AN ASSESSMENT OF THE ATTITUDES OF COMMUNITY COLLEGE STUDENTS TOWARD FACULTY WITH COMPARISONS BY AGE AND RACE

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ABSTRACT

AN ASSESSMENT OF THE ATTITUDES OF COMMUNITY COLLEGE STUDENTS TOWARD FACULTY WITH COMPARISONS BY AGE AND RACE

By

Edward H. Decker

Many community college faculty enter college teaching more by accident than by intent. Their selection is often based more on academic preparation and accumulated teaching experience than on their understanding of and attitude toward the community college and their potential effectiveness as communicators to student groups diverse in ability, age and ethnic origin. As a major component group of the college environment, faculty are a primary source of environmental press upon their students and yet their ethnic and social class backgrounds may present difficulties in relating to students from minority ethnic groups. This study was designed to assess the attitudes of students of urban-type community colleges toward faculty and to test the effect of age and race upon those attitudes.

A questionnaire was administered to more than 750 students in three urban-type Michigan Community Colleges.

After eliminating incomplete and non-usable questionnaires, a total sample of 676 responses representing both sexes and an age range from 18 to above 50 was used for this study. The criterion measures used for this study were three scales of the questionnaire which elicited student responses to three areas of faculty performance.

The following statistically significant findings were gained from the results:

1. The attitudes of Black community college students toward over-all faculty performance were found to be significantly more favorable ($p<.0025$) than the attitudes of White community college students.

2. Black community college students responded significantly more favorably ($p<.0046$) than did White community college students on scale 3 - Use of Motivational Techniques.

3. The attitudes of college-age, young-adult and adult community college students toward over-all faculty performance were found to be significantly different ($p<.0198$). The results show that the young-adult age group responded the most favorably and the college-age group the least favorably.

4. Differences in the attitudes of young-adult community college students on scale 1 - Out-of-class Interaction - and adult community college students were

found to be significant ($p<.0351$). Young adult students responded more favorably than adult students.

5. The attitudes of the students of College A, College B, and College C toward overall faculty performance were found to be significantly different ($p<.0001$).

6. Differences in the attitudes of the students of College A and students of College B on scale 1 - Out-of-Class Interaction - were found to be significant ($p<.0059$). Students from College A responded more favorably than students from College C.

7. Differences in the attitudes of the students of College C and the students of Colleges A and B on scale 2 - In-Class Interaction - were found to be significant ($p<.0001$). Students from College C responded more favorably than students from either College A or College B.

Recommendations

1. Community college faculty should be selected on their abilities and qualifications as instructors rather than on race or socio-economic backgrounds.

2. Selection of community college faculty should be based primarily on ability and willingness to interact and relate with students in the classroom and during office hours and to use a variety of motivational techniques. Academic preparation and subject matter knowledge should be considered and evaluated only to the extent of

satisfying usual basic criteria. Years of teaching experience and academic training beyond the masters degree are examples of factors which should be considered but not given highest priority.

3. Those selecting community college faculty for positions in applied arts or occupational areas should consider successful experience in the field as being of major importance.

4. Faculty selection procedures should be designed to include the opportunity for applicants to perform in both classroom and informal discussion situations.

5. Administrators and faculty should work cooperatively to establish staff development programs which provide opportunities for faculty to strengthen their abilities to interact and relate with students in and out of the classroom. Such programs should also provide opportunities for faculty to broaden their knowledge of various innovative instructional tools and techniques.

6. Subject matter in courses should be kept relevant and, where appropriate, courses should deal with national and local issues of social and political relevance.

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By

Edward H. Decker

A DISSERTATION

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This study is dedicated to my wife,
Mary Jane, whose faith, love and
support were limitless and indispensable.

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CHAPTER I

THE PROBLEM

Background and Supportive Research

For most of its seventy years of existence, the two-year junior college has served primarily as a stepingstone in American higher education. Its programs have been basically of a transfer nature designed to provide members of white, middle-class society the opportunity to complete the first two years of college locally before moving on to a four-year college or university. Faculty have been selected primarily out of the ranks of secondary school teachers with academic preparation and subject matter knowledge serving as the major, and perhaps only, selection criteria (Thornton, 1966). Faculty orientation has been directed toward transfer programs for students in the 18-21 age bracket with minimal thought given to either adult students, minority groups or non-transfer programs.

Within the last decade the two-year junior college has emerged as a significant contributor to the American educational process and has found its greatest manifestation in the "comprehensive community college." The community college, by definition, claims that it shall provide

educational and cultural enrichment to the community which it serves. This ambitious objective is to be met, in part, through the implementation of an "open-door" admissions policy, implying open admissions to all who can profit from instruction whether they are high school graduates or not (Hunther, 1971). To truly define the open-door concept, however, a statement much broader and deeper in scope is required since inherent in the community college philosophy is the commitment to provide programs and services necessary to satisfy the needs of individuals representing wide ranges of ability, age and ethnic origin.

As a result of the public community colleges' mission to provide post-secondary education to all who can benefit, the community college student population reflects greater diversity of characteristics than ever before. Compared with four-year college students, two-year college students, as a group, represent a much wider range of ability and achievement, come from homes lower in the socio-economic scale, are less likely to be motivated for college work, and are more likely to be employed while attending college (Cooley and Becker, 1966; Cross, 1968; Tillery, et al., 1966, Bushnell and Zagaris, 1972; O'Banion, 1972). Community colleges attract a higher proportion of students from disadvantaged ethnic groups than do other types of institutions, although they

still do not draw a representative proportion of the ethnic groups (Medsker and Tillery, 1971; Bushnell and Zagaris, 1972; O'Banion, 1972). Community colleges are also attracting increasing numbers of "older" students. Some are enrolled full-time, taking a regular program in academic or technical-vocational courses, others are doing the same on a part-time basis, and still thousands of others are pursuing a part-time program in conventional adult education courses (Medsker and Tillery, 1971; Ogilvie and Raines, 1971).

The extent to which the community college is able to provide educational and cultural enrichment to this new "mix" of students will depend largely upon the faculty selected to implement the colleges' programs and services. In his national appraisal of the issues and problems facing two-year college faculty, Garrison describes the qualities one dean of instruction looks for in hiring faculty.

> Primarily, there must be a basic articulateness: an ability to speak clearly and directly to a point at issue. Second, and of equal importance, is a capacity to explain, to illustrate, to interpret a point, and a willingness to work with student questions, no matter how elementary they might sometimes by. Third, the teacher needs a kind of "common presence"--a sufficient force of personality to convince students on early meeting that here is a teacher who not only knows what he is talking about, but is willing and even eager to communicate it. Well down the list of qualifications is a kind of academic standing, in the usual sense of degrees and accumulated formal training (Garrison, 1967, p. 8).

The dean did not in any way derogate such academic background. "In fact," he said, "to be a truly good teacher of the kind I am describing, the person has to know his subject so well that he can simplify without either distorting or diluting his material."

Of equal importance is the need for community college faculty to be able to relate to students of minority ethnic groups and to students representing different age groups. Medsker and Tillery (1971) report that while no specific data are readily available, a general impression exists that relatively few community college faculty members are from minority ethnic groups and that the social class background of many White staff members makes it difficult for them to relate to students from various ethnic groups. They conclude that the most difficult problem regarding future community college faculty needs lies with the necessity to find men and women--many of them from ethnic minority groups--who can relate to the "new" student bodies in community colleges and to the institutions' exciting missions. It may prove to be relatively easy to find enough individuals to fill the positions but increasingly difficult to recruit the <u>right</u> people so that the community college can deliver on its commitments.

In summary, although academic preparation, subject matter expertise and accumulated teaching experience should all maintain high importance as selection criteria for community college faculty, increased emphasis should be placed on determining applicants' understanding of and attitude toward the community college as well as their potential effectiveness as communicators to student groups with wide diversity in ability, age and ethnic origin.

Although writers like Blocker, et al. (1965), Thornton (1966), Garrison (1967), Medsker and Tillery (1971), Bushnell and Zagaris (1972), and O'Banion (1972) have emphasized these "new criteria," evidence from other sources indicates that some selectors are not achieving their objectives. A study by Eckert and Stecklein (1959) concluded that community college teachers enter college teaching more by accident than by intention: they begin their educational service as high school teachers, take graduate work on a part-time basis, and later move to a community college teaching position. A study by Kimball (1960) revealed some significant contrasts in the attitudes of administrators and faculty members towards the community college and its purposes. Eighty-two per cent of all individuals studied indicated that they thought the college transfer program was of far greater importance than any other aspect of the college curriculum. Most important, many faculty members did not believe that

admissions standards were high enough, or that there was sufficient emphasis upon the traditional liberal arts courses, or that the college should be closely wedded to the community. The majority of faculty members thought the college should be transformed into a four-year institution should the opportunity arise.

While studying characteristics of full-time community college faculty, Medsker (1960) found that while faculties in general were in substantial agreement with the concept of the two-year college, sufficient minority dissent existed on every attitude measured to indicate the necessity for a continuing program of in-service training, particularly about the nature of the community college and about characteristics of its students.

William Moore (1970) pointed out that many community college educators have a "way of refusing to call a spade a spade". He indicated that these educators, although they say they want to provide educational opportunities for the "inner-city youth", seldom demonstrate the desire to tackle this problem, let alone the necessary techniques, abilities to communicate, or the requisite attitudes. When these educators attempt to come to grips with the situation, the attempt is made in terms of moulding, rather than attempting to meet the needs of these socially and culturally deprived Black students.

Apparently, in spite of the increased concern that greater care be exercised in the selection of community college faculty, many of those who choose to teach in the community college do so for reasons other than as a full-fullment of their primary vocational objective. As Blocker, et al. (1965) stated in responding to the results of Kimball's study, "These faculty attitudes conform to their personal need for status and recognition as members of the academic community, but such a point of view does not contribute solutions to the problems of educating larger and larger numbers of students."

Theory

Henry A. Murray (1938), in developing the related psychological concepts of need and press, was responding, in part, to the importance of faculty press upon students. By defining "need" as the behavior determinants operative within the individual and "press" as the environmental stimulus upon an individual, Murray was able to relate individual behavior and environmental stimuli.

Subsequent research by George Stern (1958) and C. Robert Pace (1958, 1962a, 1962b) saw the application of the need-press theory to groups rather than individuals. When used in this manner, press is a reliable measure of environment as seen by a composite of individuals rather than a single individual.

As a major component group of the college environment, community college faculty are a primary source of environmental press upon their students. If the impression is true, as Medsker and Tillery (1971) conclude, that the ethnic and social class backgrounds of community college faculty makes it difficult for them to relate to students from minority ethnic groups, then the assumption logically follows that a comparison of Black and White students attitudes toward faculty should reveal a more favorable attitude on the part of White students. In a similar way, since most community college faculty are initially oriented to communicate and relate with students in the 18-21 age bracket, these students should respond more favorably to faculty ability and performance than students representing young adult and adult age groupings. In summary, assessing and comparing race and age effects should reflect the extent to which "faculty press" is a favorable or unfavorable influence.

Statement of the Problem

Although much research has been conducted on assessing the attitudes of four-year students toward the college environment and toward faculty, very little information exists on the attitudes of students of two-year colleges. Furthermore, with the public two-year college now manifesting itself as the "comprehensive

community college" with a commitment to serve "all who can benefit", it is important to learn more about how current faculty are performing at their unique role in serving "new" students.

This study proposes to assess the attitudes of community college students toward faculty in an effort to provide information useful in the selection, training and evaluation of community college faculty. It will focus on the faculty-student relationship in the community college and provide information on the following questions: What are the attitudes of community college students toward faculty? What are the effects of the age of students upon their attitudes toward faculty? What are the effects of race upon students' attitudes toward faculty? What are the effects of the individual colleges of students upon their attitudes toward faculty?

Research Hypotheses

Following directly from the previously stated background, supportive research, theory and problem statement, the following research hypotheses are formulated:

> Hypothesis I: There will be no interactions of the independent variables of race, age and college on each of the dependent variables.
>
> Hypothesis II: White community college students will express a more favorable attitude toward faculty than Black community college students.

Hypothesis III: College-age community college students will express a more favorable attitude toward faculty than young-adult or adult community college students.

Purpose of the Study

The purpose of this study is to assess the attitudes of community college students toward faculty and, within this overall assessment, to make comparisons by race (Black and White) and age (college-age, 17-21; young adult, 22-25; adult, 26 and over). Comparisons of colleges will also be made since the design proposes the use of several community colleges for data collection.

Portions of the questionnaire, Student Reactions to College (1971) and items developed by the investigator were combined to elicit responses along three scales:

Scale I--Out-of-Class Interaction--Ability and willingness of faculty to interact and relate to students in informal discussions during office or other out-of-class meetings.

Scale II--In-Class Interaction--Ability and willingness of faculty to use classroom time to explain, discuss, review and clarify subject matter topics with students.

Scale III--Use of Motivational Techniques--Ability and willingness of faculty to encourage student participation in class discussion, to

encourage and arrange informal discussion sessions, to focus discussion on current socially relevant topics, and to employ other instructional techniques in an effort to motivate and stimulate students to learn.

Knowledge gained from this study will be helpful to:

1. Community college trustees, administrators and faculty who are directly involved in the faculty selection process.
2. Community college administrators, faculty and students who are involved in establishing criteria and procedures for faculty evaluation.
3. Community college faculty as they explore ways to improve their instructional activities as well as their professional relations with students.
4. Community college administrators and faculty involved in the preparation and implementation of professional development programs.
5. Those involved in community college teacher-training programs both as instructors and students.
6. Individuals interested in becoming community college instructors.
7. Community college students, especially those making initial entrance into community college courses and programs.

Delimitation of the Study

The principal delimitation of this study is that it assesses the attitudes of Black and White students at

three urban-type community colleges. While the investigator believes that the findings of this study could be generalized to most urban community colleges, all readers are advised to proceed with caution when attempting to generalize the findings of this study beyond the urban-type community college population.

Limitations of the Study

This study is limited by factors inherent in studies of a survey-research nature. The principal limitations are listed below:

1. Most of the questionnaire items used for this study were selected from a longer more comprehensive instrument developed by the Educational Testing Service, (Warren and Roelfs, 1972). This instrument was carefully developed over a period of three years (see Chapter III) but because it is relatively new, its possible limitations are acknowledged.

2. The scale development process should be cited as a possible limiting factor since no organization of items into scales was done during the development of the parent instrument. Although true reliability of the questionnaire used for this study could only be firmly established through future use, the reliability coefficients presented in Appendix C for the three scales indicate very good levels of internal consistency for each scale.

3. The manner of questionnaire administration coupled with the race of the investigator (White) may serve as a limiting factor in the findings of this study. The administration of the questionnaire during class hours met with some reluctance from a small number of students out of the total sample. Reluctance to participate by Black students may have been caused, in part, by their adverse reaction to a White investigator. A few student comments indicated concern about racial bias of the instrument and the study.

4. The reliability and validity of the measurements may be open to some question. It is difficult, if not impossible, to determine the degree of uniformity in communication and the accuracy of the respondents' reporting, although the fact that the investigator personally administered more than 90 per cent of the questionnaires should have resulted in considerable uniformity.

5. The procedure by which sample selection was made may have introduced a limiting factor in this study. The process by which classes were selected was through joint discussions of the investigator and appropriate administrators at each college. Every effort was made to select classes which would be representative of the curricular areas and of the student population of each college. Although no specific random selection procedure

was utilized, the typical community college class registration process is a randomizing process in itself.

Organization of the Study

This dissertation is structured according to the following plan:

Chapter I--presents background, supportive research and theory related to the problem statement. The purpose of the study and the research hypotheses are also presented.

Chapter II--reviews the literature and research related to this study. Specific areas reviewed are the measurement of college environment, the development of College and University Environmental Scales (CUES), Community-Junior College Environmental Studies and studies of faculty - student relations in the community-junior college.

Chapter III--describes the design and methodolgy of the study. A description of the sample, description of participating colleges, a review of activities related to the development of the questionnaire and a description of data collection constitute the major sections of this chapter.

Chapter IV--presents an analysis of the data and the statistical results in tabular and explanatory form.

Chapter V--contains a summary of the study followed by conclusions, discussion and recommendations.

Appendices--Appendices A, B, C, D and E present the questionnaire used for this study, data regarding scale loadings, reliability coefficients, and cell means and finally, four non-statistically significant findings.

CHAPTER II

REVIEW OF RELATED LITERATURE

Historical Review of the Study of the Measurement of College Environment

More than thirty years ago Henry A. Murray (1938) developed the related psychological concepts of need and press in explaining the dimensions of personality. The concept of need represents behavior determinants operative within the individual. Needs, when measured, may be found to be highly correlated with certain kinds of individual behavior. To explain the nature of an individual's needs is to explain much of his behavior.

As a separate but closely related concept, press is the environmental stimulus upon an individual causing certain kinds of behavior. Press acts as a "threat of harm" or "promise of benefit" in creating needs from the environment. When an individual "looks" at press, he sees those things in his environment that seem to be a "threat" or "promise" and thus a relationship to his behavior is established. Press is an indirect means of viewing how an environment actually operates which may be in contrast to the theoretical structure of a particular environment such as a community junior college.

Murray was concerned with need-press theory as it related to the individual. Further studies of personality by Edwards and others based upon Murray's need concept were also developed along the lines of individual analysis. Research by George Stearn (1956) and, subsequently, C. Robert Pace (1958, 1962a) saw its application to groups rather than individuals. When used in this manner, press is a reliable measure of environment as seen by a composite of individuals rather than a single individual. A greater number of relevant dimensions and their relative intensity become apparent with the measurement of press in a homogeneous group.

Stern (1958), using Murray's classification of needs as a model, constructed a needs inventory called the Activities Index (A.I.). This instrument, developed with the belief that a college environment may be viewed as a system of pressures, practices and policies intended to influence the development of students toward important goals, was the first of its type to be developed, reiorously tested and validated.

Another early researcher in the field, Thistlewaite (1959), developed the College Press Scales. These scales were divided into two groups (faculty press scales and student press scales) with their primary purpose being to describe those aspects of the environment which were related to scholarly productivity.

Pace, in collaboration with Stern, developed the College Characteristics Index (CCI). The CCI is similar in design to the AI but describes activities, policies, procedures, attitudes and impressions that could be characteristic of various types of undergraduate college settings.

The CCI and AI are among the most widely used instruments designed to measure the characteristics of the college environment as it relates to need (students) and press (institution).

Roger Cohen (1966) administered the AI to 3,000 persons and the CCI to 3,400 persons at 55 colleges to determine the interaction of personality needs of students and environmental press. Five factors emerged from this study--self-expression, intellectual, nurturant, vocational, and collegiate.

Stern (1966) administered the CCI to 3,000 freshmen entering four dissimilar colleges, finding that they were quite realistic in their idea of the degree of freedom expected at their prospective college choices. However, they were extremely idealistic in areas of intellectual, social activities and self-expression.

Pace (1962b) utilized the CCI in research conducted on the campus of San Francisco State College. The results of that study list a variety of environmental characteristics under the major categories of: (1) Intellectual-

Humanistic-Esthetic, (2) Independent-Scientific, (3) Status-Oriented-Practical and (4) Group Welfare.

The CCI has continued to serve a useful purpose in the study of college environment and has been the primary instrument in studies conducted by McFee (1961), Johnson and Kurpius (1967), Ivey (1967), Seymour (1968), Stricker (1967), Greene (1966), and Pervin (1968).

The Development of CUES

While extensive use of CCI has continued, C.R. Pace, in an effort to measure college environment by identifying those characteristics of the college which appeared to be representative of the institutional environment, developed the College and University Environmental Scale (CUES). Now available in a second edition (CUES II), the instrument consists of 160 items which are divided into seven scales for the purpose of analysis. The seven scales are: (1) Practicality, (2) Community, (3) Awareness, (4) Propriety, (5) Scholarship, (6) Campus Morale and (7) Quality of Teaching and Faculty-Student Relationships.

The CUES II statements are designed to sample the general atmosphere of the institution, the social and intellectual climate and the style of life on the campus. It may be scored and analyzed by the opinion poll method of consensus of opinion or by statistical methods using group mean scores and standard deviations.

Pace has been the chief investigator using CUES to study college environment. In one report (25) which consolidated CUES results from different sub-groups, Pace obtained the following:

1. Scores on all scales were stable over periods of up to seven years.
2. Men and women at the same institutions had similar scores on all five scales. However, women scored 3 to 4 points higher, consistently, on Community and Propriety scales.
3. Faculty generally scored one point higher on all scales except Scholarship, on which their score was four points higher.
4. All upperclassmen had essentially similar scores. Second term freshmen, consistently, scored approximately three points higher, except on the Practicality scale.
5. There was no relationship found between personality or ability measures and CUES scores.
6. No significant differences could be found between commuter and resident students.
7. Entering freshmen scored considerably higher during orientation week than upperclassmen.

Community-Junior College Environmental Studies

While many studies have attempted to measure the perceptions of students, faculty members, and other groups, toward the college environment at four year degree granting institutions, the literature reveals few studies concerned with the environmental characteristics of the junior college or two-year institutions. Pace (1966b) administered the CUES to incoming freshmen at a junior college, two small liberal arts colleges, and two large universities during orientation week. Their responses were compared with those of upperclassmen from the same institution. Substantial differences were shown, especially on the Scholarship, Awareness, and Community scales.

Pace (1967) reports several studies conducted in 1963-1964 designed to adopt the CUES for use in junior colleges, and to relate junior colleges to each other as well as four year institutions. The results were:

1. The scales of Scholarship, Awareness, Community, Propriety and Practicality were shown to be relevant but did not emerge as clear factors.
2. The two factors which did emerge were: (1) "expansion" factor which reflected broadening of awareness and scholarship, and (2) "responsibility" factor which reflected a degree of freedom and maturity realized by students and encouraged by the school.

3. Comparatively, the junior colleges scored higher on Practicality and Propriety, lower on Scholarship and Awareness and average on Community.
4. The sense of community was reported as less at the junior colleges than at residential liberal arts colleges, but much higher than large urban institutions.

Gelso and Sims (1968), in an effort to determine whether the perceptions toward a residential junior college differ among commuter students, resident students, and faculty members, administered the CUES to 106 commuters, 111 residents, and 31 faculty members of a state co-educational junior college in the South. The results of the study indicated that the perceptions of all three groups were similar. The faculty and residents ranking of the five scales were the same. Commuters ranked Propriety before Community. The faculty perceived more of the Community dimension than either student group.

Hendrix (1966), in a research project, administered the CCI to 297 randomly chosen students at 32 public supported junior colleges in Minnesota, Texas, and California. The students were instructed to imagine themselves in an institution where each item was true and then rate their preferences for that institution on a nine point scale. Thirty scales were factored. The correlation matrix of the five resulting factors and 300 items were rotated to

identify the individual items most highly related to the five factors. Two factors survived rotation--social conformity vs. social and intellectual independence and stimulation and unipolar, describing a stereotyped "Rah, Rah" college. Dichotomizing the factors produced student types: gregarious-conservatives, gregarious-independents, loner-conservatives, loner-independents.

Butler (1968) selected a random sample of students at both the junior college and university level to try and determine if the needs or perceptions of environment for junior college students differed from those of university students. The subjects completed the CCI and the AI. The junior college climate was perceived as providing less encouragment for leadership and self-assurance, and less exposure to diversity of experience, such as faculty, public discussion and innovation. On the non-academic scale, the university was considered more collegiate because of its extracurricular activities, group spirit, etc. The results suggested a need for increased student personnel services at the junior college to provide more opportunities for personal and social development.

Pace, upon reviewing the results of the Hendrix study mentioned above, concluded that very few items in CUES were actually inappropriate for junior colleges. It was found, however, that "many of the items which discriminated very well between the environments of four-year

colleges and universities did not discriminate at all well between the environments of the 32 junior colleges." The range of differences found within liberal arts colleges or universities was much greater than the range of differences within junior colleges. In other words, junior colleges tend to be more similar to one another than is true of four-year institutions. Pace pointed out, however, that the evidence did not substantiate whether this apparent homogeneity was indeed true or whether the CUES dimensions failed to discriminate in this type of environment. Because the junior college devotes a considerable portion of its energy to two-year technical-vocational programs, Pace reported that a feeling exists that one or more new scales might be needed for junior colleges in addition to those already found in CUES.

In a later research study designed to examine the Functional Relationships of Junior College Environment and Selected Characteristics of Faculties, Students, the Administration, and the Community, Hendrix (1967), used three newly developed data collection instruments. One of these was titled Junior College Environmental Scales (JCES) and consists of the 150 CUES items and an additional 150 items developed by Pace and Hendrix.

Sufficient evidence was provided to indicate that some consideration of JCES, by staff members of public junior colleges, would be worthwhile.

Studies on Faculty-Student Relations in the Community College

A review of the literature of recent years indicates that interest is gaining with regard to student attitudes and faculty-student relations. William Wellner reports on a study designed to explore the structure of junior college students' perceptions of faculty-student relationships on 19 junior college campuses in Illinois (1969). The analysis of both scale scores and item responses provided a similar set of three factors which were called faculty-student rapport, faculty acquaintance with students and student-centered teaching. Results indicated that considerable differences exist among campuses although all the campuses desire to accentuate these factors as part of their environment.

McCully (1968), while studying student perceptions of junior college instructors as directors of learning, found that while certain types of instructor behaviors generally contribute to student achievement while others interfere. The category "Utilization of Instructional Methods and Materials" contained the greatest number of contributing behaviors while "Management and Control of Learning Activities" carried the most interfering behavior.

A study by R. James Twa focused on Student and Instructor Expectations of Community College Instructors (1970). Twa found that six groups of subjects surveyed

has stronger feelings toward the personal relationships division of the instructor's role than toward any of the other divisions. This indicated that the students were more concerned with being treated as dignified human beings than with the other areas under investigation and that the instructors agreed with their point of view. Both students and instructors indicated that a student should, without fear of ridicule, saracasm, or belittling from the instructor, be able to express himself or ask questions in class and request help outside of class. Also, both groups agreed that the instructor should demonstrate a personal interest in students and be prepared to act in a supportive manner toward insecure students.

A survey of student attitudes toward instruction conducted on two of the campuses of Cuyahoga Community College has presented some interesting results (Grieve, 1970). While over three-fourths of the students on both campuses rated the instruction as excellent or good, only slightly more than 50 per cent felt that 50 to 100 per cent of the professors could be rated as outstanding. Only 20 per cent felt that 25 to 49 per cent of the instructors could be rated as outstanding. No data is given to indicate the proportions of professors and instructors. Also, while over one-third of the students on both campuses felt that almost all of their instructors knew them by their first

name, approximately 70 per cent were less than successful in their attempts to meet with professors during office hours.

Several studies have been identified in which attempts were made to either determine possible differences between the perceptions of Black and White college students or to report on the perceptions of one of the two groups. John Centra, on behalf of Educational Testing Service, analyzed student responses from 215 predonimently-White colleges (1970). Eight factors were identified, seven of which were used to compare Black-White perceptions of colleges. One of these seven factors was "faculty-student interaction," which was defined as the extent to which students feel that the faculty are interested in teaching and in students as individuals.

The two groups, in spite of having somewhat different backgrounds and college experiences, viewed the general characteristics of their college in the same way. With the exception of what might be referred to as the "racial environment," there was little difference in the way either racial group viewed the overall conditions and emphases at their college. It should be stressed, however, that this analysis has investigated only average differences across many colleges. It may be that in some instances Black students at an individual college will view their particular college environment quite differently from the way White students do.

Robert Heath has presented results of a study which in part examined the ratings of teachers by Black and White students (1970). The White students, on the average, rated the 50 teachers higher on "ability-to-relate" than did the Black students. However, 13 of the 50 teachers were rated more favorably by Black students.

In general, the ratings of teachers by students in the two racial groups were not similar. On ability-to-relate and three of seven characteristics of teaching style, the correlation of ratings between racial groups was actually negative, though small. Heath concluded that "the ability of teachers to relate to students is likely to vary substantially as a function of the ethnic background of the student group (1970)."

One study attempted to determine why Black high school graduates are not attending public community colleges in their communities in as large numbers as might be expected (Goodwin, 1970). Trained interviewers talked at length with approximately 400 students as well as with teachers, parents, and community leaders. Most Black students who participated in the study said educational offerings and the quality of teaching in junior colleges are satisfactory, but they expressed strong reservations about the attitudes of some of the teachers toward Blacks.

SUMMARY

In 1938 Henry A. Murray developed the related psychological concepts of "need" and "press" in explaining personality dimensions. According to Murray, need represents behavior determinants operative within the individual while press is the environmental stimulus upon an individual causing certain kinds of behavior.

Murray was concerned with the need-press theory as it related to the individual. Twenty years later, Stern constructed a needs inventory called the Activities Index (A.I.). A year later Thistlewaite developed the College Press Scales which were designed to describe those aspects of the college environment which were related to scholarly productivity. Stern and Pace then collaborated to develop the College Characteristics Index (CCI) which is designed to describe activities, policies, procedures, attitudes and impressions characteristic of undergraduate college environments.

With an interest toward identifying those charateristics of the college which appeared to be representative of the institutional environment, Pace developed the College and University Environmental Scales (CUES) which is now available in a second edition (CUES II). Divided into

seven scales, CUES II statements are designed to sample the general atmosphere of the institution, social and intellectual climate, and campus life-style. Pace later worked to adopt CUES for use in junior colleges. In 1966 Hendrix administered the CCI to students at 32 community junior colleges in three states. A year later, Hendrix used 150 CUES items and an additional 150 items in an instrument he titled Junior College Environmental Scales (JCES).

Research in recent years has shown increased interest with regard to student attitudes and faculty-student relations. In 1968, McCully found that while certain types of instructor behaviors generally contribute to student achievement other instructor behavior patterns interfere. Twa, in 1970, found community college students and faculty had stronger feelings toward the personal relationships division of the instructor's role than toward any of the other divisions. This indicated that both students and faculty were more concerned with being treated as dignified persons than with the other areas under investigation. Also, in 1970, Grieve found students giving a higher rating to instruction generally than to professors and instructors.

Some studied have attempted to determine possible differences between the perceptions of Black and White college students or to report on the perceptions of one of the two groups. Centra, in 1970, found that Black and White

students viewed the general characteristics of their college in the same way. Heath found White students giving a higher rating than Black students to faculty on an "ability-to-relate" scale. Finally, Goodwin found that Black high school students were inclined not to attend public community colleges because of a concern about the attitudes of the college instructors toward Blacks.

The following chapter will review in detail the sample used for this study and the community colleges where the students were in attendance. Questionnaire development procedures and data collection methods are also reviewed in Chapter III.

CHAPTER III

DESIGN OF THE STUDY

The Sample

The research population from which the sample for this study was drawn consisted of the students enrolled during the months of April and May, 1972, at three Michigan community colleges. Careful consideration was given to a variety of sampling procedures, including random selection. A random selection method was not used, however, because of anticipated problems in obtaining an adequate sample. The investigator was advised that the follow-up efforts required to gain an adequate sample to suit the proposed design would be expensive, time consuming, and, perhaps, futile.

It was decided, instead, to select a sample of classes at each of the participating colleges and to administer the questionnaire to the students during scheduled class time. Classes were selected from each curriculum area of each college, except those programs in which the students interact with a very limited group of faculty. The able assistance of administrators and faculty was solicited at each college in order to ensure the best possible representation of curricula and therefore a broad, although not totally random, representation of students.

Although slight modifications were made in the data collecting process at each of the colleges because of differences in class schedules, facilities, collective negotiation agreements and institutional policies (see Data Collection),the three college samples appear to be very representative of their respective colleges. The total sample, which numbers 676, consists of students of both sexes, with males slightly outnumbering females. The age range is from 18 to above 50 and the sample consists of day students, evening students, and, in about 35 per cent of the cases, students identified as both day and evening students.

The sample total of 676 represents the number of usable questionnaires collected by the investigator. More than 750 questionnaires were administered, but approximately 75 were judged unusuable for this study. Some respondents were members of minority groups other than Black and these questionnaires, while useful for a future study, were not used for this study. The remaining unused questionnaires were either incorrectly marked or more than 75 per cent incomplete.

Descriptions of Participating Colleges

Three Michigan community colleges participated in this study. Although each college serves a geographical area which is urban in nature and although each college offers its respective community a comprehensive academic

program, differences in history, size, and other characteristics serve to warrant brief descriptions of each college.

Mott Community College

Mott Community College (College A), in existence since 1923, currently serves approximately 14,000 students in the area of Flint, Michigan. The geographical area served represents one of the fastest growing and most populous areas in Michigan and in terms of economic importance, Genesee County is one of the major industrial centers of the world (Genesee Community College Catalog, 1972).

The college has broadened the scope of its academic offerings beyond its original two-year liberal arts and science education programs to include Associate Degree granting programs in such areas as health, education, business and industrial technologies. The college offers one- and two-year career programs to prepare students for various occupations in today's job market. A trades apprentice program, in cooperation with local industry, makes a major contribution to the economic life of the community. Community Services programs offer workshops and short courses which provide cultural enrichment and occupational updating. In the new continuing education program, approximately 4,000 persons are taking classes offered at schools in the Genesee Intermediate School District.

Highland Park College

Highland Park College (College B), established in 1918, serves the city of Highland Park, Michigan and some areas of northwest Detroit (Highland Park College Catalog, 1971). The college serves approximately 3,500 students with both Associate Degree granting liberal arts programs as well as a wide variety of technical vocational programs, preparatory courses, and continuing education programs. Some examples of the applied arts programs offered at Highland Park College are automotive technology, medical laboratory technology, dental laboratory technology, drafting technology, inhalation therapy, nursing and secretarial science.

Wayne County Community College

Wayne County Community College (College C) began operation in 1969 (Wayne County Community College Catalog, 1972). It serves most of Wayne County, which includes Detroit and a number of adajcent, heavily populated, metropolitan areas. The fall 1972 headcount enrollment of the college totaled approximately 13,000.

The educational offerings at Wayne County Community College are divided into three categories: career training, transfer programs, and general service programs. Career training programs are set up to prepare students, in one or two academic years, to assume responsible jobs in business,

industry, or public service. Included are such diverse areas as business education, urban technology, allied health and other vocational careers. The transfer programs are intended to provide students with the first two years of an arts or science curriculum, so they can transfer to a four-year college. The general service programs of Wayne County Community College provide a variety of course offerings, outside the two-year programs, for people who want to begin or continue study in specific fields. The purpose may be cultural enrichment, professional upgrading, or just curiosity about a particular subject.

A unique program being implemented at Wayne County Community College is the Black Studies Program. This program rests on a concept that includes the past, present, and future of Black people in America and is designed and implemented in such a way that its substance is not only academic, but also practical and innovative. A unique aspect of the program is the requirement of all Black Studies courses to be involved in a community project. Some of the areas that have been penetrated through the program are Urban Economic Development, Black Math, Consumer Education, Psychology, Drug Abuse, and a new Political Science course entitled "American Government and the Black Struggle."

Development of the Questionnaire

Several years ago K. Patricia Cross pointed out a need for a standardized instrument that would give administrators and faculty members in junior-community colleges information on the students' view of their educational needs and of the programs that would best serve those needs (Cross, 1968). A grant from the College Board to the Educational Testing Service provided a start toward development of such an instrument in underwriting interviews with two-year college students and staff members to determine desirable content, form and uses. The interviews, followed by two conferences with junior college representatives to review their implications, led to an initial draft of an instrument. This draft was later revised in accordance with suggestions of an Educational Testing Service Review Committee, administered on a trial-basis to a broad sample of two-year college students, and published in final form in 1971. Titled Student Reactions to College, the final version consists of 227 items covering many aspects of the junior-community college environment (Warren and Roelfs, 1972).

The instrument used for this study is titled Community College Student Reactions to Faculty and consists of a total of 39 items (see Appendix A). Thirty-two of the items, including all of the six demographic items, were taken from the ETS instrument with permission. The remaining seven items were developed by the investigator.

Factor Analysis

The final version of the instrument used for this study was printed and administered only after the results of a pre-test were analyzed in order to assist in the organization of scales. Although the item content of the ETS questionnaire was developed without concern for its organization into scales, the proposal pointed out that scales formed from a number of mutually related items could be developed (Warren, 1970).

Since it is the purpose of this study to assess the attitudes of community college students toward faculty, items designed to elicit student reactions to faculty were selected from the ETS questionnaire. These items, along with eight items developed by the investigator, were arranged into a 42-item pre-test instrument. The pre-test questionnaire was then administered to 70 students at the Orchard Ridge Campus of Oakland Community College.

Pre-test results were coded by the investigator, and keypunched and verified at the Michigan State University Computer Center. The data were then analyzed on the Control Data 6500 computer using a CISSR factor analysis program (Peterson and Foster, 1969).

The results of the computer analysis served as a basis for arranging the items into the three scales which are described in Chapter I. The factor loadings of the 33

response items which were selected for the final instrument are presented in Appendix B.

Once scale organization was accomplished, the pre-test results were then statistically analyzed on the 6500 computer using the reciprocal averages (RAVE) test of internal consistency (see "RAVE Program"). The re-weighting scheme employed by the RAVE test aided the investigator in identifying items which, because of ambiguity, seemed to bear little relation to the primary objective of the scale. As a result, three of the items were removed from the pre-test questionnaire. The remaining 39 items were then organized to comprise the questionnaire used for the study.

Instrument Reliability--RAVE Program

The questionnaire Student Reactions to College, which served as the base instrument for questionnaire development in this study (see "Development of the Questionnaire"), was received without information on specific tests of reliability. Since this investigator chose to develop scales for this study, a test was employed to determine the coefficient of internal consistency for each scale.

The method used, called The Reciprocal Average Program (RAVE), is a technique whereby one can quantify qualitative data (Wright, 1970). The RAVE test as a statistical procedure "employs an a priori set of item

response weights assigned by the investigator to initiate an iterative process which converges to a weighting scheme which maximizes the internal consistency of instrument." The set of item response weights yielded by the final iteration is used to obtain a weighted total score for each person, object, etc. The method assumes that a single variable underlies all items in the instrument and that the investigator knows to some degree which item responses are related to the underlying variable. The a priori weighting scheme establishes the dimension upon which the interative procedure converges; hence, it is important that care be taken in establishing the weights. According to Mosier (1946), the weighting scheme produced by the RAVE program has the following properties:

1. The reliability of each item and the internal consistency of the weighted inventory are maximized.
2. The correlation between item and total score is maximized.
3. The coefficient of variation is maximized.
4. The correlation between item and total score is proportional to the standard deviation of the item weights for that item.
5. Questions which bear no relation to the total score variable are automatically weighted so that they exert no effect on the scoring.

The pattern of weights obtained is very informative. An item which has no relation to the objectives of the questionnaire will receive equal weights for all of its responses. Items whose responses differentiate between high and low scoring persons will receive weights which have a large range of values. This range is proportional to the degree of discrimination of the item responses.

The RAVE program was applied to the data after it was keypunched and verified at the Michigan State University Computer Center. The test results, summaries of which are presented in Appendix C, provided reliability coefficients for the three scales as follows: Scale 1--.7162; Scale 2--.6533; Scale 3--.6772.

Data Collection

Data collection was accomplished by administering the questionnaire to students in a sample of classes at each of the participating colleges. Arrangements were made through discussions with administrators and faculty members at each college. Each participating college was provided with a synopsis of the research proposal, which had been approved by the investigator's guidance committee, and with copies of the questionnaire. In the case of each college, data collection was not initiated by the investigator until full consent was granted by the college administration.

Once permission for data collection was granted, details for the process were arranged through discussions with key administrators on each campus. Where appropriate, other administrators and faculty members were sought out for advice and assistance.

At Mott Community College (College A), details were arranged through the office of the vice-president. Representatives of the faculty association were consulted early in discussions and gave full approval for the project. A group of classes was then selected which would provide a sample representative of students and curricula. Data collection at College A was accomplished in the time span of two days, including evening classes. Approximately 300 questionnaires were administered at College A, all by the investigator, and 281 were judged usable for analysis.

At Highland Park College (College B), the director of instruction served as the key contact person through whom arrangements for data collection were made. The faculty association was advised on the nature of the research project and gave full approval prior to the initiation of data collection. Day and evening classes were selected which would provide an adequate representation of curricular offerings and students. Approximately 240 questionnaires were administered by the investigator over a period of three days. A total of 214 questionnaires were judged usable for final analysis.

Data collection procedures at Wayne County Community College (College C) required minor adjustments of those procedures implemented at Colleges A and B, primarily because Wayne County Community College implements its programs and services in some twenty-three schools and community centers located throughout Wayne County. After approval was granted by the president and the faculty association, selection of the facilities at which data collection should be conducted and agreement of advisable dates were arranged through the office of the vice-president for academic affairs. Specific details for data collection were then arranged through the facility coordinators at each of the six college facilities where data were collected. Data collection at College C required portions of four days and evenings to complete. Approximately 225 questionnaires were administered, mostly by the investigator, with the vice-president for academic affairs personally administering about thirty. A total of 181 questionnaires were judged usable for analysis.

Experimental Design

A 2 x 3 x 3 factorial design with two levels of race, three levels of age, and three levels of college was used as the basic matrix. A total of 676 student questionnaire responses were included in the experiment analysis procedures with the subjects distributed

unequally within the eighteen-cell matrix. A drawing of the design matrix is presented in Figure 1, along with the cell and total n's.

		College A	College B	College C	
College-Age	Black	n = 10	n = 111	n = 22	143
	White	135	7	13	155
Young-Adult	Black	6	35	25	66
	White	60	8	21	89
Adult	Black	18	48	73	139
	White	52	5	27	84
TOTAL		281	214	181	676

Figure 1.--Experimental Design Matrix Presenting Levels of Variables and Cell and Total n's.

Statistical Procedures

The data were keypunched and varified at the Michigan State University Computer Center. The statistical analyses were calculated on the Michigan State University 6500 computer using a multivariate analysis of variance program developed by Finn (1967).

A multivariate analysis of variance (MANOVA) with the scores on three scales serving as dependent variables was computed to test Hypothesis I. The complete 2 x 3 x 3 factorial design was used to test all higher and first order interactions.

MANOVA was also used to test the remaining two hypotheses and additional main effects. A multivariate and unvariate analysis of variance was computed for each hypothesis and comparisons made on appropriate mean scores. The results of these analytical procedures to test the specific hypotheses of interest in this study are reported in the following chapter.

SUMMARY

This study utilized the responses from 676 students attending three community colleges in the state of Michigan. The students responded to a 39 item questionnaire which contained items developed during a study sponsored by the Educational Testing Service for a national survey and items developed by this investigator. Instrument reliability was obtained using a method called The Reciprocal Average Program (RAVE). The study was designed as a three-way analysis of variance with race, age and the three colleges as the independent variables. The dependent variables are three scales of the questionnaire which elicited student responses to three areas of faculty performance. A multivariate analysis of variance (MANOVA) was computed to test the three hypotheses with the complete 2 x 3 x 3 factorial design used to test all higher and first order interactions. A multivariate and univariate analysis of variance was computed for each hypothesis and comparisons made on appropriate mean scores. The results of these various analyses procedures to test the specific hypotheses of interest in this study are reported in the following chapter.

CHAPTER IV

RESULTS OF DATA ANALYSIS

The results of the analysis of the data for the three hypotheses of interest are presented in this chapter. The first hypothesis, which is on interactions of the independent variables of race, age and college, was a non-directional hypothesis and was tested in the null form. The second and third hypotheses, which focus on race effect and age effect respectively, were directional and were tested by multivariate analysis of variance techniques. No hypothesis was presented for college effect, but the results of tests for college main effects are presented in this chapter.

A 3 x 3 x 2 data matrix was constructed for the tests of the three hypotheses. The cell means for scales 1, 2 and 3 by age, race and college are displayed in Tables 1, 2 and 3. A comprehensive table presenting data for all three scales is presented in Appendix D. A multivariate analysis of variance (MANOVA) procedure was used to test the three hypotheses (Finn, 1967). An alpha level of .05 was chosen to determine the statistical significance for reporting this study.

TABLE 1.--Cell means for scale 1 by age, race and college.

	College A		College B		College C	
	Black	White	Black	White	Black	White
College-Age	27.50	29.25	29.21	32.71	30.04	27.92
Young Adult	32.67	30.88	31.28	29.75	27.96	29.38
Adult	30.78	30.38	27.94	31.60	26.29	27.89

TABLE 2.--Cell means for scale 2 by age, race and college.

	College A		College B		College C	
	Black	White	Black	White	Black	White
College-Age	39.30	37.63	36.48	33.14	41.86	41.61
Young Adult	41.50	38.28	38.88	33.37	39.24	42.86
Adult	41.72	41.50	36.89	38.00	40.71	40.67

TABLE 3.--Cell means for scale 3 by age, race and college.

	College A		College B		College C	
	Black	White	Black	White	Black	White
College-Age	42.90	38.68	40.89	38.28	43.73	39.15
Young Adult	44.17	41.15	41.11	37.12	40.48	40.62
Adult	43.39	40.27	39.54	40.00	39.49	39.26

Results of the Test of Hypothesis I

Hypothesis I was stated as follows:

> There will be no interactions of the independent variables of race, age and college on each of the three dependent variables.

The test for the effects of all higher and first order interactions of race, age and college on the three dependent variables was made for Hypothesis I. A multivariate analysis of variance procedure was used to test Hypothesis I with total scores of responses to Scale I, Scale 2 and Scale 3 as the dependent variables.

The triple-order interaction of race x age x college was not statistically significant ($p<.6696$). A summary of the results of the multivariate and univariate tests for the interaction of race x age x college is displayed in Table 4.

TABLE 4.--Multivariate and univariate tests for the interaction race x age x college.

Multivariate			
D.F. = 12 and 1735.9044		F-Ratio = .7822	
		p<.6696	
Univariate			
Variable	Between Mean Squares	Univariate F	p Less Than
Scale 1	51.6232	1.3207	.2608
Scale 2	62.9467	1.1111	.3502
Scale 3	25.0680	0.4528	.7705
D.F. for Hypothesis = 4		D.F. for Error = 658	

The interaction of age by college was not statistically significant ($p<.6822$). A summary of the results of the multivariate and univariate tests of the mean vectors for the age x college interaction is reported in Table 5.

TABLE 5.--Multivariate and univariate tests for age x college interactions.

Multivariate			
D.F. = 12 and 1735.9044		F-Ratio = .7700	p<.6822
Univariate			
Variable	Between Mean Squares	Univariate F	p less Than
Scale 1	45.9523	1.1756	.3204
Scale 2	75.5514	1.3336	.2560
Scale 3	35.5919	0.6429	.6321
D.F. for Hypothesis = 4		D.F. for Error = 658	

The interaction of race by college was not statistically significant ($p<.3481$). The results of the multivariate and univariate analysis of variance tests for race by college interaction are summarized in Table 6.

TABLE 6.--Multivariate and univariate tests for race x college interaction.

Multivariate			
D.F. = 6 and 1312		F-Ratio = 1.1203 p<.3481	
Univariate			
Variable	Between Mean Squares	Univariate F	p Less Than
Scale 1	31.0651	0.7947	.4522
Scale 2	92.5054	1.6329	.1962
Scale 3	44.8179	0.8095	.4456
D.F. for Hypothesis = 2		D.F. for Error = 658	

The interaction of race by age was not statistically significant (p<.1151) although the univariate test for interaction of race by age on Scale 3 did show statistical significance (p<.0299). The results of the multivariate and univariate tests for the interaction of race by age are presented in Table 7.

The mean scores for age by race interaction for Scale 3 are presented in Table 8. Figure 2 presents a graphic picture of the mean scores given in Table 8.

TABLE 7.--Multivariate and univariate tests for race x age interaction.

Multivariate			
D.F. = 6 and 1312		F-Ratio = 1.1701 p<.1151	
Univariate			
Variable	Between Mean Squares	Univariate F	p Less Than
Scale 1	64.7495	1.6565	.1917
Scale 2	117.9344	2.0818	.1256
Scale 3	195.4629	3.5304	.0299*
D.F. for Hypothesis = 2		D.F. for Error = 658	

*Statistically significant.

TABLE 8.--Mean scores for race x age for scale 3.

	College-Age	Young Adult	Adult
Black	41.46	41.15	40.01
White	38.70	40.66	39.93

Hypothesis I stated that the independent variables of race, age and college would not interact on each of the three dependent variables. This hypothesis was not rejected. All higher order and first order interactions between race, age and college were not statistically significant at the .05 level.

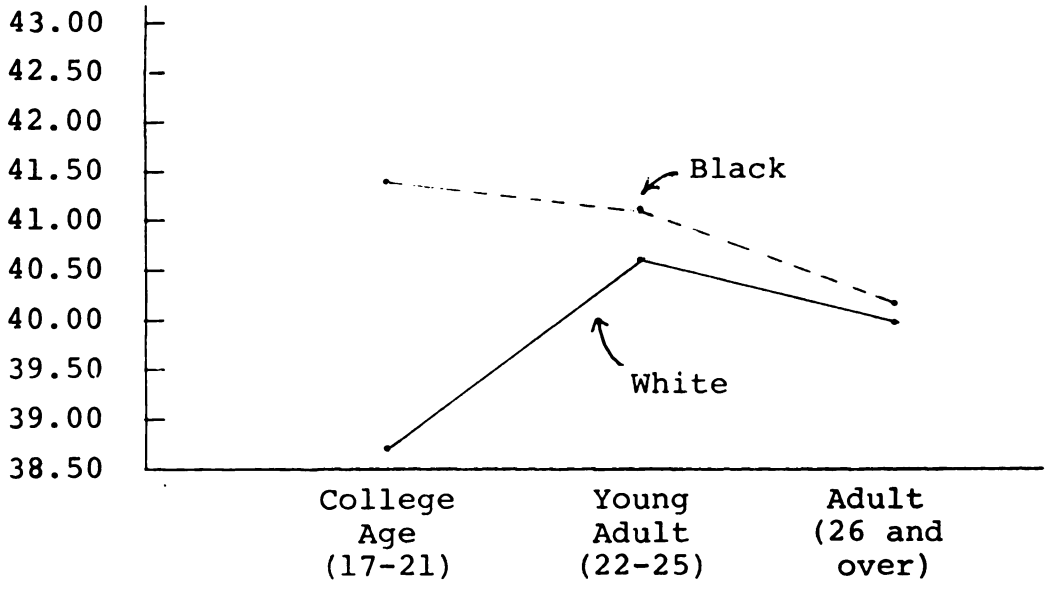

Figure 2.--Graph of Mean Scores for Race x Age for Scale 3.

Results of the Test of Hypothesis II

Hypothesis II was stated as follows:

> White community college students will express a more favorable attitude toward faculty than Black community college students.

The test for Hypothesis II was completed using a multivariate analysis of variance procedure. Univariate analysis of variance tests analyzed the data on each of the three scales.

The cell means summed across age and college for each of the three scales for race are reported in Table 9.

TABLE 9.--Mean scores for race effect for scales 1, 2 and 3.

	Scale 1	Scale 2	Scale 3	Total
Black	28.68	38.64	40.83	108.15
White	29.69	38.91	39.54	108.14

A summary of the results of both the multivariate and univariate analysis for race main effect is presented in Table 10. Particular attention should be given to the results of the multivariate test and the univariate test for Scale 3, each of which shows statistical significance.

TABLE 10.--Multivariate and univariate tests for means for race effect.

Multivariate			
D.F. = 3 and 656		F-Ration = 4.8508 $p<.0025$*	
Univariate			
Variable	Between Mean Square	Univariate F	p Less Than
Scale 1	29.7156	0.7602	.3836
Scale 2	42.9893	0.7589	.3841
Scale 3	448.8121	8.1064	.0046*
D.F. for Hypothesis = 1		D.F. for Error = 658	

*Statistically significant.

Hypothesis II was rejected in spite of the fact that the multivariate test for Hypothesis II is statistically significant. A comparison of the mean scores in Table 9 shows statistical significance in a direction opposite that stated in the Hypothesis.

Results of the Test of Hypothesis III

Hypothesis III was stated as follows:

> College-age community college students will express a more favorable attitude toward faculty than young adult or adult community college students.

The test for Hypothesis III was completed using a multivariate analysis of variance technique. Univariate analysis of variance tests analyzed the data on each of the three scales.

The cell means summed across race and college for each of the three scales by age are reported in Table 11.

TABLE 11.--Mean scores for age effect for scales 1, 2 and 3.

	Scale 1	Scale 2	Scale 3	Total
College-Age	29.26	37.64	40.03	106.93
Young Adult	30.31	39.06	40.87	110.24
Adult	28.27	40.09	39.98	108.34

The results of the multivariate and univariate analysis for age main effect is presented in Table 12. Particular attention should be given to the results of multivariate test and the univariate test for Scale 1, each of which shows statistical significance.

TABLE 12.--Multivariate and univariate tests for means for age effect.

Multivariate			
D.F. = 6 and 1312		F-Ratio = 2.5222 p<.0198*	
Univariate			
Variable	Between Mean Square	Univariate F	p Less Than
Scale 1	132.8216	3.3979	0.0341*
Scale 2	137.6146	2.4292	0.0889
Scale 3	73.8191	1.3333	0.2644
D.F. for Hypothesis = 2		D.F. for Error = 658	

*Statistically significant.

Hypothesis III stated that college-age community college students would respond more favorably toward faculty than young-adult or adult community college students. A comparison of the mean scores in Table 11 shows that the young adult group responded more favorably than either the college-age or adult group. Therefore, the multivariant

test for Hypothesis III is statistically significant ($p<.0198$), Hypothesis III was rejected.

Results of a Supplementary Test for a Main Effect

Although not a specific hypothesis of this study, a test for college main effect was completed. A multivariate analysis of variance was computed and univariate tests served to analyze the data on each of the three scales.

The cell means summed across race and age for each of the three scales by college are reported in Table 13.

TABLE 13.--Mean scores for college effect for scales 1, 2 and 3.

	Scale 1	Scale 2	Scale 3	Total
College A	29.92	38.89	40.07	108.88
College B	29.45	36.77	40.38	106.60
College C	27.69	42.06	40.21	109.96

Table 14 presents a summary of the results of the multivariate and univariate analysis for college main effect. Results which should be given particular attention are the multivariate test and the univariate test for Scale 1 and Scale 2.

TABLE 14.--Multivariate and univariate tests for means for college effect.

Multivariate			
D.F. = 6 and 1312		F-Ratio = 8.5546 p<.0001*	
Univariate			
Variable	Between Mean Squares	Univariate F	p Less Than
Scale 1	202.7609	5.1872	.0059*
Scale 2	616.8427	10.8886	.0001*
Scale 3	72.4318	1.3083	.2710
D.F. for Hypothesis = 2		D.F. for Error = 658	

*Statistically significant.

SUMMARY

Three hypotheses were formulated and tested for this study. The three hypotheses and the results of the tests are summarized below:

Hypothesis I: There will be no interactions of the independent variables of race, age and college on each of the dependent variables.

The triple-order interaction, the interaction of age by college and the interaction of race by college were found not statistically significant. The interaction of race by age was also not statistically significant although the univariate test for interaction of race by age on Scale 3 did show statistical significance ($p<.0299$). Hypothesis I was not rejected.

Hypothesis II: White community college students will express a more favorable attitude toward faculty than Black community college students.

Hypothesis II was rejected. Although the multivariate test for Hypothesis II is statistically significant ($p<.0025$), a comparison of mean scores shows statistical significance in a direction opposite that stated in the hypothesis.

Hypothesis III: College-age community college students will express a more favorable attitude toward faculty than young adult or adult community college students.

Hypothesis III was also rejected. Mean score comparisons show that the young adult group responded more favorably than either the college-age or adult groups.

CHAPTER V

SUMMARY, CONCLUSIONS, DISCUSSION AND RECOMMENDATIONS

Summary

The purpose of this study was to assess the attitudes of students of urban-type community colleges toward faculty and to test the effect of age and race upon those attitudes. Although much research has been conducted on assessing the attitudes of four-year students toward the college environment and toward faculty, very little information exists on the attitudes of two-year college students. With public two-year colleges now being proclaimed as "comprehensive community colleges" committed to serve "all who can benefit", it is indeed important to learn more about the perceptions of students regarding the faculty who serve in community colleges.

Traditionally, academic preparation, subject matter expertise, and accumulated teaching experience have maintained prominence as selection criteria for community college faculty. Writers like Blocker et al. (1965), Thornton (1966), Garrison (1967), and Medsker and Tillery (1971) have stressed that increased emphasis should be placed on determining applicants' understanding of and

attitude toward the community college as well as their potential effectiveness as communicators to student groups diverse in ability, age and ethnic origin.

In spite of this advice, however, studies by Eckert and Stecklein (1959), Kimball (1960), Medsker (1960) and Blocker, et al. (1965) report some disturbing findings. According to these writers, community college teachers enter college teaching more by accident than by intent, feel that the transfer program is of far greater importance than any other curricular area, and want admission standards raised. Furthermore, many faculty members believed there was insufficient emphasis on liberal arts courses, most felt that their college should not be closely aligned with the community and the majority thought the college should be transformed into a four-year institution should the opportunity arise.

In developing the related psychological concepts of "need" and "press," Murray (1938), was responding, in part, to the importance of faculty press upon students. By defining "need" as the behavior determinants operative within the individual and "press" as the environmental stimulus upon an individual, Murray was able to relate individual behavior and environmental stimuli. George Stern and C. Robert Pace in later research applied the need-press theory in groups rather than individuals. Used in this manner, press is a reliable measure of environment

as seen by a composite of individuals rather than a single individual.

As a major component group of the college environment, community college faculty are a primary source of environmental press upon their students. If the impression is true, as Medsker and Tillery (1971) conclude, that the ethnic and social class backgrounds of community college faculty makes it difficult for them to relate to students from minority ethnic groups, then a comparison of black and white student attitudes toward faculty should reveal a more favorable attitude on the part of white students. Similarly, if community college faculty orient themselves to relate with students in the 18-21 age bracket, these students should respond more favorably to faculty ability and performance than students representing older age groupings. Assessing community college students attitudes and comparing race and age effects should reflect the extent to which "faculty press" serves as a favorable or unfavorable influence.

The basic design of the study was a three-way analysis of variance design with race, age and colleges as independent variables. Three urban-type Michigan Community Colleges agreed to participate in the study and details for data collection were arranged through discussions with appropriate administrators and faculty members at each college. A sample of classes which would

provide a representative sample of curricula was selected for each college. A questionnaire was then administered to all those students who wished to participate in each of the selected classes. The questionnaire was administered by the investigator to all but two of the classes. A total of 20 minutes was required to complete the questionnaire, including a brief verbal introduction to the study and the instrument itself by the investigator. The complete data collection process, including the discussions for arranging details, required approximately two months.

The total student sample for the study numbers 676 community college students. They represent both sexes, range in age from 18 to above 50 and are classified as either day students, evening students or both day and evening students.

The criterion measures used for this study were three scales of the questionnaire which elicited student responses to three areas of faculty performance. Scale 1 items focused on the ability and willingness of faculty to communicate and relate to students during office hours or other out-of-class meetings. Scale 2 examined faculty ability and willingness to communicate and relate within the classroom. Scale 3 focused on the ability and willingness of faculty to motivate and stimulate students during both classroom and out-of-class situations. Portions of the

questionnaire Student Reactions to College (1971) and items developed by the investigator were combined to form the questionnaire Community College Student Reactions to Faculty, which was then used for this study.

Three hypotheses were formulated and tested for this study. They are restated as follows:

Hypothesis I: There will be no interactions of the independent variables of race, age and college on each of the dependent variables.

Hypothesis II: White community college students will express a more favorable attitude toward faculty than black community college students.

Hypothesis III: College-age community college students will express a more favorable attitude toward faculty than young adult or adult community college students.

The three hypotheses were tested using a multivariate analysis of variance program developed by Finn (1967). Univariate analysis of variance was utilized for each hypothesis to test for significance on each of the scales. Although no hypothesis was formulated for college effect, multivariate and univariate analysis of variance procedures were utilized to test for the effect of colleges upon student attitudes.

Conclusions and Discussion

The conclusions or findings of this study are presented below along with discussion following each finding. Two categories of findings are listed. The first category lists those findings which are statistically significant. The second category lists those findings which the investigator found to be of interest but are not statistically significant.

Statistically Significant Findings 1 and 2, and Discussion

1. The attitudes of Black community college students toward over-all faculty performance were found to be significantly more favorable ($p<.0025$) than the attitudes of White community college students.

2. Black community college students responded significantly more favorably ($p<.0046$) than did White community college students on scale 3 - Use of Motivational Techniques.

Black students responded in a more favorable way toward over-all faculty performance as measured by the three scales than did White students. This finding is contrary to the hypothesis that White community college students would express a more favorable attitude toward faculty than Black community college students, therefore Hypothesis II is rejected.

One basic conclusion which can be drawn from this finding is that community college faculty, while in the

performance of their normal instructional duties, are being viewed in a more favorable way by Black students than by White students. The fact that most community college faculty are of White, middle class backgrounds and have had relatively little contact with Black people or Black culture does not appear to hinder their over-all effectiveness in the opinion of Black students.

This finding is consistent with one of the major conclusions drawn by Coleman (1966), namely that an improvement in the socio-economic environment of the classroom has a positive effect upon students from families representing low socio-economic backgrounds. In the community college classroom, the manner and personality of the faculty member become dominant factors of the learning environment. White students are accustomed to the middle class attitudes and values expressed by community college faculty and may, in some instances, be inclined to reject these expressions. Black students, accustomed to different attitudes and values, are apparently inclined to be more receptive than White students to the middle class points of view conveyed by faculty in the classroom and through informal discussions.

Community college faculty, regardless of their initial motives for taking instructional positions in two-year colleges, are primarily concerned with instructing, assisting and advising their students. The two-year

college faculty member, like his counterpart in four-year colleges and universities, considers himself an expert in his discipline. He takes great pride in having the ability and the opportunity to impart knowledge to students and to serve as a manager of the learning process. Students in community colleges, as in four-year institutions, are grateful for the circumstances of being taught and assisted by an expert and for Black students, the experience and the opportunity may be especially rewarding.

The second major finding reveals that the abilities and willingness of faculty to employ various techniques in an effort to motivate and stimulate students to learn were perceived more favorably by Black students than by White students. One reason for this response may be that recent emphases being placed on the racial and social relevancy of courses and programs by faculty are drawing increased favorable reactions from minority group students.

Another conclusion which could be drawn is that Black students, when comparing their community college experiences with previous educational experiences, perceive that community college faculty demonstrate more ability and willingness to assist the student to learn than did teachers of secondary schools or other colleges.

A third reason for the significantly favorable response on the part of Black students on scale 3 may be the difference in socio-economic and racial "mix" that Black

students in community colleges are experiencing compared to previous educational experience. Coleman (1966) and Bookover (1969) have presented evidence showing that school achievement increases when a corresponding improvement in student socio-economic background occurs. Since race and socio-economic levels are related and since most Blacks attend predominantly all-Black elementary and secondary schools, the improved socio-economic environment experienced by Black students in community colleges may contribute considerably to a more favorable perception of faculty performance.

Statistically Significant Findings 3 and 4, and Discussion

3. The attitudes of college-age, young-adult and adult community college students toward over-all faculty performance were found to be signficantly different ($p<.0198$). The results show that the young-adult age group responded the most favorably and the college-age group the least favorably.

4. Differences in the attitudes of young-adult community college students on scale 1 -- Out-of-class Interaction -- and adult community college students were found to be significant ($p<.0341$). Young adult students responded more favorably than adult students.

The mean scores for age effect presented in Table 11 show that the young-adult age group responded more favorably than the college-age or adult groups on scale 1 -- Out-of-Class Interaction -- and scale 3 -- Use of Motivational

Techniques. Bushnell and Yagaris (1972) had reported that "the older the student, the more likely it is that he will find his college experience satisfying", and although the findings of this study do not totally support that proposition, there is some support for their assertion.

The young-adult age group includes some who have never before sought education beyond high school and, after several years of employment, now turn to the community college for academic or applied training. The young-adult group also includes some who attended other public or private colleges and, for a variety of reasons, stopped attending after one semester or perhaps after one year. Now, after a time interval of a year or two and perhaps some work experience, these students have entered the community college with their individual goals more clearly in focus.

Veterans make up a considerable proportion of the young-adult age group. For many veterans, their military experience has not only served to help them more firmly decide upon personal objectives but has provided them with valuable experience and training upon which a career can be built. All of these groups, by nature of their past experiences and present situations, are likely to seek out opportunities to interact informally with faculty and to respond favorably to the use of a variety of instructural

techniques. Faculty, finding the young-adult group receptive, candid, and eager to learn, no doubt often reciprocate with added effort.

Another factor which may contribute to the favorable response shown by the young-adult group is that many community college faculty are themselves not far removed from the 22-25 age bracket. The recent growth and expansion of two-year colleges has provided a host of employment opportunities for educators from all levels. Among those finding employment in the community colleges have been the recent advanced degree graduates and secondary school teachers with a few years experience eager to teach at the post-high school level. The "younger" faculty find it easy to identify with the manners and needs of students in the young-adult age group and their ability and willingness to relate to these students is met with a favorable response.

The mean scores in Table 11 also show that the adult group responded the most favorably on scale 2 -- In-Class Interaction -- and the least favorably on scales 1 and 3. The college-age group responded the least favorably on scale 2 and less favorably on both scales 1 and 3 than the young-adult group but more favorably than the adult group.

A primary reason for the adult group responding the most favorably on scale 2 may be that most of the students of this age, having been out of formal schooling for a

number of years, feel a bit uneasy and unsure of themselves. The classroom experience provides a familiarity with past experiences as well as a sense of security. Since the classroom has traditionally played a predominant role in the American educational processes of the past, it seems normal that adult students would seek and receive interaction through that medium which they know best.

Another factor to be considered when discussing attitudes of the adult group is the limited amount of on-campus time available to many adult students. Since the vast majority of adult students either work full-time or part-time and/or have family responsibilities, their on-campus hours are frequently limited to scheduled class times. Many are not able to participate in out-of-class discussions. with faculty and other students.

Statistically Significant Findings 5, 6 and 7, and Discussion

5. The attitudes of the students of College A, College B, and College C toward overall faculty performance were found to be significantly different ($p<.0001$).

6. Differences in the attitudes of the students of College A and students of College B on scale 1--Out-of-Class Interaction--were found to be significant ($p<.0059$). Students from College A responded more favorably than students from College C.

7. Differences in the attitudes of the students of College C and the students of Colleges A and B on scale 2--In-Class Interaction--were found to be significant ($p<.0001$). Students from College C responded more favorably than students from either College A or College B.

The findings of this study reveal that the attitudes of students of the three participating colleges toward faculty performance varied with each scale. Students from College A responded significantly more favorably ($p<.0059$) toward faculty ability and willingness to interact and relate to students in informal discussions during office hours or other out-of-class meetings than students from College C. One reason for this difference may be that College C, because of its relative "newness" and rapid expansion, employs some faculty who are not properly oriented in the out-of-class needs of community college students. Another reason may be that College C, because it must offer its programs and services at 24 different community centers and schools, provides very little in the way of faculty offices or similar facilities where out-of-class discussions can be held. In comparison, College A, a well established community college, employs experienced faculty, most of whom have five or more years experience at College A. College A also provides for its students a well-equiped educational facility, with sufficient office space for all faculty. Faculty offices at College A are

comfortable and well furnished and therefore, conducive to informal discussions with students.

A third reason which could contribute to a more favorable response on scale 1 by students of College A is the large percentage of faculty who are full-time employees compared to College C.
More than 50 percent of the faculty of College C are employed on an adjunct or part-time basis. Part-time faculty, because of their limited obligations beyond the actual teaching assignment, are usually not available for out-of-class discussions with students.

The findings of this study also reveal that the students from College C responded significantly more favorably ($p<.001$) toward faculty ability and willingness to communicate and relate in the classroom than the students from either College A or College B.

The faculty of College C, most of whom are part-time employees, perform their services at two dozen different community centers. As was mentioned above, very little in the form of office facilities or conference rooms conducive for out-of-class discussions is available. Class sessions, therefore, may gain added importance for discussions and personal interaction because for many students and faculty there is no other opportunity to ask questions, present answers, or discuss topics of mutual interest.

There is another reason why students at College C may have responded in a significantly more favorable way on scale 2. The high proportion of part-time faculty may bring to the classroom a broader scope of concepts and ideas relating to the subject matter which the students are interested in discussing. Many of the part-time faculty at College C are employed full-time in positions in the surrounding community and may be in situations which lend themselves to the application of relevant subject matter concepts being presented. Since students are usually interested in practice as well as theory, the use of relevant factors may be an important factor.

Recommendations

The following recommendations, based on the results and conclusions of this study, are offered to community college administrators, board members, faculty and students. It is the hope and intent of the investigator that these recommendations will be particularily useful to those involved in the development and improvement of faculty selection, evaluation procedures, and faculty pre-service and in-service staff development programs.

1. Community college faculty should be selected on their abilities and qualifications as instructors rather than on race or socio-economic backgrounds.

2. Selection of community college faculty should be based primarily on ability and willingness to interact and relate with students in the classroom and during office hours and to use a variety of motivational techniques.

Academic preparation and subject matter knowledge should be considered and evaluated only to the extent of satisfying usual basic criteria. Years of teaching experience and academic training beyond the masters degree are examples of factors which should be considered but not given highest priority.

3. Those selecting community college faculty for positions in applied arts or occupational should consider successful experience in the field as being of major importance.

4. Faculty selection procedures should be designed to include the opportunity for applicants to perform in both classroom and informal discussion situations.

5. Administrators and faculty should work cooperatively to establish staff development programs which provide opportunities for faculty to strengthen their abilities to interact and relate with students in and out of the classroom. Such programs should also provide opportunities for faculty to broaden their knowledge of various innovative instructional tools and techniques.

6. Subject matter in courses should be kept relevant and, where appropriate, courses should deal with national and local issues of social and political relevance.

APPENDICES

APPENDIX A

APPENDIX A

COMMUNITY COLLEGE STUDENT REACTIONS TO FACULTY

This questionnaire is intended to give community college students a systematic way of stating their reactions to community college faculty; to state both what they find valuable and what they would like to see changed. The purpose is to provide all groups in the college—students, faculty, administrators and trustees—accurate information on which improvements in the instructional process might be based.

No information about individual students will be reported to anyone. Your name or student identification number will not be requested. The demographic information requested immediately below (PART A) will enable the organization of results to show how attitudes toward community college faculty differ for different groups of students.

PART A - Circle one choice for each item.

1. Sex:
   1. Male
   2. Female

2. Age:
   1. 21 or younger
   2. 22-25
   3. 26 or older

3. Ethnic group:
   1. Black, Afro-American
   2. Brown, Chicano, Mexican-American, Latino, Hispano-American
   3. Red, American Indian, Native American
   4. Yellow, Asian, Oriental
   5. White, Caucasian

4. When do you have your classes?
   1. Day only
   2. Evening only
   3. Day and evening

5. For how many class hours or credit hours are you enrolled?
   1. Less than 6
   2. 6-12
   3. More than 12

6. How many previous semesters (quarters) have you been at this college?
   1. None; this is my first
   2. One
   3. Two or more

PART B - Mark only one choice for each statement on the following pages. If a statement does not apply in your situation, skip it, but please respond to as many as possible by giving what seems to you the most reasonable response.

	Not at All	Once or Twice	3 Times or More
DURING THE PRESENT SCHOOL TERM I HAVE. . . .			
7. talked for at least 10 minutes with an instructor outside of class about coursework.	___	___	___
8. had an instructor who could not explain things in a way students could understand. .	___	___	___
9. had a course that I thought would be dull made interesting by the instructor. . . .	___	___	___
10. met with an instructor in his/her office and found him/her easy to talk with. . . .	___	___	___
11. gotten help on coursework from a faculty member outside of class.	___	___	___
DURING THE PAST TWO WEEKS I HAVE. . . .			
12. been bored in class.	___	___	___
13. been in a class session where the instructor was no more help than just reading the text would have been.	___	___	___
14. had an instructor make something clear that I'd had trouble understanding before. .	___	___	___
15. talked with an instructor outside of class who seemed uneasy during our discussion. .	___	___	___
16. felt left behind in a course.	___	___	___
17. been unable to understand what was being taught in class.	___	___	___
18. participated in a class discussion.	___	___	___
19. been in a class discussion that touched on a current social problem.	___	___	___
20. felt frustrated because a class wasn't moving fast enough.	___	___	___
21. talked to an instructor who seemed reluctant to meet with me outside of class. . .	___	___	___

IN GENERAL. . . .	Definitely Not	No	?	Yes	Definitely Yes
22. the courses I've taken have been right up to date.	____	___	___	___	____
23. the instructors do more than just put out the material and leave it up to me to get it.	____	___	___	___	____
24. the instructors treat the students the same, whether they agree with the instructor's point of view or not.	____	___	___	___	____
25. most of the instructors I've had make their courses relate to problems of society whenever possible.	____	___	___	___	____
26. the instructors at this college are very relaxed and friendly during out-of-class discussions.	____	___	___	___	____
27. the instructors at this college find it easy to talk with and listen to students during out-of-class discussions.	____	___	___	___	____
28. the faculty here encourage individual conferences outside of class. . .	____	___	___	___	____
29. the instructors here tend to lecture during office meetings rather than talk and listen.	____	___	___	___	____
30. the instructors I've had are pretty clear about what they expect of students.	____	___	___	___	____

I WOULD LIKE. . . .	Definitely Not	No	?	Yes	Definitely Yes
31. more group assignments for class projects so students can learn from each other.	____	___	___	___	____
32. more classes without texts or assignments, organized around informal discussions.	____	___	___	___	____
33. more small, informal seminars, even if they met less often with the instructor.	____	___	___	___	____
34. the faculty to spend more time in office hours and informal meetings with students even if they taught fewer, but larger, classes.	____	___	___	___	____
35. more class experiences out in the community even if they are outside class time.	____	___	___	___	____
36. more courses related to ethnic (race) issues.	____	___	___	___	____
37. instructors to provide more encouragement to students to meet with them for individual discussions.	____	___	___	___	____
THE FACULTY SHOULD. . . .					
38. see that their courses don't move so fast that the slower students are left behind.	____	___	___	___	____
39. stay with topics that have caught the class's interest even if they don't cover the planned amount of ground in the course.	____	___	___	___	____

APPENDIX B

APPENDIX B

VERIMAX ROTATION SCALE LOADINGS FOR THE THIRTY-THREE RESPONSE ITEMS

Item Number of Questionnaire	Scale 1	Scale 2	Scale 3
7	.5915*	-.0540	.1875
8	.0798	-.3739*	-.1941
9	-.0018	-.3688*	.5653
10	.6509*	-.2245	.0307
11	.5535*	-.1221	.2747
12	-.0970	-.1856*	.0327
13	-.2227	-.0397*	.1989
14	-.0671	.1696*	.5842
15	.5442*	-.2894	-.0144
16	-.0759	.3065*	.0040
17	.0840	.1385*	.178
18	.3676	-.1305	.3019*
19	.4706	-.0492	.3702*
20	.2778	-.6187*	.0022
21	.3389*	-.2686	-.1087
22	-.0789	-.0587	.5472*
23	.1586	-.1053*	.0602
24	.0537	.1660	.4773*
25	.3488	.0593	.5956*
26	.5161*	.2310	-.0255
27	.6466*	.3513	.1861
28	-.1157	-.0939	.6132*
29	.0352*	.4141	-.3932
30	-.0382	.1128	.4899*
31	.2359	.3403	.3273*
32	.1709	.6802	.0876*
33	.1948	.6438	.0636*
34	.3579*	.4078	-.2819
35	.3438	.3152*	-.1941
36	.5275	.0809	-.1563*
37	.4765	.1085	-.1071*
38	.0235	.5893*	.0885
39	-.1953	.3617*	-.0331

*Indicates the scale to which each item was assigned.

APPENDIX C

APPENDIX C

RAVE TEST RELIABILITY COEFFICIENTS

Source	D.F.	Sum of Squares	Mean Square	F	R
		Scale 1			
Independence	675	.037389	.4499	.3523	.7162
Items	8	.2368041	.2960	.2318	
Error	5400	.6896751	.277		
Total	6083	.1017094			
		Scale 2			
Independence	675	.3361955	.4981	.2884	.6533
Items	11	.5409185	.4917	.2848	
Error	7425	.1282166	.1727		
Total	8111	.1672454			
		Scale 3			
Independence	675	.3193504	.4731	.3098	.6772
Items	11	.2607045	.2370	.1552	
Error	7425	.1133838	.1527		
Total	8111	.1479259			

APPENDIX D

APPENDIX D

Cell means for scales I, II and III by age, race and college.

	College A					
	Black			White		
	1*	11*	111*	1	11	111
College Age	27.50	39.30	42.90	29.25	37.63	38.68
Young Adult	32.67	41.50	44.17	30.88	38.28	41.15
Adult	30.78	41.72	43.39	30.38	41.50	40.27
	College B					
College Age	20.21	36.48	40.89	32.71	33.14	38.28
Young Adult	31.28	38.88	41.44	29.75	33.37	37.12
Adult	27.94	36.89	39.54	31.60	38.00	40.00
	College C					
College Age	30.04	41.86	43.73	27.92	41.61	39.15
Young Adult	27.96	39.24	40.48	29.38	42.86	40.62
Adult	26.29	40.71	39.49	27.89	40.67	39.26

I = Scale I

II = Scale II

III = Scale III

APPENDIX E

APPENDIX E

Non-Statistically Significant Findings

1. The attitudes of white community college students on both scale 1 and scale 2 were more favorable than the attitudes of black community college students.

2. The attitudes of adult community college students on scale 2 were more favorable than the attitudes of college-age or young-adult community college students.

3. The attitudes of young-adult community college students on scale 3 were more favorable than the attitudes of college-age and adult community college students.

4. The attitudes of students of College A., College B and College C on scale 3 were found to be similar.

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