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A Comparative Investigation of Environment Perceptions of Clustered and Non-Clustered Freshmen Students

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Charles L. Thompson, Major Professor

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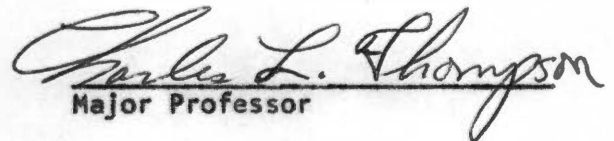
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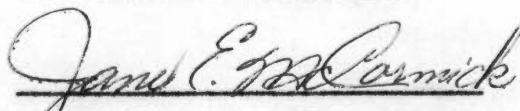
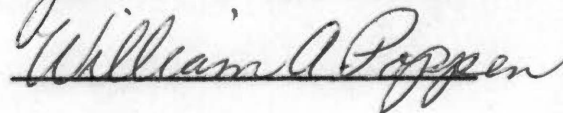
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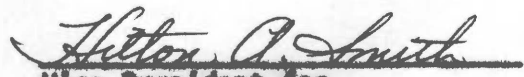
I am submitting herewith a thesis written by Elizabeth A. Pearson entitled "A Comparative Investigation of the Environmental Perceptions of Clustered and Non-Clustered Freshmen Students." I recommend that it be accepted for nine quarter hours of credit in partial fulfillment of the requirements for the degree of Master of Science, with a major in College Student Personnel.


Major Professor

We have read this thesis and
recommend its acceptance:

Accepted for the Council:


Vice President for
Graduate Studies and Research

A COMPARATIVE INVESTIGATION OF ENVIRONMENT PERCEPTIONS OF
CLUSTERED AND NON-CLUSTERED FRESHMEN STUDENTS

A Thesis
Presented to
the Graduate Council of
The University of Tennessee

In Partial Fulfillment
of the Requirements for the Degree
Master of Science

by
Elizabeth A. Pearson

August 1968

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E.A.P.

ABSTRACT

This study was directed to determine if, in fact, clustering actually does influence the students' perceptions of the large university environment. This study examined the environment perceptions of clustered Presidential Living Center freshmen students as compared with non-clustered freshmen students living in Hess and Massey residence halls. All of these students are located on the Knoxville campus of The University of Tennessee. This difference in perceptions was measured by the administration of the College and University Environment Scales which was published by Pace in 1963 and is designed to measure college environments. This scale measures groups in the areas of Practicality, Community, Awareness, Propriety, and Scholarship. The CUES were administered to 153 students who were matched by ACT scores and socio-economic status of their parents.

Means and standard deviations for each of the five scales of the CUES were calculated and a T-test was conducted to determine if these were significant at the .05 level of confidence.

The research revealed that there was a significant difference between the clustered and non-clustered students on three of the scales: Community, Awareness, and Scholarship. There was no significant difference between the three groups on the other two scales.

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CHAPTER I

THE PROBLEM

I, INTRODUCTION

As universities continue present-day expansion, many students are feeling the effects of isolation. The comment of one student in the Midwest is typical of the feelings which many students describe, "If my identity must be computerized, the least they could do would be to hand-punch the darn cards" (Crawford, 1966, p. 41). This situation is also reported by Time magazine when it states:

Vast universities offer great libraries, star teachers and topnotch research facilities--but often at a high cost in impersonality and student loneliness. Tiny colleges offer the warmth and human values of close relationships--but more often at a high cost in academic shortcomings (1966, p. 67).

Undoubtedly the facilities and faculty which are available to students at large universities are impressive. However, many students feel the need for closer student-faculty relationships and closer relationships with their peers--in other words, a group with which to identify. In an attempt to provide for these needs, large universities across the country are breaking down their student body populations into small living-learning units. In these units students live together, and therefore begin to identify as a member of a group. Michigan State University began experimenting in 1961 and in the Fall of 1966 had 14,000 students assigned to

units where they eat, sleep, and take some of their required courses together under the same roof (Time, 1966, p.67).

The University of Michigan reports that the living-learning units on its campus have resulted in a "strong focus of identification with fellow students and closer relationships between students and faculty" (Neville, 1966, p.430). Another interesting experiment in clustering is also reported by Time. In the Fall of 1965, Florida State University block-registered thirty freshmen for classes together. According to the article, the freshmen quickly caught on and dubbed themselves "The Group". Soon they were holding parties together as well as studying together. Consequently at the end of the freshmen year not one member of "The Group" dropped out of school despite a large drop-out rate for the freshmen class in general (1966, p. 71). These units with students working closely together are often called cluster groups.

However, there are difficulties with this solution for combating the vastness of a large university. If students are forced to live, study, and relax with the same group all of the time several effects of this constant togetherness may become apparent. Martin (1967, p. 146) in his discussion of the effects of clustering, is one of the few authors to bring these to light. He writes:

Students in large, impersonal institutions may view the faculty with awe or indifference because of distance. But in a cluster college, distance is gone, and familiarity has been known, at least some-

to breed contempt. Education elsewhere may be impersonal and students powerless, but for cluster-college students the problems are different: they arise as the result of too many personal contacts and too much involvement. Faculty members are especially vulnerable to the pressure produced by the closeness. Students made heady by too much attention may show small respect for faculty authority and professional competence.

Another problem brought about by the closeness of the cluster group is also pointed out by Martin (p. 148). First he notes that the students' sharp criticism of the society around them may leave them with a void normally occupied by society.

Some fill the void by introversion. They follow up the college's commitment to social and political analysis and the concomitant sensitivity to human relations with a probing, relentless introspection that peels off the layers of the psyche until it is raw and bleeding or until nothing is left. To be sure, this introspection is not limited to students of the cluster colleges. But it is fair to point out that by their emphasis on individual involvement, by their preference for facilities that tend to result in "cloister colleges" (or ghettos), that threaten to close in the open spaces and turn the activities of mind and body inward, by the fact that they are for the most part recently established colleges which, like infants in their self-conscious newness, keep touching themselves to confirm their existence, these schools activate individual introversion to a degree unparalleled elsewhere in institutions of higher education.

The final and inevitable by-product of clustering is, of course, the complete lack of privacy.

Students complain of being together so much that they come to anticipate everyone's responses to every situation. While surely some profit by this kind of contact, others become hard or detached as a way of protecting their inner freedom. Still others melt, and by losing their identity lose what the college was meant to establish. Faculty members may complain not only that their contacts with students are time-consuming, but worse, that they themselves feel overcome by psychic fatigue (p. 149).

Thus the concept of clustering students creates problems as it attempts to solve them. Whether or not the effects of this experiment in group living are worthwhile must still be determined.

II. STATEMENT OF THE PROBLEM

This study was directed to determine if, in fact, clustering actually does influence the students' perceptions of the large university environment.

The study examined the environment perceptions of clustered Presidential Living Center freshmen students as compared with non-clustered Presidential Living Center and with non-clustered freshmen students living in Hess and Massy residence halls. All of these students are located on the Knoxville campus of The University of Tennessee. This difference in perceptions was measured by the administration of the College and University Environment Scales which was published by Pace in 1963 and is designed to measure college environments.

More specifically, this Scale measures groups in the areas of Practicality, Community, Awareness, Propriety, and Scholarship. The CUES were administered to 153 students who were matched by ACT scores and socio-economic status of their parents.

III. HYPOTHESIS

It is hypothesized that cluster students will differ

significantly from non-clustered students in the following five scales measured by Pace's CUES.

- (a) Practicality
- (b) Community
- (c) Awareness
- (d) Propriety
- (e) Scholarship

IV. DEFINITION OF TERMS

Certain terms which are pertinent to this study should be defined.

1. Cluster student. As used in this study, a freshman student who lives in Carrick residence hall and who has attended three classes together with the same group of students for three quarters of the 1967-68 academic year.

2. Presidential Living Center. As used in this study, a complex of four residence halls located at the western end of the Knoxville campus of The University of Tennessee. The four residence halls found there are Reese, Humes, and Carrick North and South. Reese and Carrick North house male students and Humes and Carrick South house female students. This term will hereafter be abbreviated as PLC.

3. Socio-economic status. As used in this study, this term describes the occupation of the subjects' parents. The levels of occupations were determined by the six levels outlined by Anne Roe's Psychology of Occupations (1956).

V. BACKGROUND OF THE STUDY

Experimenting with clustering began on The University of Tennessee campus in the Fall of 1967 when 125 students were block registered for three classes. All of these students were living in Carrick Hall, a PLC residence halls. This main group of 125 was broken down into smaller groups of about 25 students. Although the size of the groups quickly dwindled because of class schedule changes, and students who failed one course were unable to remain in the group because of the necessity of repeating the course, sixty-seven students remained in their respective groups at the end of the academic year.

During the Winter Quarter of 1968, this researcher and a colleague designed two projects which dealt with these cluster students. The first study consisted of a sociogram which explored the cluster students' interaction in the classroom. This study revealed that a definite group identity had developed in the English classes with cluster students choosing each other 88.5 per cent of the time.

The purpose of the second study was to determine the social interaction of the cluster students outside the classroom. The study showed a high percentage of cluster students studying together and exchanging notes and assignments, although few cluster students dated or went to each other's homes.

VI. ORGANIZATION OF THE STUDY

Chapter one has contained an introduction, statement of the problem, the hypothesis to be tested, the definition of terms, and the background of the study.

Chapter two contains related theory and a survey of the literature.

Chapter three contains the procedures and methodology used in the study.

Chapter four is the data analysis and discussion.

Chapter five contains the summary, conclusions, and recommendations.

CHAPTER II

REVIEW OF THE LITERATURE

The cluster college concept provides a new and different solution for the problem of size which is created by the multiversity. Although experimentation with the concept was only begun in 1961, the idea has been used by many universities across the country. Although most seem very pleased with the results, unfortunately only a few have conducted research to prove its positive or negative effects. Thus the literature reveals relatively few research reports.

The College and University Environment Scales (Pace, 1963) measure the environment perceptions of college students. The literature reveals that many experiments have been conducted with this instrument and its predecessor, the College Characteristics Index.

This chapter contains a summary of the literature related to the cluster concept and the two environmental scales.

I. CLUSTER CONCEPT

Residence hall planning, financing, and staffing have become big business for most universities and the growth at The University of Tennessee is representative of what is happening all over the country. But housing large numbers of students takes up a great deal of space and to preserve space, many universities have turned to building large, high-rise dormitories. Yet it is often difficult

for a student, especially a freshmen, to feel that he is a part of any group at a university. Often he may begin to feel that his classes are arranged for him by computer and his residence hall was designed by a computer with the window the size of a hole in an IBM card.

The theory employed in residence hall thinking is summed up by Thelma Hiatt when she says:

We must envision our residence hall as the informal classroom, the human relations laboratory where students are learning with and through each other as they live together and attain a higher degree of reciprocal interdependence and appreciation for mankind. In education we are highly skilled in disseminating knowledge of the various disciplines, but we have difficulty in the application of such knowledge into human lives. In our residence halls we are attempting to bridge the gap between classroom knowledge and our social laws of living (1967, p. 34).

Varied attempts to construct beautiful and functional residence halls are reported in architecture as well as student personnel journals. Included in these articles are photographs of lovely rooms and attractive features which residence halls are now displaying.

However, it is important to remember that architecture is just one of the ways to make students feel more at home in a residence hall. Another method employed to bring students into closer contact with each other is to group them in residence clusters with classroom and dining facilities in the same building.

One of the first attempts to provide this type of housing facility is reported by Michigan State University. The purpose of these living-learning units, as they are sometimes called, is to provide a small college environment with the advantages of large university facilities. Each unit contains dining and recreational

facilities as well as classrooms, laboratories, and faculty offices.

Michigan State opened its first cluster college in 1961, and its eighth in 1966. Each college houses 1,200 students, each of whom takes from two to four classes in the complex. In a recent survey, 95 per cent of the students in the college recommended the colleges for freshmen. The colleges also sustain the higher proportion of returning applications in the experience of the Michigan State University residence hall system (Neville, 1966, p. 431).

The University of the Pacific in California chose as its theme for the cluster colleges: "Grow larger by growing smaller." Having studied the particular programs of this university, a group of administrators traveled to Oxford and Cambridge to study their "live-in" approach. There they found that the most effective teaching group size was about 250 students (Burns, 1966, p. 7).

When developing their own program, the University of the Pacific felt it best to develop each of their cluster colleges with a distinctive academic emphasis. While each college economically shares the library, health, and physical education services; the individual colleges contain their own residence halls, separate lounges, administration centers, and dining halls which are administered by a central kitchen.

The first of these cluster colleges was opened in 1962 with 58 beginning freshmen. Three years later, Raymond College graduated 38 students from a program which was strongly oriented to graduate study. Administrators feel that this program "challenges students to

work fast by studying three terms per year (p. 8).

In 1963 Elbert Covell College with forty students from fifteen Latin American countries and twenty students from the United States opened its doors. This ratio has been preserved and the bilingual faculty works well with both groups of students. Seven students have graduated and returned to Latin America where they represent a bright hope for its future.

The University of California at San Diego is a new institution which opened in 1965 with 180 freshmen. This university plans to establish twelve interrelated colleges with 2,300 students in each. By 1995 the total student population should equal 27,500 students. According to their philosophy, "The individual student should remain an individual keeping in close association with his professors, his fellow students, and his day-to-day work, while at the same time receiving the benefits derived from a large university faculty, an extensive curriculum, and a major research library" (West, 1966, p. 18).

Thus the cluster concept has become increasingly popular across the country. Time magazine reports that other universities, namely Ohio State University, Stanford, the University of Kansas, San Francisco State, the University of Kentucky, the University of Michigan, Rutgers University, Wayne State University, the University of Massachusetts, and the University of West Virginia, are currently experimenting with different projects all related to this cluster concept (1966, p. 71).

Olson of Michigan State University adds an interesting note about the cluster concept. Before being put into operation, it was felt that living-learning units were so informal and relaxed that too many things would distract one from studying. However, "comparison of average scores on University College final examinations for students in the living-learning units and comparable main campus groups has most often shown somewhat higher achievement for the residence hall groups" (1965, p. 39).

However, there are problems which must be faced if the cluster concept is to become an effectively functioning contributor to higher education. Both teachers and students must be reoriented to their new roles. Often problems can develop from too much involvement and too many personal contacts within a certain group. Some students prefer no personal contact at all with their professors and content themselves with the typical small talk with their peers. The absence of privacy, which is a previously mentioned product of the cluster concept, can also become a problem for some students (Martin, 1967, p. 147).

Perhaps the most difficult readjustment is that faced by many faculty members. To accept a student as a person, it is necessary for the faculty to drop their mask and face students without a disguise. Therefore the faculty must be willing to reveal their preconceptions, attitudes and personal goals (p. 146).

In conclusion, there are many variations of the cluster college

concept, and experiments with the theory are being carried on at many large universities across the country. Although the cluster college has great potential for enriching life and reducing isolation, it must be remembered that it is not a panacea which will eradicate all problems and loneliness, for at times the great involvement which it provides can also present many problems.

II. THE COLLEGE CHARACTERISTICS INDEX

The College Characteristics Index is the antecedent of the College and University Environment Scales. The Index consists of thirty scales with ten true and false items in each scale. The items describe common-place activities, policies, procedures, attitudes, and impressions which may or may not occur at a university. The Index was designed to correlate with the scales set up by the Activities Index (Stern, 1956) which measures the "needs" of a student. Pace and Stern the authors of the CCI set up the thirty scales to measure thirty different types of "press" which a student may feel in his environment. "Needs" and "press" were first described by Murray who said that "press" described the private world of the individual, "the unique view each person has of the events around him" (1938, p. 158). Pace states:

The press of the environment as the student sees it defines what he must cope with and clarifies the direction his behavior must take if he is to find satisfaction and reward within the dominant culture of the college. The environmental press, in this sense, is closely related to the concept of objectives. It suggests the implicit or operational influences of the college (1961, p. 21).

Pace (1962, p. 44) describes the advent of the CCI in this manner:

Just at a time when educators were feeling comfortably familiar with the concepts of individual differences, a transfer of training, and aptitude, and achievement tests, social scientists have introduced a host of new ones--role expectations, and role behavior, membership groups and reverence groups, congruity and dissonance, personality needs, and environmental press, ego development and impulse expression and many others. Some of these were well known within their particular disciplines, but others are relatively new in the context of evaluation in higher education. One of these relatively new concepts, as applied to higher education, is the concept of environmental press.

The CCI was first administered in May 1957 to the students and faculty of five institutions representing totally different types, sizes, and geographical locations of universities. At that time, the Index revealed that the difference in perceptions of the university between the students and faculty was very small. After this preliminary study, a revised Index was issued for use.

Stern, in his highly detailed work continues to describe the work which he had done with the CCI up to 1963. From data supplied by 33,982 seniors at 135 colleges and universities. Stern (1963, p. 22) found that:

The high-scoring schools on the Intellectual Orientation factor are the elite, liberal arts colleges. Social Effectiveness is associate with these same schools, as well as several select denominational colleges. Play is most prominent at several large state universities, but this group also includes several large private universities of a similar character. Friendliness, or informal social organization, characterizes a mixed group of schools. All schools at the high end of the constraint or compliance factor are denominational colleges, however, whereas the Dominance-Submission or custodial care factor is associated with state teachers colleges.

After deriving these six environmental factors from the CCI, Stern proceeds to identify the perceptions of two groups of students who were then attending a high intellectual level college and a low intellectual level college. According to his study the characteristics of high and low intellectual school are clearly distinguishable. For instance, in the area of Intellectual Orientation there is a great deal of emphasis placed upon subject matter at the high intellectual level institution while at the low level institution emphasis is placed upon the Alma Mater or feeling of loyalty to the school. Significant difference are also discernable in the areas of Social Relationships and Emotional Expression.

In his article, "Environment for Learning," Stern (1966, p. 716) discusses the influence of the emotions and personality on learning. Stern advocates that it is important for the student to be well matched to his environment if he is to be happy in this environment. Thus different people give and receive help and frustration from the same environment. Stern also describes and studies the behavior of the authoritarian, antiauthoritarian, and rational persons' behavior in the classroom and the effects of these three different types of groups on the same teacher. Stern insists that it is important that each school understand the image which it is projecting and the factors which are important in the development and change of different institutions.

Stern (1966, p. 42) also reports that when 3,075 beginning freshmen at four different universities completed the CCI on their

expectations of their college, almost all of them showed unrealistically high expectations of what their college could accomplish for them. The students expected emphasis on both the academic and the social and extracurricular activities--a combination which is rarely found in the same school. Stern continues however with the analysis that faculty and sophomore students become much more realistic in their environment appraisals of the university as it actually exists. It is interesting to note that the only group to share the freshman myth was the administrators of the university.

From the results of the CCI, Pace (1961, p. 25) has attempted to categorize all college environments into five types.

Here then are five ways of characterizing college environments. The first is predominantly humanistic, reflective, and sentient. College is an expanding intellectual experience, testing the limits of curiosity about new ideas, new sensations, new capacities, and self-understanding. The second, equally demanding and vigorous, is predominantly scientific and competitive, requiring a high degree of individual concentration for survival. The third is practical, applied, concerned with interpersonal and extrapersonal status. In the pursuit of utilitarian goals, one's relationship to authority and the gaining of privileges and visible rewards are important. The fourth type of environment is strongly other-directed. There is a high level of concern for group welfare, friendships, organization, and social responsibility. The fifth type is aggressive and impulsive, in rebellion chiefly against the other-directed, highly socialized community.

Pace has also written a very interesting article comparing the sociological vignette of Riesman and Jencks of San Francisco State College to the students' views of the college as revealed by the CCI. Riesman and Jencks find the college interested in practical matters. Pace sees the college as more intellectual and less status-oriented or

practical especially in comparison with a group of large state universities. Pace's article is proof of the fact that the "different methodologies in social research can and do lead to somewhat different answers and interpretations" (1962, p. 277).

McFee of Syracuse University where Stern originated the CCI, investigated the CCI as independent of the personality needs of the students who are completing it. According to her research, there is no correlation between scale scores of individuals on the CCI and parallel scores on the Activities Index. McFee also found no strong relationship between the personality needs and the student's perception of environmental press. "The responses to 88% of the 300 CCI items were independent of the parallel personality need of the respondent" (1961, p. 29).

III. COLLEGE AND UNIVERSITY ENVIRONMENT SCALES

Since 1959, when Pace took a position at the University of California, Los Angeles, Pace and Stern have ceased to work as a team at Syracuse University. According to Pace, "each author has pursued independently his own interests in the study of college environments, followed different strategies of analysis, and arrived at different views about the nature of the CCI. To facilitate the expression of these difference, the current edition of the CCI (Form 1158) is being interpreted and prepared for publication by Stern in a manner which reflects his view of it: a different set

of scales, drawing upon a portion of the CCI items, has been developed in a manner which reflects the views of the present writer" (1963, p.4). This different set of items of the CCI is the College and University Environment Scales.

To determine the 150 items which he used in the CUES, Pace analysed the responses of fifty institutions to the CCI. The three types of institutions used in the study were those which offered only a bachelors degree, those which offer a B.A., M.A. or other professional degree, and those which offer a B.A., M.A., Ph.D., and several professional degrees. These schools also represent systematic categories of type region, and public-private institutions. The raw score means for each of the three hundred CCI scales for each of the fifty schools were recorded and analyzed. A correlation matrix was then factored using the Kaiser Varimax program. Since the number was equal to fifty a correlation of .36 or higher was necessary to be significantly greater than zero at the one per cent level of confidence. Five meaningful factors were produced. Across the norm group which was reduced to 48 schools, correlations were obtained between each item response and each factor score. Means and sigmas of the distribution of item marginals were also obtained. A tentative selection of the most discriminating items was made. Criteria for this selection were "(1) the item-criterion correlation must be .40 or higher on one factor and lower than .40 on all other factors; (2) the item difficulty (mean percentage) should be within the range of 15 to 85; and (3) the sigma should be 15 or larger" (1963, p. 58). The final test was to

examine the item discrimination between high and low-scoring institutions.

Pace says of his final outcome:

The 300 items in the CCI, initially organized into 30 scales of 10 items each, were thus reduced to 150 items and reorganized into five scales of 30 items each. This process of restructuring and selective elimination was based on an interest in discovering institutional patterns and institutional differences. The focus was, first, to identify a set of dimension by a set of items which most clearly and sharply reflected the differences between environments (1963, p. 42).

Although the CUES have been in existence only a few years, some research has been conducted with them. Berdie (1967, p. 774) conducted extensive research with 9,000 students at the University of Minnesota where he studied the differences in expectations and perceptions of students entering varying colleges. He found that in a complex university these expectations are not homogeneous. Berdie also found that the CUES can be used to generalize about the parts of a university, and to a lesser extent can be used to generalize about the entire university.

In another article, Berdie (1967, p. 56) discusses the test retest correlation of the CUES. He found that this test retest correlation reflects the reliability of the instrument and the stability of the relative perceptions. The reliability coefficients of the CUES are not reliable for individuals but are much higher for group comparisons. He also states that the CUES scores are not related to high school rank, ability test scores, college achievement, and personality inventories.

During 1965, all students, faculty and administrators of

Millikin University were administered the CUES. The returning students and staff were instructed to describe the university as they say it. The new group was to report their preconceptions of the university. The returning groups differed significantly on the Community scale. The administrators saw the school as a more friendly place than did either the students or the faculty. However, the faculty was closer to the administrators than to the students in their environmental perceptions. New students were found to be significantly different on awareness and scholarship. However, the perceptions of the university were similar to the preconceptions (McPeck, 1962, p. 132).

Yonge (1968, p. 121) administered the CUES and the Omnibus Personality Inventory to 102 females at the Davis campus of the University of California. Although he states that Pace assumes no reliable individual differences in environmental descriptions, those who describe Davis as friendly tend to be socially extroverted. Yonge describes this as the "quest for the functionally effective environment when, in fact, there are many versions or aspects of a campus environment which are functionally effective for different individuals.

Yonge gives the CUES a negative evaluation because of the reliable individual difference and personality test correlates which he found. Thus he suggests a "subjective" contamination of environmental description. His objection to the CUES is "based on analytic separation of individual and environment and which overlooks the fact that these aspects must be understood in the light of the

fundamental unity of which they are parts" (p.122).

Boyer and Michael found the CUES superior because of "(a) its relatively more parsimonious evaluations of differences in the environment of educational institutions; (b) its greater score reliability; and (c) its availability of greater amount of normative data" (1968, p. 161).

Thus the effectiveness of the CCI and the CUES in determining differences in environmental perceptions have been demonstrated by many different studies. Although the Index is capable of measuring differences in environmental perceptions, it is felt that the CUES are best able to measure group comparisons of environmental perceptions.

CHAPTER III

PROCEDURES

Chapter III presents the procedures used in the study. These include a description of the population, methodology, a description of the instruments, and techniques for analysis and presentation of the data.

I. POPULATION

The CUES were administered to 153 freshmen students. These 153 students composed three groups for the comparative study. Each group contained twenty males and thirty-one females. The students were matched by sex, ACT scores and the socio-economic level of their parents. Information concerning ACT scores and the fathers' occupations of all of the 1967 freshmen students was made available by the Admissions Offices.

The fathers' occupation was marked by the student on his application for admission to The University of Tennessee and was therefore accepted as accurate. Exact occupations were matched as closely as possible. However, in a few cases, it became necessary to match students' socio-economic status by the level designated by Anne Roe in her book Psychology of Occupations (1956, p. 171). Her classification of the six levels includes (1) professional and managerial, higher; (2) professional and managerial, regular; (3) semi-professional and managerial, lower; (4) skilled; (5) semi-skilled;

and (6) unskilled.

Socio-economic level was considered a significant factor because it enabled the researcher to offset the difference in levels of parents' income and status which is probably higher for the PLC students because of the greater luxury and consequent higher prices of the PLC.

The College and University Environment Scales were administered to all three groups of students during the last week of the 1967-68 academic year.

To offset the 'halo effect' which would probably be felt among the cluster students who recognized themselves as a special group, each student in Groups II and III was written a letter stating that he too was a member of a selected group.

Group I consisted of all the cluster students living in the PLC.

Group II consisted of students living in the PLC whose ACT scores and socio-economic level of parents matched that of Group I.

Group III consisted of students living in Massey and Hess residence halls whose ACT scores and parents' socio-economic level also matched that of Group I.

Each member of Group I was matched to a member of Group II and Group III.

II. METHODOLOGY

Each of the 153 students selected for this study was asked to complete the College Characteristics Index (Form 1158). Whenever possible, alternate students were asked to participate in the study in

the event of a student absence or that the score of the first matched student would be invalidated due to blanks on the completed test form.

Students are instructed to mark true on the answer blank when they think the statement is generally characteristic of the school or a condition which exists there. Students mark false those items which are not characteristic of the school or represent a condition which does not exist.

Each student was asked to put his name on the score sheet so that it could be identified as his. However, each student was told that no individual information would be released and his score would represent his share of a group study.

III. INSTRUMENTS

The College Characteristics Index was first administered to the students. However, only items used on the CUES were scored. The CUES is used to assess student environmental perceptions. The instrument has five scales measuring the students' perceptions. These scales are: Practicality, Community, Awareness, Propriety, and Scholarship.

Pace (1963, p. 24) describes the scale of Practicality as:

This combination of items suggest a practical, instrumental emphasis in the college environment. Procedures, personal status, and practical benefits are important. Status is gained by knowing the right people, being in the right groups, and doing what is expected. Order and supervision are characteristic of the administration and of the classwork. Good fun, school spirit, and student leadership in campus social activities are evident.

The atmosphere described by this scale appears to have an interesting mixture of entrepreneurial and bureaucratic features. Organization, system, procedures, and supervision are characteristic of many large enterprises, both public and private, industrial, military, and governmental, but they are not limited to large agencies. Such hierarchies as exist, however, may be interpersonal as well as organizational, so that it is not only useful to understand and operate within the system but also to attain status within it by means of personal associations, and political or entrepreneurial activities.

There are, of course, many practical lessons to be learned from living in an environment that has these characteristics and opportunities. Certainly such characteristics are encountered widely in the large society.

Students who made a high score on this scale would perceive their university as one where campus buildings are clearly marked by signs and directories, where religious worship stresses service to God and obedience to His laws, and where student rooms are more likely to be decorated with pennants and pin-ups than with paintings, carvings, mobiles, fabrics, etc.

The scale of Community can be described as:

The combination of items in this scale describes a friendly, cohesive, group-oriented campus. The environment is supportive and sympathetic. There is a feeling of group welfare and group loyalty which encompasses the college as a whole. The campus is a community. It has a congenial atmosphere.

The small college in a small town immediately comes to mind as a prototype--with friendly and helping relationships among the students and between the students and the faculty. Some large universities, however, manage to have a strong sense of community; and some small colleges have an atmosphere that is better characterized by privacy, personal autonomy, and cool detachment than by a strong sense of togetherness. On the whole, however, bigness tends to beget diffusiveness rather than cohesion; it also tends to beget impersonality but not necessarily unfriendliness (Pace, 1963, p. 24).

Students who made high score in this area would perceive their environment as having a great deal of borrowing and sharing

among the students, with many frequent informal social gatherings, especially at snack bars, taverns, and in one another's rooms.

Pace (p. 25) describes his third scale of Awareness as:

The items in this scale seem to reflect a concern and emphasis upon three sorts of meaning--personal, poetic, and political. An emphasis upon self-understanding, reflectiveness, and identity suggests the search for personal meaning. A wide range of opportunities for creative and appreciative relationships to painting, music, drama, poetry, sculpture, architecture, etc., suggest the search for poetic meaning. A concern about events around the world, the welfare of mankind, and the present and future condition of man suggest the search for political meaning and the idealistic commitment. What seems to be evident in this sort of environment is a stress on awareness, an awareness of self, of society, and of esthetic stimuli.

Perhaps in another sense, these features of a college atmosphere can be seen as a push toward expansion and enrichment--of personality, of societal horizons, and of expressiveness.

Students with high scores in this area of perception find that tutorial or honors programs are available for qualified students, that public debates are held frequently and that many of the social science professors are actively engaged in research.

Pace (p. 25) states the following about his scale of Propriety:

The items in this scale suggest an environment that is polite, considerate. Caution and thoughtfulness are evident. Group standards of decorum are important. On the negative side, one can describe propriety as the absence of demonstrative, assertive, rebellious, risk-taking, inconsiderate, convention-flouting behavior.

Conventionality, in the sense of generally accepting and abiding by group standards, is in some respects a good term for the items in this scale, although so-called rebellious groups, beatniks for example, have strong conventions to distinguish them from what they think is conventional in others. Perhaps, then, propriety is a better term than conventionality.

In any event, the atmosphere on some campuses is more mannerly, considerate, and proper than it is on others.

Students with high scores in this area find that students rarely get drunk and disorderly, and that students are conscientious about taking good care of school property.

Pace (p. 25) describes his final scale of Scholarship as:

The items in this scale describe an academic scholarly environment. The emphasis is on competitively high academic achievement and a serious interest in scholarship. The pursuit of knowledge and theories, scientific or philosophical, is carried on rigorously and vigorously. Intellectual speculation, an interest in ideas as ideas, knowledge for its own sake, and intellectual discipline-- all these are characteristic of the environment.

Students with high scores in this area find that laboratory facilities in the natural sciences are excellent, that the professors really push the students' capacities to the limit, and that class discussions are typically vigorous and intense.

IV. DATA ANALYSIS

A true-false answer sheet was completed by every student participating in this study. Scoring sheets for each of the scales were constructed. Each group was scored for each scale. Group totals may be found in Table I.

Means and standard deviations for each group on each scale were then hand-computed. Table II represents these findings.

From this data a T-test of comparisons was then processed on an IBM 360 computer. One IBM card was punched for each of the groups and scales with the following information:

TABLE I

A COMPARISON OF GROUP TOTAL SCORES ON THE
FIVE SCALES OF THE CUES

Scale	Group I	Group II	Group III
1 Practicality	1004	1028	1029
2 Community	742	847	867
3 Awareness	822	913	906
4 Propriety	542	509	585
5 Scholarship	692	779	791

TABLE II

A COMPARISON OF GROUP MEANS AND STANDARD DEVIATIONS
ON THE FIVE SCALES OF THE CUES

Scale	Group I		Group II		Group III	
	x	s	x	s	x	s
1 Practicality	19.9	6.01	20.6	3.16	20.2	3.66
2 Community	14.5	4.30	16.9	3.98	17.0	4.78
3 Awareness	15.7	5.05	18.3	5.32	17.9	5.12
4 Propriety	11.0	3.46	10.2	2.87	11.5	3.40
5 Scholarship	13.6	5.21	15.6	4.60	15.5	5.135

- (a) Mean, 1-3
- (b) Standard deviation, 4-6
- (c) Number in group, 7-8
- (d) Group number, 9
- (e) Scale number, 10

A program to calculate the critical ratio was written. Clustered students differences in environment perceptions from those of the two non-clustered groups were analyzed by a T-test. Differences were computed on each scale between Group I and Group II, Group I and Group III, and Group II and Group III. The T-test computation is used in this study to establish a level of significance which indicates that the frequency with which an item is chosen is higher than that which occur by chance. The level of significance which was established at the .05 level means that the element of chance is reduced to only five times in 100.

The value of T is obtained from the following equation.

$$T = \frac{S_x - S_y}{SE_{S_x - S_y}}$$

S_x = the mean of group x

S_y = the mean of group y

$SE_{S_x - S_y}$ = the standard error of the difference between the two means.

V. SUMMARY

Chapter III presented a description of the procedures used in this study. The procedures included a description of the population, methodology, instruments, and data analysis.

One hundred and fifty-three students completed the CCI. Each student in Group I (the cluster group) was matched by ACT score and parents' socio-economic level to a member of Group II and Group III. Each group was compared on the five scales measured by the CUES which were derived from the CCI items. The scales of the CUES are: Practicality, Community, Awareness, Propriety, and Scholarship. A T-test of analysis was computed on each of the scales for the three groups.

Chapter IV will present the findings of this study.

CHAPTER IV

FINDINGS

The findings of the study are presented in this chapter. The data will follow the same order as the hypothesis which was stated in Chapter I. The hypothesis was tested statistically under the general null hypothesis that differences between the clustered and non-clustered students environmental perceptions would be equal to zero.

I. HYPOTHESIS

Cluster students will not differ significantly from non-clustered students in the following five scales measured by Pace's CUES.

- (a) Practicality
- (b) Community
- (c) Awareness
- (d) Propriety
- (e) Scholarship

(a) Practicality:

The scale of Practicality measures the "practical, instrumental emphasis in the college environment" (Pace, 1963, p. 24). Group totals followed by means and standard deviations on this scale were first computed. A critical ratio of 0.73462 between Group I and Group II; of 0.30447 between Group I and Group III; and of 0.58824 between Group II and Group III was obtained from the data analysis and was not found to be significant beyond the .05 level of confidence.

Therefore, the hypothesis stating that no significant difference exists between the clustered and non-clustered students' perceptions on the scale of Practicality was accepted. The results of this T-test are presented in Table III.

(b) Community:

Pace describes the scale of Community as a measurement of "a friendly, cohesive, group-oriented campus" (p. 24). For this scale, group totals followed by means and standard deviations were computed. A critical ratio of 2.91180 between Group I and Group II was found to be significant at the .05 level of confidence. A critical ratio of 2.77682 between Group I and Group III was also found to be significant at the .05 level of confidence. A critical ratio of 0.11435 between Group II and Group III was not found to be significant at the .05 level of confidence. Therefore, the hypothesis stating that no significant difference exists between the cluster students (Group I) and the non-cluster students (Group II and Group III) on the scale of Community was rejected. The results of this T-test are presented in Table IV.

(c) Awareness:

According to Pace, "The items in this scale seem to reflect a concern and emphasis upon three sorts of meaning--personal, poetic, and political" (p. 25). First group totals followed by means and standard deviations were computed. A critical ratio of 2.51810 between Group I and Group II was found to be significant at the .05

TABLE III

A T-TEST COMPARISON OF THE GROUP MEANS
OF THE PRACTICALITY SCALE

Group	T score
Group I and Group II	0.73462
Group I and Group III	0.30447
Group II and Group III	0.58824

TABLE IV

A T-TEST COMPARISON OF THE GROUP MEANS
OF THE COMMUNITY SCALE

Group	T score
Group I and Group II	2.91180 *
Group I and Group III	2.77682 *
Group II and Group III	0.11435

*Significant at the .05 level

level of confidence. A critical ratio of 2.18469 between Group I and Group III was also found to be significant at the .05 level of confidence. A critical ratio of 0.38488 between Group II and Group III was not found to be significant at the .05 level of confidence. Therefore, the hypothesis stating that no significant difference exists between cluster and non-cluster students on the scale of Awareness was rejected. The results of this computation are presented in Table V.

(d) Propriety:

The scale of Propriety is described to be a measurement of an environment that is polite and considerate. Opposite characteristics are assertiveness, rebelliousness, and a lack of consideration for others. Following the computation of group totals and means and standard deviations the critical ratio was computed for this scale. A critical ratio of 1.26574 between Group I and Group II was not found to be significant beyond the .05 level of confidence. A critical ratio of 0.73609 between Group I and Group III was also found to be not significant beyond the .05 level of confidence. However, a critical ratio of 2.07793 between Group II and Group III was found to be significant beyond the .05 level of confidence. The hypothesis stating that there is no significant difference between clustered and non-clustered students' perceptions of the environment as measured by this scale must therefore be accepted. Results of this data may be found in Table VI.

TABLE V
A T-TEST COMPARISON OF THE GROUP MEANS
OF THE AWARENESS SCALE

Group	T score
Group I and Group II	2.51810 *
Group I and Group III	2.18469 *
Group II and Group III	0.38488

* Significant at the .05 level

TABLE VI

A T-TEST COMPARISON OF THE GROUP MEANS
OF THE PROPRIETY SCALE

Group	T score
Group I and Group II	1.26574
Group I and Group III	0.73609
Group II and Group III	2.07793 *

* Significant at the .05 level

(e) Scholarship:

Pace states that this scale measures "the emphasis...on competitively high academic achievement and a serious interest in scholarship" (p. 25). With the computation of group totals, means, and standard deviations, a T-test analysis was obtained from the data. A critical ratio of 2.04611 between Group I and Group II was found to be significant at the .05 level of confidence. However, a critical ratio of 1.81699 between Group I and Group III was not found to be significant at the .05 level of confidence. A critical ratio of 0.10079 between Group II and Group III was also found to be not significant at the .05 level of confidence. Therefore the hypothesis stating that no significant difference exists between the cluster and non-cluster students must be partially rejected for a significant difference between Group I and Group II can be observed. Results of this data may be found in Table VII.

II. SUMMARY

This chapter has presented the results of the data. Stated in the null form, the hypothesis must be accepted for Scale I; rejected for Scale II and Scale III; accepted for Scale IV; and partially accepted for Scale V.

TABLE VII
A T-TEST COMPARISON OF THE GROUP MEANS
OF THE SCHOLARSHIP SCALE

Group	T score
Group I and Group II	2.04611 *
Group I and Group III	1.81699
Group II and Group III	0.10079

*Significant at the .05 level

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

I. SUMMARY

The purpose of this study was to examine clustered and non-clustered students' perceptions of their college environment. Because clustering students in groups to live and study together has been offered as a possible solution to the large size of present-day universities, it was necessary to determine if these clustered students did perceive their environment as closer and more cohesive with greater emphasis on studying and classwork. If so, perhaps more students should be included in cluster groups.

Each cluster student was matched by ACT scores and parents' socio-economic status to another student living in the Presidential Living Center and to a student living in Hess or Massey residence halls. With the cluster group containing twenty males and thirty-one females, the total sample size was equal to 153 students (three times the size of the cluster).

Each student was administered the 300-item CCI which was released by Pace and Stern in 1958. From this Index only those items which are used in Pace's subsequent release, the CUES, were scored. The 150 items of the CUES compose the measures for the five scales of the CUES. These scales are: Practicality, Community, Awareness, Propriety, and Scholarship.

The null hypothesis tested in the T study state that differences between clustered and non-clustered students on the five scales are equal to zero.

The data was analyzed by the T-test. Group differences on these scales were assessed by hand-computing the means and standard deviations of each group for each scale and then by submitting these data to the T-test program on an IBM 360 computer.

II. FINDINGS

The findings of the study are presented in the order that the scales of the hypothesis were tested.

No significance was found between the three groups on the scale of Practicality as measured by the CUES.

Considerable significance between the clustered and non-clustered students was found on the scale of Community. Clustered students have a group score 742, as compared with Group II's score of 847 and Group III's score of 867. This difference was found to be significant at the .05 level of confidence.

Considerable significance between the clustered and non-clustered students was also found on the scale of Awareness. For this scale, clustered studnets had a group total of 822 while Group II had a group total of 913 and Group III had a group total of 906. This difference was found to be significant at the .05 level of confidence.

No significant difference was observed between the clustered and non-clustered students on the fourth scale of Propriety. However, it

is interesting to note that a significant difference is observable between Group II and Group III on this scale.

A significant difference is observable between Group I and Group II on the fifth scale of Scholarship. This difference is significant at the .05 level of confidence. However, no significant difference between Group I and Group III and Group II and Group III is observable on this scale.

III. CONCLUSIONS

The conclusions related to the purpose of this study are presented as derived from the analysis of the data.

(1) Utilizing the CUES as a measure of college students environmental perceptions, it was found that clustered and non-clustered student groups vary widely on some scales but are similar on other scales. Scales in which there was a wide variance were Community, Awareness, and Scholarship. Scales without significant differences between the clustered and non-clustered students were Practicality and Propriety.

(2) The data indicates that the cluster students find their environment much lower in community than the other two groups. That the scale of community is an important one in this study may be understood when one studies the cluster concept. The theory behind the cluster is to provide the students with a warm and cohesive group with which to identify. This need does not seem to have been met as shown in the differences in perceptions on this scale.

(3) The data also indicates a much lower level for the cluster students in their Awareness. It is at first difficult to perceive why the cluster students would score so significantly lower in this area. Pace describes this characteristic as "a stress on awareness, an awareness of self, of society, and of esthetic stimuli" (p. 25). Perhaps with its theoretical emphasis on cohesiveness and group mindedness the cluster leaves little time to the student for reflection and esthetic appreciation.

(4) Clustered and non-clustered PLC students show a significant difference between their perceptions of the scholarly environment. Again the clustered students have exhibited a total score much lower than the other two groups. Perhaps it is possible that attending classes together for three quarters has proven detrimental to their scholarly attempts because of the more relaxed environment of their classroom situation. Also, it might be assumed that students would find a greatly reduced need for out-of-class preparation as they become familiar with their teachers and realize that the teacher will now give them some extra points for personality and ability.

(5) Thus the clustered students vary significantly from the non-clustered students in these three areas. However, on each scale the clustered students have scored much lower than the other two groups of students. Although the researcher has advanced tentative suggestions for the reasons for these low scores, no positive identification of the reasons is available from this study.

IV. RECOMMENDATIONS

(1) Although the clustered students scored significantly lower on several scales in their perceptions of their environment, further research needs to be conducted into the effects of the cluster on the students. Perhaps these students realized that they were serving as guinea pigs and thus reacted negatively. Is it also possible that the clustered students felt too confined by the groups and thus reacted negatively?

(2) Further evaluation of the cluster and its effects upon students needs to be made. It is important to understand the effect of clustering upon the students both within and without the cluster as well as the effect of the cluster on the university at large.

(3) Finally, this present study should be followed up to trace the development of these students throughout their college careers. Perhaps the cluster students will view the cluster in a more positive light after they have become uninvolved with it. Perhaps they may exhibit a higher or lower drop-out rate than the remainder of the 1967-68 freshmen class.

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