimum of coercion and students are generally treated with the same level of respect accorded any mature adult.
4. Academic Climate - This factor stresses academic excellence in staff and facilities in the conventional areas of the natural sciences and the humanities.

5. Academic Achievement - Schools high in this factor set high standards of achievement for their students. Course work, examinations, honors, and similar devices are employed for this purpose.
6. Self-Expression - This factor is concerned with opportunities offered to the student for the development of leadership potential and self assurance. Among the activities serving this purpose are public discussions and debates, projects, student drama, and musical activities, and other forms of participation in highly visible activities.
7. Group Life - This factor is concerned with various forms of mutually supportive group activities among the student body. These activities are of a warm, friendly character, more or less typifying adolescent togetherness, but the items also reflect a more serious side to this culture as represented in activities devoted to the welfare of fellow students and less fortunate members of the community.
8. Academic Organization - The various components of this factor may be regarded as the environmental counterparts of the needs for orderliness and submissiveness in the individual. High scores on this factor are achieved by institutions which stress a high degree of organization and structure in the academic environment.
9. Social Forms - Schools characterized by this factor offer opportunities for the development of social skills of a

formal nature and in some respects suggest the finishing school counterpart of the vocational climate.

10. Play-Work - Schools high in this factor offer opportunities for participation in a form of collegiate life reminiscent of the popular culture of the 1920's. These are the institutions sometimes referred to as the fountains of knowledge where students gather to drink.
11. Vocational Climate - The items of this factor emphasize practical, applied activities, the rejection of aesthetic experience, and a high level of orderliness and conformity to the student's relations to the faculty, his peers, and his studies.

#### Hypotheses

The following hypotheses will be tested in order to check for differences among the groups sampled:

- (1) Using the analysis of variance test, there will be no significant difference in the factors of the CCI Environmental Presses at the .05 level between the six Divisions of the College.
- (2) Using the analysis of variance test, there will be no significant difference in the factors of the CCI Environmental Presses at the .05 level between:
  - a. Those students classified as juniors and those classified as seniors.
  - b. Males and females

- c. Those living in on-campus and those living in off-campus housing.
- d. Those whose grade point average (On a 4.0 scale) is in the scale brackets (1.00-1.99), (2.00-2.49), (2.50-2.99), and (3.00-4.00).

#### Assumptions of the Study

This study presumes that the following assumptions are valid.

1. Students' perceptions of environments can be measured and described.
2. The data compiled from the enrollment cards in the office of the Registrar at Oklahoma Panhandle State College are accurate.

## CHAPTER II

### REVIEW OF THE LITERATURE

#### Introduction

The use of social and psychological factors in studying college environments is coming of age. In its infancy in the mid-1930's, the need-press model of environmental study has made gradual inroads on the conventional college evaluation which emphasized the morphological characteristics of institutions of higher learning. Stern (50, p. 5) credits Kurt Lewin and H. A. Murray with creating the taxonomy and the need-press which launched the movement in 1938.

The attention of educators was gradually shifted from statistical appraisals of plant and personnel as researchers increased their efforts to identify and study those sociological and psychological forces which influence the college student. (50), (1)

#### Background and Development

Lewin in his 1936 book, Principles of Topological Psychology, contended that:

Every scientific psychology must take into account whole situations, i.e., the state of both person and environment. This implies that it is necessary to find methods of representing person and environment in common terms as parts of one situation . . . in other words our concepts have to represent the interrelationship of conditions. (25, pp. 12-13)

Stern augments this contention arguing on the grounds that:



. . . the psychological significance of either the person or the environment can only be inferred from one source--behavior. Ergo, since both are inferred from the same source, a common taxonomy must be employed for both. (50, p. 5)

Murray chose to focus on the lives of people instead of on their isolated acts. He stressed the need to consider behavior as the result of interaction between person and environment. These early researchers proposed a theory of personality which included the system of needs and presses that interact to cause an individual to react in a particular way. Murray defines need as follows:

A need is a construct which stands for a force in the brain region, a force which organizes perception, apperception, intellection, conation, and action in such a way as to transform in a certain direction an existing, unsatisfying situation. A need is sometimes provoked directly by internal processes of some kind . . . but, more frequently by the occurrence of one of a few commonly effective press. (30, pp. 123-124)

He defines press as "direction tendency in an object or situation" (30, p. 118). Following Murray's taxonomy, Stern identifies needs and presses:

Needs . . . as a taxonomic classification of the characteristic spontaneous behaviors manifested by individuals in their life transactions.

. . . Press . . . as a taxonomic classification of characteristic behaviors manifested by aggregates of individuals in their mutual interpersonal transactions. (50, pp. 7-8)

Murray's need-press theory provided the framework with which Stern and Pace (37) devised the College Characteristics Index during the period 1957-58. According to these authors, the college is a mosaic of individual needs and environmental presses; press being reflected in the stresses, pressures and rewards imposed by the college environment; and needs being those organizational tendencies which seem to give unity and direction to personality (37), (35), (36).

## Environmental Research

The early Environmental Indexes were limited to descriptions of activities and events within different types of academic settings. The environmental factors used were those which served to describe the unique cultural atmosphere of the institution.

Stern reports that the College Characteristics Index (CCI) was the first of the Environment Indexes to be constructed (50). Stern and Pace (37) used as the prototype their Activities Index (AI) which had been designed earlier to measure student needs. The AI had ultimately been modified from the taxonomy of H. A. Murray (30).

The 1957 version of the CCI was administered to 423 upperclassmen and 71 faculty members in five institutions. Based on the results of that pilot study a revision of the instrument was devised in 1959 (Form 458). This form of the CCI, after use with 22 schools, led to the form now in use, Form 1158. Stern reports that by the time his 1970 book, People in Context, went to press, "well over 100,000 students at hundreds of American colleges" had answered the current CCI form (50, p. 17).

In order to set up a normative sample, Stern and Pace supervised the administration of the CCI to groups of students in sixty institutions. Thirty-two of those institutions were selected for the normative sample. Liberal arts, parochial, and non-sectarian colleges, various types of professional schools, and both public and private universities were included in the sample. The thirty scales of the CCI were ranked to obtain an index of similarity between one college environment and another. The unsatisfactory result was a wide range of rank order correlations--varying from +.93 to -.87. The authors

suggested it would be more helpful to examine the environmental press sources seeking identification of the kinds of pressures and characteristics that tend to go together in similar environments and how the presence of one characteristic is related to the presence of others (33, pp. 21-22).

Stern later commented on this problem of reliability as follows:

. . . The reliability of the CCI across institutions is affected adversely by high degrees of consensus within each student body and by large differences between schools, although both of these are extremely desirable properties in themselves for a measure of institutional differences.

The effect of these two factors is to decrease the scale variance relative to the item variance, thus decreasing the reliability coefficient. The increase in item variance results from the fact that, for any given item, the pattern of responses across institutions tends toward a 50-50 split, since the same item is as inappropriate for some schools as it is appropriate for others. (50, p. 27)

To amplify this idea, Stern used CCI data from 23 schools to define five different college and ~~university~~ cultures:

1. Expressive. The college culture is aesthetic, gregarious, and non-practical--a community of self-actualizing, but not necessarily creative people.
2. Intellectual. The outstanding characteristics are high intellectual interests and motivation. The schools are primarily elite liberal arts colleges.
3. Protective. These schools are characterized by a highly organized supportive environment and a relatively dependent, submissive student body.
4. Vocational. A high degree of conventionality and authoritarian structure characterize the college culture.
5. Collegiate. The institutional setting provides extensive facilities for student recreation and amusement; expressing an uneasiness of purpose in ambiguous standards of achievement and uncertain administrative practices. (50, pp. 206-210)

Elements of any one or all of the above described college cultures might be revealed by a study of environments within one institution.

Most of the current research emphasizes comparisons of environmental characteristics across institutions. Besides the work of Stern and Pace, only a few studies have dealt with intrainstitutional comparisons of environments.

Appropos to the purpose of this study, a comparison of intrainstitutional presses indicated by the CCI, is the discussion of some of the more significant studies which follows.

In 1962 Duncanis (12) compared groups of students within the School of Education at Pittsburgh University on the basis of age, gradepoint average, sex, and credit load. He found that the students who indicated the press of the university environment was high on the CCI press scales of achievement, adaptation, affiliation, conjunctivity, ego achievement, emotionalism, energy, objectivity, reflectiveness, succorance, and scientism were the same students who indicated more satisfaction with the environment at large on an attitude scale devised by the researcher.

Thistlewaite (53, pp. 71-76, and 51, pp. 183-191) found high Ph.D. productivity in college environments which stressed natural sciences, social sciences, arts and humanities.

In a later study of 4200 National merit scholars, CCI data indicated higher retention rates in environments where the students felt strong press for affiliation, achievement, independence, humanism, enthusiasm, and supportiveness (52, pp. 145-167).

Prior, in 1964, used the CCI in a self-improvement effort at Columbia University. Using two sub-groups, male and female, students living on- and off-campus in real and ideal environments as described by both students and administration, he found significant differences

in each comparison. The most significant difference was between the administration's description of the real and the ideal environment (40).

Raab's 1963 study utilized the AI-CCI forms to measure needs and presses perceived by Louisiana State University freshman and juniors. Random samples of 100 in each class yielded no significant differences between the satisfaction and dissatisfaction of the two groups relating to the university environment (41).

Keith's 1965 study of students at the University of Alabama attempted to determine the presence or absence of congruency between academic performance and need-press satisfaction. Although he found some significant differences between environmental presses in each college subdivision, he found none between the students' needs and their expressed satisfactions within their university college (21).

In 1967 MacLean, at Indiana University, used the CCI and a sociometric instrument of his own design in a study of twelve student living groups. Two of the groups, one male and one female, were used for control. "The women's groups' scores on the CCI were found to differ significantly from the men on the following scales: the Change-Sameness Scale; the Humanities, Social Science Scale; the Nurturance Scale; the Reflectiveness Scale; the Sensuality-Prudishness Scale" (26, p. 1992A). He reached no conclusions on the results of the sociometric device implying that more research was needed before it could be used with confidence.

Larkin's 1967 study of intrainstitutional environments at Oklahoma State University reported significant differences between the six undergraduate colleges on from one to nine of the eleven CCI features. Differences were also found to be significant between the sexes, juniors

✓ and seniors, and various housing groups. Significance at the .05 level between only two to four of the eleven factors appeared. When comparisons were made of students in three grade-point-average groups, no significant difference was found on any one of the eleven CCI factors. Larkin pointed up the need for more study in the area of intrainstitutional environments (23).

Valuable research contributions in the area of intrainstitutional environmental studies have also been reported by investigators who used instruments other than the AI-CCI indexes. Mention of some of the more outstanding techniques follows.

Astin and Holland (7), using the Environmental Assessment Technique (EAT), which they devised, attempt to describe the college environment in terms of past student body characteristics and present student bodies. The EAT measures eight characteristics of the college environment: size, average intelligence, and personal orientations classified as realistic, intellectual, social, conventional, enterprising, and artistic. They hypothesize that present students are using self-selection in deciding which college to attend. Thus, in a continuing process, the environment of a college or university will reflect its type of student body (6). After describing 246 colleges by citing institutional characteristics, Astin reported a relatively high correlation between the characteristics of the new students and the characteristics of the college (3), (5).

In subsequent studies, Astin reported that the conventional orientation and the size of the student body have a negative effect on the aspirations of students seeking further graduate training (2); and in a four-year longitudinal study of the effects of various college

environments on the career choices of 3,538 able young males, he reported support for his idea that the student's career choice conforms more to the dominant or modal choice in his college environment (4).

The College and University Environment Scales (CUES), devised by Pace (32), identifies five factors of the educational environment as Practicality, Community, Awareness, Propriety, and Scholarship. Each of the scales contains 30 items and is based indirectly on the results of a factor analysis of CCI means for 50 schools (32).

Centra's 1966 study (9) utilized this instrument for an intra-institutional study to check the hypothesis that the major field of a student is a variable in the student's perception of a large university. He found significant differences which revealed that each college group saw its major field environment as being higher on the scholarship scale and lower on the propriety scale than the total university environment.

Sanford sums up the opinions of several authors regarding the importance of environmental studies in terms of goals, aims, and the success of the college when he states:

I would like to uphold as the major criterion of educational success the degree to which students are changed in desired ways. (43, p. 198)

It would seem that self-study, which is vital if an institution is to remain viable, would necessarily include environmental studies. Now that the unidimensional descriptive and correlational analysis techniques for describing college environments can be supplanted with a new dynamic approach which embraces another dimension; the dimension of the sociological and psychological forces through which schools affect their

students, institutional self-study can be particularly discerning in relating activities to goals.

In The American College, edited by Nevitt Sanford, Stern was a contributor. In his chapter, "Environments for Learning", Stern makes a strong case for environmental studies:

An environment must be suited to the species; if it isn't, the organisms either die or go elsewhere. But what is an optimal environment--one that satisfies one or that stimulates? . . . The characteristics of the students and of the educational objectives must both be emphasized as guides in the design of maximally effective environments for learning. (42, pp. 727-728)

The American College (42) was a most significant work. It emphasized the importance of environmental conditions for learning and the power of the informal system of the students to foster or negate the effort of the faculty and administration and the effects of the curriculum. Particular attention was given a previously neglected area--the effects of the college culture on the students.

The Jacob Report, 1957, (20) received much attention with its conclusion that student values remain about the same through college with the college experience exerting relatively little effect to change them. This report stimulated many comprehensive studies which were made to determine student values; and how the student changes or fails to change during the college years (11), (14). Webster, Freedman, and Heist (56) reported significant changes in student values and attitudes. Lavin (24) presents comprehensive summaries on a much overworked area--the prediction of academic performance.

A number of studies have concentrated on how student personality and background characteristics relate to the "press" of the college environment. Yonge (57) and Michael and Boyer (29) are recommended



because of their excellent summaries of associated works and their extensive bibliographies.

Pervin (39) emphasized the "College as a Social System" in the sense that "the parts and goals involve people, with individual and group needs to be satisfied" (39, p. 317). His research made use of a questionnaire called Transactional Analysis of Personality and Environment (TAPE), "which uses the semantic differential technique: it asks students to rate a variety of concepts on a number of scales" (39, p. 318). Regarding his visits to many campuses he states:

. . . I have been impressed with the fact that students, faculty, and administration do not share the same goals, or, if they do--and this is often of greater consequence--problems in communication keep them from knowing it. Thus students, faculty and administration may seek informal contacts with one another but each feels the others are unapproachable. (39, p. 321)

One goal of self-study for any institution must be to move ever closer toward creating an environment which will nurture the academic or "ideal" student (22). There is a dearth of research on the characteristics of--and the most stimulating environment for--the ideal student. The Superior Student in American Higher Education, 1966, presents a single chapter on student characteristics (chapter four) which reports only impressions gained from panel discussions and the like. It reports no research studies. Brown (8) had the faculty identify ideal students for a study of their characteristics. The students nominated were highly independent of peer group pressures, high on impulse expression, very tolerant of ambiguity, and theoretically oriented (8), (10), (54).

Gottlieb and Hodgkins focus on the "ideal college graduate" in this description:

. . . (one who is) not only intellectually competent, but is also vocationally and professionally trained as well as being socially adept in meeting the demands of the outer world. (15, p. 269)

Assuming that the "ideal" student can be described at some time in the future, an appropriate "next question" might be--will he turn out to be the "ideal college graduate"?

#### Summary

It seems proper to close this section with the writer's overall impressions after his review of the literature. The main ideas seem clear. They are: (1) sociopsychologically oriented environmental research has "come of age" and can be used as a tool of self-study in the field of education as well as elsewhere, (2) previous emphasis has been on comparisons between institutions, (3) current emphasis is swinging to comparisons within institutions, and (4) the trend toward intra-institutional environmental studies is a desirable one if a better job of bringing the species (the students) and the environment (the institution) into closer harmony is to be done.

## CHAPTER III

### DESIGN AND METHODOLOGY

Oklahoma Panhandle State College of Agriculture and Applied Sciences is a four-year college which at the time of this study, the Spring Semester of the 1969-70 academic year, enrolled approximately 1400 students. The junior class had 271 with 169 men and 102 women and the senior class had 281 with 195 men and 86 women.

#### Population and Sample

The population for this study consisted of all resident junior and senior full-time students (353) enrolled at Oklahoma Panhandle State College during the Spring Semester of 1969-70. Students classified as juniors or seniors who were enrolled for the first time at the college for the Spring Semester of the 1969-70 school year were excluded from the population.

The above described population constituted the sample. Responses were obtained from 339 (96%) of the 353 juniors and seniors comprising the total population.

Table I shows the population distribution of juniors and seniors by divisions.

A similar breakdown of the 96% sample is shown in Table II.

It should be noted here that the total number of students in two of the divisions is extremely small. In each case a 100% response was

TABLE I  
JUNIOR AND SENIOR STUDENT POPULATION BY DIVISION

Division	Juniors	%	Seniors	%	Total	%
Agriculture	38	10.8	46	13.0	84	23.8
Business	27	7.6	39	11.1	66	18.7
Home Economics	1	0.3	1	0.3	2	0.6
Industrial Arts	12	3.4	13	3.7	25	7.1
Music	6	1.7	2	0.6	8	2.3
Science and Literature	<u>74</u>	<u>20.9</u>	<u>94</u>	<u>26.6</u>	<u>168</u>	<u>47.5</u>
Totals	158	44.8	195	55.2	353	100.0

TABLE II  
NINETY SIX PER CENT SAMPLE OF JUNIORS AND SENIORS BY DIVISION

Division	Juniors	%	Seniors	%	Total	%
Agriculture	36	10.6	43	12.7	79	23.3
Business	27	8.0	37	10.9	64	18.9
Home Economics	1	0.3	1	0.3	2	0.6
Industrial Arts	12	3.5	12	3.5	24	7.1
Music	6	1.7	2	0.6	8	2.4
Science and Literature	<u>73</u>	<u>21.5</u>	<u>89</u>	<u>26.2</u>	<u>162</u>	<u>47.7</u>
Totals	155	45.6	184	54.2	339	100.0

obtained but, with only two in the population coming from the Division of Home Economics and with only eight individuals coming from the Division of Music, these two divisions were excluded from the statistical comparisons of interdivisional environments. Data from their responses were used, however, in all other analyses.

Tables III and IV show the population and sample breakdowns by type of housing and by sex.

#### The Instrument Used in the Study

The College Characteristics Index (CCI) was used to collect all data relating to environmental presses. Copyrighted in 1963 by George G. Stern, this inventory consists of 300 items distributed among 30 scales of 10 items each (50, p. 14). This environmental index employs a forced choice format and is self administering. It is distributed by National Computer Systems, 1015 South 6th Street, Minneapolis, Minnesota 55415 (50).

At the time this study was completed the reliability and validity data for the CCI were not yet available; nor was a CCI manual available. However, NCS distributes a booklet of scoring instructions and college norms (also copyrighted by Stern in 1963) (48). On page one of the booklet this statement appears:

This booklet is not intended as a manual. It contains only the most rudimentary materials regarding the administration and scoring of the Activities Index and the College Characteristics Index. Nothing will be found here regarding the rationale of these instruments, technical data, validity studies, special keys or analytic procedures. Only a few of the many special sets of norms available for the Indexes are included. However, it is hoped that these materials will be of some help to those who are either engaged in a study at present or are about to undertake one, and are in need of some form of instruction to fill this period just prior to the production of the manual. (48, p. 1)

TABLE III  
DISTRIBUTION OF POPULATION AND SAMPLE BY TYPE OF HOUSING

Type of Housing	Number	%
Population:		
Off Campus	137	38.8
On Campus	<u>216</u>	<u>61.2</u>
Totals	353	100.0
Sample:		
Off Campus	129	38.1
On Campus	<u>210</u>	<u>61.9</u>
Totals	339	100.0

TABLE IV  
DISTRIBUTION OF POPULATION AND SAMPLE BY SEX

Sex	Number	%
Population:		
Male	241	68.2
Female	<u>112</u>	<u>31.8</u>
Totals	353	100.0
Sample:		
Male	227	67.0
Female	<u>112</u>	<u>33.0</u>
Totals	339	100.0

Scale definitions (thirty variables), and the groupings of scales for each of the eleven CCI Environment Factors along with Stern's Norms which are based upon 1993 juniors and seniors from 32 colleges may be found in Appendix A.

### Statistical Analysis

The statistical treatment used was analysis of variance. This technique is particularly applicable where group comparisons are made. Separate computations were used for each of the eleven CCI factors. If differences were significant at the 0.05 level, scores of several groups on a given factor were analyzed. Where significance was found, the Duncan's New Multiple Range Test for Unequal "n's" (44) was used to identify significant differences among group means.

Computations in this study were done on a Model 50 IBM 360 Computer at the Computing Center, Oklahoma State University.

### Timing

Meetings were arranged for the students at twelve different times in order to minimize conflicts with student activities. Each subject in the population received a letter, bearing the signatures of the President of the college and the Researcher, soliciting his cooperation in the study. A copy of this letter appears in Appendix B. Follow-up letters and personal contacts were utilized as required to arrange subsequent testing periods. Ninety six per cent of the population responded.

## CHAPTER IV

### ANALYSIS OF DATA AND PRESENTATION OF RESULTS

This chapter will present findings of the statistical tests used to determine the statistical significance of the results of this investigation. The .05 level of confidence will be used to determine significance on all group comparisons. The results of the comparisons of the student perceived division environments will be presented first, followed by similar comparisons of population sub-groups by class, by sex, by living area, and by gradepoint-average group. A discussion of the statistical findings will follow the presentation of the analyses.

In order to reveal diversity among groups, the two general hypotheses were tested. The null hypotheses was used for testing, and when the overall analysis of variance for the variability of scores yielded an "F" value which was statistically significant at the .05 level, the null hypothesis was rejected and the differences were said to be due to differences in the sample.

Following the significant "F" test, the differences were applied to a posteriori comparison. The Duncan's New Multiple Range Test for Unequal "n's" was used to identify significant differences among group means on the scales of the CCI.

The details of Duncan's method, which he developed in 1955, are explained and illustrated by Steele and Torrie (44, pp. 107-109). The procedure consists of three stages, one of which tests for the



homogeneity of the sample of means for a particular size of sample.

The results of the Duncan test can be summarized in a brief but readily understandable form as illustrated in the example which follows:

Means	Group	Rank
34.0	A	1
33.9	B	2
32.8	C	3
32.1	D	4

Any two means not included by the same line are significantly different (e.g., means for groups A and D). Any two means included by the same line are not significantly different (e.g., means for groups A, B, and C).

Steele and Torrie summarize their presentation of Duncan's procedure as follows:

In summary, the new multiple-range test is easy to apply; it takes into account the number of treatments in the experiment whereas the lsd does not; it permits decisions as to which differences are significant and which are not whereas the F test permits no such decisions when the F is significant; it uses a set of significant ranges, each range depending upon the number of means in the comparison.

Since the notion of Type I error was not originally intended to apply to multiple comparisons, the idea of significance level is replaced by that of special protection levels against finding false significant differences. These levels are based on treatment degrees of freedom; the probability of finding a significant difference between any two means, when the corresponding true means are equal, is less than or equal to the significance level stated in Table A.7. The question of error rate is also discussed by Harter (7.10). (44, p. 109)

Analysis of Variance Results  
and Testing of Hypotheses

Differences Among the Divisions

The first general hypothesis states that there will be no significant difference in the factors of the CCI Environmental Presses at the .05 level between the six divisions of the college.

As previously noted in Chapter III, the Divisions of Home Economics and Music were excluded in making divisional comparisons because of their extremely small "n's".

The Duncan "F" Ratios obtained from comparisons of the four divisions are summarized in Table V.

Significant differences on three of the eleven CCI factors were noted: with Aspiration at the .05 level; and with Academic Organization and Vocational Climate at the .01 level. The null hypothesis was rejected.

Duncan's New Multiple Range Test for Unequal "n's" was applied to the three significant F's noted in Table V in order to identify the differences among group means on the scales of the CCI. The results of this treatment are summarized in Table VI.

Aspiration Level - significance at the .05 level

Students from the Division of Agriculture scored significantly higher on the factor of Aspiration level than did those from the Divisions of Science and Literature and Business. This indicates that they perceive that they are expected to aim high and are considered capable of making it. It also indicates more opportunities to

TABLE V

RESULTS OF DUNCAN TESTS COMPARING THE ENVIRONMENTAL PRESSES  
 PERCEIVED BY STUDENTS OF THE DIVISIONS OF AGRICULTURE,  
 BUSINESS, INDUSTRIAL ARTS, AND SCIENCE AND LITERATURE

Factor	Duncan F Ratio
Intellectual:	
Aspiration	3.6145*
Intellectual Climate	1.6916
Student Dignity	0.1284
Academic Climate	0.5741
Academic Achievement	2.4177
Self Expression	0.5543
Non-Intellectual:	
Group Life	1.3647
Academic Organization	4.0168**
Social Form	1.2973
Play-Work	0.4143
Vocational Climate	4.9574**

\*Significant at .05 level

\*\*Significant at .01 level

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TABLE VI  
 DUNCAN'S MULTIPLE RANGE, 0.050 PROTECTION LEVEL  
 FOUR DIVISIONS

Factor	Means	Division	Rank
<b>Aspiration:</b>			
EMS*=25.595500			
DF =325			
	18.342	Agriculture	1
	17.833	Industrial Arts	2
	16.593	Science and Literature	3
	15.797	Business	4
<b>Academic Organization:</b>			
EMS*=36.435590			
DF =325			
	35.648	Science and Literature	1
	34.984	Business	2
	33.101	Agriculture	3
	32.750	Industrial Arts	4
<b>Vocational Climate:</b>			
EMS*=14.136790			
DF =325			
	33.969	Business	1
	33.870	Science and Literature	2
	32.750	Industrial Arts	3
	32.051	Agriculture	4

\*EMS = error of mean score

participate in decision-making processes involving the administration of the division, and an understanding through the receptivity of the administration that student efforts to make some impact on the environment might be successful.

According to Stern (50, p. 36), the press toward a high level of aspiration is suggested by such observations as "when students do not like an administrative decision, they really work to get it changed," "courses, examinations, and readings are frequently revised," "many famous people are brought to the campus for lectures, concerts, student discussions, etc.," and "there is a lot of emphasis on preparing for graduate work."

#### Academic Organization - significance at .01 level

The students from the Division of Science and Literature scored significantly higher than did students from the divisions of Agriculture and Industrial Arts. A high score on this factor indicates that the administration stresses organization, and structure in the academic environment. Statements that illustrate this are "students ask permission before deviating from common policies or practices," "in many classes there is very little joking or laughing," "faculty members and administrators see students only during scheduled office hours or by appointment."

#### Vocational Climate - significance at the .01 level

Business students scored significantly higher on the Vocational Climate factor than did Agriculture students. Also, Science and Literature students scored significantly higher than did Agriculture students.

In view of the often expressed idea that Science and Literature (the arts and science area) offers a broad educational base for living while Agriculture is a highly vocationally oriented area, the significantly lower score by the Agriculture students is an intriguing facet of the study. Larkin was similarly intrigued in finding no significant difference on this factor when he compared the College of Arts and Sciences with the College of Agriculture at Oklahoma State University in 1967 (23).

The items of this factor (Vocational Climate) emphasize practical applied activities, the rejection of aesthetic experience, and a high level of orderliness and conformity in the student's relation to the faculty, his peers, and his studies. Characteristic responses include "the college offers many really practical courses such as typing, report writing, etc.," "in papers and reports vivid and novel expressions are usually criticized," "students almost always wait to be called on before speaking in class," and "regularly check up on the students to make sure that assignments are being carried out on time."

#### Differences Between Juniors and Seniors

Part (a) of the second general hypothesis states that there will be no significant difference in the factors of the CCI Environmental Presses at the .05 level between those students classified as juniors and those classified as seniors.

Table VII summarizes the findings obtained on this factor. There were no significant differences on the eleven CCI factors thus the null hypothesis was accepted.

It would appear that a commonality of background and a sharing of

TABLE VII  
RESULTS OF DUNCAN TESTS COMPARING THE ENVIRONMENTAL PRESSES  
PERCEIVED BY JUNIORS VERSUS SENIORS

Factor	Class	Mean	Duncan F Ratio
<b>Intellectual:</b>			
Aspiration	Junior	17.1484	0.6947 N.S.
	Senior	16.6848	
Intellectual Climate	Junior	16.3032	0.0280 N.S.
	Senior	16.1902	
Student Dignity	Junior	14.4903	1.0611 N.S.
	Senior	15.0870	
Academic Climate	Junior	7.7871	0.0016 N.S.
	Senior	7.7717	
Academic Achievement	Junior	23.1484	0.0136 N.S.
	Senior	23.2391	
Self Expression	Junior	16.3871	0.9129 N.S.
	Senior	15.8098	
<b>Non-Intellectual:</b>			
Group Life	Junior	22.7935	0.2139 N.S.
	Senior	23.0435	
Academic Organization	Junior	34.7806	0.0317 N.S.
	Senior	34.6630	
Social Form	Junior	25.8516	0.2948 N.S.
	Senior	25.5489	
Play-Work	Junior	22.6064	0.0083 N.S.
	Senior	22.6522	
Vocational Climate	Junior	33.6839	1.0913 N.S.
	Senior	33.2500	

N.S. = Not Significant at .05 level

DF = 338

problems is typical of the students in the upper division of the college.

#### Differences Between Males and Females

Part (b) of the second general hypothesis states that there will be no significant difference in the factors of the CCI Environmental Presses at the .05 level between males and females.

The sexes differed on five of the eleven CCI factors: Aspiration Level, Student Dignity, Academic Climate, Academic Achievement, and Academic Organization. The null hypothesis was rejected. The differences are presented in Table VIII.

#### Aspiration Level - significance at the .01 level

The females felt they had more opportunities to participate in the decision-making process than did the males. They also felt that the college encourages students to set higher standards for themselves. The males felt the administration was less receptive to change and innovation and that a student's efforts to make some impact on the environment are less likely to be successful than did the females.

#### Student Dignity - significance at the .05 level

A second area of difference between the two groups was on the factor of Student Dignity.

The males viewed the college as less authoritarian and that they were treated more like adults than did the females. The females felt that they were subjected to more coercive forces and were given less opportunities for personal responsibility than were the males.



TABLE VIII  
RESULTS OF DUNCAN TESTS COMPARING THE ENVIRONMENTAL  
PRESSES PERCEIVED BY MALES VERSUS FEMALES

Factor	Sex	Mean	Duncan F Ratio
Intellectual:			
Aspiration	Male	15.6429	10.3943**
	Female	17.5154	
Intellectual Climate	Male	16.5330	1.5244
	Female	15.6518	
Student Dignity	Male	15.2335	4.3218*
	Female	13.9643	
Academic Climate	Male	8.1013	5.7760*
	Female	7.1250	
Academic Achievement	Male	23.9295	7.4038**
	Female	21.7143	
Self Expression	Male	16.3304	1.4758
	Female	15.5536	
Non-Intellectual:			
Group Life	Male	23.1322	1.1553
	Female	22.5179	
Academic Organization	Male	34.1498	6.1178*
	Female	35.8661	
Social Form	Male	25.6255	0.1002
	Female	25.8125	
Play-Work	Male	22.4449	1.1340
	Female	23.0089	
Vocational Climate	Male	33.1982	2.9792
	Female	33.9554	

\*Significant at .05 level

\*\*Significant at .01 level

DF = 338

Academic Climate - significance at the .05 level

This factor stresses academic excellence in staff and facilities in the conventional areas of the natural sciences, social sciences, and the humanities.

The females felt that not as much stress is placed on academic excellence in these areas as did the males.

Academic Achievement - significance at the .01 level

The two groups varied widely on this factor. The females felt that course work, examinations, and honors set less high standards for them than did the males.

Academic Organization - significance at the .05 level

Responses from both males and females reflected a high degree of organization and structure within the academic environment, but the females felt a lesser need for orderliness and submission in the individual than did the males.

Differences Between On- and Off-Campus Housing

Part (c) of the second general hypothesis states that there will be no significant difference in the factors of the CCI Environmental Presses at the .05 level between those living in on-campus and those living in off-campus housing.

The results of these comparisons are shown in Table IX. No significant difference was found and the null hypothesis was accepted.

Although no significant difference was detected, both groups viewed the overall dimensions of the Intellectual Climate of the

TABLE IX

RESULTS OF DUNCAN TESTS COMPARING THE ENVIRONMENTAL PRESSES  
PERCEIVED BY STUDENTS HOUSED ON CAMPUS VERSUS OFF CAMPUS

Factor	Housing	Mean	Duncan F Ratio
Intellectual:			
Aspiration	On Campus	16.5857	2.0596 N.S.
	Off Campus	17.4031	
Intellectual Climate	On Campus	16.2667	0.0088 N.S.
	Off Campus	16.2015	
Student Dignity	On Campus	14.5714	1.1524 N.S.
	Off Campus	15.2093	
Academic Climate	On Campus	7.6429	0.8116 N.S.
	Off Campus	8.0000	
Academic Achievement	On Campus	22.8381	1.4103 N.S.
	Off Campus	23.7829	
Self Expression	On Campus	15.7476	1.9166 N.S.
	Off Campus	16.6046	
Non-Intellectual:			
Group Life	On Campus	22.7095	1.0869 N.S.
	Off Campus	23.2868	
Academic Organization	On Campus	35.0000	1.2080 N.S.
	Off Campus	34.2558	
Social Form	On Campus	25.6381	0.0511 N.S.
	Off Campus	25.7674	
Play-Work	On Campus	22.5524	0.1628 N.S.
	Off Campus	22.7597	
Vocational Climate	On Campus	33.6667	1.8161 N.S.
	Off Campus	33.0930	

N.S. = Not Significant

DF = 338

college's academic program as needing more emphasis on (a) qualities of staff and facilities, (b) standards of achievement set by students as well as faculty, and (c) opportunities for the development of self-assurance. They also viewed student personnel practices as being too custodial and felt that vocationalism was overemphasized.

Regarding the Non-Intellectual Climate, the two groups seemed to concur in feeling a high level of formal organization of student affairs, both academic and social. Although they felt that there was little opportunity for self expression and for the development of leadership potential and self-assurance, they seemed to agree that group activities were of a warm friendly character and that there was adequate emphasis on proper social form. The responses of both groups also reflected a high degree of emphasis placed on the technical and vocational courses by the college, a rejection of aesthetic experiences, and a high level of orderliness and conformity in the student-faculty relationship.

#### Differences Between Varying Gradepoint

##### Average (GPA) Groups

The ninety-six percent sample was first subdivided into seven scale brackets. This procedure yielded two extremely small "n's" as can be seen below:

<u>GPA</u>	<u>n</u>
(0.99 and below)	0
(1.00-1.49)	8
(1.50-1.99)	74
(2.00-2.49)	111
(2.50-2.99)	83
(3.00-3.49)	50
(3.50-4.00)	<u>13</u>
Total =	339

In order to eliminate the problem of disparate n's, a regrouping was made as follows:

<u>GPA</u>	<u>n</u>
(1.00-1.99)	82
(2.00-2.49)	111
(2.50-2.99)	83
(3.00-4.00)	63

Part (d) of the second general hypothesis states that there will be no significant difference in the factors of the CCI Environmental Presses at the .05 level between those whose gradepoint average (on a 4.0 scale) is in the scale brackets (1.00-1.99), (2.00-2.49), (2.50-2.99), and (3.00-4.00).

All combinations of the four groups were tested on the eleven factors. The findings, which appear in Table X, indicate significant differences on four of the eleven CCI factors. The null hypothesis was rejected.

As was the case in the earlier comparisons of Divisions where more than two groups were involved, a companion table, Table XI, was utilized to identify the differences on the factors, Aspiration Level, Intellectual Climate, Academic Organization, and Vocational Climate.

#### Aspiration Level - significance at the .01 level

The (3.00-4.00) GPA group differed significantly with each of the other three GPA groups. The students enjoying the highest level of academic success perceived less opportunities to participate in decision-making processes, and less administrative receptivity to change and innovation than did the other groups. The three lower GPA groups felt that their college set higher standards for them than did the (3.00-4.00) GPA group.

TABLE X  
RESULTS OF DUNCAN TESTS COMPARING THE ENVIRONMENTAL PRESSES  
PERCEIVED BY FOUR GROUPS OF STUDENTS WITH  
VARYING GRADE POINT AVERAGES

Factor	Duncan F Ratio
<b>Intellectual:</b>	
Aspiration	4.3269**
Intellectual Climate	3.0666*
Student Dignity	0.3653
Academic Climate	1.0503
Academic Achievement	1.1761
Self Expression	0.9163
<b>Non-Intellectual:</b>	
Group Life	0.2011
Academic Organization	3.5745*
Social Form	0.6881
Play-Work	1.2144
Vocational Climate	3.4874*

\*Significant at .05 level

\*\*Significant at .01 level

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TABLE XI

DUNCAN'S MULTIPLE RANGE, 0.050 PROTECTION LEVEL FOUR GROUPS  
OF GRADE POINT AVERAGES BASED ON 4.0

Factor	Means	GPA	Rank
<b>Aspiration:</b>			
EMS*=25.258100			
DF =335			
	17.902	1.00-1.99	1
	17.351	2.0-2.49	2
	16.711	2.5-2.99	3
	15.032	3.0-4.00	4
<b>Intellectual Climate:</b>			
EMS=37.577190			
DF =335			
	17.219	1.00-1.99	1
	16.649	2.0-2.49	2
	16.241	2.5-2.99	3
	14.254	3.0-4.00	4
<b>Academic Organization:</b>			
EMS=35.840100			
DF =335			
	36.241	2.5-2.99	1
	35.365	3.0-4.00	2
	34.126	2.0-2.49	3
	33.476	1.0-1.99	4
<b>Vocational Climate:</b>			
EMS=14.200690			
DF =335			
	34.286	3.0-4.00	1
	34.096	2.5-2.99	2
	33.099	2.0-2.49	3
	32.622	1.00-1.99	4

\*EMS = Error of Mean Score

Intellectual Climate - significance at the .05 level

Students in the (3.00-4.00) GPA group differed significantly from the (1.00-1.99) and (2.00-2.49) GPA groups. The high GPA students expressed a lesser degree of satisfaction with the stress placed on scholarly activities in the humanities, arts, and social sciences than did the two lower groups.

Academic Organization - significance at the .05 level

All groups felt the college environment was highly structured. The (2.50-2.99) GPA students differed significantly from the students in the GPA groups (1.00-1.99) and (2.00-2.49). The two lower GPA groups perceived a greater need for orderliness and submissiveness on the part of the individual. The (2.50-2.99) GPA group felt less need for organization and structure in the academic environment.

Vocational Climate - significance at the .05 level

The (1.00-1.99) GPA group differed significantly from the two highest GPA groups. The students in the lowest GPA bracket placed less emphasis on the practical and applied activities, and on the need for conformity than did the other groups. Even so, all groups scored high on this factor. This is an indication that the upper division of the student body perceive themselves as rejecting the aesthetic experience. They also sense a high level of orderliness and conformity in student-faculty relationships.



## CHAPTER V

### SUMMARY AND CONCLUSIONS

#### Review of the Study

The purpose of this study was to analyze and report the research findings of an investigation of student perceived environments in various college sub-cultures at Oklahoma Panhandle State College of Agriculture and Applied Sciences.

The investigation sought to determine how the student perceived environment differs: from division to division; between juniors and seniors; between males and females; between students in on-campus and off-campus housing; and among varying grade-point-average (GPA) groups.

It was felt that the orientation, advisement, and guidance functions at Oklahoma Panhandle State College could be enhanced by a better understanding of the students' perception of the existing environment--that faculty, administrators, and students might gain new insight in evaluating existing goals and in the formation of new goals and objectives. It was also felt that this study of a small four-year college counterpart of the large complex university, Oklahoma State University, where another intrainstitutional study was made in 1967 by Larkin (23), would help to sharpen the focus of the statewide picture of student perceived environments.

The data required for environmental comparisons was acquired from student's "yes" or "no" responses to the 300 item questionnaire, The

College Characteristics Index (CCI), devised by Stern and Pace (37). These researchers employed the Murray taxonomy (30) in structuring the CCI techniques. The Murray need-press model provides the basic theory for this approach. In this model, "press" relates to the student's perception of pressures being exerted on him by the environment. In this context, the term "needs" refers to the individual's attempts to structure the environment. The CCI was administered to 353 juniors and seniors--96% of the described population.

Five null hypotheses, embracing the college sub-groups: divisions, classes, sex, housing, and GPA, were tested. The statistical method employed was the analysis of variance. Where significant differences were found among groups (more than two), the Duncan's New Multiple Range Test for Unequal "n's" (44) was used to identify the differences at the .05 level of significance. In comparing the six divisions of the college, it was necessary to omit data from the Divisions of Home Economics and Music because of the very small "n's" of two and eight respectively. Responses from those ten students were incorporated in all other comparisons however.

#### Summary of Findings

Within the boundaries established by the design of this study, main findings may be summarized as follows:

1. Among the divisions, significant differences were found for only three of the eleven CCI factors.
  - a. Aspiration Level (at .01 level of significance) - The Agriculture students perceived that they were expected to aim higher; had more opportunities to participate in

decision-making; and felt more administrative receptivity to change and innovation than did the students in the Divisions of Business and Science and Literature.

- b. Academic Organization - The students in the Division of Science and Literature perceived more administration stress on organization and structure in the academic environment than did the students in the Divisions of Agriculture and Industrial Arts.
- c. Vocational Climate - The Agriculture students perceived themselves as: placing less emphasis on practical and applied activities; having a lower level of orderliness and conformity in their relations to the faculty; and having a higher appreciation of aesthetic experience than did the students from the Divisions of Business and Science and Literature.

2. Between the juniors and seniors, no significant difference was found for any one of the eleven CCI factors.

3. Between males and females, significant differences were revealed on five CCI factors. (Significance at the .01 Level on the Aspiration and Academic Achievement factors.)

- a. Aspiration Level - The females perceived themselves as aiming higher and as being more involved in decision-making than did the males.
- b. Student Dignity - The females viewed the college as more authoritarian than did the males. They felt that they were subjected to more coercive forces and were given less opportunities for personal responsibility than were the

males. The males perceived that they were treated more like mature adults than did the females.

- c. Academic Achievement - The males perceived that the college set higher standards of achievement for the students than did the females.
- d. Academic Organization - Female responses indicated a lesser need for orderliness and submission in the individual than did the males. The females also perceived a higher degree of organization and structure in the academic environment than did the males.

4. The comparison of on-campus and off-campus students' perceptions yielded no significant differences. Both groups, however, viewed the overall Intellectual Climate of the college's academic program as needing more emphasis on (a) qualities of staff and facilities, (b) standards of achievement set by students and faculty, and (c) opportunities for the development of self-assurance. They also perceived that student personnel practices were too custodial and felt that vocationalism was overemphasized.

The two groups also concurred in their overall perceptions of the Non-Intellectual Climate. They perceived a high level of formal organization of student affairs, both social and academic. They felt that there was little opportunity for self expression and for the development of leadership potential and self-assurance. They also perceived themselves rejecting aesthetic experience.

5. Among the varying GPA groups, significant differences appeared on four of the eleven CCI factors. (On one factor, Aspiration, significance at the .01 level was obtained.) The four GPA groups, based on

a 4.0 scale, were (3.00-4.00), (2.50-2.99), (2.00-2.49), and (1.00-1.99).

- a. Aspiration Level - The (3.00-4.00) GPA group scores significantly lower than the other three GPA groups.
- b. Intellectual Climate - The (3.00-4.00) GPA group differed significantly with the two lower groups, (1.00-1.99) and (2.00-2.49). The two lower groups expressed a higher degree of satisfaction with the stress placed on scholarly activities in the humanities, arts and social sciences than did the (3.00-4.00) group.
- c. Academic Organization - The (2.50-2.99) GPA group scored significantly higher than the (1.00-1.99) and (2.00-2.49) groups indicating that they perceived a lower level of need for orderliness and submission. All groups, however, felt the college environment was highly structured.
- d. Vocational Climate - The (1.00-1.99) GPA group differed significantly with the (2.50-2.99) and (3.00-4.00) groups. The lowest GPA group perceived a higher level of orderliness and conformity in relations with faculty, peers, and studies than did the other two groups. They also placed less emphasis on the practical and applied activities, and on the need for conformity than did the other two groups.

#### Conclusions

In the described population at Oklahoma Panhandle State College, some of the college sub-groups have different perceptions of their environment. Among the divisions, the most difference occurs between

the Division of Agriculture and the two Divisions, Business and Science and Literature. The Divisions which seemed most alike were Business and Industrial Arts.

Male and female perceptions of the overall college environment differed widely on many factors which, when viewed collectively, seem to suggest that the females felt that they were regimented and were expected to aim higher than did the males.

The students enjoying the highest level of academic success, the (3.00-4.00) GPA group, exhibited markedly different perceptions of certain aspects of the college environment when compared with the three lower groups which were the (1.00-1.99), (2.00-2.49), and (2.50-2.99) GPA groups. The high scholastic achievers' perceptions of too little emphasis on scholarly activities in the humanities, arts, and social sciences and of too much emphasis on structure and organization seem to reflect their assessment of the level of academic freedom permitted at the college. Not surprisingly, the low achievers, the (1.00-1.99) GPA group, differed most widely with the highest group (3.00-4.00); with the highest level of significance (.01) occurring on the Aspiration factor.

The absence of significant differences in comparing the juniors with the seniors and the on-campus with the off-campus students suggest a homogeneous student body--at least in the upper division. The sets of mean scores for each of the two comparisons are markedly similar. The overall picture is one of low scores on all six factors in Area I of the CCI, Intellectual Climate; and with the exception of Group Life, consistently high scores in four factors of Area II of the CCI, Non-Intellectual Climate. The major elements of the Intellectual

Climate score include items referring to (a) substantive aspects of the academic program, (b) the level of motivation for academic achievement maintained by faculty and students, (c) opportunities for self-expression and the development of social effectiveness, and (d) minimal administrative intervention or control over student activities. High scores in the Non-Intellectual Climate area (Area II) reflect a vocational orientation of the college environment.

The population (upper division of the college) viewed their institutional environment as a protective-vocational type of college culture.

#### Further Considerations

Although not included in the design of this study, it seems appropriate to mention some of Larkin's findings in his 1967 study of Oklahoma State University (23). He found that the environmental press expressed by the students in the Colleges of Agriculture and Home Economics was similar to that described by the College of Business students but quite dissimilar to that of Arts and Sciences and Engineering. He also found that the environment of the College of Business was least like the other five colleges; that the colleges of Agriculture and Arts and Sciences were most dissimilar.

Regarding other campus sub-cultures, he found: (1) that the juniors and seniors differed on four of the eleven CCI factors with the juniors perceiving a higher level of Aspiration set for them, a greater wish for institutional attempts to preserve student freedom, and perceived the environment as being more highly structured than did the seniors, (2) that both males and females felt too much emphasis was placed on academic excellence, but the females expressed a

significantly greater press, and they also felt they had more opportunities for pleasure seeking than did the males, (3) that the off-campus group showed a greater interest in the humanities and social sciences along with a lesser concern for grades than did the residence hall group, and (4) that in the grade-point average (GPA) groups (2.60-4.00), (2.36-2.59), (2.35-below) on a 4.0 scale, all groups viewed their environment similarly.

In the broad over view of his results, Larkin found a conforming student body along with institutional emphasis on the practical and applied activities--a protective-vocational environment as perceived by the students.

#### Implications

1. The sociopsychological nature of college environments can be described. (50), (55)
2. Differences between or among environments can be measured. (50), (31)
3. If shaping and influencing the student are legitimate goals, then institutional self-study should go beyond statistical surveys of faculty degrees, teaching loads, library acquisitions, and the like by adding a third dimension--how the environmental factors influence the student. (13), (28), (38)
4. Longitudinal studies are needed to compare entering students' expectations with graduating students' satisfactions. (27)
5. Further study on the students' needs would be helpful in determining which environmental differences are undesirable and which are desirable from the standpoint of planning



environmental changes to better meet the students' needs.

(19), (16), (17), (18)

6. In this study it would appear that not all environmental differences were undesirable. For example, on the factor Vocational Climate Agriculture students, whose course work is inherently fluid perceived less need for orderliness and conformity than did the Business students whose course work is task-oriented.
7. Regarding the value of this study to the institution at which it was made--by examining these measurements of environmental factors and by noting areas of "no difference" as well as areas of "difference", both faculty and administration can gain a better understanding of the environmental factors which their upper division students perceived as present or missing in their college. This should enhance the setting of goals and do so with concomitant student satisfactions.
8. Another implication for future research has to do with the faculty and administration. It would be helpful to know how and to what extent each group contributes to the environmental presses--and it would be important to know whether differences in points of view suggest sources of undesirable presses in the college environment and a breakdown in communications among the parts of the college. (34)
9. Properly coordinated, statewide studies of the student perceived needs and environmental presses would provide a third dimension for planning at the governing board level. To the writer's knowledge, only two institutions in the Oklahoma

system (O.S.U. and O.P.S.C.) have been subjects for such a comprehensive study.

Studies of this kind will demonstrate to the students that the institution is interested in their opinions. If followed by appropriate actions on the part of the institution, such studies offer the students a non-violent constructive forum where their collective voices can be heard. This should help to relieve the student anxieties which relate to anonymity, lack of participation in decision-making, and the like. Such a self-study followed by appropriate action might prove a most useful tool in gaining a better understanding of the whole campus-unrest syndrome which plagues American Education today. It would improve communications--and communication is the crux of the problem.

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## APPENDIX A



## PRESS SCALE DEFINITIONS (CCI)

The Thirty Variables are Listed Alphabetically Below

1. Abasement -- Assurance: self-depreciation versus self confidence.
2. Achievement: striving for success through personal effort.
3. Adaptability -- Defensiveness: acceptance of criticism versus resistance to suggestion.
4. Affiliation -- Rejection: friendliness versus unfriendliness.
5. Aggression -- Blame Avoidance: hostility versus its inhibition.
6. Change -- Sameness: flexibility versus routine.
7. Conjunctivity -- Disjunctivity: planfulness versus disorganization.
8. Counteraction -- Inferiority Avoidance: restriving after failure versus withdrawal.
9. Deference -- Restiveness: respect for authority versus rebelliousness.
10. Dominance -- Tolerance: ascendancy versus forbearance.
11. Ego Achievement: striving for power through social action.
12. Emotionality -- Placidity: expressiveness versus restraint.
13. Energy -- Passivity: effort versus inertia.
14. Exhibitionism -- Inferiority Avoidance: attention-seeking versus shyness.
15. Fantasied Achievement: daydreams of extraordinary public recognition.
16. Harm Avoidance -- Risktaking: fearfulness versus thrill-seeking.
17. Humanities, Social Science: interests in the Humanities and the Social Sciences.
18. Impulsiveness -- Deliberation: impetuosity versus reflection.
19. Narcissism: vanity.
20. Nurturance -- Rejection: helping others versus indifference.

21. Objectivity -- Projectivity: detachment versus superstition or suspicion.
22. Order -- Disorder: compulsive organization of details versus carelessness.
23. Play -- Work: pleasure-seeking versus purposefulness.
24. Practicalness -- Impracticalness: interest in practical activities versus indifference.
25. Reflectiveness: introspective contemplation.
26. Science: interests in the Natural Sciences.
27. Sensuality -- Puritanism: interest in sensory and esthetic experiences.
28. Sexuality -- Prudishness: heterosexual interests versus their inhibition.
29. Supplication -- Autonomy: dependency versus self-reliance.
30. Understanding: intellectuality.

## ENVIRONMENT FACTORS AND SCALES (CCI)

## Intellectual Climate

Factor and Press Scale	Score Sum	Norm*
1. Aspiration Level:		
No. 8. Counteraction	10	5.3
6. Change	10	6.4
15. Fantasied Achievement	10	4.7
30. Understanding	10	6.6
Total	40	22.9
2. Intellectual Climate:		
No. 25. Reflectiveness	10	6.0
17. Humanities-Social Science	10	6.2
27. Sensuality	10	4.9
30. Understanding	10	6.6
15. Fantasied Achievement	10	4.7
	50	27.9
3. Student Dignity:		
No. 21. Objectivity	10	7.4
1. Assurance	(10-Abasement)	7.0
10. Tolerance	(10-Dominance)	5.4
	30	19.7
4. Academic Climate:		
No. 17. Humanities-Social Science	10	6.2
26. Science	10	6.2
	20	12.4
5. Academic Achievement:		
No. 2. Achievement	10	6.2
13. Energy	10	5.8
30. Understanding	10	6.6
8. Counteraction	10	5.3
7. Conjunctivity	10	7.1
	50	30.9
6. Self Expression:		
No. 11. Ego Achievement	10	5.7
12. Emotionality	10	6.2
14. Exhibitionism	10	5.5
13. Energy	10	5.8
	40	23.2

## Non-Intellectual Climate

Factor and Press Scale	Score Sum	Norm*
7. Group Life:		
No. 4. Affiliation	10	7.0
29. Supplication	10	6.2
20. Nurturance	10	5.8
3. Adaptability	<u>10</u>	<u>4.6</u>
	40	23.6
8. Academic Organization:		
No. 5. Blame Avoidance	(10-Aggression)	5.9
22. Order	10	6.5
7. Conjunctivity	10	7.1
18. Deliberation	(10-Impulsiveness)	4.4
9. Deference	10	4.9
19. Narcissism	<u>10</u>	<u>5.0</u>
	50	33.9
9. Social Form:		
No. 19. Narcissism	10	5.0
20. Nurturance	10	5.8
3. Adaptability	10	4.6
10. Dominance	10	4.6
23. Play	<u>10</u>	<u>5.3</u>
	50	25.1
10. Play-Work:		
No. 28. Sexuality	10	5.9
16. Risktaking	(10-Harm Avoidance)	4.3
23. Play	10	5.3
18. Impulsiveness	<u>10</u>	<u>5.6</u>
	40	21.2
11. Vocational Climate:		
No. 24. Practicalness	10	5.3
27. Puritanism	(10-Sensuality)	5.1
9. Deference	10	4.9
22. Order	10	6.5
3. Adaptiveness	<u>10</u>	<u>4.6</u>
	50	26.5

\*Based upon 1933 juniors and seniors enrolled in 32 colleges (From Stern's Scoring Booklet).

APPENDIX B



## Panhandle State College

Goodwell, Oklahoma

73939

February, 1970

Dear Student:

You have been selected to be a participant in a study of the undergraduate environments at Oklahoma Panhandle State College. The information that you can provide in respect to your particular division of the College hopefully will benefit both present and future students.

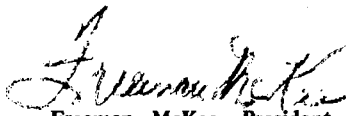
The information will be collected through the use of a questionnaire concerning different facets of the college division environment. This is in no way an attempt to measure your scholastic abilities, but rather it is a gathering of information that you have concerning your classes, instructors, extra-curricular activities, as well as those things which you feel are missing from your college division setting.

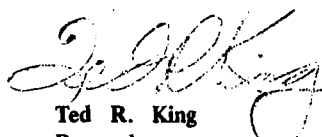
Since only a sample of the area's Junior and Senior classes has been selected, your participation is extremely important.

Please come to Room 139 in Hamilton Hall either on Tuesday, February 17, or on Wednesday, February 18, at either 6:45 p.m., 8:00 p.m., or 9:00 p.m. We will have three meeting times each evening to enable everyone to come at his most convenient time. It should take you no longer than thirty minutes to complete the questionnaire.

Thank you for your cooperation.

Sincerely,

  
Freeman McKee, President

  
Ted R. King  
Researcher

VITA

Ted Richard King

Candidate for the Degree of

Doctor of Education

Thesis: A COMPARATIVE ANALYSIS OF STUDENT PERCEIVED ENVIRONMENTS AT  
OKLAHOMA PANHANDLE STATE COLLEGE

Major Field: Higher Education

Biographical:

Personal Data: Born in Chandler, Oklahoma, September 29, 1919,  
the son of Earl E. and Mary Hallie King.

Education: Completed grade and high school at Fairview, Oklahoma;  
received the Bachelor of Science degree from the University  
of Oklahoma in August, 1947, in Geological Engineering;  
received the Master of Science degree from the University of  
Oklahoma in August, 1963, with a major in Natural Science  
and a minor in Earth Science; completed the requirements for  
the Doctor of Education degree at Oklahoma State University  
in May, 1971.

Professional Experience: Served in gypsum and oil and gas  
industries for fifteen years in geological engineer-manager  
capacities; taught earth science and biology in secondary  
public schools 1961-1966; Assistant Professor and acting  
Head of Earth Science Department, Oklahoma Panhandle State  
College, Goodwell, Oklahoma, 1966 to present.

Professional Organizations: Registered Professional Engineer  
(Kansas-No. 3671), American Association of Petroleum  
Geologists, American Institute of Mechanical Engineers--  
Mining Division, Phi Delta Kappa.