

AN ABSTRACT OF THE THESIS OF

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THEIR PERCEPTION OF THE COLLEGE ENVIRONMENT

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Abstract approved: _____
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The purpose of this study was to determine whether or not significant differences exist between three student groups and one faculty group at Oregon Technical Institute with reference to their perception of the college environment. The gauge used to assess perception of the college environment was the College and University Environment Scales, Second Edition. This instrument attempts to assess college environmental perception on seven scales, practicality, scholarship, community, awareness, propriety, campus morale, and quality of teaching and faculty-student relationships.

The three student groups were identified as to duration of college attendance, degree aspiration, and curriculum and degree prerequisites. GROUP 1 consisted of students who were working toward their associate degree and who were in at least their fourth quarter of attendance at the college. GROUP 2 consisted of students

who were working toward their bachelor's degrees having completed a prerequisite associate degree at Oregon Technical Institute, or who were working toward a bachelor's degree not requiring an associate degree. These students were in at least their fourth quarter of attendance at the college. GROUP 3 consisted of students who (a) were working toward a bachelor's degree, (b) were transfers from another college, (c) had completed a prerequisite associate degree at another institution, and (d) were in at least their third quarter of attendance at Oregon Technical Institute. GROUP 4 consisted of faculty who were employed full-time at Oregon Technical Institute and who held academic rank at the college.

Statistical treatment consisted of three steps: (a) multiple regression to determine if variables were affecting group scores, (b) development of group scale score means and standard deviations, and (c) application of a t-test formula to determine significant differences at either the .05 or .01 levels.

Seven null hypotheses were tested and rejected:

1. There are no significant differences on the CUES scores comparing student GROUP 1 with student GROUP 2. Scale score differences significant at the .05 level were obtained on the Community and Campus Morale scales.
2. There are no significant differences on the CUES scores comparing student GROUP 1 with student GROUP 3. Scale

score differences significant at the .01 level were obtained on the Practicality, Community, and Quality of Teaching and Faculty-student Relationships scales.

3. There are no significant differences on the CUES scores comparing student GROUP 1 with faculty GROUP 4. Scale score differences significant at the .01 level were obtained on the Practicality, Community, Propriety, and Quality of Teaching and Faculty-student Relationships scales.
4. There are no significant differences on the CUES scores comparing student GROUP 2 with student GROUP 3. Scale score differences significant at the .05 level were obtained on the Propriety, and Quality of Teaching and Faculty-student Relationships scales.
5. There are no significant differences on the CUES scores comparing student GROUP 2 with faculty GROUP 4. Scale score differences significant at the .01 level were obtained on the Practicality, Scholarship, Community, Propriety, Campus Morale, and Quality of Teaching and Faculty-student Relationships scales.
6. There are no significant differences on the CUES scores comparing student GROUP 3 with faculty GROUP 4. Scale score differences significant at the .01 level were obtained on the Practicality, Scholarship, Community, Propriety, Campus

Morale, and Quality of Teaching and Faculty-student Relationships scales.

7. There are no significant differences on the CUES scores comparing the combined student GROUPS 1, 2, and 3 with faculty GROUP 4. Scale score differences significant at the .01 level were obtained on the Practicality, Scholarship, Community, Propriety, Campus Morale, and Quality of Teaching and Faculty-student Relationships scales.

The comparisons between each student group and the faculty group produced the greatest range of differences on the CUES.

A Comparison of Groups of Students and Faculty
at Oregon Technical Institute with Reference to
their Perception of the College Environment

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A COMPARISON OF GROUPS OF STUDENTS AND FACULTY AT OREGON TECHNICAL INSTITUTE WITH REFERENCE TO THEIR PERCEPTION OF THE COLLEGE ENVIRONMENT

CHAPTER I

INTRODUCTION

Technical Education

The inclusion of technical and vocational programs of study in post-secondary education has stemmed from rapid technological advancement which has altered national manpower requirements. In a report written for the American Council on Education in 1964 it was stated that:

By 1970 the technical, highly skilled occupations will account for more than half of all job opportunities.

In numbers, this occupational area is the most significant in employment growth in the economy. It is this area to which young as well as older workers must look for jobs in the expanding economy of the new technology.

Not only do we need more people moving into skilled and technical occupations but the right kind of people: not potential engineers, not potential mechanics, but those whose ability and aptitude suit them best for this level of work. In an economy which allows fewer mistakes and in which an intelligent and systematic matching of our human talents and manpower requirements becomes crucial, the best middle-level manpower must be sought out and developed, be it age twenty-one or fifty-one, white or Negro, male or female, rural or urban, wealthy or poor (32, p. 135).

In Oregon, a report by the Post High School Study Committee of the Oregon Educational Coordinating Council (23) includes in its

statement of objectives for undergraduate level post-high school educational offerings:

. . . . occupational education and training at several levels, including in some instances programs leading to semi-skilled or skilled occupations, in others to semi-professional positions for which training in technology qualifies the student (23, p. 89).

The committee supports this objective by referring to existing and expanding employment shortages, both locally and nationally, in the technical skill job clusters.

The continued advancement of technology leaves little doubt technical education programs at the post-secondary level will flourish if only because of present and future manpower needs.

Oregon Technical Institute

As a member institution of the Oregon State System of Higher Education, Oregon Technical Institute has been allocated a specific responsibility to provide collegiate-level technical education for the people of the State of Oregon.

Until 1966 the Institute offered two- and three-year technically oriented programs leading to the associate degree. The college's basic appeal for students was assumed to be its technical and applied approach and its minor emphasis upon general studies or liberal arts. Since 1966 the college has added, as a supplement, the bachelor's degree in its engineering and industrial technology curricula, and has

changed one medical-related curriculum to a four-year bachelor's degree program. The authorization to grant bachelor's degrees has necessarily expanded the general studies offerings at the college.

Additionally, the advent of the college's four-year technical degree programs opened up a new avenue of transferability to students enrolled at two-year colleges. Previously, community/junior college students enrolled in a transfer program were liberal arts or pre-professional majors who eventually would transfer to a four-year institution which offered the bachelor's degree in their chosen field. It is now possible for community/junior college students enrolled in certain technical programs to transfer to a four-year technical college and to work toward completion of requirements for a bachelor's degree.

The growing popularity of this new transfer program is evidenced in the experience of Oregon Technical Institute. Nineteen students received their bachelor's degree in 1968, 55 students in 1969, and 105 students in 1970. A large percentage of these graduates were community/junior college transfers. All indications point to continued growth in this new program.

These shifts in emphasis, in direction, and in enrollment from its traditional patterns are having their effect on the college, and as a result it is currently experiencing dramatic internal changes and pressures as an emerging four-year institution.

Statement of the Problem

The purpose of this study is to determine whether or not significant differences exist among three identifiable student groups and one faculty group at Oregon Technical Institute with reference to their perception of the college environment. If differences exist, what are the nature and the extent of the differences?

Importance of the Study

Up to this time Oregon Technical Institute has directed its institutional research efforts toward (a) describing the academic abilities of its students during the admissions process, (b) verifying the occupational relevance of its programs through placement follow-up of graduates and consistent industrial liaison, and (c) developing new programs in keeping with the needs of the state and nation. It is the contention of this writer that it is both necessary and appropriate to attempt additional measures of the college environment, with such measurement through the eyes of those who are an integral part of that environment. The need to study this dimension is summarized in the following:

1. Applied research in all areas of technical education should be done, especially in relation to the technical institute.
 - a. What little research there is relating to the technical

institute apparently has not included the area of student perception of the environment in which he studies.

- b. Current expectation is for an increase in student enrollment in technical and vocational programs at the post-secondary level.
 - c. The number of community/junior college technical students seeking to transfer to a four-year technical college is growing rapidly.
 - d. Success for technically oriented students may be promoted through adequate preparation and enlightened counseling.
 - e. Articulation between the community/junior colleges and the four-year technical colleges could be enhanced through adding another research dimension.
2. It is necessary for Oregon Technical Institute to intensify its efforts toward self-analysis as an emerging four-year institution
- a. The role of Oregon Technical Institute in the Oregon State System of Higher Education is clearly defined as providing high-level technical education on a state-wide basis. The college is continuously faced with evaluating its degree programs, both two- and four-year, in relation to the growth

and development of related programs at other institutions.

This evaluation could be supported by applied research in the area of student perception proposed in this study.

- b. The present experience of adding the four-year bachelor's degree programs at Oregon Technical Institute is proving to be a challenging one for students, faculty, and administration. An attempt to add an important dimension to the research activity of the college is timely in view of the internal changes it is currently undergoing.

In broad terms, areas for which the study findings may have implications are:

1. Institutional aims and objectives.
2. Curriculum development.
3. Instructional technique and evaluation.
4. Admissions and recruitment policy.
5. Student personnel services programming.
6. Short- and long-range institutional planning.

It is hoped the findings of this study will provide meaningful support for over-all institutional development.

Scope of the Study

The College and University Environment Scales (CUES) will be administered to groups of students and faculty at Oregon Technical

Institute. The CUES instrument attempts to identify what individuals perceive their college environment to be in relation to seven scales: practicality, community, awareness, propriety, scholarship, campus morale, and quality of teaching and faculty-student relationships.

This study will be restricted to a comparative analysis to determine whether Oregon Technical Institute student and faculty groups differ significantly in perception of their college environment as measured by the seven scales of the CUES.

The Study Groups

The following groups are identified for the purposes of this study and further reference to them will be by group number:

GROUP 1 Students enrolled at Oregon Technical Institute who are nearing completion of requirements for an associate degree.

GROUP 2 Students enrolled at Oregon Technical Institute (a) who have received an Oregon Technical Institute associate degree and are nearing completion of requirements for a bachelor's degree, and (b) who are nearing completion of requirements for a bachelor's degree which does not require an associate degree.

GROUP 3 Students who initially entered Oregon Technical Institute as juniors, who have received an associate degree at

another institution, and are nearing completion of requirements for a bachelor's degree.

GROUP 4 Faculty members at Oregon Technical Institute who carry academic rank.

Hypothesis

The research design of this study will incorporate the use of the null hypothesis. As Garrett states:

Experimenters have found the null hypothesis a useful tool in testing the significance of differences. In its simplest form, this hypothesis asserts that there is no true difference between two population means, and that the difference found between sample means is, therefore, accidental and unimportant. The null hypothesis is akin to the legal principle that a man is innocent until he is proved guilty. It constitutes a challenge; and the function of an experiment is to give the facts a chance to refute (or fail to refute) this challenge (9, p. 213).

Statement of the Hypothesis

1. There are no significant differences on the CUES scores comparing student GROUP 1 with student GROUP 2.
2. There are no significant differences on the CUES scores comparing student GROUP 1 with student GROUP 3.
3. There are no significant differences on the CUES scores comparing student GROUP 1 with faculty GROUP 4.
4. There are no significant differences on the CUES scores comparing student GROUP 2 with student GROUP 3.

5. There are no significant differences on the CUES scores comparing student GROUP 2 with faculty GROUP 4.
6. There are no significant differences on the CUES scores comparing student GROUP 3 with faculty GROUP 4.
7. There are no significant differences on the CUES scores comparing the combined student GROUPS 1, 2, and 3 with faculty GROUP 4.

Basic assumptions

1. The CUES instrument used in this study measures to a sufficient degree the aspects of the college environment expressed in its seven scales. The CUES Second Edition is a standardized instrument available commercially from Educational Testing Service. It was constructed to measure the "atmosphere" or intellectual-social-cultural "climate" of a campus. Statistical data relating to reliability and validity as reported in the instrument's Technical Manual (26) indicates correlation coefficients satisfactory for the purposes of this study.
2. The students and faculty will be honest in their responses to the instrument, and that Oregon Technical Institute will be their frame of reference while responding.

Limitations of the Study

1. The study population is restricted to the students and faculty at

Oregon Technical Institute.

2. Only students who will be registered as full time students at Oregon Technical Institute will be used in the study.
3. The faculty members to be used in the study will be limited to those who carry academic rank and who are employed full time (1.00 FTE) at Oregon Technical Institute.
4. The study will be limited by the reliability and validity of the CUES instrument.

Definition of Terms

College environment -- An all-encompassing phrase relating to the physical, social, intellectual, and cultural climate of the campus community.

Technical institute -- An institution of higher learning whose primary emphasis is to give to the student a high degree of proficiency in a field of technology. Where the traditional college program gradually builds toward greater specialization as the student moves forward in the curriculum, the technology program, in contrast, launches the student immediately into specialized technical courses.

Technology students -- College-able students who reject the broad general educational pattern of the traditional college program, but who favor a concentrated program of technical courses with

whatever science, mathematics, and related study necessary
for occupational success in a field of technology.

CHAPTER II

REVIEW OF RELATED LITERATURE

Introduction

Studies which address themselves to the broad concepts of technical education seem to be in somewhat less than adequate numbers. Studies specifically related to the technical institute are in even shorter supply. Studies of technical institute students in any area are limited to a scant few, and of those few uncovered by this investigator, none were related to perception of the college environment.

The Technical Institute

In his book, The Technical Institute in America, one of the most definitive works available regarding this topic, G. Ross Henninger (15) defines the objective of the technical institute idea in higher education as follows:

The basic objective of the technical institute idea in higher education is the development of qualified engineering technicians proficient in a selected field of technology. Thus the technical institute curricular program leads to a specific objective just as any collegiate program does.

By way of emphasis, a contrast should be noted. The technical institute program is not intended as a feeder channel to the university. The program is not comparable to the first two years of a four-year engineering program--it is much more

than that in some important respects and somewhat less in others; its direction and emphasis are significantly different. In the sometimes confusing parlance of educators, the technical institute program is therefore commonly referred to as a 'terminal' program. This causes many qualified people to shy away from it, mistakenly. The technical institute program is no more terminal than any other collegiate degree program. It is terminal only in that it is not specifically designed to meet the limited requirements characteristic of most college and university catalogues for transfer credits or to prepare an individual for graduate studies. The bona fide technical institute program is designed instead to give the student a high degree of proficiency in his chosen field of technology, solidly supported by a sound working knowledge of the mathematics, English, basic science, and technological principles involved in that field (15, p. 16-17).

Henninger (15) further defines technical institute education

when he states:

The term refers to the intermediate strata of technical curriculums which are from one to three years' duration (full time) beyond the high school level. Curriculums are technological in nature, and they differ in both content and purpose from those of the vocational school on the one hand, and from those of the engineering college on the other (15, p. 19).

It can be noted from Henninger's definitions of the technical institute that the basic reference is to engineering technology and at the associate degree level. The technical institute concept has been broadened^{1/} over the years. These types of colleges now offer a spectrum of technical education, including 4-year baccalaureate programs.

^{1/} In 1967, the Engineer's Council for Professional Development expanded its accreditation policy to include 4-year engineering technology programs.

Emerson (6) in a report based upon a study by the Society for the Promotion of Engineering Education sets forth the characteristics of the technical institute as follows:

1. It is post-secondary level, but distinct in character from a college or university.
2. Its objective is to prepare persons for technical occupations, which lie between the skilled crafts and the engineering profession. Its curriculums are largely of engineering technician type, but some may be included which prepare for occupations of industrial technician type or technical specialist type.
3. Its full-time curriculums are usually two years in length. Some curriculums may be one year or so in length, but such programs are rare.
4. Its entrance requirements are somewhat more flexible than those of the engineering college. High school graduation or equivalent preparation is usually required, but frequently there is no specification of the types of high school courses required as prerequisites. When specific prerequisite courses in mathematics and science are required, some technical institutes provide make-up classes, held during the summer previous to entrance or during the regular school year.
5. Its methods of teaching are relatively direct, with a strong emphasis on doing, and somewhat less stress on extensive book study than is found in the engineering college.
6. Its curriculum usually provides a reasonable amount of hand and other skill training, as well as the development of technical knowledge and understanding and technical skills.
7. Its curriculums are aimed to prepare persons for clusters of closely related technical occupations in selected fields, in contrast with the broad scope of engineering programs, and with the narrow scope of skilled craft training.

8. The number of contact-hours spent by the student in classroom, laboratory, drafting room, and shop is usually higher than that of the engineering college, and in this respect its pattern is more like that of a vocational-industrial school.
9. Its curriculums may include varying percentages of general education in such fields as economics, sociology, and human relations. Most curriculums provide for the development of skills in oral and written communication.
10. Its curriculums are developed through analysis of the occupational activities that are set up as employment objectives. These may vary in different localities, thus the curriculums are less standardized than are engineering curriculums. The analysis procedure usually takes the form of an activity analysis of the occupations in the cluster set as the curriculum objective, and often includes analysis of the mathematics and science needed for the occupations.
11. Its teachers are chosen primarily on the basis of practical experience in technical occupations, applied technical ability, and personal qualities, rather than on scholarly preparation. In this respect it resembles the vocational-industrial school more closely than the engineering college.
12. Many of the students enter the technical institute after they have had some work experience, and are thus more mature than those entering higher educational institutions directly from high school.
13. The instruction is rigorous in character, and on a level comparable to that of four-year collegiate institutions.
14. The credential given to graduates may take the form of a diploma or certificate, or that of an associate degree. Usually the associate degree requires somewhat more in general education courses than is required for the diploma or certificate (6, p. 59-60).

In a report prepared for the American Council on Education, Grant Venn (32) indicated the technical institute has played a major

role nationally in the development of the technical education concept.

In his report he states:

Traditionally, the technical institute has provided the leadership for technical education in this country. Although its efforts are now overshadowed by the work of the two- and four-year colleges and the area school, it remains a substantial source of education for highly skilled science and engineering technicians (32, p. 92).

Graney (13) in his review of technical institutes comments from a sociological point of view:

The individual in the technical institute is much like the student in any collegiate program. Though somewhat older than the average, he has basically the same motivations and goals and the same concern for learning how to achieve his place in the complicated industrial society of this era. This society is crucially in need of technicians, who play a vital role in the economy. Almost every segment of industry can utilize well-qualified technicians, but there is an alarming lack of rapport between the employers who need their services and the schools which give them their preparation. Society in general is uninformed about the important role technicians play and the vital need for technical institutes. Some schools, industries, and technical groups, plus a few courageous and far-sighted individuals, however, are making conspicuous efforts to remedy this situation (13, p. 111).

Oregon Technical Institute

In 1966, Miles Romney, the vice-chancellor for academic affairs of the Oregon State System of Higher Education, prepared a comprehensive review of the role of Oregon Technical Institute. At that time, the report presented by the Board's Committee on Academic Affairs (24) was in support of a proposal to the State Board

that Oregon Technical Institute be authorized to offer 4-year bachelor's degrees in addition to its associate degree programs. The report was instrumental in the eventual approval for the Institute to include 4-year programs in its curricular offerings. The report also clearly defined the educational role the Institute was to play in higher education in Oregon. The college's primary function was to provide high quality technical education.

In October, 1970 another report was prepared by the Committee on Academic Affairs of the Oregon State Board of Higher Education (25), also authored by Doctor Romney, which offered recommendations for Oregon Technical Institute's role in the 1970's. Again, this latest report reviewed the college in all respects. The recommendations made by the committee were as follows:

We propose that during the 1970's OTI move to expand its state and regional functions by:

1. Extending the range of vocational-technical programs it offers at the baccalaureate level.
2. Continuing to offer an array of vocational-technical associate degree programs.
3. Adding to its offerings an expanded array of lower-division college transfer courses, that it may more nearly meet the needs of the Klamath county and surrounding area for college transfer education at the lower-division level (25, p. 89).

Technical Institute Studies Related to Students

Geiss (10) conducted a study at Oregon Technical Institute

which attempted to reveal the relationship of courses taken in high school to success in technical areas. He concluded that:

Students who plan to enroll at Oregon Technical Institute can enhance their opportunities for success by taking those subjects in high school which are considered most rigorous in academic endeavor. Courses in mathematics and the sciences have correlated highly with success at the Institute. Non-academic courses apparently do not prepare students for success at Oregon Technical Institute (10, p. 101).

Underwood (31) studied factors relating to quality and style of writing in college examinations. Her study analyzed and compared the writing of Oregon Technical Institute freshmen taking technical report writing with the writing of freshmen taking English composition at a liberal arts college. Her study revealed:

There is no significant difference between the writings of freshmen taking standard English composition and those taking technical report writing (31, p. 50).

Rightland (28) studied freshman students at Hartford Technical Institute regarding sociological and/or psychological characteristics which contributed to their becoming dropouts or persisting students at the Hartford Institute. His conclusion was that:

Mathematical ability, study habits, and attitudes discriminated between attrition and survival groups (28, p. 71).

Taylor, Hecker, and Lezotte (29) undertook a definitive study at Ferris State College (formerly Ferris Institute). They studied intellectual and interest factors related to the success of male students in technical and associate degree programs. This research, done under a U.S. Office of Health, Education, and Welfare grant,

utilized the School and College Ability Test and the Strong Vocational Interest Blank along with other data. The authors concluded in part that:

In general, the findings of this study show that ability factors could predict success in the type of college programs studied. Interest factors predicted at a more modest level and tended to relate to direction of movement in educational-vocational choice rather than to success over the short duration in one college program. As vocational development is a life long and fluid process, it seems quite apparent to the authors that the use of interest instruments for predictive purposes must be based upon a longitudinal study of individuals (29, p. 130)

Student related research regarding technical institutes is meager. The need for this type of research is sounded by many leaders in technical education, and most assuredly by this investigator. Larson (18), in 1966, conducted a review of studies related to technical education. His review pointed up the fact that research was being done, but the quality of the research, and narrow limitations in scope of study were in need of critical review. He concluded from his research that:

While it is encouraging to note that several studies have been completed in a number of areas of technical education, it is rather discouraging to find so little evidence of real research in other areas vital to technical education.

While several studies have been made in the fields of 'Manpower Needs and Employment Opportunities' and 'Curriculum Development', other highly significant fields have been practically ignored. The need is great for additional research of high quality in such fields as: instructional materials and devices, learning processes and teaching methods, facilities and equipment, teacher education, administration and supervision, and research. If technical education

is to meet the needs of students and employers, more organized, meaningful research is essential.

Really, technical education and research in technical education are just emerging from infancy and growing toward adolescence. Nurture, now, through federal and foundations' support are increasingly essential to provide the firm foundation of a well developed and enduring research effort. Now is the time for a united and an extended effort to help technical education meet the needs of people, youths, and adults, and also to satisfy the basic requirements of the employers of technicians and technically-oriented personnel in all fields of endeavor (18, p. 44-45).

The College and University Environment Scales

This instrument was first developed in 1963 by C. Robert Pace (26) in cooperation with the Educational Testing Service. The first edition of College and University Environment Scales was formulated from an earlier instrument, the College Characteristics Index, developed by Pace and Stern (27) in 1958. The second edition now in use is the result of efforts by its author to improve the instrument.

In 1967, Ralph F. Berdie (3) published a study done at the University of Minnesota using the CUES. All new entering freshmen were given the instrument and at later times some were given the instrument again. Berdie was interested in the psychometric aspects of scoring the instrument as well as comparison data regarding the students. In his analysis he points out that both the 66+, or opinion poll method, and the customary psychometric methods are acceptable. He indicated the 66+ method was appropriate when an institutional

score is desired, and that the method based on scores of individuals and/or groups was appropriate when one wished to study the characteristics of individual students or groups of students as related to CUES.

Beth L. McPeck (20) conducted a study at Millikin University in which students, faculty, and administrators were asked to take the CUES. Those returning to the campus were asked to respond normally and as to what they would like the campus to be like. Those new to the campus were asked to respond normally and as to what they hoped the campus would be like. Her findings revealed significant differences (a) between members of the returning group on the Community scale, (b) between members of the new group on the Awareness and Scholarship scales, and (c) striking similarities between all groups as to perceptions and preconceptions of the real and ideal environments. She also found differences between male and female, and between students when classified by academic major.

Sharon Heskett and Bruce W. Walsh (16) reported an investigation in which they compared the perceptions of management staff, personnel staff, and student officers in residence halls using the CUES. These investigators, using conventional psychometric methods, determined that the management group differed on the CUES when compared to the other two groups, and that the personnel group did not differ appreciably when compared to the student group.

Charles J. Gelso and David M. Sims (11) developed a study of environmental perception using groups at a community college in the South. In this study the authors compared students who were commuters, college dormitory residents, and faculty using the CUES. Applying a statistical method which produced confidence ranges for the group scores on the five scales of the instrument, the authors concluded from their findings that the perceptions of the three groups were generally similar. Differences were found on the Community scale between the faculty group and the student groups, and on the Propriety scale between the commuters and faculty, and the resident students.

Charles Lindahl (19) was also interested in environmental perception as viewed by commuters and resident students. He utilized the CUES to study these two groups at two types of college, a suburban college and a central city college. His results indicated in part that when the students from each type of college were compared, greater variation appeared than when the two groups of students were compared at either of the two types of schools. He also observed from his findings differences on several of the CUES when comparing commuters with resident students.

David G. Jansen and Bob B. Winborn (17) studied the perceptions of the campus environment by social-political action leaders. In this comparative study of various types of leaders, significant

differences were observed among the groups tested on four of the five scales of the inventory. The Community, Awareness, and Scholarship scales appeared to differentiate social-political activists from other types of campus leaders. Male and female leaders also were significantly different on CUES scales.

J. Douglas Connor (5) studied freshman attrition and environmental stress at Southern Methodist University. The CUES instrument was administered to the entire 1964 entering class. At the end of Spring semester 1965, and Fall semester 1965, the dropouts were identified and their CUES scores along with the scores of the remainder of the original population were analyzed using conventional psychometric techniques. The author summarized the results of his study as follows:

The results of the hypothesis testing might be summarized in the following way: the concept of campus stress, as measured by CUES, did not appear to be related to the attrition or retention of the 1964 freshmen at SMU. There were no significant differences found between the mean scores of the female dropouts and retainees, or between the mean scores of the male dropouts and retainees, on any of the five CUES scales. There were significant differences on four of the five CUES scales between the means of the male and female freshmen which strongly suggested that campus stress was perceived differently by the male and female freshmen (5, p. 272).

June Gallessich (8) at the University of Texas at Austin, designed a study to determine the characteristics of engineering students. As part of her study the CUES was administered to a select group of

senior engineering students in an effort to measure their perception of the college environment. Her purpose in doing this was to attempt to determine whether or not the stereotype of engineers, which is to be authoritarian, orderly, and pragmatic would be confirmed with the CUES. The hypothesis was that the seniors in engineering would produce a CUES profile high on Practicality and Scholarship, average on Propriety, and low on Community and Awareness. Her methodology was to compare the results of her sample with national norms. She was able to conclude from the results of the study that the seniors in her sample did not fit the hypothesized climate. They noted the campus high on the Awareness scale and low on the Propriety scale.

At a community college, Ronald S. Wilson and Robert J. Dollar (34) used the CUES to determine if differences in environmental perception were evident between students, teachers, and administrators. An interesting aspect of this study is that the authors separated vocational students and instructors from their academic counterparts, as well as isolating the college administrators. Using the conventional t-test, these investigators discovered that (a) significant scale score differences emerged on all scales but Propriety between administrators and academic students, (b) significant scale score differences emerged on all five scales between administrators and academic faculty, (c) differences in scale scores were found between administrators and vocational students on the Awareness and Scholarship

dimensions, (d) academic and vocational faculty differed on all scales but Practicality, (e) the two student groups differed only on the Practicality scale, and (f) the vocational faculty and their vocational students differed on the Community, Awareness, and Scholarship scales.

Summary

Technical institute education is a young, yet dynamic concept within the total spectrum of higher education. This type of education is well defined philosophically and clearly outlined operationally. It is a viable construct and quite vital to the national economy. It needs study in all dimensions.

Oregon Technical Institute is an established college within the Oregon State System of Higher Education whose role in that system is clearly defined. It has been recommended that its future role be expanded to include a broader range of curricular offerings.

Relatively few studies have been undertaken specifically with reference to the technical institute. Those studies in evidence are generally directed toward identifying characteristics of students.

The College and University and Environment Scales has been utilized in colleges throughout the country as a means of helping educators better understand their respective college communities. This review of studies using the CUES has lent positive support for the applied research effort this investigator has undertaken.

CHAPTER III

METHODOLOGY

The Population

The population for this study was drawn from the enrolled students and employed faculty at Oregon Technical Institute during the spring quarter of the 1969-70 academic year.

Group Determination

For the comparative purposes of this study each of four groups was isolated according to dominant factors unique to the group. There were three student groups and one faculty group. For the student groups the factors used were as follows:

- a. Duration of college attendance.
- b. Degree aspiration.
- c. Curriculum and degree prerequisites.

Group 1 consisted of students who were working toward their associate degrees and who were in at least their fourth quarter of attendance at Oregon Technical Institute.

Group 2 consisted of students who were working toward their bachelor's degree having completed a prerequisite associate degree at Oregon Technical Institute, or who were working toward a bachelor's degree not requiring an associate degree. These students were

in at least their fourth quarter of attendance at the college.

Group 3 consisted of students who (a) were working towards a bachelor's degree, (b) were transfers from another college, (c) had completed a prerequisite associate degree at another institution, and (d) were in at least their third quarter of attendance at Oregon Technical Institute.

Group 4 consisted of faculty who were employed full-time at Oregon Technical Institute and who held academic rank at the college.

Group Selection and Test Administration

Utilizing the existing punched card student record system and the computer facility at Oregon Technical Institute, the potential population was identified. Through faculty and student cooperation the College and University Environment Scales was administered to groups of students during regularly scheduled classes. Faculty were given the instrument individually or in small groups. All testing was administered by this investigator. An explanation of the purpose of the study was given prior to each test administration and verbal permission to use the test results was secured from all groups. The test administration produced test scores for seventy-eight percent of the potential population. Table 1 provides a summary analysis of the test administration population size.

Table 1 Total potential population size with total and percent of actual population realized, by group.

Group	Potential "N"	Actual "N"	Percent
Group 1	363	266	73.2
Group 2	141	113	80.1
Group 3	130	95	73.0
Group 4	<u>128</u>	<u>120</u>	<u>93.7</u>
Total	762	594	78.0

The Population Variables

An attempt was made to ascertain whether or not group variables were affecting test results. The student and faculty data bank at Oregon Technical Institute was utilized to secure variable data for each group. These data were transmitted to punched cards for statistical treatment.

Variables identified for each group were limited to those all members of the group possessed in common. Ten variables were identified for Group 1, eleven for Group 2, eight for Group 3, and five for Group 4. Table 2 lists the group variables used.

The data cards were submitted to the Oregon State University Computer Center for statistical treatment. Multiple regression was used to test if any of the variation in a group's response was explained by the variables used for that group.

Table 2 Identified variables by group.

Group	Variable	Group	Variable
Group 1	Local student Age Sex Marital Curriculum Term Native-transfer GPA Student leader SAT scores	Group 2	Local student Age Sex Marital Curriculum Term Native-transfer GPA Student leader SAT scores Degree
Group 3	Degree Age Sex Marital Curriculum Term GPA Student leader	Group 4	Degree Sex Division Teaching area Years employed

The CUES Instrument

The CUES instrument attempts

....to aid in defining the atmosphere or intellectual-social-cultural climate of the college as the student sees it (26, p. 11).

Also in the Technical Manual, reliability estimates are presented.

These reliabilities range from .89 to .94 which indicates a fairly high degree of internal consistency for the scales. Further support for reliability is given when the author states:

Perhaps more convincing evidence of the stability of

CUES scores at a single institution is the evidence from experience itself. Test-retest comparisons made from comparable samples of reporters over a one- or two-year period, or comparisons of scores from different groups judged to be qualified reporters (such as sophomores, juniors, and seniors), have been tabulated and summarized for 25 different colleges and universities. With 5 scale scores for each of 25 institutions there are 125 comparisons. Of this number 80 percent have differed by 3 points or less and 90 percent have differed by 4 points or less.

From this empirical evidence it seems reasonable to say that, in general, a given score is probably quite stable within a margin of 3 points. The chances are 4 out of 5 that, with a comparable sample, the obtained score will not differ by more than 3 points; and the chances are 3 out of 5 that it will not differ by more than 2 points. (26, p. 45).

In discussing the validity of the various scales, Pace (26) states his correlation studies between CUES and various characteristics of students and institutions provide positive support for the instrument's validity. He indicates the following:

Characteristics of students are generally congruent with characteristics of the school they attend. Although student characteristics by no means account fully for the environmental differences between colleges, there is obviously some selective matching between students and colleges. There is a positive relationship between the scholastic aptitude of the entering freshman and the Scholarship scale score of a college, between the aesthetic interests of students and the Awareness scale score of a college, and between the religious interests of students and the Propriety and Community scale score of a college. There is a negative relationship between the masculinity and pragmatic interests of the students and the Community and Propriety scale scores of a college. These and similar relationships are generally expressed by correlations in the .40s and .60s.

The behavior of students and various attitudes and values expressed by them in colleges are also generally congruent with the environmental press of their campus. Church attendance is related to the Community and Propriety scale scores of

a college. Planning to enter graduate school is related negatively to the Practicality, Community, and Propriety scale scores and positively to the Scholarship scale. Majoring in such fields as social science and humanities is related to the Awareness scale; majoring in education is related to the Practicality and Propriety scales; majoring in business is related to the Practicality scale; majoring in engineering is negatively related to the Community scale. Feeling a strong emotional attachment to a college is related to its press toward Community and Awareness. Participating in extra-curricular activities is related to the Community scale. These and similar attitudes and behaviors have correlations with relevant college press that fall generally in the range of the .30s and .50s.

The overall network of correlations between CUES scores and other data can be characterized as broadly supportive of associations one might reasonably expect. The conclusion from such associations is that campus atmosphere, as measured by CUES, is a concept buttressed by a good deal of concurrent validity (26, p. 53-54).

It is important at this point to describe the seven scales of the CUES. The Practicality scale is described in the Technical Manual as a measure of the degree to which a campus environment is characterized as being practical, functional, well organized, and with an emphasis upon material benefits. The Community scale describes a campus that is friendly and cohesive and is group-oriented. A congenial, community spirit is prevalent. The Awareness scale describes a campus atmosphere that emphasizes personal, poetic, and political understandings as a major concern of the institution. The Propriety scale describes standards of propriety, such as caution, thoughtfulness, and decorum. The Scholarship scale describes a campus atmosphere highly intellectual with scholastic discipline a primary consideration. The Campus Morale scale describes a

campus environment characterized by group cohesiveness, easy assimilation into campus life, and supported personal and social relationships. The Quality of Teaching and Faculty-student Relationships scale describes a faculty willingness toward being helpful and friendly to students within a framework of high scholastic standards and teaching flexibility.

The CUES instrument asks the subject to respond to true-false alternatives for each of 100 statements about college life, such as facilities, rules and regulations, faculty and instruction, curricula, student life, and campus organizations. Following scoring instructions in the Technical Manual, scoring keys were made which identified those items and the keyed response relating to each of the seven scales. For the purposes of this study the total number of responses in the keyed direction for each of the CUES scales were identified for each testee and subsequently recorded as that individual's scores.

The Statistical Treatment

Upon completion of testing this writer scored the individual answer sheets, checked them for accuracy, and transmitted the scores to punched cards. The data cards were then submitted to the Oregon State University Computer Center for statistical treatment.

Multiple regression was applied to determine if any variation in a group's response was explained by the variables used for that

group. The statistical formula used in this procedure is as follows:

$$y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_k X_k$$

Where:

y -- response (dependent variable)

$\beta_0, \beta_1, \beta_2, \dots, \beta_k$ -- least squares coefficients

X_1, X_2, \dots, X_k -- factors (independent variables which might affect response, e.g. age, sex, etc.)

R^2 -- percent variation explained by the regression

Considering the comparative purposes of this study, and the large population size for each group, a two-sample t-test for independent groups was applied to the data. The two-tailed t-test formula that was used is outlined as follows:

$$t = \frac{(\bar{X} - \bar{Y}) - (\mu_1 - \mu_2)}{S_{\bar{X} - \bar{Y}}}, \text{ d.f.} = N_1 + N_2 - 2$$

Where:

\bar{X} -- sample mean for group 1

\bar{Y} -- sample mean for group 2

$\mu_1 - \mu_2$ -- hypothesized difference between the means of the two populations (in this case $\mu_1 - \mu_2 = 0$)

$S_{\bar{X} - \bar{Y}}$ -- Standard error of the difference

$$\bar{X} = \frac{\sum_{i=1}^{N_1} x_i}{N_1}$$

$$\bar{Y} = \frac{\sum_{i=1}^{N_2} y_i}{N_2}$$

(Sample means)

$$S_x^2 = \frac{\sum_{i=1}^{N_1} (x_i - \bar{X})^2}{N_1 - 1}$$

$$S_y^2 = \frac{\sum_{i=1}^{N_2} (y_i - \bar{Y})^2}{N_2 - 1}$$

(Sample variances)

$$S_p^2 = \frac{(N_1 - 1)S_x^2 + (N_2 - 1)S_y^2}{N_1 + N_2 - 2}$$

(pooled variance)

$$S_{\bar{X}-\bar{Y}} = \sqrt{S_p^2 \frac{N_1 + N_2}{N_1 N_2}}$$

Summary

This chapter has been devoted to a description of the methodology of this study. The groups to be compared were identified according to each group's unique characteristics. Three student groups and one faculty group at Oregon Technical Institute made up the population. The College and University Environment Scales, Second Edition, a standardized instrument which attempts to measure

perception of a college environment was administered to the population.

Once test scores were obtained from the identified groups, statistical treatment was employed including (a) identification of group variables and application of a multiple regression formula to determine whether or not a group's variables were affecting test scores, (b) the determination of group score means and standard deviations, and (c) the application of a two-sample t-test for independent groups for purposes of statistical comparison.

CHAPTER IV

PRESENTATION AND ANALYSIS OF THE FINDINGS

The purpose of this study, in review, is to attempt to determine whether or not significant differences exist between three student groups and one faculty group at Oregon Technical Institute with reference to their perception of the college environment. The gauge used to assess perception of the college environment is the College and University Environment Scales, Second Edition.

This instrument, as used in this study, produced a score for each of seven scales: practicality, scholarship, community, awareness, propriety, campus morale, and quality of teaching and faculty-student relationships. The score for each scale is derived by recording the number of responses registered in the keyed direction by the testee. These keyed responses are defined in the CUES Technical Manual (26, p.13, 34, 35). As an example; of the 100 statements contained in the CUES, numbers one through ten and fifty-one through sixty relate to the practicality scale. Each of these twenty statements has a true or false response with the keyed response, that is, the response relating to this scale identified in the manual.

Of the 100 CUES statements twenty statements specifically relate to each of five scales: practicality, community, scholarship,

awareness, and propriety. Twenty-two of these same one hundred statements have been used to relate to the campus morale scale. Eleven of these same one hundred statements have been used to relate to the quality of teaching and faculty-student relationships scale. This description of the potential scores for each of the seven CUES scales is important at this point, for it will make the tables that follow in the presentation and analysis of the findings more meaningful as they are read.

An additional point of clarification should be raised at this time. Reference will be made in this chapter to the four groups which make up the population of the study. The groups are described in chapter one and again in chapter three as to their distinctive characteristics. For the purpose of easy identification the groups will be referred to by group number and by a short title as follows:

GROUP 1 - Student OTI 2-year.

GROUP 2 - Student OTI 4-year.

GROUP 3 - Student transfer 4-year.

GROUP 4 - Faculty OTI.

Presentation of Group Data

The statistical treatment of the population data for this study was developed in three steps. The procedures used were selected in consultation with the Oregon State University Department of

Statistics. The data, once collected and transmitted to punched cards by this investigator, were submitted to the Oregon State University Computer Center for statistical treatment and processing.

The initial step in the development of this comparative study was to determine whether or not the variables common to each of the population groups were affecting the CUES scale scores. Multiple regression was used to test if any variation in a group's response was explained by the variables used for that group. The variables used are presented again in Table 2.

Table 2 Identified variables by group.

Group	Variable	Group	Variable
Group 1	Local student Age Sex Marital Curriculum Term Native-transfer GPA Student leader SAT scores	Group 2	Local student Age Sex Marital Curriculum Term Native-transfer GPA Student leader SAT scores Degree
Group 3	Degree Age Sex Marital Curriculum Term GPA Student leader	Group 4	Degree Sex Division Teaching area Years employed

The percent of variation explained by the regression formula are presented in Table 3. The results of this statistical treatment showed that there was no significant relationship between the identified variables and group scale scores.

Table 3 Percent Variation (R^2) Explained by the Regression, CUES Scale by Group.

CUES Scale	GROUP 1	GROUP 2	GROUP 3	GROUP 4
Practicality	.024	.068	.123	.045
Scholarship	.103	.168	.106	.193
Community	.063	.049	.049	.099
Awareness	.055	.129	.075	.180
Propriety	.153	.062	.039	.000
Campus Morale	.056	.113	.085	.187
Quality of Teaching and Faculty-student Relationships	.067	.091	.029	.174

The second step in developing the basis for comparison of the four groups was that of determining the mean scores and standard deviations of the separate groups for each of the seven CUES scales. Tables 4 through 7 are devoted to this second step for the separate groups. Table 8 presents the mean scores and standard deviations on the CUES scales for the combined student groups 1, 2, and 3.

Table 4 GROUP 1 - Student OTI 2-year, Mean Scores and Standard Deviations by CUES Scale.

CUES Scale	\bar{X}	SD
Practicality	9.56	2.16
Scholarship	8.96	4.24
Community	10.26	3.01
Awareness	4.11	2.60
Propriety	9.95	3.30
Campus Morale	9.20	3.93
Quality of Teaching and Faculty-student Relationships	6.78	2.18

Table 5 GROUP 2 - Student OTI 4-year, Mean Scores and Standard Deviations by CUES Scale.

CUES Scale	\bar{X}	SD
Practicality	9.12	1.98
Scholarship	8.08	4.04
Community	9.61	2.56
Awareness	3.82	2.64
Propriety	9.28	3.31
Campus Morale	8.20	3.44
Quality of Teaching and Faculty-student Relationships	6.53	2.16

Table 6 GROUP 3 - Student Transfer 4-year, Mean Scores and Standard Deviations by CUES Scale.

CUES Scale	\bar{X}	SD
Practicality	8.80	2.21
Scholarship	8.23	4.31
Community	9.14	3.23
Awareness	3.70	2.63
Propriety	10.33	3.33
Campus Morale	8.32	3.92
Quality of Teaching and Faculty-student Relationships	5.89	2.24

Table 7 GROUP 4 - Faculty OTI, Mean Scores and Standard Deviations by CUES Scale.

CUES Scale	\bar{X}	SD
Practicality	10.20	2.20
Scholarship	9.85	4.65
Community	11.66	2.89
Awareness	4.08	2.54
Propriety	12.15	2.84
Campus Morale	11.19	3.62
Quality of Teaching and Faculty-student Relationships	7.70	2.09

Table 8 GROUPS 1, 2, and 3 Combined (Student OTI 2-year, Student OTI 4-year, and Student Transfer 4-year), Mean Scores and Standard Deviations by CUES Scale.

CUES Scale	\bar{X}	SD
Practicality	9.30	2.15
Scholarship	8.61	4.22
Community	9.88	2.99
Awareness	3.96	2.62
Propriety	9.87	3.32
Campus Morale	8.79	3.84
Quality of Teaching and Faculty-student Relationships	6.54	2.21

Tests of Null Hypotheses

The third and final step after development of the groups' mean scores and standard deviations was the application of the two-sample t-test for independent groups. The formula for this test is outlined in Chapter III. Group means were used as the unit of analysis, since it was group differences rather than individual differences that were being tested.

Hypothesis 1 - There are no significant differences on the CUES scores comparing student GROUP 1 with student GROUP 2.

The results of the comparison between GROUP 1 (Student OTI 2-year) and GROUP 2 (Student OTI 4-year) are shown in Table 9. Differences significant at the .05 level were found between the scale scores of these two groups on the Community scale and on the Campus

Morale scale. From Table 9 the observation can be made that with reference to perception of certain aspects of the college environment, as measured by CUES, GROUP 1 as opposed to GROUP 2 differ in their respective views. A comparison of mean scores from Table 9 shows that GROUP 1 views a campus described as friendly, cohesive, and group oriented; as well as a campus characterized as having group cohesiveness and as providing easy assimilation into college life to a greater degree than does GROUP 2. Since scale score differences significant at the .05 level were found between GROUP 1 and GROUP 2, Hypothesis 1 has been rejected.

Table 9 GROUP 1 - Student OTI 2-year Versus GROUP 2 - Student OTI 4-year, Group Means, t-value, and Level of Significance by CUES Scale.

CUES Scale	GROUP 1 \bar{X}	GROUP 2 \bar{X}	t Value	Level of Signif.
Practicality	9.56	9.12	1.84	
Scholarship	8.96	8.08	1.87	
Community	10.26	9.61	1.98	.05
Awareness	4.11	3.82	.99	
Propriety	9.95	9.28	1.81	
Campus Morale	9.20	8.20	2.35	.05
Quality of Teaching and Faculty-student Relationships	6.78	6.53	1.00	

Hypothesis 2 - There are no significant differences on the CUES Scores comparing student GROUP 1 with student GROUP 3.

Table 10 depicts the results of the comparison of scores on the

CUES between GROUP 1 and GROUP 3. A campus environment described and/or characterized in the CUES (a) as practical, functional, and well organized, (b) as friendly, congenial, and with community spirit prevalent, and (c) by a faculty willing to be helpful and friendly to students has been viewed prevalent to a higher degree by GROUP 1 (Student OTI 2-year) than by GROUP 3 (Student transfer 4-year). Scale score differences significant at the .01 level were found comparing these two groups on the Practicality, Community, and Quality of Teaching and Faculty-student Relationship scales. Hence, Hypothesis 2 has been rejected.

Table 10 GROUP 1 - Student OTI 2-year Versus GROUP 3 - Student Transfer 4-year, Group Means, t-value, and Level of Significance by CUES Scale.

CUES Scale	GROUP 1 \bar{X}	GROUP 2 \bar{X}	t Value	Level of Signif.
Practicality	9.56	8.80	2.92	.01
Scholarship	8.96	8.23	1.44	
Community	10.26	9.14	3.03	.01
Awareness	4.11	3.70	1.31	
Propriety	9.95	10.33	.95	
Campus Morale	9.20	8.32	1.87	
Quality of Teaching and Faculty-student Relationships	6.78	5.89	3.38	.01

Hypothesis 3 - There are no significant differences on the CUES scores comparing student GROUP 1 with faculty GROUP 4.

The results of the comparison of the CUES scores between

GROUP 1 (Student OTI 2-year) and GROUP 4 (Faculty OTI) are shown in Table 11. Scale score differences significant at the .01 level were found on the Practicality, Community, Propriety, Campus Morale, and Quality of Teaching and Faculty-student Relationships scales. In each instance, mean score comparisons show differences in response in favor of the faculty group. The faculty group when compared with student Group 1 views the campus environment, as measured by this instrument, to be more practical, to possess more community spirit, to have greater aspects of propriety, to have more group cohesiveness, and to exhibit greater faculty-student cooperation. Hypothesis 3 has been rejected upon the results obtained in Table 11.

Table 11 GROUP 1 - Student OTI 2-year Versus GROUP 4 - Faculty OTI, Group Means, t-value, and Level of Significance by CUES Scale.

CUES Scale	GROUP 1 \bar{X}	GROUP 4 \bar{X}	t Value	Level of Signif.
Practicality	9.56	10.20	2.67	.01
Scholarship	8.96	9.85	1.82	
Community	10.26	11.66	4.27	.01
Awareness	4.11	4.08	.11	
Propriety	9.95	12.15	6.29	.01
Campus Morale	9.20	11.19	4.70	.01
Quality of Teaching and Faculty-student Relationships	6.78	7.70	3.38	.01

Hypothesis 4 - There are no significant differences on the CUES scores comparing student GROUP 2 with student GROUP 3.

The responses of GROUP 2 (Student OTI 4-year) and Group 3 (Student transfer 4-year), as shown in Table 12, were different to a higher degree in favor of GROUP 2 on that part of the CUES depicting a campus environment possessing standards of propriety, decorum, and thoughtfulness. On that part of the CUES depicting a campus environment with a faculty willing to be helpful and friendly to students while maintaining high scholastic standards, the responses of student GROUP 2 and student GROUP 3 were different to a higher degree in favor of GROUP 3. Scale score differences significant at the .05 level were found comparing GROUP 2 with GROUP 3 on the Propriety, and Quality of Teaching and Faculty-student Relationships scales. On the basis of the data in Table 12, Hypothesis 4 has been rejected.

Table 12. GROUP 2 - Student OTI 4-year Versus GROUP 3 - Student Transfer 4-year, Group Means, t-value, and Level of Significance by CUES Scale.

CUES Scale	GROUP 2 \bar{X}	GROUP 3 \bar{X}	t Value	Level of Signif.
Practicality	9.12	8.80	1.10	
Scholarship	8.08	8.23	.24	
Community	9.61	9.14	1.17	
Awareness	3.82	3.70	.32	
Propriety	9.28	10.33	2.27	.05
Campus Morale	8.20	8.32	.24	
Quality of Teaching and Faculty-student Relationships	6.53	5.89	2.10	.05

Hypothesis 5 - There are no significant differences on the CUES scores comparing student GROUP 2 with faculty GROUP 4.

Again, a comparison of responses between a student group and the faculty group brings out significant differences in environmental perception as measured by CUES. Table 13 depicts the results of the comparison between GROUP 2 (Student OTI 4-year) and GROUP 4 (Faculty OTI). Scale score differences significant at the .01 level appeared on six of the seven CUES scales: Practicality, Scholarship, Community, Propriety, Campus Morale and Quality of Teaching and Faculty-student Relationships. A comparison of mean scores, as presented in Table 13, shows a higher degree of response by the faculty group on each of these CUES dimensions. When compared to student GROUP 2 the faculty group views the campus to be more practical, to possess more community spirit, to have greater scholastic discipline, to have greater aspects of propriety, to have more group cohesiveness, and to exhibit greater faculty-student cooperation. Hypothesis 5 was rejected on the basis of the differences found in this comparison of GROUP 2 with GROUP 4.

Hypothesis 6 - There are no significant differences on the CUES scores comparing student GROUP 3 with faculty GROUP 4.

Similar results were obtained as shown in Table 14 as were obtained in Table 13. When the comparison of CUES scores was made between GROUP 3 (Student transfer 4-year) and GROUP 4 (Faculty

OTI), scale score differences significant at the .01 level were found on six of the seven CUES scales: Practicality, Scholarship, Community, Propriety, Campus Morale, and Quality of Teaching and Faculty-student Relationships. Again a comparison of mean scores as presented in Table 14, shows a higher degree of CUES dimension response by the faculty group. Due to the significant differences obtained, Hypothesis 6 was rejected.

Table 13 - GROUP 2 Student OTI 4-year Versus GROUP 4 - Faculty OTI, Group Means, t-value, and Level of Significance by CUES Scale.

CUES Scale	GROUP 2 \bar{X}	GROUP 4 \bar{X}	t Value	Level of Signif.
Practicality	9.12	10.20	3.90	.01
Scholarship	8.08	9.85	3.07	.01
Community	9.61	11.66	5.69	.01
Awareness	3.82	4.08	.76	
Propriety	9.28	12.15	7.09	.01
Campus Morale	8.20	11.19	6.44	.01
Quality of Teaching and Faculty-student Relationships	6.53	7.70	4.15	.01

Table 14 - GROUP 3 - Student Transfer 4-year Versus GROUP 4 - Faculty OTI, Group Means, t-value, and Level of Significance by CUES Scale.

CUES Scale	GROUP 3 \bar{X}	GROUP 4 \bar{X}	t Value	Level of Signif.
Practicality	8.80	10.20	4.60	.01
Scholarship	8.23	9.85	2.61	.01
Community	9.14	11.66	6.00	.01
Awareness	3.70	4.08	1.01	
Propriety	10.33	12.15	4.30	.01
Campus Morale	8.32	11.19	5.54	.01
Quality of Teaching and Faculty-student Relationships	5.89	7.70	6.07	.01

Hypothesis 7 - There are no significant differences on the CUES scores comparing the combined student GROUPS 1, 2, and 3 with faculty GROUP 4.

The results of the comparison of the combined GROUPS 1, 2, and 3 (Student OTI 2-year, Student OTI 4-year, Student transfer 4-year) with GROUP 4 (Faculty OTI) are presented in Table 15. Consistent with the results obtained in each instance of comparison between separate student groups and the faculty group, significant differences emerged on the CUES scores, with mean score comparisons showing a higher degree of CUES dimension response by the faculty group. As in the other faculty-student comparisons, the faculty views the concepts measured by CUES to be more prevalent. Scale score differences significant at the .01 level were obtained on six of the seven CUES scales: Practicality, Scholarship, Community,

Propriety, Campus Morale, and Quality of Teaching and Faculty-student Relationships. Hypothesis 7 was rejected on the basis of the results depicted in Table 15.

Table 15 GROUPS 1, 2, and 3 Combined - Student OTI 2-year, Student OTI 4-year, and Student Transfer 4-year, Versus GROUP 4 - Faculty OTI, Group Means, t-value, and Level of Significance by CUES Scale.

CUES Scale	Combined GROUPS 1, 2, 3 \bar{X}	GROUP 4 \bar{X}	t Value	Level of Signif.
Practicality	9.30	10.20	4.05	.01
Scholarship	8.61	9.85	2.80	.01
Community	9.88	11.66	5.85	.01
Awareness	3.96	4.08	.44	
Propriety	9.87	12.15	6.89	.01
Campus Morale	8.79	11.19	6.18	.01
Quality of Teaching and Faculty-student Relationships	6.54	7.70	5.14	.01

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

This study was designed to determine whether or not differences exist, relative to the perception of the college environment, between three student groups and one faculty group at Oregon Technical Institute. The College and University Environment Scales, Second Edition was the instrument used to measure environmental perception.

The population for each of three student groups was determined according to unique factors for each group. These factors were (a) duration of college attendance, (b) degree aspiration, and (c) curriculum and degree prerequisites. The faculty group consisted of employed faculty at Oregon Technical Institute at the time the study was undertaken.

The CUES instrument consists of seven scales, each of which attempts to measure an aspect of the college environment. These seven scales include the concepts of practicality, scholarship, community, awareness, propriety, campus morale and quality of teaching and faculty-student relationships. A test score was obtained from the test administration for each of the seven CUES scales. These scores were then treated statistically to determine whether or not

differences existed between the four groups used in the study.

A multiple regression formula was applied to the data to determine whether or not variables related to each group were affecting the test results. Group scale score means and standard deviations were computed. The primary comparative statistical treatment was a two-sample t-test for independent groups which was applied to all combinations of group pairings. Analysis was based on the .05 and .01 levels of significance.

Conclusions

As a result of the statistical treatment, each of the stated hypothesis was rejected as follows:

1. There are no significant differences on the CUES scores comparing student GROUP 1 with student GROUP 2.

Scale score differences significant at the .05 level were obtained on the Community and Campus Morale scales.

2. There are no significant differences on the CUES scores comparing student GROUP 1 with student GROUP 3.

Scale score differences significant at the .01 level were obtained on the Practicality, Community and the Quality of Teaching and Faculty-student Relationships scales.

3. There are no significant differences on the CUES scores comparing student GROUP 1 with faculty GROUP 4.

Scale score differences significant at the .01 level were obtained on the Practicality, Community, Propriety, Campus Morale, and the Quality of Teaching and Faculty-student Relationships scales.

4. There are no significant differences on the CUES scores comparing student GROUP 2 with student GROUP 3.

Scale score differences significant at the .05 level were obtained on the Propriety, and the Quality of Teaching and Faculty-student Relationships scales.

5. There are no significant differences on the CUES scores comparing student GROUP 2 with faculty GROUP 4.

Scale score differences significant at the .01 level were obtained on the Practicality, Scholarship, Community, Propriety, Campus Morale, and the Quality of Teaching and Faculty-student Relationships scales.

6. There are no significant differences on the CUES scores comparing student GROUP 3 with faculty GROUP 4.

Scale score differences significant at the .01 level were obtained on the Practicality, Scholarship, Community, Propriety, Campus Morale, and the Quality of Teaching and Faculty-student Relationships scales.

7. There are no significant differences on the CUES scores comparing the combined student GROUPS 1, 2, and 3 with faculty GROUP 4.

Scale score differences significant at the .01 level were obtained on the Practicality, Scholarship, Community, Propriety,

Campus Morale, and the Quality of Teaching and Faculty-student Relationships scales.

Conclusions that can be made as a result of the rejection of these hypotheses follows. Again, for clarity, brevity, and identification purposes, the populations will be referred to by group number with a short title. In review, the groups are described as follows:

GROUP 1 - Student OTI 2-year. Students who were working toward their associate degrees and who were in at least their fourth quarter of attendance at Oregon Technical Institute.

GROUP 2 - Student OTI 4-year. Students who were working toward their bachelor's degrees having completed a prerequisite associate degree at Oregon Technical Institute, or who were working toward a bachelor's degree not requiring an associate degree. These students were in at least their fourth quarter of attendance at the college.

GROUP 3 - Student transfer 4-year. Students who (a) were working toward a bachelor's degree, (b) were transfers from another college, (c) had completed a prerequisite associate degree at another institution, and (d) were in at least their third quarter of attendance at Oregon Technical Institute.

GROUP 4 - Faculty OTI. Faculty employed full-time at Oregon Technical Institute who held academic rank at the college.

It may be concluded that:

1. There are significant differences in perception of the college environment as measured by the College and University Environment Scales, Second Edition between GROUP 1 and GROUP 2. In this comparison the 2-year OTI student group was more positive as well as significantly different from the 4-year OTI student group in its response to a campus (a) described on the Community scale as being congenial and group-oriented, and (b) characterized by group cohesiveness and easy assimilation into campus life on the Campus Morale scale.
2. There are significant differences in perception of the college environment as measured by the College and University Environment Scales, Second Edition between GROUP 1 and GROUP 3. The campus environment was viewed more positively by the 2-year OTI student group when its CUES responses were compared to the 4-year transfer student group. A higher degree of positive response was obtained on the dimensions of a campus being practical, with an emphasis on material benefits; a campus with a friendly, congenial community spirit; and a campus that exhibits faculty willingness towards being friendly, and helpful to students.
3. There are significant differences in perception of the college environment as measured by the College and University Environment Scales, Second Edition between GROUP 1 and

GROUP 4. A high degree of positive difference in the responses by the faculty group on the CUES dimensions of Practicality, Community, Propriety, and Quality of Teaching and Faculty-student Relationships were obtained in this comparison with the 2-year OTI student group. The faculty views the campus environment to be more practical and functional, to possess more community spirit, to have greater aspects of decorum and caution, to have more group cohesiveness, and to exhibit greater faculty-student cooperation.

4. There are significant differences in perception of the college environment as measured by the College and University Environment Scales, Second Edition between GROUP 2 and GROUP 3. On this comparison the 4-year OTI student group responded to a higher degree on the CUES dimension depicting a campus environment possessing high standards of decorum, thoughtfulness, and caution; while the 4-year transfer student group differed to a higher degree as opposed to the 4-year OTI student group when responding to the CUES dimension depicting good faculty-student relationships.

5. There are significant differences in perception of the college environment as measured by the College and University Environment Scales, Second Edition between GROUP 2 and GROUP 4 and between GROUP 3 and GROUP 4. In both instances

of comparison between these 4-year student groups and the faculty group, a high degree of positive difference in favor of the faculty group was observed on six of the seven CUES dimensions. The faculty group views a campus environment being more practical and functional, possessing more community spirit, having greater scholastic discipline, having greater aspects of decorum and thoughtfulness, having greater group cohesiveness, and exhibiting a faculty willing to be more helpful to students within a framework of high scholastic standards and teaching flexibility.

6. There are significant differences in perception of the college environment as measured by the College and University Environment Scales, Second Edition between the combined GROUPS 1, 2, and 3 and GROUP 4. When the CUES responses of the combined student groups were compared to the CUES responses of the faculty group, the faculty group again showed a higher degree of positive response to the campus environment dimensions on six of the CUES scales: Practicality, Scholarship, Community, Propriety, Campus Morale, and Quality of Teaching and Faculty-student Relationships.

Recommendations

Based on the results of this study, the following

recommendations are made:

1. That this study be repeated at Oregon Technical Institute within a three-year period. An effort to validate the results obtained in this study should be undertaken so that any institutional re-direction which might be implemented as a result of the findings of this study could be supported or rejected.
2. An in-depth study be done at Oregon Technical Institute which would attempt to determine the reasons for college environmental perception differences between its students pursuing 2-year associate degrees and its students pursuing 4-year bachelor's degrees. As an emerging 4-year college which will continue to offer 2-year degrees, the institution should continue its efforts in applied research. The discovery of what effect environmental press might have with regard to students with different degree aspirations would be a valuable dimension addition to the basic research program. If the reasons for differences in environmental perception were uncovered, the information would have implications for institutional planning in all aspects of the campus community.
3. An in-depth study be done at Oregon Technical Institute which would attempt to determine the reasons for college environmental perception differences between its students completing their associate and bachelor's work at Oregon Technical

Institute and its transfer students who have completed associate degrees at other institutions. With the growth of the community/junior college transfer program at the Institute, efforts to make this transition a smooth one are of high priority. One of the outcomes of applied research of this nature could be to determine whether or not environmental perception differences between these two groups was or was not detrimental to the overall transfer program.

4. An in-depth study be done at Oregon Technical Institute which would attempt to determine the reasons for college environmental perception differences between its students and its faculty. Verification of the reasons for differences between these two groups could provide insight for the campus community in the areas of institutional aims and objectives, curriculum development, instructional technique and evaluation, and promotion of faculty-student dialogue regarding short- and long-range institutional planning.
5. Studies of perception of the college environment be done at other technical institutes. It has been pointed out in this study and by other researchers, particularly Larson (18), that applied research in technical education is lacking. Technical institute education is an essential part of post-high school educational opportunities for young people. The nation is in critical need

of technicians. This present study is but one study of environmental perception at a single technical college. There is a need for comparative studies of the same dimensions at other similar types of institutions for enlightenment and contrast.

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APPENDIX

APPENDIX

The tables that follow represent an item analysis of the responses given by the groups used in this study. The statements from the CUES* booklet which are related to the seven scales are presented. The tables record the number of responses by group, by CUES scale, and by statement number. Data for each of the four groups is recorded as well as composite data for the total population. The CUES statements are presented by number on the facing page for each table.

*c 1969. C. Robert Pace. CUES statements are reproduced with the permission of the author.

1. Students almost always wait to be called on before speaking in class.
2. The big college events draw a lot of student enthusiasm and support.
3. There is a recognized group of student leaders on this campus.
4. Frequent tests are given in most courses.
5. Students take a great deal of pride in their personal appearance.
6. Education here tends to make students more practical and realistic.
7. The professors regularly check up on the students to make sure that assignments are being carried out properly and on time.
8. It's important socially here to be in the right club or group.
9. Student pep rallies, parades, dances, carnivals, or demonstrations occur very rarely.
10. Anyone who knows the right people in the faculty or administration can get a better break here.
51. The important people at this school expect others to show proper respect for them.
52. Student elections generate a lot of intense campaigning and strong feeling.
53. Everyone has a lot of fun at this school.
54. In many classes students have an assigned seat.
55. Student organizations are closely supervised to guard against mistakes.
56. Many students try to pattern themselves after people they admire.
57. New fads and phrases are continually springing up among the students.
58. Students must have a written excuse for absence from class.
59. The college offers many really practical courses such as typing, report writing, etc.
60. Student rooms are more likely to be decorated with pennants and pin-ups than with paintings, carvings, mobiles, fabrics, etc.

Cues Scale	Group 1				Group 2				Group 3				Group 4			Total Population				
	Student OTI 2-Year				Student OTI 4-Year				Student Transfer 4-Year				Faculty OTI			Students & Faculty				
	Tally		T - F Ratio	F - T Ratio	Tally		T - F Ratio	F - T Ratio	Tally		T - F Ratio	F - T Ratio	Tally		T - F Ratio	F - T Ratio	Tally		T - F Ratio	F - T Ratio
	T	F	to 1	to 1	T	F	to 1	to 1	T	F	to 1	to 1	T	F	to 1	to 1	T	F	to 1	to 1
Practi- cality																				
1	147	139	1.0	.9	57	66	.8	1.1	49	47	1.0	.9	51	69	.7	1.3	304	321	.9	1.0
2.	44	244	.1	5.5	13	111	.1	8.5	13	83	.1	6.3	14	106	.1	7.5	84	544	.1	6.4
3.	156	130	1.2	.8	61	63	.9	1.0	36	60	.6	1.6	93	27	3.4	.2	346	280	1.2	.8
4.	241	47	5.1	.1	100	24	4.1	.2	70	26	2.6	.3	97	23	4.2	.2	508	120	4.2	.2
5.	148	140	1.0	.9	44	80	.5	1.8	36	60	.6	1.6	62	58	1.0	.9	290	338	.8	1.1
6.	256	31	8.2	.1	111	13	8.5	.1	78	18	4.3	.2	108	12	9.0	.1	553	74	7.4	.1
7.	166	122	1.3	.7	78	46	1.6	.5	53	42	1.2	.7	103	17	6.0	.1	400	227	1.7	.5
8.	29	258	.1	8.8	18	106	.1	5.8	9	87	.1	9.6	9	111	.0	12.3	65	562	.1	8.8
9.	266	62	3.6	1.2	100	27	4.1	.2	67	29	2.3	.4	76	44	1.7	.5	469	162	2.8	.3
10.	98	190	.5	1.9	57	67	.8	1.1	42	53	.7	1.2	36	84	.4	2.3	233	394	.5	1.8
51.	221	65	3.4	.2	105	19	5.5	.1	77	18	4.2	.2	90	29	3.1	.3	493	131	3.7	.2
52.	64	223	.2	3.4	17	107	.1	6.2	9	86	.1	9.5	32	88	.3	2.7	122	504	.2	4.1
53.	77	211	.3	2.7	28	96	.2	3.4	17	78	.2	4.5	26	91	.2	3.5	148	476	.3	3.2
54.	33	255	.1	7.7	19	105	.1	5.5	6	90	.0	15.0	25	93	.2	3.7	83	543	.1	6.5
55.	149	138	1.0	.9	56	68	.8	1.2	55	39	1.4	.7	78	40	1.9	.5	338	285	1.1	.8
56.	137	151	.9	1.1	62	62	1.0	1.0	39	57	.6	1.4	75	40	1.8	.5	313	310	1.0	.9
57.	112	176	.6	1.5	45	79	.5	1.7	25	71	.3	2.8	39	79	.4	2.0	221	405	.5	1.8
58.	88	200	.4	2.2	25	99	.2	3.9	20	76	.2	3.0	26	94	.2	3.6	159	469	.3	2.9
59.	269	18	14.9	.0	117	7	16.7	.0	89	7	12.7	.0	115	5	23.0	.0	590	37	15.9	.0
60	250	33	7.5	.1	103	21	4.9	.2	88	8	11.0	.0	98	13	7.5	.1	539	75	7.1	.1

11. The professors really push the students' capacities to the limit.
12. Most of the professors are dedicated scholars in their fields.
13. Most courses require intensive study and preparation out of class.
14. Students set high standards of achievement for themselves.
15. Class discussions are typically vigorous and intense.
16. A lecture by an outstanding scientist would be poorly attended.
17. Careful reasoning and clear logic are valued most highly in grading student papers, reports, or discussions.
18. It is fairly easy to pass most courses without working very hard.
19. The school is outstanding for the emphasis and support it gives to pure scholarship and basic research.
20. Standards set by the professors are not particularly hard to achieve.
61. Most of the professors are very thorough teachers and really probe into the fundamentals of their subjects.
62. Most courses are a real intellectual challenge.
63. Students put a lot of energy into everything they do in class and out.
64. Course offerings and faculty in the natural sciences are outstanding.
65. Courses, examinations, and readings are frequently revised.
66. Personality, pull, and bluff get students through many courses.
67. There is very little studying here over the weekends.
68. There is a lot of interest in the philosophy and methods of science.
69. People around here seem to thrive on difficulty--the tougher things get, the harder they work.
70. Students are very serious and purposeful about their work.

CUES Scale	Group 1				Group 2				Group 3				Group 4			Total Population				
	Student OTI 2- Year				Student OTI 4-Year				Student Transfer 4-Year				Faculty OTI			Students & Faculty				
	Tally		T - F Ratio	F - T Ratio	Tally		T - F Ratio	F - T Ratio	Tally		T - F Ratio	F - T Ratio	Tally		T - F Ratio	F - T Ratio	Tally		T - F Ratio	F - T Ratio
	T	F	to 1	to 1	T	F	to 1	to 1	T	F	to 1	to 1	T	F	to 1	to 1	T	F	to 1	to 1
Scholar- ship																				
11.	90	198	.4	2.2	26	97	.2	3.7	28	67	.4	2.3	39	81	.4	2.0	183	443	.4	2.4
12.	203	83	2.4	.4	81	42	1.9	.5	65	31	2.0	.4	73	46	1.5	.6	422	202	2.0	.4
13.	140	147	.9	1.0	61	63	.9	1.0	51	45	1.1	.8	69	51	1.3	.7	321	306	1.0	.9
14.	121	167	.7	1.3	41	83	.4	2.0	37	59	.6	1.5	43	76	.5	1.7	242	385	.6	1.5
15.	98	190	.5	1.9	33	91	.3	2.7	20	76	.2	3.8	30	90	.3	3.0	181	447	.4	2.4
16.	175	113	1.5	.6	78	46	1.6	.5	60	35	1.7	.5	56	64	.8	1.1	369	258	1.4	.6
17.	203	84	2.4	.4	92	32	2.8	.3	60	35	1.7	.5	89	30	2.9	.3	444	181	2.4	.4
18.	137	151	.9	1.1	73	51	1.4	.6	44	51	.8	1.1	44	76	.5	1.7	298	329	.9	1.1
19.	82	204	.4	2.4	29	95	.3	3.2	31	64	.4	2.0	9	111	.0	12.3	151	474	.3	3.1
20.	188	100	1.8	.5	86	38	2.2	.4	60	36	1.6	.6	72	47	1.5	.6	406	221	1.8	.5
61.	219	68	3.2	.3	90	34	2.6	.3	60	36	1.6	.6	99	20	4.9	.2	468	158	2.9	.3
62.	133	155	.8	1.1	40	84	.4	2.1	41	55	.7	1.3	33	86	.3	2.6	247	380	.6	1.5
63.	67	210	.3	2.7	26	98	.2	3.7	19	77	.2	4.0	42	76	.5	1.8	154	461	.3	2.9
64.	104	178	.5	1.7	45	76	.5	1.6	28	63	.4	2.2	52	66	.7	1.2	229	383	.5	1.6
65.	186	99	1.8	.5	91	33	2.7	.3	57	38	1.5	.6	96	22	4.3	.2	430	192	2.2	.4
66.	137	151	.9	1.1	69	55	1.2	.7	58	37	1.5	.6	25	94	.2	3.7	289	337	.8	1.1
67.	162	123	1.3	.7	74	50	1.4	.6	56	40	1.4	.7	70	47	1.4	.6	362	260	1.3	.7
68.	51	235	.2	4.6	20	104	.1	5.2	13	83	.1	6.3	24	94	.2	3.9	108	516	.2	4.7
69.	126	160	.7	1.2	53	71	.7	1.3	33	63	.5	1.9	60	58	1.0	.9	272	352	.7	1.2
70.	160	128	1.2	.8	75	49	1.5	.6	47	49	.9	1.0	93	27	3.4	.2	375	253	1.4	.6

21. It is easy to take clear notes in most courses.
22. The school helps everyone get acquainted.
23. Students often run errands or do other personal services for the faculty.
24. The history and traditions of the college are strongly emphasized.
25. The professors go out of their way to help you.
26. There is a great deal of borrowing and sharing among the students.
27. When students run a project or put on a show everybody knows about it.
28. Many upperclassmen play an active role in helping new students adjust to campus life.
29. Students exert considerable pressure on one another to live up to the expected codes of conduct.
30. Graduation is a pretty matter-of-fact, unemotional event.
71. This school has a reputation for being very friendly.
72. All undergraduates must live in university approved housing.
73. Instructors clearly explain the goals and purposes of their courses.
74. Students have many opportunities to develop skill in organizing and directing the work of others.
75. Most of the faculty are not interested in students' personal problems.
76. Students quickly learn what is done and not done on this campus.
77. It's easy to get a group together for card games, singing, going to the movies, etc.
78. Students commonly share their problems.
79. Faculty members rarely or never call students by their first names.
80. There is a lot of group spirit.

Scale	Group 1				Group 2				Group 3				Group 4				Total Population			
	Student OTI 2- Year				Student OTI 4-Year				Student Transfer 4-Year				Faculty OTI				Students & Faculty			
	Tally		T - F Ratio	F - T Ratio	Tally		T - F Ratio	F - T Ratio	Tally		T - F Ratio	F - T Ratio	Tally		T - F Ratio	F - T Ratio	Tally		T - F Ratio	F - T Ratio
	T	F	to 1	to 1	T	F	to 1	to 1	T	F	to 1	to 1	T	F	to 1	to 1	T	F	to 1	to 1
Com- munity																				
21.	221	65	3.4	.2	96	28	3.4	.2	72	24	3.0	.3	94	24	3.9	.2	483	141	3.4	.2
22.	91	196	.4	2.1	31	93	.3	3.0	29	67	.4	2.3	71	49	1.4	.6	222	405	.5	1.8
23.	73	215	.3	2.9	28	96	.2	3.4	10	84	.1	8.4	16	104	.1	6.5	127	499	.2	3.9
24.	41	247	.1	6.0	14	110	.1	7.8	23	73	.3	3.1	36	84	.4	2.3	114	514	.2	4.5
25.	236	51	4.6	.2	103	21	4.9	.2	77	19	4.0	.2	114	6	19.0	.0	530	97	5.4	.1
26.	215	73	2.9	.3	97	27	3.5	.2	71	24	2.9	.3	82	36	2.2	.4	465	160	2.9	.3
27.	85	203	.4	2.3	21	103	.2	4.9	20	76	.2	3.8	39	80	.4	2.0	165	462	.3	2.8
28.	53	234	.2	4.4	23	101	.2	4.3	17	78	.2	4.5	60	60	1.0	1.0	153	473	.3	3.0
29.	61	227	.2	3.7	21	102	.2	4.8	16	79	.2	4.9	51	68	.7	1.3	149	476	.3	3.1
30.	212	71	2.9	.3	99	25	3.9	.2	66	28	2.3	.4	84	34	2.4	.4	461	158	2.9	.3
71.	158	128	1.2	.8	62	60	1.0	.9	47	48	.9	1.0	93	25	3.7	.2	360	261	1.3	.7
72.	159	128	1.2	.8	62	62	1.0	1.0	43	52	.8	1.2	61	58	1.0	.9	325	300	1.0	.9
73.	220	68	3.2	.3	83	41	2.0	.4	60	36	1.6	.6	94	25	3.7	.2	457	170	2.6	.3
74.	110	178	.6	1.6	59	65	.9	1.1	39	57	.6	1.4	51	67	.7	1.3	259	367	.7	1.4
75.	103	183	.5	1.7	40	84	.4	2.1	46	50	.9	1.0	25	94	.2	3.7	214	411	.5	1.9
76.	237	51	4.6	.2	107	17	6.2	.1	78	18	4.3	.2	105	14	7.5	.1	527	100	5.2	.1
77.	212	75	2.8	.3	81	43	1.8	.5	64	32	2.0	.5	68	42	1.6	.6	425	192	2.2	.4
78.	199	89	2.2	.4	92	32	2.8	.3	65	31	2.0	.4	92	25	3.6	.2	448	177	2.5	.3
79.	56	232	.2	4.1	24	100	.2	4.1	43	53	.8	1.2	7	113	.0	16.1	130	498	.2	3.8
80.	66	222	.2	3.3	16	108	.1	6.7	16	79	.2	4.9	28	91	.3	3.2	126	500	.2	3.9

31. Channels for expressing students' complaints are readily accessible.
32. Students are encouraged to take an active part in social reforms or political programs.
33. Students are actively concerned about national and international affairs.
34. There are a good many colorful and controversial figures on the faculty.
35. There is considerable interest in the analysis of value systems, and the relativity of societies and ethics.
36. Public debates are held frequently.
37. A controversial speaker always stirs up a lot of student discussion.
38. There are many facilities and opportunities for individual creative activity.
39. There is a lot of interest here in poetry, music, painting, sculpture, architecture, etc.
40. Concerts and art exhibits always draw big crowds of students.
81. Students are encouraged to criticize administrative policies and teaching practices.
82. The expression of strong personal belief or conviction is pretty rare around here.
83. Many students here develop a strong sense of responsibility about their role in contemporary social and political life.
84. There are a number of prominent faculty members who play a significant role in national or local politics.
85. There would be a capacity audience for a lecture by an outstanding philosopher or theologian.
86. Course offerings and faculty in the social sciences are outstanding.
87. Many famous people are brought to the campus for lectures, concerts, student discussion, etc.
88. The school offers many opportunities for students to understand and criticize important works of art, music, and drama.
89. Special museums or collections are important possessions of the college.
90. Modern art and music get little attention here.

CUES Scale	Group 1				Group 2				Group 3				Group 4				Total Population			
	Student OTI 2-Year				Student OTI 4-Year				Student Transfer 4-Year				Faculty OTI				Students & Faculty			
	Tally		T - F Ratio	F - T Ratio	Tally		T - F Ratio	F - T Ratio	Tally		T - F Ratio	F - T Ratio	Tally		T - F Ratio	F - T Ratio	Tally		T - F Ratio	F - T Ratio
	T	F	to 1	to 1	T	F	to 1	to 1	T	F	to 1	to 1	T	F	to 1	to 1	T	F	to 1	to 1
Aware- ness																				
31.	133	154	.8	1.1	50	74	.6	1.4	35	60	.5	1.7	100	19	5.2	.1	318	307	1.0	.9
32.	87	201	.4	2.3	26	98	.2	3.7	12	84	.1	7.0	34	86	.3	2.5	159	469	.3	2.9
33.	84	204	.4	2.4	23	101	.2	4.3	15	91	.1	5.4	15	105	.1	7.0	137	501	.2	3.6
34.	107	181	.5	1.6	47	77	.6	1.6	42	54	.7	1.2	25	95	.2	3.8	221	407	.5	1.8
35.	52	235	.2	4.5	29	95	.3	3.2	27	69	.3	2.5	18	101	.1	5.6	126	500	.2	3.9
36.	6	282	.0	47.0	2	121	.0	60.5	2	94	.0	47.0	1	119	.0	***	11	616	.0	56.0
37.	124	162	.7	1.3	53	70	.7	1.3	42	54	.7	1.2	52	67	.7	1.2	271	353	.7	1.3
38.	81	207	.3	2.5	37	86	.4	2.3	26	70	.3	2.6	44	76	.5	1.7	188	439	.4	2.3
39.	6	282	.0	47.0	1	122	.0	***	0	96	.0	96.0	1	119	.0	***	8	619	.0	77.3
40.	12	275	.0	22.9	7	116	.0	16.5	5	91	.0	18.2	3	117	.0	39.0	27	599	.0	22.1
81.	81	207	.3	2.5	41	83	.4	2.0	21	75	.2	3.5	45	73	.6	1.6	188	438	.4	2.3
82.	161	127	1.2	.7	67	57	1.1	.8	56	40	1.4	.7	58	62	.9	1.0	342	286	1.1	.8
83.	84	204	.4	2.4	32	92	.3	2.8	20	76	.2	3.8	26	94	.2	3.6	162	466	.3	2.8
84.	27	261	.1	9.6	13	111	.1	8.5	12	83	.1	6.9	14	106	.1	7.5	66	561	.1	8.5
85.	17	271	.0	15.9	6	118	.0	19.6	8	87	.0	10.8	3	115	.0	38.3	34	591	.0	17.3
86.	70	215	.3	3.0	23	101	.2	4.3	23	73	.3	3.1	16	102	.1	6.3	132	491	.2	3.7
87.	32	256	.1	8.0	8	116	.0	14.5	6	90	.0	15.0	10	110	.0	11.0	56	572	.0	10.2
88.	4	284	.0	71.0	2	122	.0	61.0	1	95	.0	95.0	0	120	.0	***	7	621	.0	88.7
89.	8	280	.0	35.0	5	119	.0	23.8	1	95	.0	95.0	1	119	.0	***	15	613	.0	40.8
90.	236	52	4.5	.2	116	8	14.5	.0	79	17	4.6	.2	103	17	6.0	.1	534	94	5.6	.1

41. Students ask permission before deviating from common policies or practices.
42. Most student rooms are pretty messy.
43. People here are always trying to win an argument.
44. Drinking and late parties are generally tolerated, despite regulations.
45. Students occasionally plot some sort of escapade or rebellion.
46. Many students drive sports cars.
47. Students frequently do things on the spur of the moment.
48. Student publications never lampoon dignified people or institutions.
49. The person who is always trying to "help out" is likely to be regarded as a nuisance.
50. Students are conscientious about taking good care of school property.
91. Students are expected to report any violation of rules and regulations.
92. Student parties are colorful and lively.
93. There always seem to be a lot of little quarrels going on.
94. Students rarely get drunk and disorderly.
95. Most students show a good deal of caution and self-control in their behavior.
96. Bermuda shorts, pin-up pictures, etc. , are common on this campus.
97. Students pay little attention to rules and regulations.
98. Dormitory raids, water fights, and other student pranks would be unthinkable.
99. Many students seem to expect other people to adapt to them rather than trying to adapt themselves to others.
100. Rough games and contact sports are an important part of intramural athletics.

CUES Scale	Group 1				Group 2				Group 3				Group 4				Total Population			
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	Tally		T - F Ratio	F - T Ratio	Tally		T - F Ratio	F - T Ratio	Tally		T - F Ratio	F - T Ratio	Tally		T - F Ratio	F - T Ratio	Tally		T - F Ratio	F - T Ratio
	T	F	to 1	to 1	T	F	to 1	to 1	T	F	to 1	to 1	T	F	to 1	to 1	T	F	to 1	to 1
Propriety																				
41.	152	136	1.1	.8	58	66	.8	1.1	43	51	.8	1.1	84	36	2.3	.4	337	289	1.1	.8
42.	80	203	.3	2.5	43	80	.5	1.8	25	67	.3	2.6	49	57	.8	1.1	197	407	.4	2.0
43.	108	180	.6	1.6	58	66	.8	1.1	44	51	.8	1.1	30	87	.3	2.9	240	384	.6	1.6
44.	148	138	1.0	.9	69	55	1.2	.7	42	43	.7	1.2	32	83	.3	2.5	291	319	.9	1.0
45.	97	191	.5	1.9	45	79	.5	1.7	36	58	.6	1.6	45	72	.6	1.6	223	400	.5	1.7
46.	93	195	.4	2.0	29	95	.3	3.2	17	79	.2	4.6	47	73	.6	1.5	186	442	.4	2.3
47.	228	60	3.8	.2	98	26	3.7	.6	72	24	3.0	.3	71	45	1.5	.6	469	155	3.0	.3
48.	127	159	.7	1.2	60	64	.9	1.0	43	53	.8	1.2	50	70	.7	1.4	280	346	.8	1.2
49.	103	185	.5	1.7	41	83	.4	2.0	32	64	.5	2.0	39	80	.4	2.0	215	412	.5	1.9
50.	136	152	.8	1.1	51	73	.6	1.4	35	61	.5	1.7	72	47	1.5	.6	294	333	.8	1.1
91.	142	145	.9	1.0	44	80	.5	1.8	39	57	.6	1.4	56	62	.9	1.1	281	344	.8	1.2
92.	183	102	1.7	.5	72	52	1.3	.7	50	44	1.1	.8	48	64	.7	1.3	353	262	1.3	.7
93.	70	217	.3	3.1	41	83	.4	2.0	24	71	.3	2.9	29	90	.3	3.1	164	461	.3	2.8
94.	67	219	.3	3.2	26	98	.2	3.7	23	72	.3	3.1	76	41	1.8	.5	192	430	.4	2.2
95.	186	101	1.8	.5	71	53	1.3	.7	57	39	1.4	.6	110	10	11.0	.0	424	203	2.0	.4
96.	188	99	1.8	.5	86	38	2.2	.4	58	37	1.5	.6	40	79	.5	1.9	372	253	1.4	.6
97.	95	190	.5	2.0	43	81	.5	1.8	28	68	.4	2.4	7	113	.0	16.1	173	452	.3	2.6
98.	64	221	.2	3.4	20	104	.1	5.2	27	67	.4	2.4	23	95	.2	4.1	134	487	.2	3.6
99.	143	144	.9	1.0	76	48	1.5	.6	53	43	1.2	.8	44	73	.6	1.6	316	308	1.0	.9
100.	148	139	1.0	.9	56	68	.8	1.2	29	65	.4	2.2	45	71	.6	1.5	278	343	.8	1.2

2. The big college events draw a lot of student enthusiasm and support.
10. Anyone who knows the right people in the faculty or administration can get a better break here.
14. Students set high standards of achievement for themselves.
22. The school helps everyone get acquainted.
25. The professors go out of their way to help you.
27. When students run a project or put on a show everybody knows about it.
28. Many upperclassmen play an active role in helping new students adjust to campus life.
29. Students exert considerable pressure on one another to live up to the expected codes of conduct.
31. Channels for expressing students' complaints are readily accessible.
35. There is considerable interest in the analysis of value systems, and the relativity of societies and ethics.
37. A controversial speaker always stirs up a lot of student discussion.
50. Students are conscientious about taking good care of school property.
61. Most of the professors are very thorough teachers and really probe into the fundamentals of their subjects.
62. Most courses are a real intellectual challenge.
63. Students put a lot of energy into everything they do in class and out.
74. Students have many opportunities to develop skill in organizing and directing the work of others.
75. Most of the faculty are not interested in students' personal problems.
80. There is a lot of group spirit.
82. The expression of strong personal belief or conviction is pretty rare around here.
83. Many students here develop a strong sense of responsibility about their role in contemporary social and political life.
97. Students pay little attention to rules and regulations.
99. Many students seem to expect other people to adapt to them rather than trying to adapt themselves to others.

CUES Scale	Group 1				Group 2				Group 3				Group 4				Total Population			
	Student OTI 2-Year				Student OTI 4-Year				Student Transfer 4-Year				Faculty OTI				Students & Faculty			
	Tally		T - F Ratio	F - T Ratio	Tally		T - F Ratio	F - T Ratio	Tally		T - F Ratio	F - T Ratio	Tally		T - F Ratio	F - T Ratio	Tally		T - F Ratio	F - T Ratio
	T	F	to 1	to 1	T	F	to 1	to 1	T	F	to 1	to 1	T	F	to 1	to 1	T	F	to 1	to 1
Campus																				
Morale																				
2.	44	244	.1	5.5	13	111	.1	8.5	13	83	.1	6.3	14	106	.1	7.5	84	544	.1	6.4
10.	98	190	.5	1.9	57	67	.8	1.1	42	53	.7	1.2	36	84	.4	2.3	233	394	.5	1.8
14.	121	167	.7	1.3	41	83	.4	2.0	37	59	.6	1.5	43	76	.5	1.7	242	385	.6	1.5
22.	91	196	.4	2.1	31	93	.3	3.0	29	67	.4	2.3	71	49	1.4	.6	222	405	.5	1.8
25.	236	51	4.6	.2	103	21	4.9	.2	77	19	4.0	.2	114	6	19.0	.0	530	97	5.4	.1
27.	85	203	.4	2.3	21	103	.2	4.9	20	76	.2	3.8	39	80	.4	2.0	165	462	.3	2.8
28.	53	234	.2	4.4	23	101	.2	4.3	17	78	.2	4.5	60	60	1.0	1.0	153	473	.3	3.0
29.	61	227	.2	3.7	21	102	.2	4.8	16	79	.2	4.9	51	68	.7	1.3	149	476	.3	3.1
31.	133	154	.8	1.1	50	74	.6	1.4	35	60	.5	1.7	100	19	5.2	.1	318	307	1.0	.9
35.	52	235	.2	4.5	29	95	.3	3.2	27	69	.3	2.5	18	101	.1	5.6	126	500	.2	3.9
37.	124	162	.7	1.3	53	70	.7	1.3	42	54	.7	1.2	52	67	.7	1.2	271	353	.7	1.3
50.	136	152	.8	1.1	51	73	.6	1.4	35	61	.5	1.7	72	47	1.5	.6	294	333	.8	1.1
61.	219	68	3.2	.3	90	34	2.6	.3	60	36	1.6	.6	99	20	4.9	.2	468	158	2.9	.3
62.	133	155	.8	1.1	40	84	.4	2.1	41	55	.7	1.3	33	86	.3	2.6	247	380	.6	1.5
63.	76	210	.3	2.7	26	98	.2	3.7	19	77	.2	4.0	42	76	.5	1.8	154	461	.3	2.9
74.	110	178	.6	1.6	59	65	.9	1.1	39	57	.6	1.4	51	67	.7	1.3	259	367	.7	1.4
75.	103	183	.5	1.7	40	84	.4	2.1	46	50	.9	1.0	25	94	.2	3.7	214	411	.5	1.9
80.	66	222	.2	3.3	16	108	.1	6.7	16	79	.2	4.9	28	91	.3	3.2	126	500	.2	3.9
82.	161	127	1.2	.7	67	57	1.1	.8	56	40	1.4	.7	58	62	.9	1.0	342	286	1.1	.8
83.	84	204	.4	2.4	32	92	.3	2.8	20	76	.2	3.8	26	94	.2	3.6	162	466	.3	2.8
97.	95	190	.5	2.0	43	81	.5	1.8	28	68	.4	2.4	7	113	.0	16.1	173	452	.3	2.6
99.	143	144	.9	1.0	76	48	1.5	.6	53	43	1.2	.8	44	73	.6	1.6	316	308	1.0	.9

1. Students almost always wait to be called on before speaking in class.
12. Most of the professors are dedicated scholars in their fields.
15. Class discussions are typically vigorous and intense.
20. Standards set by the professors are not particularly hard to achieve.
25. The professors go out of their way to help you.
61. Most of the professors are very thorough teachers and really probe into the fundamentals of their subjects.
65. Courses, examinations, and readings are frequently revised.
66. Personality, pull, and bluff get students through many courses.
73. Instructors clearly explain the goals and purposes of their courses.
75. Most of the faculty are not interested in students' personal problems.
79. Faculty members rarely or never call students by their first names.

CUES Scale	Group 1				Group 2				Group 3				Group 4				Total Population			
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	Tally		T - F Ratio	F - T Ratio	Tally		T - F Ratio	F - T Ratio	Tally		T - F Ratio	F - T Ratio	Tally		T - F Ratio	F - T Ratio	Tally		T - F Ratio	F - T Ratio
	T	F	to 1	to 1	T	F	to 1	to 1	T	F	to 1	to 1	T	F	to 1	to 1	T	F	to 1	to 1
Quality of Teaching & Faculty-Student Relationships																				
1.	147	139	1.0	.9	57	66	.8	1.1	49	47	1.0	.9	51	69	.7	1.3	304	321	.9	1.0
12.	203	83	2.4	.4	81	42	1.9	.5	65	31	2.0	.4	73	46	1.5	.6	422	202	2.0	.4
15.	98	190	.5	1.9	33	91	.3	2.7	20	76	.2	3.8	30	90	.3	3.0	181	447	.4	2.4
20.	188	100	1.8	.5	86	38	2.2	.4	60	36	1.6	.6	72	47	1.5	.6	406	221	1.8	.5
25.	236	51	4.6	.2	103	21	4.9	.2	77	19	4.0	.2	114	6	19.0	.0	530	97	5.4	.1
61.	219	68	3.2	.3	90	34	2.6	.3	60	36	1.6	.6	99	20	4.9	.2	468	158	2.9	.3
65.	186	99	1.8	.5	91	33	2.7	.3	57	38	1.5	.6	96	22	4.3	.2	430	192	2.2	.4
66.	137	151	.9	1.1	69	55	1.2	.7	58	37	1.5	.6	25	94	.2	3.7	289	337	.8	1.1
73.	220	68	3.2	.3	83	41	2.0	.4	60	36	1.6	.6	94	25	3.7	.2	457	170	2.6	.3
75.	103	183	.5	1.7	40	84	.4	2.1	46	50	.9	1.0	25	94	.2	3.7	214	411	.5	1.9
79.	56	232	.2	4.1	24	100	.2	4.1	43	53	.8	1.2	7	113	.0	16.1	130	498	.2	3.8