

A METHOD FOR DESCRIBING AND COMPARING THE  
ENVIRONMENTS OF SELECTED HIGH SCHOOLS

By

RONALD GENE SCHNEE

Bachelor of Science  
Oklahoma State University  
Stillwater, Oklahoma  
May, 1964

Master of Science  
Oklahoma State University  
Stillwater, Oklahoma  
May, 1965

Submitted to the Faculty of the Graduate College  
of the Oklahoma State University  
in partial fulfillment of the requirements  
for the Degree of  
DOCTOR OF EDUCATION  
July, 1970

OKLAHOMA  
STATE UNIVERSITY  
LIBRARY  
NOV 4 1970

A METHOD FOR DESCRIBING AND COMPARING THE  
ENVIRONMENTS OF SELECTED HIGH SCHOOLS

Thesis Approved:

*Wm P Ewens*

Thesis Adviser

*Charles E. Terrell*

*John D. Hampton*

*Marion P. Sandberg*

*N. Durbin*

Dean of the Graduate College

764203

## ACKNOWLEDGMENTS

I would like to take this opportunity to express my appreciation for the assistance and guidance given me by the following members of my committee: Dr. W. Price Ewens, Committee Chairman, who guided and counseled me through my graduate school career; Dr. John Hampton, who gave generously of his time and knowledge; Dr. Kenneth Sandvold and Dr. Frank McFarland, for their interest and assistance.

In addition, I would like to thank Eloise Dreessen for her painstaking care and excellent advice in typing this thesis.

Finally, I want to express my deepest appreciation to Sharon, my wife, who sacrificed her time and patience to help me prepare this dissertation and attain my degree.

## TABLE OF CONTENTS

Chapter	Page
I. INTRODUCTION . . . . .	1
Need for the Study. . . . .	2
Statement of the Problem. . . . .	3
Hypotheses. . . . .	4
Scope and Limitations . . . . .	4
II. A HISTORY AND DESCRIPTION OF SCHOOL ENVIRONMENT. . . . .	6
Murray's Need-System. . . . .	6
Institutional Press . . . . .	7
Stern's <u>Activities Index</u> . . . . .	8
Measurement of Environmental Press. . . . .	11
The <u>College Characteristics Index</u> . . . . .	11
History of Measuring Education Environments . . . . .	13
Determination of High School Environments . . . . .	20
Need for Further Research . . . . .	22
III. DESIGN AND METHOD. . . . .	24
Considerations for Limiting Independent Variables . . . . .	24
The Sampling Procedure. . . . .	25
Experimental Design . . . . .	27
Measuring Press . . . . .	29
Validity. . . . .	29
Reliability . . . . .	31
Statistical Procedures. . . . .	31
IV. RESULTS . . . . .	33
Findings and Disposition of the Hypotheses. . . . .	33
Profiles and Descriptions of the Schools. . . . .	42
Cluster Factors . . . . .	44
V. CONCLUSIONS AND RECOMMENDATIONS. . . . .	52
Summary of Purpose. . . . .	52
Summary . . . . .	52
Limitations . . . . .	53
Conclusions . . . . .	54
Recommendations . . . . .	56

Chapter	Page
A SELECTED BIBLIOGRAPHY . . . . .	58
APPENDIX A. . . . .	62
APPENDIX B. . . . .	66
APPENDIX C. . . . .	68

## LIST OF TABLES

Table	Page
I. Need-Press Scale Definitions . . . . .	9
II. Chi Square Tests of Samples A, B, C and D by Sex and Socioeconomic Class. . . . .	28
III. High School Characteristics Index Scale Means and Standard Deviations of School A, Small Public. . . . .	34
IV. High School Characteristics Index Scale Means and Standard Deviations of School B, Medium Public . . . . .	35
V. High School Characteristics Index Scale Means and Standard Deviations of School C, Large Public. . . . .	36
VI. High School Characteristics Index Scale Means and Standard Deviations of School D, Small Private . . . . .	37
VII. Comparison by AOV of Environmental Press Factors of Four Schools . . . . .	40
VIII. Comparison by Scheffe Test of Environmental Press Factors of Public and Private Schools. . . . .	41
IX. The Significantly High Press Factors of Public and Private Schools. . . . .	43
X. Cluster Factor Scale Means by Sample . . . . .	48
XI. Percentages of Correct Responses of Sample A to Scale Items . . . . .	69
XII. Percentages of Correct Responses of Sample B to Scale Items . . . . .	70
XIII. Percentages of Correct Responses of Sample C to Scale Items . . . . .	71
IX. Percentages of Correct Responses of Sample D to Scale Items . . . . .	72

LIST OF FIGURES

Figure	Page
1. Mean Score Index Profiles by Sample of Scales 1-15. . . . .	45
2. Mean Score Index Profiles by Sample of Scales 16-30 . . . . .	46
3. Mean Cluster Factor Index Profiles by Sample. . . . .	47

## CHAPTER I

### INTRODUCTION

Efforts to improve education have mainly been concerned with facilities, teacher preparation, curriculum development and improvement, and with teaching and learning theories, methods, and techniques. Much of the concern today is directed toward meeting the needs of the individual and the student body of a school as a whole. A great deal of time and money has been spent trying to satisfy the vocational needs of the individual and to get him to adopt some responsible vocational role.

For many years psychologists and sociologists have been researching psychological and social needs, and more recently educators have been researching factors of the educational setting and its ability to meet these needs. John Dewey emphasized the concept of student-centered education, and educators are still trying to devise methods of "satisfying all of the needs of all of the students."

Much recent research has been directed toward understanding the influence of emotions and personality upon learning. The current study is a result of the growing interest in the significance of the congruence and adaptability between student needs and the natures and demands of the school environment, which are later referred to as press.

The interaction between the individual and his environment is a very complex one, and it presents an intriguing question: How might the different secondary schools affect the educational and personal



development of different students? It is a fact that most students attend a public secondary school within a certain geographical boundary. Because a geographical boundary is a restrictive selectivity factor, the present author raises the question as to whether or not there might be a distinct kind of student body for each of these schools, with reference to environmental press and its effect upon them.

Several researchers, such as Pace and Stern (34,35,50) have determined that colleges have an environmental "image", and this seems to pose a similar question about secondary schools: Does each secondary school have an environmental "image" in the same sense that colleges have? A related question is: Should there be a substantial congruence between the press of the high school and the college that one attends, when one considers need satisfaction and the individual in both institutions? The present study will attempt to answer the first question, but regardless of the answers to these questions, there is always some interaction between the student and his educational environment. It is with the measurement of the student's perception of his educational environment that the present study is concerned.

#### Need for the Study

Much time and money has been expended trying to understand the many causes for drop-outs and reducing these numbers. One of the reasons seems to be that the drop-out had not liked school and that it had not met his needs. This feeling of his might have resulted from the environmental press which the school exerted upon him. There seems to be a need here to find a means of measuring this environmental press and comparing it to the needs of the individual. Such a determination

could furnish educators information necessary to establish a more inclusive and satisfying educational program for many different types of students and the student body as a whole. It should lead to a self-study program within each school to study the environmental factors that have been discovered which might be detrimental to the student's progress.

Counselors need to know more about the needs of students and the characteristics of their school's environment, and the present study should yield valuable information about the latter. In the introduction to the present study it was noted that colleges have characteristic environments and that possibly secondary schools might also have characteristic environments that aid or hinder one's educational development. A technique must be established to describe characteristic environments of several secondary schools, and the present study should produce such a method, quantitatively and qualitatively.

#### Statement of the Problem

The purpose of the present study is to measure and describe the differences in environmental press of selected secondary schools, as indicated by the responses of a sample of students from each school to a standardized measuring instrument, the High School Characteristics Index (51).

The problem is to select samples from several high schools and to make certain that public, private and small, medium, and large schools are represented, and to observe the environmental press of each sample. It is also necessary to compare the samples to determine differences, if any, in press which might exist. The main question is whether the

measurement of various high school environments will indicate significant differences in press factors.

### Hypotheses

Using selected high school samples, this study will concern itself with the existence of any or all thirty press variables in the environments of each of the schools. Because each variable is composed of ten separate press items and is described by a separate statement or phrase, this study is concerned with measuring and describing the different press scales (variables).

It is anticipated that among the samples some individual press scales will differ significantly from one another and that clusters of these differences in scales will indicate differences in the environmental press between schools.

Stated formally, the null hypotheses to be tested are as follows:

- (1) There will be no significant differences in the means of an individual press scale among all the samples.
- (2) There will be no significant differences in the means of a press scale between each pair of samples.

### Scope and Limitations

Because Stern (50) and others have already shown in studies covered in Chapter II of the present study that it was feasible to measure differences in environmental press, this study has illustrated a technique for identifying and describing differences in environmental press among several high schools by statistical techniques.

The samples studied may not be representative of any schools other than the populations from which they came; therefore, generalizations of these findings to other groups cannot be justified.

## CHAPTER II

### A HISTORY AND DESCRIPTION OF SCHOOL ENVIRONMENT

#### Murray's Need-System

Murray's Personalogy (32) has been described as a pluralistic rather than a particularistic system. He tried to form a conceptual picture of the total personality by combining the ideas of many different theorists. He and his co-workers developed a construct for personality that would allow them to organize a vast amount of case material being collected. Murray defined personal need as follows:

A need is a construct (convenient fiction or hypothetical concept) which stands for a force (the physico-chemical nature of which is unknown) 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 as an existing, unsatisfying situation. (32)

A long list of needs, Appendix A (p. 62), was drawn from the knowledge and experience of the researchers, which met the criteria established in the definition. Appendix A lists twenty needs with a description of each in alphabetical order, which can be grouped into clusters to be more useful if needed, or they can be studied and applied individually. (See Appendix A, page 62.)

Murray attempted to simplify and classify the effects of environment on the personality by classifying what happens to the individual in terms of its effect or potential effect upon him. They called these effects environmental press which are defined as follows: "the press

of an object is what it can do to the subject or for the subject--the power that it has to affect the well-being of the subject in one way or another." (32)

Hall and Lindzey (20) have written that Murray tried to classify the behavior potential of environmental press in accordance with the way that he classified the behavior of a person in terms of a system of needs analysis. He adopted a number of items to be used as criteria for the description of press; Appendix B lists 16 press conditions that can affect a subject (p. 66). Instead of simply giving brief descriptions of each press item, Murray cited examples of how the item might be a factor that enhances or deters need satisfaction. He used these as organizational tendencies which give unity and direction to personality and the objectives that an individual strives to achieve for himself.

#### Institutional Press

The environmental press of an educational institution would determine with what a student must cope if he is to find satisfaction, reward, and success in a particular environmental setting. An educational environment would include the cumulative rules, regulations, and personnel policies; classroom practices; student organizations and activities; interests, activities and practices of the staff and administration; and the physical features and facilities of the campus including classrooms, laboratories, ground, and living and eating facilities.

No single institution will probably rate significantly either high or low on all of the press items, but it will have some of the items in

a press pattern which may tend to indicate some types of behavior as being potentially rewarding or satisfying in that environment. Murray raised some questions regarding press and needs: Do educational institutions have peculiar environments which will be different from other schools? Is there enough similarity about the needs of a student body to form a pattern of needs for that group which might be different from the student bodies of other schools?

### Stern's Activities Index

In the early 1950's Stern developed an instrument for measuring personality needs known as the Activities Index (AI). (52) It was developed for use in predicting academic success in various types of educational programs. The current form consists of 300 true-false items, which are organized into 30 scales of 10 items each. A comparison of the 30 scales, which are shown in Table I, will verify that they are very similar to the list of needs as determined by Murray in Appendix A.

Table I, "Need-Press Scale Definitions", is a compilation of the work of Murray made by Stern from Appendices A and B. Stern has added some variables to the list, e.g., adaptability, ego achievement, energy, science, humanities, etc. He has omitted or changed the wording of some of Murray's original need and press items, and he has also introduced the idea of opposing presses into a single scale, e.g., play vs. work, dominance vs. tolerance, etc. If a school is high on any press scale, it is low on the opposite of that scale. (See Table I, page 9.)

Murray insisted that needs and press are interrelated and that needs are fundamental to press, in light of the fact that press represents the perceptual meaning which the subject attached to the

TABLE I  
NEED-PRESS SCALE DEFINITIONS\*

- 
1. aba Abasement--ass Assurance: self-depreciation versus self-confidence.
  2. ach Achievement: striving for success through personal effort.
  3. ada Adaptability--dfs Defensiveness: acceptance of criticism versus resistance to suggestion.
  4. aff Affiliation--rej Rejection: friendliness versus unfriendliness.
  5. agg Aggression--bla Blame Avoidance: friendliness versus inhibition.
  6. cha Change--sam Sameness: flexibility versus routine.
  7. cnj Conjunctivity--dsj Disjunctivity: planfulness versus disorganization.
  8. ctr Counteraction--inf Inferiority avoidance: restriving after failure versus withdrawal.
  9. dfr Deference--rst Restiveness: respect for authority versus rebelliousness.
  10. dom Dominance--tol Tolerance: ascendancy versus forbearance.
  11. e/a Ego Achievement: striving for power through social action.
  12. emo Emotionality--plc Placidity: expressiveness versus restraint.
  13. eny Energy--pas Passivity: effort versus inertia.
  14. exh Exhibitionism--inf Inferiority Avoidance: Attention-seeking versus shyness.
  15. f/a Fantasied Achievement: daydreams of extraordinary public recognition.
  16. har Harm Avoidance--rsk Risktaking: fearfulness versus thrill-seeking.
  17. hum Humanities, Social Sciences: interests in the Humanities and the Social Sciences.
  18. imp Impulsiveness--del Deliberation: impetuosity versus reflection.



TABLE I (Continued)

- 
19. nar Narcissism: vanity.
20. nur Nurturance--rej Rejection: helping others versus indifference.
21. obj Objectivity--pro Projectivity: detachment versus superstition (AI) or suspicion (EI).
22. ord Order--dso Disorder: compulsive organization of details versus carelessness.
23. ply Play--wrk Work: pleasure-seeking versus purposefulness.
24. pra Practicalness--ipr Impracticalness: interest in practical activities versus indifference.
25. ref Reflectiveness: introspective contemplation.
26. sci Science: interests in the Natural Sciences.
27. sen Sensuality--pur Puritanism: interest in sensory and esthetic experiences.
28. sex Sexuality--pru Prudishness: heterosexual interests versus their inhibition.
29. sup Supplication--aut Autonomy: dependency versus self-reliance.
30. und Understanding: intellectuality.
- 

\*Taken from Stern, 1963, 2-3.

environmental objects and persons. A press is a self-perceived property or condition of an outside object or person, which either aids or impairs the efforts of the individual to meet his needs or attain some goal; therefore, press has a direct effect upon the individual in his efforts to satisfy his needs. Thus, anyone wishing to measure the personality needs of a subject may also want to measure his environment in terms of press, which has an effect upon the subject and his adjustment. Each secondary school probably has certain press factors as perceived by the individual student that aid or hinder individual need satisfaction.

#### Measurement of Environmental Press

In 1958 Pace and Stern (38) collaborated on the writing of the outstanding series of work in this area, which will be reviewed later in this chapter. They were interested in identifying college environment and the effects that it has on student happiness, growth, and success. They pursued the needs-press construct of Murray, and they published the College Characteristics Index, the CCI, to measure college press. (38) This CCI is designed to be similar to and complement the Activities Index.

#### The College Characteristics Index

The CCI also consists of 300 statements about college environment to which the subject responds by marking true or false. The statements are grouped into thirty scales of ten items each, with each press scale corresponding to a need scale in the Activities Index, AI. The statements are about college life, referring to classroom activities, courses, curriculum, teaching, extra-curricular activities, rules,

regulations, policies, attitudes, and similar items. The student responds with his impression of each statement.

The following kind of questions guided the writing of the items: what might be characteristic of an environment which exerted a press toward order, or toward autonomy, or toward nurturance, or understanding, or play, etc? Stated in another way, what might there be in a college environment which would be satisfying to or tend to reinforce or reward an individual who had a high need for order, or autonomy, or nurturance, or understanding, or play, etc.? (48)

A person who has a high need for order might respond favorably to items like the following: "Faculty members and administration have definite and clearly posted office hours. In many classes students have an assigned seat. Professors usually take attendance in class." (46)

Operationally, press items are the characteristic demands or the perceived features of those who live in a particular environment. The subjects will respond to press items as follows:

To each statement in the College Characteristics Index the person who takes the test answers true if he believes it is generally characteristic of the college, is something which occurs or might occur, is the way people tend to act or feel; and he answers false if he believes it is not characteristic of the college, is something which is not likely to occur, or is not the way people typically feel or act. (46)

Pace and Stern reasoned that if a dominant press pattern really existed in a particular environment, then almost any of the student body could probably identify it. They figured that the student and faculty groups were in "tolerably good agreement" on approximately three-fourths of the total items. They realized that to say that a particular press is or is not characteristic of a student body is an arbitrary matter. What they soon found though was sufficient to convince them that there are significant differences in the press of different college environments.

## History of Measuring Education Environments

### Factors Influencing Environments

In 1949 Kelly (29) proposed that a college culture is composed of three interacting elements: the culture that the student brings to the campus, the established culture of the college community, composed of faculty and student values, and the material, physical structure, and equipment of the campus.

In 1956 Brown (10) found that major types of college careers could be related to five factors of college experience: social and peer-group orientation, over-achievement, under-achievement with family orientation, high achievement, and search for identity.

Also in 1956, Freedman (17) found that a student body possesses certain qualities of personality which provide the basic content in which individual learning occurs.

In 1957 Jacob (27) reported that he had found little conclusive evidence that curriculum, courses, or teaching techniques had much influence on changing students values, but this has been contradicted by many later studies. That same year Glicksberg (19) found that an impersonal atmosphere, plus a college emphasis on competition for success supported cheating.

In 1958 Reisman (41) suggested that the distinctive characteristics of certain colleges might be a simple reflection of the existing viewpoints of the students in attendance.

Dressler and Mayhew (14), reporting on a cooperative study of Evaluation in General Education for the American Council on Education, stated that schools having students with high achievement gains in the

retested areas had certain institutional characteristics not present in the schools which had only low gains.

Rust (43) found in a Yale study on diverging study habits that achievement in college reflects a change in environment which affects differently the personality and values that existed prior to entrance into college.

#### Factors Affecting Study of Environments

Stern and others have put forth the hypothesis that environmental press factors generally exist outside of the student, so when the student is reporting upon these, he does so objectively. McFee (31) conducted a study to test whether individual personality needs and individual academic levels correlate with press significantly. She concluded that there was no significant difference between personality needs and press, and therefore, there is no significant correlation between scale scores of the CCI and the AI, which implies the ability of objective reporting on the part of the student. It was also found that the older students, who were more experienced in the particular environment, agreed more concerning the environment than did the younger or less experienced students.

Pace (35) found greater differences between college environments, as measured by the CCI, than exists between student bodies, as measured by the AI. He also found that students who had attended college the longest reported more objectively on the CCI and noted what he thought true of his college.

Stern (50) concluded that samples from a college population will tend to report the environmental press in similar fashion, no matter

what the source of response was. He summated this as follows:

The student's description of the school is apparently not a function of the description he provides for himself.

The press profile obtained from small, highly selected samples of National Merti Scholars and Finalists are highly consistent with those obtained from larger, more representative cross sections of students at the same institutions.

The press profiles obtained from student responses are highly consistent with those obtained from faculty and administration at the same institutions.

There is as much agreement in responses to subjective or impressionistic press items as there is to items more readily verifiable. (50)

### Dimensions of Environments

Astin (3) defined six principle dimensions along which institutions vary--wealth, size, private versus public control, technical aspects, homogeneity of environment, and masculinity vs. femininity. The factor of wealth accounted for the largest proportion of variance, when the quality of students and faculty and environmental characteristics such as intellectual and enterprising orientation are considered. The quality of students and faculty was significantly higher at the wealthier institutions.

Astin and Holland (6) proposed eight characteristics of the student body: size; intelligence; and six personal characteristics identified as realistic, intellectual, social, conventional, enterprising, and artistic. These were later correlated with the CCI scales. They developed the Environmental Assessment Technique and showed the stability of the six personal variables to be relatively high.

Rowe (42) found that the students in the 1959 and 1962 classes of the same college had nearly the same "effective environment" according

to the CCI and that a marked change in the social structure of the college in the intervening years had not brought about a significant change in the perceived environment.

Astin (5) noted that the aspirations of entering freshmen were harmonious with the characteristics of the institutions that they selected. This was a factor-analytic study involving 248 colleges and 127,000 freshmen. Each input factor with the exception of leadership could be predicted with a high degree of accuracy from the known characteristics of the institution.

Funkenstein (18) noted that "the predominance of students with certain characteristics within a school determined to a great extent the atmosphere and the opportunities within the school." He gave two classifications for schools: ideaistic and pragmatic. In the ideaistic schools, students were concerned with the arts, literature, abstractions, and self-understanding; they perceived the field of medicine as something out of cultural tradition and preferred careers in teaching or research. In pragmatic schools, students emphasized concrete goals, values of economic and social prestige, and planned for careers that allowed them to be practitioners.

Eddy (15) emphasized the importance of the over-all climate of the college. He gathered data from twenty colleges and observed that the character of a college is a function of communications among groups, personal relationships among students and between students and faculty, expectancy of performance, and physical plant characteristics. He concluded that for a college to gain the greatest impact, it had to emphasize the major goals of all components.

Thistlewaite (53) found that certain types of scales on the CCI

were highly correlated with productivity in fields such as social sciences, natural sciences, and the arts and humanities.

McConnell and Heist (30), reporting from the American Center for the Study of Higher Education, concluded that the atmosphere of a college is fixed by the student body.

Barton (8) found that the college was a system of interacting elements, and different types of colleges will have specific effects on different types of students.

Stern (47) found a tendency for students to attend colleges where the press was rather congruent with their personal needs. He also found that differences among college environments were greater than the differences among the respective student groups as tested by the AI.

Pace (34) reported in a most revealing and important study using the CCI that the major differences between public and private schools involved the social and intellectual factors of their environments.

Concerning the public school, he found the following:

This school is represented by students who have a high concern for establishing a type of status with their peers and for accepting their status in relation to authority; . . . the students do not criticize the administration or teaching practices, as a rule; there is a socially active student government and a recognized group of student leaders; and there are many and varied social events throughout the year. (34, pp. 21-23)

The public school was found to be high on the CCI scales of abasement, dominance, play, and sex; they also tended to press students into practical careers.

The private schools, on the other hand, were identified by high scores on the press scales for humanism, reflectiveness, understanding, objectivity, energy, and achievement. This type of school was



characterized by its opportunities offered for students to participate actively in art, music, and drama; by long, intellectual discussions; concerts and art exhibits which are attended by large numbers; academic freedom; and an emphasis on future college studies.

The above study by Pace is of much interest to the present author, who will want to compare his results comparing public and private schools' environments to those of Pace's study. (34)

Larkin (54) compared the environments of the six undergraduate colleges of Oklahoma State University in 1967 and found that females described the environment as allowing them more opportunities at play and leisure than males; the pressures of the academic climate was less of an influence on them than on males. There was no significant difference when students were compared by grade-point. Considering socio-economic level, fraternity and sorority students were no different than resident or off-campus students; resident students felt that there was more emphasis on academic achievement than off-campus students, and, therefore, the resident students had a higher concern for grades.

Prior (55) compared several groups to identify areas for self improvement: males and females, resident and off-campus students, "real environment" perceptions of students and administrators, "ideal environment" perceptions of students and administrators, and real and ideal perceptions of administrators. Significant differences were found for all comparisons, but the only useful one for self-improvement was the greater difference between the administrators descriptions of the real and ideal environment; the others did not suggest strongly the need for improvement.

Davis (13) studied the intellectual climate at 135 colleges and

gathered data from 33,982 students. He studied the variable, intellectualism, and found it to be a function of geographical location, student values, student grades, and size. He found that students at small, private institutions endorsed intellectual values, which were supported by very few students at poor institutions. Students also tended to distort perceptions of institutional climate toward their own values.

Stern (50) made a summary of conclusions from all previous research using the CCI and the AI. He identified six environmental factors from the CCI scales as intellectual orientation, social effectiveness, play, friendliness, constraint, and dominance-submission. A few of his major conclusions follow:

1. Significant relationships have been found between needs scale profiles of the AI and other forms of overt behavior, such as academic performance, study habits, reading skills, attitudes and values, deviant behavior, other personality processes, career choice and social background.
2. Professional workers in a field have exhibited higher standing on scales reflecting emotional controls and intellectual needs than have students preparing for work in the same fields, with the exception of teachers who, when matched with education majors, have shown lower intellectual needs.
3. Student bodies have been described by needs scales profiles that have been clearly seen to represent the personalized versions of the existing presses at their institution, although there has been greater variability between students as they described themselves on the AI than there has been on the CCI descriptions of their institutional press. (However, this discrepancy is not due to the fact that both sets of data are derived from the same students; for as McFee has shown, there is a negligible correlation between the needs preferences that students report for themselves and the press characteristics that they ascribe to their college environment, whether the responses are relatively impressionistic or subjective items or factual or readily verifiable items.)

4. Significant relationships have been determined between profiles on press scales and types of institutions sampled. Specifically, three rather distinct types of colleges have emerged: (a) the denominational colleges, with marked emphasis on conformity, constraint, and dependence (the majority of colleges studied have tended to be relatively high in these characteristics); (b) the small private liberal arts colleges shown to have highest standing on the intellectual press as well as high emphasis on personal autonomy; (c) the colleges described by their students as sources of social pleasure and togetherness, although these colleges have typically lacked academic strength and scholastic purpose. (50)

It is evident from the above studies that there is empirical evidence to help substantiate the fact that various school environments can be described. Factors such as the change in environment from high school to college, interpersonal and intergroup relations, expectancy of performance, and physical plant have contributed to the variation in college environments. Student characteristics such as values and attitudes, achievement, student body background and career choices, personality processes, achievement, and deviant behavior have also made a contribution.

Of the many theoretical positions that have been offered to explain the relationship between campus environmental climate and student characteristics, most of them have only one thing in common; they agree that the climate of the college or university seems to have an effect upon the welfare and success of the student body.

#### Determination of High School Environments

A High School Characteristics Index, the HSCI, has been prepared by the authors of the College Characteristics Index with the aid of several others. Different types of schools have been identified from administrations of the instrument by Stern (48): private preparatory,

parochial, local public, and non-local public. Some striking differences were outlined between these four types of schools. Intellectualism dominated at the private preparatory schools, the parochial schools foster feelings of dependency in the students, while the public high schools indicated a greater degree of student independence.

By comparing the CCI and the HSCI, one will find that they are identical except for noted changes in wording in the HSCI to make it applicable at the secondary level. Common changes were the substitution of words such as teacher for professor, class for course, school ground for college campus, and boys and girls for men and women.

Stern (48) found significant differences in some environmental factors when administering the HSCI in various high schools. Although he was using limited sample sizes, it was possible to find differences between public and private secondary schools.

Herr (23) administered the instrument to 725 high school students from one school only, in an attempt to "describe the global emphases of the school and the perceptions of these emphases by students at differing achievement and extra-curricular participation levels." He found that environmental goals in high school may influence student goals and also that student perceptions of the psychological pressures in a school are related to the variables of achievement and participation in extra-curricular activities.

Jones (28) found that the HSCI could help the school counselor receive meaningful feedback on high school environments by conducting an item analysis of it. A description of the press of the school was made by calculating the percent of students marking each of the 300 items as true. This procedure could clarify the interpretation of

scale scores, because the face validity of items on some scales is questionable.

Rand (40) found very few patterns for matching individuals and colleges that are related to satisfaction with college choice. The matching process of an individual and an institution is rather complex. It is not as easy as it appears for a counselor to give out advice on college selection that is valid and reliable, and merely supplying information about colleges to high school counselors and students is not good enough. There still remains a great need for more information about the characteristics of colleges and high school students that are really important in matching the two, the specific types of colleges for which these characteristics are relevant, and the type of students for whom the findings can be applied.

#### Need for Further Research

The Rand (40) study indicates that although it is very difficult to match an individual to an institution with an environment that will successfully satisfy the individual's needs, more research needs to be done to seek information about the environments of the respective schools.

More research is also needed in the area to help school counselors better understand their schools, secondary or college, and to become human development engineers. The high school counselor, after studying his school's environment, can better assess weak areas in satisfying certain educational goals, e.g., intellectualism. With this type of information the college counselor can do the same for his college and also help incoming students to better adjust to a different

environmental press. The above are several examples of more research that are needed in this area.

## CHAPTER III

### DESIGN AND METHOD

The High School Characteristics Index was administered in one private and three public high schools, one of which was large, one medium, and two small. Several schools that were convenient to the present author were considered, and the schools for the samples were selected on the basis of interest in the study being made and cooperation that would be given.

The data obtained from these school samples were analyzed to test for differences among the environmental presses as measured by the HSCI. The statistical procedures as outlined later were used to determine the significance of any differences that might exist.

#### Considerations for Limiting Independent Variables

First, the samples were limited to sophomores, juniors, and seniors on the basis of evidence from two previously cited studies, Pace (35) and Stern (50). The more advanced grades reported environmental press more objectively than other students who had not attended the school as long (freshmen).

Second, private and public high schools were compared in light of similar studies done at the college level by Funkenstein (18), Pace (34), and Stern (50). The main differences between the two types of colleges were intellectual (private) and social (public). The present

author was greatly concerned that this trend may start as early as high school.

Third, males and females were not compared. Even though differences have been found in their perceptions of environmental press by Larkin (53), Prior (54) concluded that such knowledge was of little help for self-improvement within a school. These two studies also compared living groups as a possible measure of socioeconomic level, but this was not possible for a high school study.

#### The Sampling Procedure

Although it is ideal to be able to measure the entire population when conducting a study, this study had to be limited to testing samples from these populations. Samples were taken from English classes to allow for maximum possible randomness and to take into consideration the coordination problems of scheduling for tests. This author had set a sample size from each school of approximately six percent of the total school population. The minimum sized samples to be taken, in any event, were 100 from each of the larger schools and 50 from the smaller schools. These figures were necessarily minimums, due to the size sample needed for use of the statistics selected in analyzing the data.

Sample A was taken from a smaller public high school that has a population of 617 students. Its city's basic industry is oil and oil products, and it is located within 30 miles of a major institution of higher education. Sample B was taken from a medium-sized public high school that has a population of 1,045 in the top three grades. The main industry in its city is a major institution of higher education.



Sample C was taken from a large public high school with a student population of 1,913. The major industry of its city is a military base, and it also has an institution of higher education located within its city limits. Sample D was taken from a small, private, preparatory high school with a student population of 113, all paying a high tuition. The industries of its city are many and varied, but aviation is probably the largest.

To insure the representativeness of each sample, chi square tests of significant difference were made to compare the populations and samples on factors of socioeconomic class and sex. Edwards' scheme was used to classify the students by socioeconomic group (16); his six scales show the relative rank of occupations according to socioeconomic status and is probably the most widely used scheme of this type. The scales are as follows, by number:

1. Professional Persons
2. Proprietors, Managers, and Officials
  - 2-a. Farmers (Owners and Tenants)
  - 2-b. Wholesale and Retail Dealers
  - 2-c. Other Proprietors, Managers, and Officials
3. Clerks and Kindred Workers
4. Skilled Workers and Foremen
5. Semi-skilled Workers
6. Unskilled Workers
  - 6-a. Farm Workers
  - 6-b,c. Laborers
  - 6-d. Servant Classes

Table II, page 28, presents the characteristics of all samples and populations according to socioeconomic class and sex, along with the chi square tests of significant differences.

The data in Table II describing the socioeconomic class of students are the same for Sample D and its population, because a 50% random sample was taken for Sample D to get a minimum of 50 students. There will be, therefore, no chi square test made for Sample D to compare socioeconomic class, because a sample taken in a random manner will be representative of the population.

A study of Table II reveals that there are no significant differences between samples and populations, because there are no significance levels beyond .25, where .05 is the generally-accepted standard. This indicates that no serious limitation to sample representativeness occurred when students were taken from English classes.

#### Experimental Design

The single group experimental design was used--a single theoretical population of high school students, all involved in the learning process. The HSCI was used to determine the conditions and factors of environmental press of the high school samples. It was necessary to compare differences in the observed conditions of press among the samples, and then a determination was made whether any differences found were significant according to the .05 level of confidence rather than to chance.

This study involved a binomial population, because the variables being measured were two-sided in nature due to answers on the scales of either true or false. The HSCI measured variables of environmental

TABLE II  
 CHI SQUARE TESTS OF SAMPLES A, B, C AND D  
 BY SEX AND SOCIOECONOMIC CLASS

	SEX %		SOCIOECONOMIC CLASSES					
	Boys	Girls	1	2	3	4	5	6
SAMPLE A								
Sample	47.0	53.0	14	15	14	12	25	20
Population (617 Students)	48.7	51.3	12	14	12	12	28	22
X <sup>2</sup>		0.12						1.241
df		1.00						5
Significance Level		0.75						.950
SAMPLE B								
Sample	51	49	41	20	8	6	13	16
Population (1045 Students)	53	47	38	18	10	4	16	14
X <sup>2</sup>		0.166						2.707
df		1.000						5
Significance Level		0.750						.750
SAMPLE C								
Sample	47.2	52.8	40	14	15	7	12	12
Population (1913 Students)	51.7	48.3	34	11	11	11	15	18
X <sup>2</sup>		0.816						8.83
df		1.000						5
Significance Level		0.500						.250
SAMPLE D								
Sample	42.0	58.0	48	36	10	6	--	--
Population (113 Students)	44.7	55.3	48	36	10	6	--	--
X <sup>2</sup>		0.283						
df		1.000						
Significance Level		0.500						

press by determining, in the view of the student, whether they existed significantly in the environment or not.

### Measuring Press

The High School Characteristics Index contains 300 phrases or items, which describe a particular condition of environmental press. By marking the item true or false, the subject gives his opinion as to the existence of that condition in the school. The instrument is so constructed that a true indicates the existence of the condition or a success, remembering the binomial nature of the data. A few statements are phrased in the negative sense, such that a false choice will indicate success. The purpose of the measurement is to observe the proportion of success in a given number of items per scale. Every binomial population has an expected probability for success of .5, and the same is true for the mean of responses to each item on the HSCI.

Knowledge of the validity and reliability about any measurement instrument is necessary for it to be usable. Sometimes these are considered as a single criteria for test efficiency and other times separately. The conclusions of any piece of research can be only as effective and believable as the validity and reliability of the instrument used. A summary of the studies made to establish the validity and reliability of the HSCI follows; it must be noted here that Pace and Stern established no real validity and reliability values for the HSCI but took these values from the CCI, a similar instrument.

### Validity

Pace and Stern defended the validity of the CCI by noting that the

most important approach to test efficiency is to treat validity and reliability together. (38) They reported that they had found high correlations between the scores from responses of student and faculty concerning the environment of the same institutions (concurrent validity). Rank order correlations for two institutions tested were .96 and .88. They believed that their evidence definitely indicated that their instrument had the ability to distinguish between colleges, which also correlated with observations of qualified people.

Stern pointed out that over a period of years a few studies had been made to study, refine, and improve these instruments; he also suggested the following related to validity:

1. Descriptions of the behavior to be expected of individual students, psychiatric patients, and industrial personnel based solely on needs profiles appear to be recognized and confirmed by peers, psychiatrists, and administrators, as well as by subsequent behavior on the part of the subjects.
2. Descriptions of college environments based solely on press profiles appear to be recognized and confirmed by academic participants and observers.
3. People with similar needs profiles tend to be characterized by similar patterns of overt behavior.
4. Responses to needs scale items appear to be resistant to faking.
5. The social desirability of alternative responses to needs scale items appear to be about the same for all items, none of them being considered important to accept or reject by any substantial majority of subjects.
6. Students or professionals in the same field have needs profiles that differ significantly from those of students or professionals in other fields.
7. Students with different background (public versus private) at the same institution have distinctive needs profiles, regardless of the field of study elected.

8. Students from the same institution have press scale scores which are uncorrelated with their corresponding needs scale scores, the coefficients falling between  $-.01$  and  $.06$ . The student's description of the school is apparently not a function of the description he provides of himself.

9. Freshmen in the same college with different high school backgrounds (public school, private preparatory, and parochial) describe their respective high school press in ways which differ significantly from one another. (49)

### Reliability

Stern (47) reports that scores on the CCI from undergraduates in 32 colleges produced reliability coefficients for the 30 scales ranging from  $.34$  to  $.81$ , using the test, retest method. These reliabilities are for the scales which have ten items each, and the average scale reliability of  $.67$  for these are very close to the practical maximum for scales of such relatively short length in description. An item analysis was performed by the authors, and poor items have been eliminated, which produced a more reliable version. No reliability figures are now available on the revised version, but the authors believe that the above reliability figures will be improved upon after new standardization figures are established.

Because of the high similarity of the CCI and the HSCI, the authors use the same validity and reliability scores for both. There may be some fault in their thinking on this, but no data are now available to refute their argument.

### Statistical Procedures

The statistic necessary to test the first null hypothesis for significant differences on the 30 scales among the four samples was the

Analysis of Variance (AOV) technique (39). To test for significant differences between means of the scales (variables), a separate AOV had to be calculated for each of the 30 scales. If significant differences were found at the .05 level, pairs of the four samples on a given factors were analyzed.

Where a significant difference was found, the Scheffe (44) test was applied for all combinations of scale samples, taken two at a time. The results of Scheffe's statistic tested the second null hypothesis for a significant difference between pairs of samples by applying the statistic to each of the 30 scales. Scales where significant differences existed were used in describing each sample's press as being different from another sample. The differences in sample scales should result in a unique pattern for each school, thus yielding a description of environmental press that can be compared with the other schools.

## CHAPTER IV

### RESULTS

The main objectives of this research study are to compare and describe the four secondary school environments and to gain some understanding as to how the student bodies of these schools perceive their respective environmental press. To illustrate the likeness and diversity among the schools, the two hypotheses were tested. This chapter presents the results and implications of the findings using the methods outlined in Chapter III. Differences were tested by the analysis of variance method, and the Scheffe test (44) for comparison of pairs was used when differences among the samples were found on any scale.

#### Findings and Disposition of the Hypotheses

Tables III-VI on pages 34-37 give the means and standard deviations of the scales of each of the samples. A careful study of the means and standard deviations are necessary to determine how each school was rated by its students on each of the variables, where 50 is the hypothetical mean score.

There is no national norm group for the HSCI; few studies using the instrument are larger than the present one. Stern (46) used a sample size of about 1,000 to perform the factor analysis to reduce the 30 scales, yielding the cluster factors discussed later in this chapter. (This could hardly be called a national norm group.)



TABLE III  
HIGH SCHOOL CHARACTERISTICS INDEX SCALE MEANS AND STANDARD  
DEVIATIONS OF SCHOOL A, SMALL PUBLIC

Scale	Mean	Standard Deviation
1. Abasement	44.200	21.534
2. Achievement	54.900	21.600
3. Adaptability	50.500	28.434
4. Affiliation	62.100	23.858
5. Aggression	47.800	22.851
6. Change	53.200	24.585
7. Conjunctivity	52.900	12.351
8. Counteraction	63.600	23.172
9. Deference	39.400	17.494
10. Dominance	68.000	11.888
11. Ego Achievement	49.800	19.702
12. Emotionality	58.200	22.846
13. Energy	50.900	18.871
14. Exhibitionism	61.800	12.044
15. Fantasied Achievement	46.100	18.829
16. Harm Avoidance	32.700	22.391
17. Humanities	30.300	16.111
18. Impulsiveness	60.300	22.731
19. Narcissism	71.800	14.868
20. Nurturance	47.000	25.534
21. Objectivity	59.000	20.537
22. Order	43.700	20.483
23. Play	62.700	23.940
24. Practicalness	70.900	20.152
25. Reflectiveness	53.000	17.068
26. Science	40.400	19.906
27. Sensuality	29.800	19.430
28. Sexuality	73.400	20.646
29. Supplication	45.100	15.567
30. Understanding	60.400	24.690

TABLE IV  
HIGH SCHOOL CHARACTERISTICS INDEX SCALE MEANS AND STANDARD  
DEVIATIONS OF SCHOOL B, MEDIUM PUBLIC

Scale	Mean	Standard Deviation
1. Abasement	39.300	18.276
2. Achievement	60.200	20.703
3. Adaptability	53.400	32.181
4. Affiliation	64.600	20.988
5. Aggression	35.900	15.857
6. Change	53.500	21.976
7. Conjunctivity	62.000	12.481
8. Counteraction	57.700	21.592
9. Deference	45.800	22.553
10. Dominance	67.700	15.144
11. Ego Achievement	49.500	18.344
12. Emotionality	53.700	24.940
13. Energy	52.100	14.247
14. Exhibitionism	63.300	11.634
15. Fantasied Achievement	45.900	18.448
16. Harm Avoidance	17.400	11.491
17. Humanities	30.200	16.151
18. Impulsiveness	62.000	17.664
19. Narcissism	73.300	11.748
20. Nurturance	39.100	20.685
21. Objectivity	61.500	14.646
22. Order	52.500	24.487
23. Play	66.000	15.930
24. Practicalness	70.400	22.426
25. Reflectiveness	49.100	22.664
26. Science	47.300	21.572
27. Sensuality	41.200	20.666
28. Sexuality	78.900	11.249
29. Supplication	43.700	16.014
30. Understanding	57.100	26.198

TABLE V  
HIGH SCHOOL CHARACTERISTICS INDEX SCALE MEANS AND STANDARD  
DEVIATIONS OF SCHOOL C, LARGE PUBLIC

Scale	Mean	Standard Deviation
1. Abasement	43.800	14.868
2. Achievement	64.200	16.605
3. Adaptability	48.000	26.462
4. Affiliation	71.700	17.689
5. Aggression	30.200	12.908
6. Change	44.500	32.435
7. Conjunctivity	61.800	10.727
8. Counteraction	54.500	19.845
9. Deference	46.900	19.689
10. Dominance	65.000	13.157
11. Ego Achievement	54.200	18.256
12. Emotionality	55.800	25.254
13. Energy	51.900	17.451
14. Exhibitionism	61.200	10.130
15. Fantasied Achievement	46.500	21.650
16. Harm Avoidance	21.900	16.576
17. Humanities	34.000	16.951
18. Impulsiveness	60.200	18.262
19. Narcissism	69.800	16.301
20. Nurturance	58.200	19.702
21. Objectivity	61.400	15.262
22. Order	52.800	28.019
23. Play	70.200	17.731
24. Practicalness	69.600	19.654
25. Reflectiveness	52.600	18.081
26. Science	53.900	24.030
27. Sensuality	39.100	18.315
28. Sexuality	78.200	17.338
29. Supplication	46.400	17.031
30. Understanding	58.600	22.569

TABLE VI  
HIGH SCHOOL CHARACTERISTICS INDEX SCALE MEANS AND STANDARD  
DEVIATIONS OF SCHOOL D, SMALL PRIVATE

Scale	Mean	Standard Deviation
1. Abasement	30.000	23.495
2. Achievement	87.200	14.582
3. Adaptability	48.400	35.849
4. Affiliation	63.200	33.189
5. Aggression	18.800	14.973
6. Change	73.200	13.473
7. Conjunctivity	89.200	7.554
8. Counteraction	66.400	28.044
9. Deference	60.800	33.243
10. Dominance	45.600	11.501
11. Ego Achievement	66.000	20.849
12. Emotionality	71.200	20.115
13. Energy	79.600	9.698
14. Exhibitionism	57.200	18.861
15. Fantasied Achievement	60.800	29.981
16. Harm Avoidance	47.200	27.892
17. Humanities	52.000	24.074
18. Impulsiveness	62.000	21.602
19. Narcissism	86.400	22.565
20. Nurturance	59.600	25.189
21. Objectivity	87.200	7.005
22. Order	68.800	28.460
23. Play	66.400	29.945
24. Practicalness	68.000	21.250
25. Reflectiveness	66.800	23.098
26. Science	72.800	18.743
27. Sensuality	51.200	27.116
28. Sexuality	48.400	30.019
29. Supplication	63.600	33.860
30. Understanding	75.200	28.832

An inspection of the means and standard deviations does result in some interesting facts. The means of the scales of public school Sample A ranged from a low of 29.8 on the Sensuality scale, closely followed by lows on Harm Avoidance and Humanities. Sample A was highest on Sexuality with a mean of 73.4, closely followed by Narcissism and Practicalness. This is a range of 43.6 for the means, and the standard deviations had a range of 12.65, with students agreeing most on Exhibitionism and least on Understanding, which had the greatest standard deviation.

Public schools B and C were very similar to school A; they were highest on Narcissism, Practicalness and Sexuality and lowest on Harm Avoidance, Humanities, and Sensuality. School C, large public, was also high on scales of Affiliation and Play, which made it somewhat different from the other two public schools. School B, medium public, had means with a range of 61.5, the greatest of the three, and the range of means of School C was 56.3. The ranges of the standard deviations of schools B and C were 20.9 and 22.3, respectively.

School D, small private, was highest on Achievement, Conjunctivity, Narcissism, and Objectivity; the means here ranged to a high of 89.2, which was much higher than any scale of the public schools. School D was lowest on Aggression (18.8) and Abasement (30). This makes the mean range 70.4, which is greater than the maximum public school range of 61.5. Another interesting finding is that the standard deviations of school D range from a low of 7.005, showing high agreement on the scale, Objectivity, to a high of 35.849 on Adaptability, indicating much disagreement.

Hypothesis I states that there will be no significant differences

among the four schools on any of the thirty scales of environmental press. This hypothesis was rejected by the analysis of variance method, which compared all schools on each scale.

A study of environmental press factors of the three public schools, as measured by student responses to the HSCI, revealed no significant differences beyond the .10 level of confidence, as calculated by the Analysis of Variance (39). The only scale that was significant at the .10 level was No. 5, Aggression, which had an F ratio of 2.57. An F ratio of 2.50 or greater was required for significance at the .10 level.  $.10F_{(2,27)} = 2.50$ . An F ratio of 3.35 or greater was required for a significant difference at the .05 level of confidence.

Scales that came close to being significantly different at the .10 level were No.'s 7--Conjunctivity, 16--Harm Avoidance, and 20--Nurturance. The data indicated that there were few differences in the environmental press of the three public schools.

Although no significant differences were found among the three public schools, a comparison of all four schools revealed many significant differences between the private school and the group of three public schools. Table VII illustrates the scales that were significantly different at the .05 and .01 levels of confidence, which rejected the first hypothesis.

It should have been evident that the private school was significantly different from the public schools as a group, and this was shown statistically by an application of the Scheffe test,  $F'$ . (44) Because there were no significant differences among samples A, B, and C (the public schools) at the .05 level of confidence using AOV, no Scheffe tests could be made comparing them to determine significant differences

between pairs. The only Scheffe tests where pairs were significantly different resulted when each public school was compared to Sample D, the private school, on each scale in Table VII.

TABLE VII  
COMPARISON BY AOV OF ENVIRONMENTAL PRESS FACTORS OF FOUR SCHOOLS\*\*

Scale	F Ratio	Rejection Level
2. Achievement	5.86	.01
5. Aggression	5.00	.01
7. Conjunctivity	20.61	.01
10. Dominance	6.82	.01
13. Energy	8.18	.01
16. Harm Avoidance	4.22	.05
17. Humanities	3.12	.05
21. Objectivity	7.74	.01
26. Science	4.34	.05
28. Sexuality	4.74	.01

\* .05  $F_{(3,36)} = 2.86$ , .01  $F_{(3,36)} = 4.38$

Hypothesis II states that there will be no significant differences between any two schools on each of the thirty scales. This hypothesis was rejected by the Scheffe test (44), and the results are summarized below.

Table VIII gives the Scheffe test results after the private school, Sample D, was compared with each public school sample. The level of significance can be found by comparing F' to the rejection value in the footnote. If the F' value in the table is equal to or greater than the

F' value at a given rejection level, then the table value is significant at that level.

TABLE VIII  
COMPARISON BY SCHEFFE TEST OF ENVIRONMENTAL PRESS FACTORS  
OF PUBLIC AND PRIVATE SCHOOLS  
F' (Scheffe Values) of Sample Comparisons

Scale	AXD	BXD	CXD
2. Achievement	15.2**	10.6*	7.65
5. Aggression	14.4**	15.0**	2.2
7. Conjunctivity	63.0**	31.0**	30.0**
10. Dominance	14.8**	14.4**	11.1*
13. Energy	17.2**	16.0**	15.3**
16. Harm Avoidance	2.9	10.5*	7.6
17. Humanities	6.8	6.7	4.7
21. Objectivity	17.3**	14.3**	14.4**
26. Natural Sciences	11.7*	7.3	3.6
28. Sexuality	7.2	10.6*	10.4*

\*Rejection levels are as follows: \*\*.01F' = 13.14  
\*.05F' = 8.58  
.10F' = 6.69

Table VII, p. 40, states that scale No. 2, Achievement, had a rejection level of .01; this means that at least one of the comparisons of that scale between schools in Table VIII must show a significant difference at the .01 level of significance. It can be seen in Table VIII that the AXD comparison resulted in a Scheffe value of 15.2, which is significant at the .01 level. The other two comparisons of scale 2, BXD and CXD, had Scheffe values of 10.6 and 7.65, which were rejected



at the .05 and .10 levels, respectively.

Comparisons AXD and BXD of scale 5, Aggression, were both rejected at the .01 level of significance, but the third comparison, CXD, was not rejected even at the .10 level. This means that school D was significantly different from A and B but not from C on scale 5.

The private school, Sample D, was found significantly higher than the public schools on the environmental press factors of Achievement, Conjunctivity, Energy, Harm Avoidance, Humanities and Social Science, Objectivity, and Natural Sciences. In contrast, the public schools were significantly higher than the private school on the environmental press factors of Dominance, Aggression, and Sexuality, making the private school higher in the opposites, Tolerance, Blame Avoidance, and Prudishness, respectively. These results are very similar to those of Pace's study of college environments. (34) These results are shown in Table IX, p. 43, which lists the environmental factors that each type of school, public or private, was significantly higher in according to the Scheffe tests.

#### Profiles and Descriptions of the Schools

The present study also has as an objective the task of comparing and describing the schools on each of the scales; the results of this can be found in Figures 1 and 2. The mean scores represented on these figures are taken from Tables III-VI. A study of Figures 1 and 2 (pp. 45,46) reveals that, of the public schools A, B, and C, school A seems to be the most different; public schools B and C have similar profiles. Sample D, the private preparatory school, has a profile that is very dissimilar to the public schools.

The reader must remember that the private school, Sample D, was found significantly higher than the public schools only on the factors as listed in Table IX; although scale scores differ in Figures 1 and 2, Table IX must be used to note where significant differences exist. For example, Table IX indicates that Sample D is significantly higher than the other schools on factor 7, Conjunctivity; Figure 1 also shows that it is much higher than the others on that scale or factor. Figure 1 shows that Sample D has a higher scale score on Factor 6, Change, but it is not significantly higher than the others on that scale.

TABLE IX

## THE SIGNIFICANTLY HIGH PRESS FACTORS OF PUBLIC AND PRIVATE SCHOOLS

PRIVATE (Sample D)		PUBLIC (Samples A, B, & C)	
FACTOR 2.	Achievement	FACTOR 5.	Aggression
7.	Conjunctivity	10.	Dominance
13.	Energy	28.	Sexuality
16.	Harm Avoidance		
17.	Humanities		
21.	Objectivity		
26.	Natural Sciences		

If the private school is significantly higher on one press factor, the public schools are significantly higher on the opposite; e.g., Table IX states that the public schools are significantly higher on factor 10, Dominance, making the private school significantly higher in

the opposite, Tolerance (note Table I, p. 9). A description and profile of each school, then, is gained from Figures 1 and 2, taking into consideration the significant differences found in Table IX.

### Cluster Factors

G. G. Stern has derived seven cluster factors by factor analysis from the thirty found in the HSCI:

1. Intellectual Climate: Humanities--Social Sciences, fantasied achievement, reflectiveness, ego-achievement, science, nurturance, understanding, and sensuality.
2. Expressiveness: Change, emotionality, energy, sensuality, understanding, and supplication.
3. Group life: Play, affiliation, exhibitionism, emotionality, and nurturance.
4. Personal dignity: Assurance, objectivity, defensiveness, blame avoidance, tolerance, and supplication.
5. Achievement standards: Achievement, conjunctivity, narcissism, energy, understanding, counteraction, and order.
6. Orderliness: Deference, deliberation, orderliness, and harm avoidance.
7. Practicalness: Practicalness, sex, dominance, and science. (46)

Comparing and describing schools using thirty scales is somewhat cumbersome, and these seven factors are easier to understand, mainly because they involve scale names that are more frequently discussed in high schools (as opposed to some of those in the list of thirty in Table I).

Table X lists the scales that make up each cluster factor, and the respective means of each scale are taken from Tables III-VI. The average of these scale means (Sample Cluster Mean) was derived for each sample by averaging the scales listed for each cluster scale, and a new profile for each school was gained by comparing schools on cluster means. These comparisons are illustrated in Figure 3, p. 47.

Sample D, according to Figure 3, is again the most deviant of all

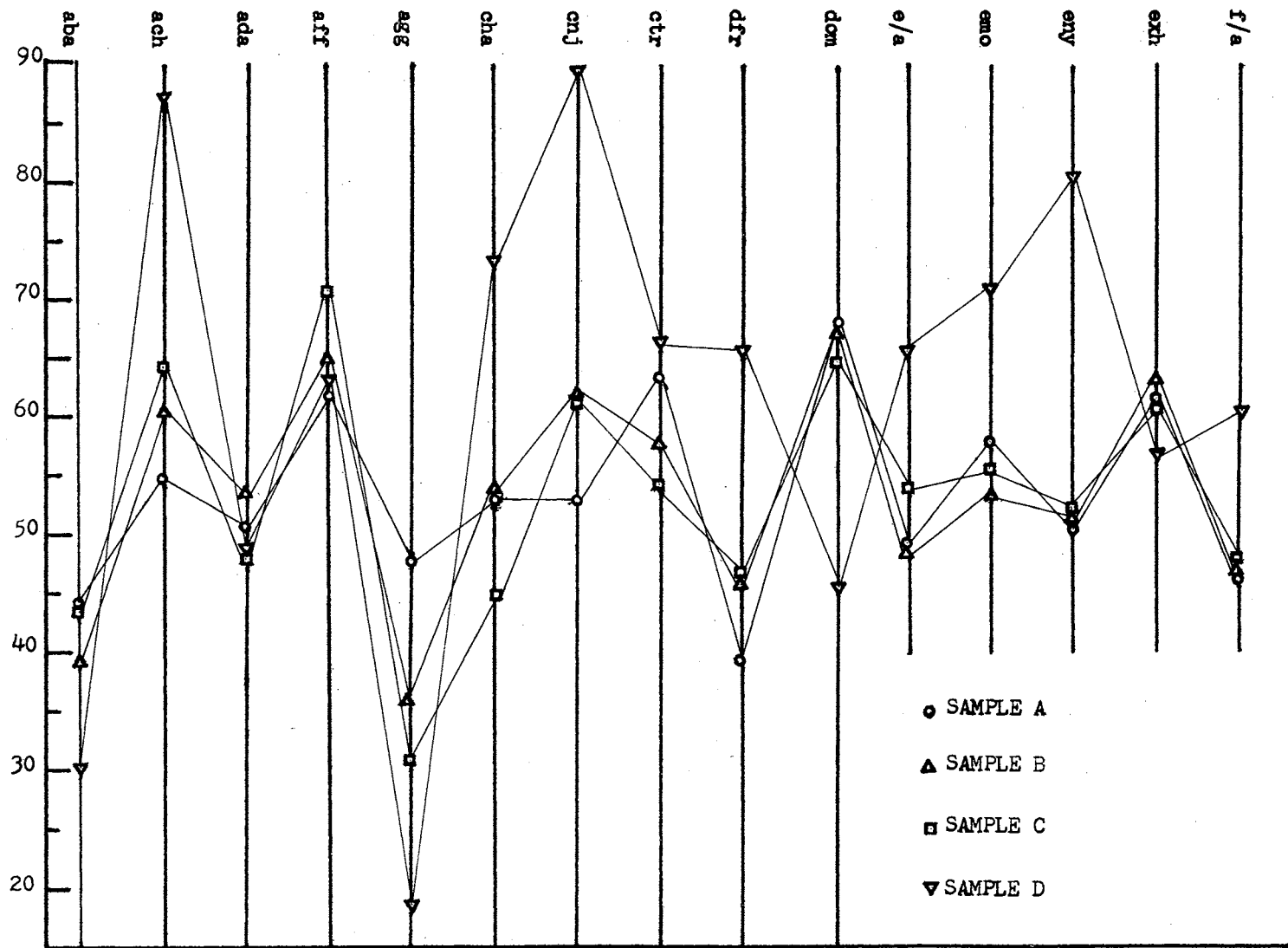


Figure 1. Mean Score Index Profiles by Sample of Scales 1-15

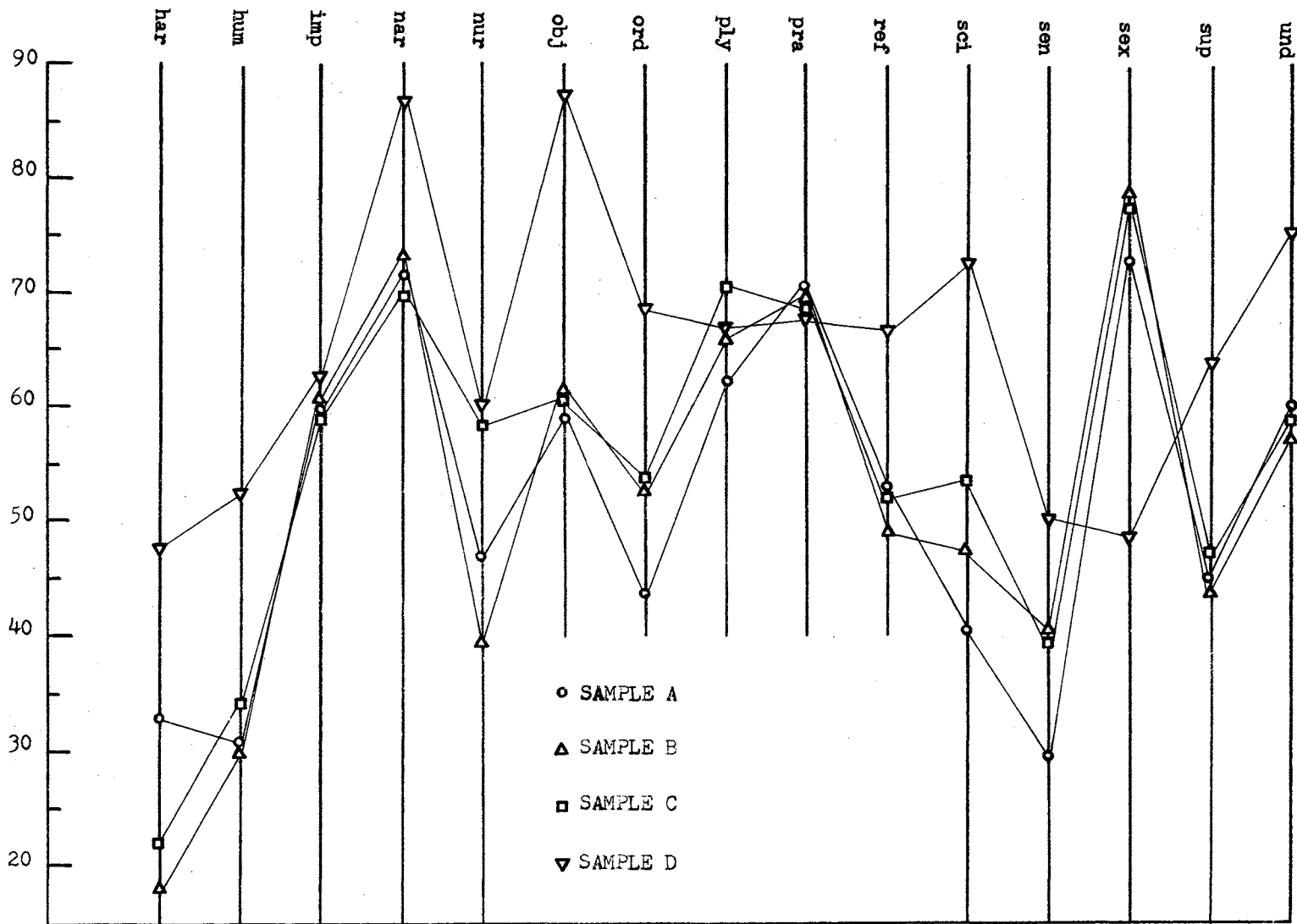


Figure 2. Mean Score Index Profiles by Sample of Scales 16-30

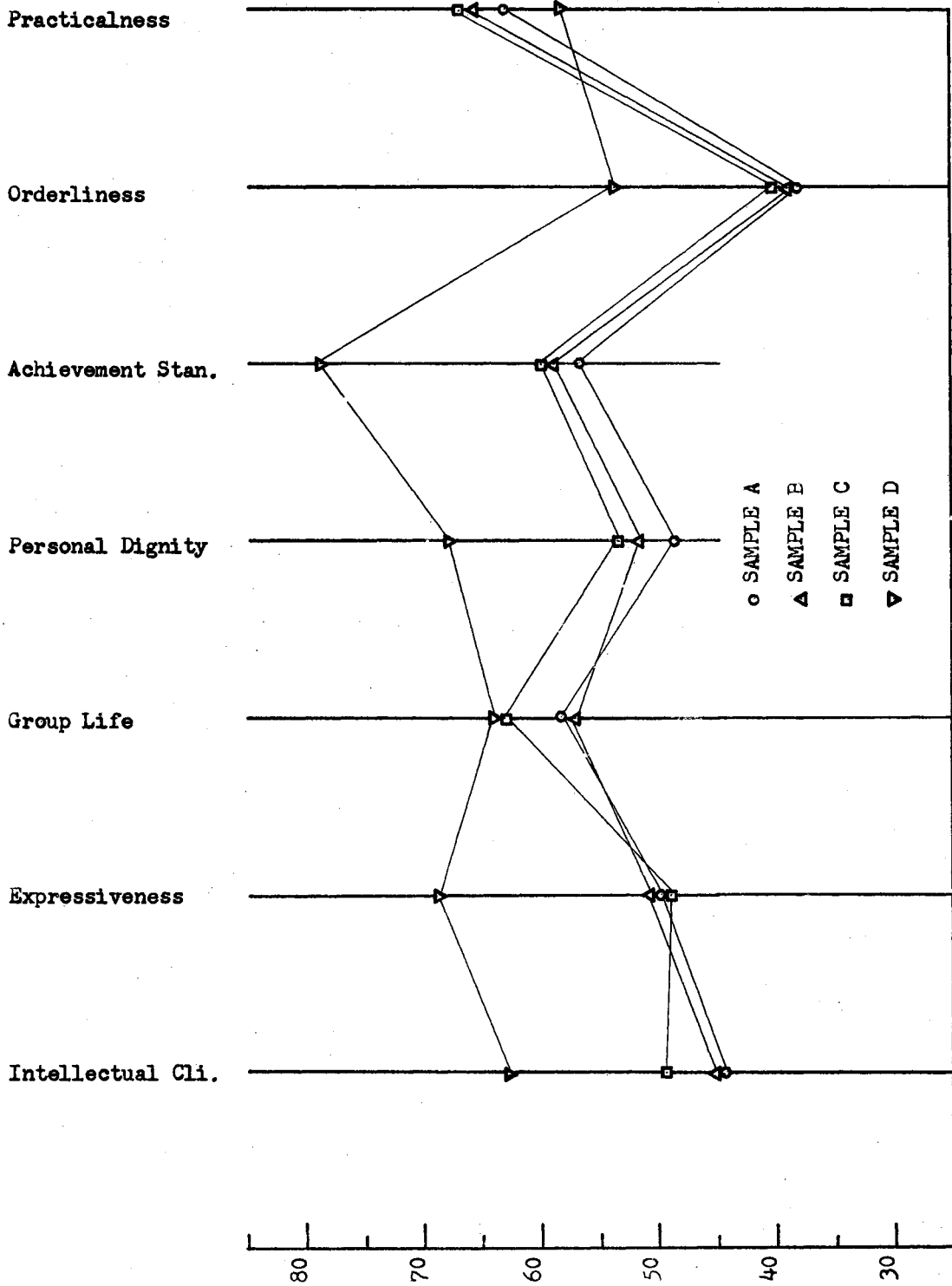


Figure 3. Mean Cluster Factor Index Profiles by Sample

TABLE X  
CLUSTER FACTOR SCALE MEANS BY SAMPLE

Scale	Sample			
	A	B	C	D
<b>1. Intellectual Climate</b>				
17	30.3	30.2	34.0	52.0
15	46.1	45.9	46.5	60.8
11	49.8	49.5	54.2	66.0
25	53.0	49.1	52.6	66.8
20	47.0	39.1	58.2	59.6
26	40.4	47.3	53.9	72.8
30	60.4	57.1	58.6	75.2
27	29.8	41.2	39.1	51.2
Sample Cluster Mean	44.7	45.0	49.7	63.0
<b>2. Expressiveness</b>				
6	53.2	53.5	44.5	73.2
12	58.2	53.7	55.7	71.2
13	50.9	52.1	51.9	79.6
27	29.8	41.2	39.1	51.2
29	45.1	43.7	46.4	63.6
30	60.4	57.1	58.6	75.2
Sample Cluster Mean	49.8	50.2	49.5	69.0
<b>3. Group Life</b>				
4	62.1	64.6	71.7	63.2
12	58.2	53.7	55.7	71.2
14	61.8	63.3	61.2	57.2
20	47.0	39.1	58.2	59.6
23	62.7	66.0	70.2	66.4
Sample Cluster Mean	58.4	57.4	63.4	63.5

TABLE X (Continued)

Scale	Sample			
	A	B	C	D
<b>4. Personal Dignity</b>				
1(R)*	55.8	60.7	56.2	70.0
21	59.0	61.5	61.4	87.2
5(R)	52.2	64.1	69.8	81.2
3(R)	49.5	46.6	52.0	51.6
10(R)	32.0	32.3	35.0	53.4
29	45.1	43.7	46.4	63.6
Sample Cluster Mean	48.8	51.5	53.5	68.0
<b>5. Achievement Standards</b>				
2	54.9	60.2	64.2	87.2
7	52.9	62.0	61.8	89.2
19	71.8	73.3	69.8	86.4
13	50.9	52.1	51.9	79.6
30	60.4	57.1	58.6	75.2
8	63.6	57.7	54.5	66.4
22	43.7	52.5	52.8	68.8
Sample Cluster Mean	57.0	59.2	59.0	79.0
<b>6. Orderliness</b>				
9	39.4	45.8	46.9	60.8
16	32.7	17.4	21.9	47.2
18(R)	39.7	38.0	39.8	38.0
22	43.7	52.5	52.8	68.8
Sample Cluster Mean	38.5	38.4	40.3	53.8
<b>7. Practicalness</b>				
24	70.9	70.4	69.6	68.0
28	73.4	78.9	78.2	48.4
10	68.0	67.7	65.0	45.6
26	40.4	47.3	53.9	72.8
Sample Cluster Mean	63.3	66.2	66.7	58.7

\* (R) This means that the opposite or alternative of the scale indicated was applied.



the schools and scored highest on the cluster factor scales of Intellectual Climate, Expressiveness, Personal Dignity, Achievement Standards, and Orderliness. The public schools A, B, and C have very similar profiles and scored highest on only one cluster factor, Practicalness.

There are few differences among the schools on the Group Life and Practicalness cluster factors. If analyses of variance had been made comparing the schools statistically on these factors, it is quite possible that there would be no significant differences found for these two scales. No analyses of variance were made using the cluster factors, because Stern derived them by factor analysis from a small sample of less than 1,000 students, who attended high school in one New England city. This would make the external validity and reliability of the scales somewhat questionable, so the present author has used them for profile comparisons only.

It can be argued that the 30 scales of the HSCI lack external validity for use in the Southwest, because much of the scale validations were also performed in the eastern portion of the United States. Stern reportedly used adequate statistical controls to develop the HSCI, giving it internal validity. It is generally accepted that psychological and sociological variables, such as those which are scales of the HSCI, are "constant" and will be representative for almost all samples. This "variable representativeness"\*, the internal validity of the instrument, and the use over a period of years of the instrument by other

---

\*A more extensive discussion of "variable representativeness" can be found in Fred N. Kerlinger, Foundations of Behavioral Research, New York: Holt, Rinehart, and Winston, Inc., 1964, pp. 301-302.

researchers named in the present study should be grounds for accepting the external validity of the HSCI and its use in the present study. This argument does not hold for believing that the cluster factors have external validity, because they have not stood the tests of time and scale or variable representativeness. Because of these reasons, the present author rejected statistical comparisons using the cluster factors.

## CHAPTER V

### CONCLUSIONS AND RECOMMENDATIONS

#### Summary of Purpose

The purpose of this study was to determine whether differences existed in secondary school environments which could be measured and described. These environments were then defined in terms of environmental press factors, and the four schools were compared and described using these factors from the High School Characteristics Index (HSCI).

#### Summary

There were no significant differences found among the three public high schools at the .05 level of confidence on any of the 30 scales of the HSCI. A comparison of the three public schools with the private school revealed many significant differences. The private school was found to be significantly higher than the public schools on the environmental press factors of Achievement, Conjectivity, Energy, Harm Avoidance, Humanities and Social Science, Objectivity, and Natural Sciences. The public schools were significantly higher on the environmental press factors of Dominance, Aggression, and Sexuality, making the private school higher in the scale opposites, Tolerance, Blame Avoidance, and Prudishness, respectively.

Profiles and descriptions of the schools were made by graphing their respective means for each of the 30 factors. The private

preparatory school had a profile that was very dissimilar to the public schools. The scale means of the public schools seem to be proportional to the size of the school, but it must be remembered that no significant differences existed among the public schools on any of the 30 scales. Profiles were also made using seven cluster factors developed by Stern; the private school was again very dissimilar to the public schools, which had very similar profiles.

#### Limitations

A number of factors may have limited the usability of the conclusions that were drawn from the findings. These factors must be discussed so that the reader will be aware of limitations of the study.

First, the schools were selected because of their interest in the study and their convenience to this author. They were also selected according to size, but this was not to mean that any other school of similar size might have a similar environment. Also, these four schools will not necessarily be representative of the schools in this region or this state.

Second, the data were collected by a counselor in each school under the guidance of the present author. It is possible that the results might have been biased less if one person had collected all the data.

Third, the public school samples were taken from representative English classes in each school, as selected by the respective principal under the guidance of the present author. Although the samples were found homogeneous according to the Fisher ratio test (39) and chi square tests, the data might have been more representative if a purely

random sample could have been taken from the total school populations.

The last limitation has to take into account the instrument itself, the High School Characteristics Index; there are some limitations due to its validity and reliability, which can never be perfect.

For the reader to accept the conclusions of the study, he must accept the limitations of the design together with the assumption that any findings of differences were in fact due to significant differences of observed data rather than being due to biases or to chance variations alone.

### Conclusions

Within the limitations that are proposed above, this study demonstrates the possibility of measuring and describing environmental press factors in various types of secondary schools. The study shows that even though the four schools were homogeneous statistically, there were many factors in the environments which were dissimilar. Because these press factors constitute the intellectual, educational, and psychosocial atmosphere of the schools, the data on each school should be especially significant for the parents, educators and students concerned in evaluating the environment to which the student is constantly exposed.

In review, press is a self-perceived property or condition of an outside object or person which either aids or impairs the efforts of the individual to meet his needs or to reach a given goal. Needs vary little from school to school (35), and it should be noted that some needs are not being met and some goals are not being reached by the schools, e.g., those public schools which believe that they have an

academic environment for the students.

The public school samples are very similar to one another, when all thirty scales of the HSCI are considered; the private school studied is very different from the public schools in environment and compares to the environment of a private preparatory school in the Pace study (34). This might lead the reader to believe that the public high schools in a system would have similar psycho-social environments, and differences between public schools might best be studied by using other constructs once the researcher knows the psycho-social environments.

The environmental press of the public school is forcing the students into having a concern for status among peers and accepting their status in relation to perceived authority. There seems to be little overall conflict between students and the policies of administrators and teaching practices. There are many social events which are important to these students, and activities are greatly influenced by the established student government and recognized leaders within the social environment. This can be interpreted from the public school students' high scores on the HSCI scales of Sex, Dominance, and Aggression. It is probable that parents, teachers, and administrators are consciously or unconsciously supporting the environment for the public schools, but what is important is that the public school students see social activities and social success as the way in which their schools are trying to mold their lives.

The private school students, on the other hand, believe that their school is characterized by an intellectual environment, rather than a social one. This is identified by their high scores on HSCI scales of Achievement, Objectivity, Humanities and Social Science, Natural

Sciences, Energy, Harm Avoidance, and Conjunctivity. They are being pressed into a life filled with art, music, intellectual discussions, academic freedom, and planning for future college studies. Organized student government is of little concern, and these students are not trying to gain status within a social structure.

Therefore, a use of the present study may well be to attempt to change or control the environmental press factors within a school. A self-study program within each school using the results of the HSCI, the only instrument available at this time, might well enable the educators in the school to alter the environment, e.g., create a more intellectual instead of social environment in the public schools. The possibilities here for improvement can involve any of the 300 items included in the instrument that indicated an unfavorable environment.

#### Recommendations

Research needs to be continued in the area of press patterns of secondary school environments with the objective of answering the following questions:

1. What would be the model or hypothetical construct for a learning environment and how does it relate to the psychosocial press patterns in the High School Characteristics Index?
2. Does a particular press pattern for an institution imply a particular learning environment?
3. Can the press pattern of an institution be changed or controlled, and if so, can the learning environment also be controlled and changed?
4. How does the perceived environment of a school as seen by minority groups relate to those of the student body and administrators?

5. What differences can be found between the ideal and real perceptions of environmental press as seen by administrators?
6. Can a student who fails in one press pattern possibly succeed in another pattern, which might be more congruent with his needs (matching a student to a particular school or college)?

The research should be focused on the area of studying the institutional image with a view toward discovering the relationship of press patterns and the personal and educational needs of the student body. The problem of determining a learning environmental model is an intriguing one, which is just hinted at by the Stern descriptions of public, private, and parochial school press patterns (50).



#### A SELECTED BIBLIOGRAPHY

- (1) Astin, A. W. "A Re-examination of College Productivity." Journal of Educational Psychology (June, 1961), 173-78.
- (2) \_\_\_\_\_. "Some Characteristics of Student Bodies Entering Higher Educational Institutions." J. of Educational Psychology, Vol. 55 (Oct., 1964), 267-75.
- (3) \_\_\_\_\_. "Productivity of Undergraduate Institutions." Science, Vol. 136 (Apr., 1962), 129-35.
- (4) \_\_\_\_\_. "The Effects of Differential College Environments on the Career Choices of Talented Students." J. of Counseling Psychology, Vol. 12 (1965), 28-34.
- (5) \_\_\_\_\_. Who Goes Where to College. Chicago: Science Research Associates, 1965.
- (6) \_\_\_\_\_ and Holland, J. L. "The Environmental Assessment Technique: A Way to Measure College Environments." J. of Educational Psychology, Vol. 52 (1961), 308-16.
- (7) Bartlett, M. S. "Properties of Sufficiency and Statistical Tests." Proceedings Royal Society London, Series A. Vol. 160 (1937), 273-5.
- (8) Barton, A. H. Studying the Effects of College Education: A Methodological Examination of Changing Values in College. New Haven: The Edward W. Hazen Foundation, 1959.
- (9) Becker, S. L., Goodwin, L. D. and Mittman, A. "Relationship Between the Minnesota Multiphasic Personality Inventory and the College Characteristics Index." J. of College Student Personnel, Vol. 6 (1965), 219-23.
- (10) Brown, Donald R. "Some Educational Patterns." J. of Social Issues, Vol. 12, No. 4 (1956), 44-60.
- (11) Clark, K. E. Vocational Interests of Nonprofessional Men. Minneapolis: Univ. of Minnesota Press, 1961.
- (12) Davie, J. S. "Satisfaction and the College Experience." Psychological Problems of College Men. Ed. B. M. Wedge, New Haven: Yale University Press, 1958.

- (13) Davis, J. A. "Intellectual Climates in 135 American Colleges and Universities: A Study in 'Social Psycholphysics'." Sociology of Education, Vol. 37 (Winter, 1963), 110-28.
- (14) Dressler, P. L. and Mayhew, L. B. General Education: Explorations in Evaluation. Washington, D. C.: ACE, 1954.
- (15) Eddy, E. D., Jr. The College Influence on Student Character. Washington, D. C.: ACE, 1959.
- (16) Edwards, Alba M. Population: Comparative Occupational Statistics for the United States, 1870-1940. Washington, D. C.: U. S. Government Printing Office, 1943.
- (17) Freedman, M. B. "The Passage Through College." J. of Social Issues, Vol. 12, No. 4 (1956), 13-28.
- (18) Funkenstein, D. H. "The Implications of Diversity." The Ecology of the Medical Student. Ed. Helen H. Gee and Robert J. Glasser. Evanston: Association of American Medical Colleges, 1958.
- (19) Glicksberg, C. I. "Student Ethics and the Honor System." School and Society, Vol. 85 (May, 1957), 181-3.
- (20) Hall, C. S. and Lindzey, G. Theories of Personality. New York: Wiley and Sons, 1957.
- (21) Hansen, J. C. and Herr, E. L. "School Truancy and Environmental Press." School Counselor, Vol. 14 (1966), 101-5.
- (22) Heist, P. "Diversity in College Student Characteristics." J. of Educational Sociology, Vol. 33 (1960), 279.
- (23) Herr, E. L. "Differential Perceptions of 'Environmental Press' by High School Students." Personnel and Guidance Journal (March, 1965), 678-86.
- (24) Holland, J. L. "A Theory of Vocational Choices." J. of Counseling Psychology, Vol. 6 (1959), 34-45.
- (25) Holland, J. L. and Astin, A. W. "The Prediction of the Academic, Artistic, Scientific, and Social Achievement of Undergraduates of Superior Scholastic Aptitude." J. of Educational Psychology, Vol. 53 (1962), 132-143.
- (26) \_\_\_\_\_. "Explorations of a Theory of Vocational Choice and Achievement: II. A Four Prediction Study." Psychological Reports, 1963.
- (27) Jacob, P. E. Changing Values in College. New York: Harper and Brothers, 1957.

- (28) Jones, J. E. "Components of the High School Environment." Personnel and Guidance Journal, Vol. 47 (Sep., 1968), 40-43.
- (29) Kelley, J. A. College Life and the Mores. New York: Bureau of Publications, Teachers College, Columbia University, 1949.
- (30) McConnell, T. R. and Heist, P. A. "Do Students Make the College?" College and University, Vol. 34 (Summer, 1959), 442-52.
- (31) McFee, A. "The Relation of Students' Needs to Their Perception of a College Environment." J. of Educational Psychology, Vol. 52 (1961), 25-29.
- (32) Murray, H. A. Explorations in Personality. New York: Oxford Univ. Press, 1938.
- (33) \_\_\_\_\_ and Klunkhohn, C. "Outline of a Conception of Personality." Personality in Nature, Society, and Culture. New York: Alfred A. Knopf, 1953, 3-52.
- (34) Pace, C. R. "Five College Environments." College Board Review, Vol. 61 (1960), 24-28.
- (35) \_\_\_\_\_. "Diversity of College Environments." National Association of Women Deans and Counselors Journal, Vol. 25 (Oct., 1961), 21-26.
- (36) \_\_\_\_\_. "Methods of Describing College Cultures." Teachers College Record, Vol. 63 (Jan., 1962), 267-77.
- (37) \_\_\_\_\_ and McFee, A. "The College Environment." Review of Educational Research, Vol. 30 (1960), 311-20.
- (38) \_\_\_\_\_ and Stern, G. G. "An Approach to the Measurement of the Psychological Characteristics of College Environments." J. of Educational Psychology, Vol. 69 (1958), 269-77.
- (39) Popham, W. J. Educational Statistics. New York: Harper and Row, 1967.
- (40) Rand, L. P. "Effect on College Choice Satisfaction of Matching Students and Colleges." Personnel and Guidance Journal, Vol. 47 (Sep., 1968), 34-39.
- (41) Riesman, D. "The 'Jacob Report'." American Sociological Review, Vol. 23 (Dec., 1958), 732-8.
- (42) Rowe, F. B. "Stability of a College Environment." J. of College Student Personnel (June, 1964), 242-9.
- (43) Rust, R. M. "Personality and Academic Achievement: A Questionnaire Approach." Psychological Problems of College Men. Ed. B. M. Wedge. New Haven: Yale University Press, 1958.

- (44) Scheffe, H. The Analysis of Variance. New York: Wiley and Sons, 1959.
- (45) Sprague, H. T. (Ed.) "Student Values and Their Relationship to the College Environment." Research on College Students (1960), 67-104.
- (46) Stern, G. G. Preliminary Manual: Activities Index; College Characteristics Index. Syracuse: Syracuse University Press, Research Center, 1958.
- (47) \_\_\_\_\_. "Congruence and Dissonance in the Ecology of College Students." Student Medicine (Apr., 1960), 304-39.
- (48) \_\_\_\_\_. "Continuity and Contrast in the Transition from High School to College." Orientation to College Learning. Ed. N. C. Brown. Washington, D. C.: American Council on Education, 1961.
- (49) \_\_\_\_\_. "Environments for Learning." The American College. Ed. R. N. Sanford. New York: Wiley & Sons, 1962.
- (50) \_\_\_\_\_. "Characteristics of the Intellectual Climate in College Environments." Harvard Educational Review, Vol. 33 (Winter, 1963), 5-41.
- (51) \_\_\_\_\_. Scoring Instructions and College Norms: Activities Index: College Characteristics Index. Syracuse: Syracuse Univ. Press, Research Center, 1963.
- (52) \_\_\_\_\_, M. I. Stein and B. W. Bloom. Methods in Personality Assessment. Glencoe, Illinois: The Free Press, 1956.
- (53) Thistlewaite, D. L. "College Press and Student Achievement." J. of Educational Psychology, Vol. 50 (1959), 183-91.

Unpublished Dissertations

- (54) Larkin, Joseph. "A Comparative Analysis of the Six Undergraduate College Environments at Oklahoma State University." Oklahoma State University, 1967.
- (55) Prior, J. J. "The College Characteristics Index as an Instrument for Identifying Areas for Self-Improvement in a Single University--Columbia University." Columbia University, 1964.

APPENDIX A

ILLUSTRATIVE LIST OF MURRAY'S NEEDS<sup>1</sup>

Need	Brief Definition
Abasement	To submit passively to external force. To accept injury, blame, criticism, punishment. To surrender. To become resigned to fate. To admit inferiority, error, wrongdoing, or defeat. To confess and atone. To blame, belittle, or mutilate the self. To seek and enjoy pain, punishment, illness and misfortune.
Achievement	To accomplish something difficult. To master, manipulate, or organize physical objects, human beings, or ideas. To do this rapidly and as independently as possible. To overcome obstacles and attain a high standard. To excel oneself. To rival and surpass others. To increase self-regard by the successful exercise of talent.
Affiliation	To draw near and enjoyably cooperate or reciprocate with an allied other (an other who resembles the subject or who likes the subject). To please and win affection of a cathected object. To adhere and remain loyal to a friend.
Aggression	To overcome opposition forcefully. To fight. To revenge an injury. To attack, injure, or kill another. To oppose forcefully or punish another.
Autonomy	To get free, shake off restraint, break out of confinement. To resist coercion and restriction. To avoid or quit activities prescribed by domineering authorities. To be unattached, irresponsible, to defy convention.
Counteraction	To master or make up a failure by restriving. To obliterate a humiliation by resumed action. To overcome weakness, to repress fear. To efface a dishonor by action. To search for obstacles and difficulties to overcome. To maintain self-respect and pride on a high level.
Defendance	To defend the self against assault, criticism and blame. To conceal or justify a misdeed, failure or humiliation. To vindicate the ego.

Need	Brief Definition
Deference	To admire and support a superior. To praise, honor or eulogize. To yield eagerly to the influence of an allied other. To emulate an exemplar. To conform to custom.
Dominance	To control one's human environment. To influence or direct the behavior of others by suggestion, seduction, persuasion, or command. To dissuade, restrain, or prohibit.
Exhibition	To make an impression. To be seen and heard. To excite, amaze, fascinate, entertain, shock, intrigue, amuse or entice others.
Harmavoidance	To avoid pain, physical injury, illness, and death. To escape from a dangerous situation. To take precautionary measures.
Infavoidance	To avoid humiliation. To quit embarrassing situations or to avoid conditions which may lead to belittlement; to scorn, derision, or indifference in others. To refrain from action because of the fear of failure.
Nurturance	To give sympathy and gratify the needs of a helpless object; an infant or any object that is weak, disabled, tired, inexperienced, infirm, defeated, humiliated, lonely dejected, sick, mentally confused. To assist an object in danger. To feed, help, support, console, protect, comfort, nurse, heal.
Order	To put things in order. To achieve cleanliness, arrangement, organization, balance, neatness, tidiness, and precision.
Play	To act for "fun" without further purpose. To like to laugh and make jokes. To seek enjoyable relaxation of stress. To participate in games, sports, dancing, drinking parties, cards.
Rejection	To separate oneself from a negatively cathected object; to exclude, abandon, expel, or remain indifferent to an inferior object. To snub or jilt an object.
Sentience	To seek or enjoy sensuous impressions.

Need	Brief Definition
Sex	To form and further an exotic relationship. To have sexual intercourse.
Succorance	To have one's needs gratified by the sympathetic aid of an allied object. To be nursed, supported, sustained, surrounded, protected, loved, advised, guided, indulged, forgiven, counsoled. To remain close to the devoted protector. To always have a supporter.
Understanding	To ask or answer general questions. To be interested in theory. To speculate, formulate, analyze, and generalize.

---

<sup>1</sup> Adapted from Murray, 1939, 152-226.



APPENDIX B

ABBREVIATED LIST OF PRESS<sup>1</sup>

1. Family Insupport
  - a. Cultural Discord
  - b. Capricious Discipline
  - c. Family Discord
  - d. Parental Separation
  - e. Absence of Parent:
    - Father, Mother
  - f. Parental Illness:
    - Father, Mother
  - g. Death of Parent:
    - Father, Mother
  - h. Inferior Parent:
    - Father, Mother
  - i. Dissimilar Parent:
    - Father, Mother
  - j. Poverty
  - k. Unsettled Home
2. Danger of Misfortune
  - a. Physical Insupport, Height
  - b. Water
  - c. Aloneness, Darkness
  - d. Inclement Weather, Darkness
  - e. Fire
  - f. Accident
  - g. Animal
3. Lack or Loss
  - a. of Nourishment
  - b. of Possessions
  - c. of Companionship
  - d. of Variety
4. Retention, Withholding Objects
5. Rejection, Unconcern, and Scorn
6. Rival, Competing Contemporary
7. Birth of Sibling
8. Aggression
  - a. Maltreatment by Elder
    - Male, Female
  - b. Maltreatment by Contemporaries
  - c. Quarrelsome Contemporaries
9. Dominance, Coercion, and Prohibition
  - a. Discipline
  - b. Religious Training
10. Nurturance, Indulgence
11. Succorance, Demands for Tenderness
12. Deference, Praise, Recognition
13. Affiliation, Friendships
14. Sex
  - a. Exposure
  - b. Seduction: Homosexual, Heterosexual
  - c. Parental Intercourse
15. Deception or Betrayal
16. Inferiority
  - a. Physical
  - b. Social
  - c. Intellectual

<sup>1</sup> Adapted from Murray, 1939, 291-292.

APPENDIX C

TABLE XI  
 PERCENTAGES OF CORRECT RESPONSES OF SAMPLE A TO SCALE ITEMS

Scale	Items									
1	52	67	31	45	21	45	26	86	17	52
2	60	29	45	45	55	69	91	36	33	86
3	33	83	67	93	76	07	55	36	26	29
4	86	71	45	57	19	81	76	86	71	29
5	57	49	26	86	52	40	62	21	14	71
6	95	52	57	05	48	29	76	48	67	55
7	52	36	43	74	52	45	49	49	74	55
8	71	81	88	83	57	40	21	40	86	69
9	43	31	24	29	55	36	52	76	17	31
10	79	62	55	71	60	88	74	74	69	48
11	21	55	64	74	19	45	76	49	57	38
12	60	36	91	79	31	57	62	81	21	64
13	57	49	67	76	74	57	36	24	45	24
14	55	71	48	60	88	49	57	71	62	57
15	83	38	40	33	55	43	71	43	19	36
16	33	38	62	02	76	14	36	24	14	38
17	43	52	26	33	19	07	17	52	14	40
18	79	88	86	40	79	29	33	43	57	69
19	36	83	83	74	62	71	69	81	71	88
20	26	88	14	86	24	40	29	48	60	55
21	48	83	57	81	83	52	29	33	76	48
22	81	55	19	49	29	33	21	52	67	31
23	93	81	36	83	91	52	60	55	55	21
24	57	100	74	33	83	76	88	52	60	86
25	38	38	86	60	43	71	67	43	48	36
26	69	12	40	45	49	45	33	19	21	71
27	07	71	10	26	48	29	17	40	17	33
28	48	31	93	93	91	88	69	71	81	69
29	43	60	49	24	26	57	49	52	24	67
30	86	33	45	40	86	40	69	31	88	86

TABLE XII  
 PERCENTAGES OF CORRECT RESPONSES OF SAMPLE B TO SCALE ITEMS

Scale	Items									
1	30	59	30	48	21	48	26	70	12	49
2	78	51	55	33	59	70	93	40	38	85
3	18	94	54	92	77	04	73	35	66	21
4	98	62	56	67	48	68	81	82	63	21
5	30	39	23	22	40	26	56	12	56	55
6	89	49	85	18	44	30	60	45	61	54
7	70	50	62	71	68	39	65	49	81	65
8	87	68	89	67	34	43	32	37	72	48
9	23	50	20	45	74	42	61	87	27	29
10	82	42	61	89	62	89	71	65	60	56
11	21	61	54	82	26	34	50	62	48	57
12	61	32	84	90	20	33	71	68	26	52
13	57	49	62	50	77	67	43	50	37	29
14	40	72	51	60	81	63	70	72	62	62
15	74	30	50	34	52	49	73	29	18	50
16	10	37	30	01	09	10	14	22	12	29
17	56	48	37	26	22	07	30	37	05	34
18	74	88	81	46	71	32	51	59	48	70
19	51	78	89	76	67	71	60	73	81	87
20	26	51	07	81	22	37	26	43	55	43
21	34	83	60	78	67	55	48	57	74	59
22	79	62	37	49	21	85	32	78	63	18
23	79	81	65	81	78	67	57	71	48	33
24	66	97	89	27	88	66	92	44	62	73
25	42	28	78	72	32	55	82	21	55	26
26	84	10	57	45	52	66	48	33	22	55
27	10	61	17	72	59	43	37	30	26	57
28	66	62	85	87	95	92	78	82	74	68
29	50	73	65	26	28	49	46	33	29	38
30	92	42	28	33	72	38	61	29	87	89

TABLE XIII  
 PERCENTAGES OF CORRECT RESPONSES OF SAMPLE C TO SCALE ITEMS

Scale	Items									
1	28	56	44	50	28	47	38	69	22	56
2	65	54	45	38	65	75	87	79	52	82
3	25	81	43	75	66	02	69	40	60	19
4	95	90	68	70	36	85	83	69	54	67
5	22	46	22	43	31	26	51	13	32	16
6	100	55	99	26	48	26	12	08	30	41
7	72	46	56	71	60	58	69	44	73	69
8	81	62	85	58	32	38	28	44	69	48
9	41	45	18	39	74	39	65	80	34	34
10	82	72	50	69	61	82	68	67	59	40
11	19	54	76	75	40	45	72	41	62	58
12	59	34	85	83	15	38	79	74	28	62
13	59	35	63	55	86	62	48	40	48	23
14	58	59	41	61	77	56	66	73	55	66
15	86	37	43	24	40	54	74	41	13	53
16	32	53	18	01	09	15	14	18	13	46
17	53	54	33	32	23	14	33	55	05	38
18	80	81	83	39	68	45	37	42	60	67
19	29	76	84	65	70	70	62	75	84	83
20	38	96	39	84	66	56	36	54	52	61
21	47	85	55	67	77	55	44	55	82	47
22	79	60	33	61	24	84	18	58	93	18
23	96	87	41	72	84	68	61	55	53	85
24	53	90	83	32	79	69	90	52	61	87
25	43	36	75	69	38	71	69	30	62	33
26	82	15	54	54	80	90	46	42	28	48
27	08	56	58	22	43	59	56	32	20	37
28	56	43	93	88	95	95	85	80	73	74
29	56	75	55	19	27	52	52	44	28	56
30	87	29	46	36	57	44	72	42	85	88

TABLE XIV  
 PERCENTAGES OF CORRECT RESPONSES OF SAMPLE D TO SCALE ITEMS

Scale	Items									
1	08	56	24	20	08	24	20	84	36	20
2	100	92	88	84	96	88	96	48	88	92
3	08	88	40	92	96	04	64	52	32	08
4	88	80	80	92	12	92	88	08	56	36
5	04	32	36	16	28	04	44	08	04	12
6	56	88	56	72	92	60	72	80	88	68
7	100	88	76	84	96	88	92	80	96	92
8	92	76	92	68	16	84	80	40	88	28
9	72	92	12	40	88	32	88	92	80	12
10	52	56	52	36	40	68	40	44	40	28
11	80	68	96	48	24	48	76	64	80	76
12	92	32	88	96	48	68	72	76	60	80
13	84	72	80	76	96	60	88	84	80	76
14	24	92	52	64	64	52	36	64	52	72
15	92	16	88	60	32	84	96	44	24	72
16	32	84	80	28	08	88	31	32	32	56
17	76	52	44	76	52	12	44	80	16	68
18	92	92	68	40	56	76	48	28	48	72
19	24	96	92	92	96	80	96	100	96	92
20	80	40	80	64	24	80	16	52	80	80
21	80	96	80	92	96	80	80	84	92	92
22	92	56	44	80	40	96	72	96	96	16
23	92	92	16	44	100	72	76	84	20	68
24	28	80	88	40	84	68	96	60	72	64
25	24	60	84	56	84	80	96	44	88	52
26	60	40	80	72	92	92	84	84	44	80
27	24	64	48	88	44	04	92	64	36	48
28	04	16	96	60	88	56	40	64	36	24
29	92	96	80	04	28	72	92	88	20	64
30	96	44	80	80	96	88	96	68	08	96

VITA

Ronald Gene Schnee

Candidate for the Degree of

Doctor of Education

Thesis: A METHOD FOR DESCRIBING AND COMPARING THE ENVIRONMENTS OF  
SELECTED HIGH SCHOOLS

Major Field: Student Personnel and Guidance

Biographical:

Personal Data: Born in Lawton, Oklahoma, March 2, 1942.

Education: Graduated from Lawton High School, Lawton, Oklahoma, in May, 1960; received the Associate degree from Cameron State College, Lawton, in 1962, with a major in Electrical Engineering; received the Bachelor of Science degree in 1964 from Oklahoma State University, with a major in Mathematics and Physics Education; received the Master of Science degree from Oklahoma State University in 1965, with a major in Student Personnel and Guidance; completed requirements for the Doctor of Education degree at Oklahoma State University in July, 1970.

Professional Experience: Psychometrician, Education Department, Oklahoma State University, 1964-65; Teacher-Counselor, C. E. Donart High School, Stillwater, 1965-66; Operations and Training Officer, U. S. Army Missile Electronics School, Fort Bliss, Texas, 1966-68; Mathematics Instructor (half-time), University of Texas at El Paso, 1966-68; Teaching Assistant, Department of Education, Oklahoma State University, 1968-69; Counselor, C. E. Donart High School, Stillwater, 1969-70.