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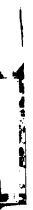
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ABSTRACT

STUDENTS' SATISFACTION AND DISSATISFACTION WITH THE MAJOR FIELD ENVIRONMENT IN COLLEGES OF NATURAL SCIENCE AND SOCIAL SCIENCE AT MICHIGAN STATE UNIVERSITY

By

Sabah Bakir Al-Taiey

The Purpose

Education and particularly higher education is of strategic importance in any society, not only as an agency of socialization but also as a selecting and sorting agency where individuals learn the skills and values which are needed to embark on various occupational careers.

This study was designed to yield a comprehensive and meaningful picture of students' satisfaction and dissatisfaction with their major field environment such as college environment, courses, professors and fellow students. The investigation was done among students enrolled in the Colleges of Natural Science and Social Science at Michigan State University during the academic year 1971-1972.

The following were specific purposes of the study:

1. To obtain a clearer understanding of the concerns of those students who choose Natural Science and Social Science as their college major.

2. To determine what relationships, if any, exist between a student's satisfaction and dissatisfaction with major field environment and his college, classes, sex, socio-economic status and the family's level of education.
3. To formulate hypotheses, whenever possible, which may serve as a basis for further investigations.

Design and Methodology of the Study

The research sample consisted of 80 sophomore and senior students (40 males and 40 females) selected from each college. These students were enrolled in both colleges during the Spring term of 1972. The major instrument used in the study was a questionnaire. A total of 160 completed questionnaires were received and analyzed.

For the purpose of statistical analysis, the Analysis of Variance (ANOVA) was employed to measure the consistency between the various segments of the two samples, and the interaction between the two colleges with the type of sample, with sub-scales. The decision rule followed was to reject the null hypotheses at alpha .05 of probability at type one error. Data that could not be tested through statistical devices were described. The percentages were made use of to make subjective conclusions.

Conclusions

Within the limitations of the study, the following conclusions were drawn:

1. It was found that there were no over-all differences between the students' satisfaction with major field environment at the two colleges as a result of their program activities, even though there were some differences in the responses of the sample in some sub-scales.
2. Significant differences were found between sophomores and seniors in their perception of professors in both colleges. Sophomores in the College of Natural Science were dissatisfied with their professors while seniors were satisfied. On the other hand, sophomores in the College of Social Science were satisfied with their professors while seniors were dissatisfied.
3. Although sophomores and seniors in both colleges were satisfied with their student colleagues, it was found that sophomores and seniors in the College of Natural Science were equally satisfied in their feelings about student colleagues, but in the College of Social Science sophomores were more pleased and satisfied than seniors with their student colleagues. In a comparison between the two colleges, sophomores in the College of Social Science were more satisfied and pleased than sophomores in the College of Natural Science, while seniors in the College of Natural Science were more satisfied than the seniors in the College of Social Science.

4. Significant differences were found between males and females in their satisfaction with college environment. All the males and females in both colleges were satisfied with their college environment, but females were more satisfied than males in both colleges. On the other hand, males and females in the College of Social Science were more satisfied with their college environment than those in the College of Natural Science.
5. Significant relationships were found between students' perception about their professors and their families' level of income. Students who came from families with low level of income were satisfied with their professors while those who came from families with high level of income were dissatisfied in both the Colleges of Natural Science and Social Science.
6. The results of the study indicated that there was a gap between students and faculty. It was determined significantly that sophomores in the College of Natural Science were dissatisfied with their professors while seniors were satisfied. On the other hand, sophomores in the College of Social Science were satisfied with their professors while seniors were dissatisfied.
7. The findings of the study indicated that, at both colleges, students' satisfaction was related to social and personal

background factors. For instance, those who came from families of high level of income were not pleased, but, rather, were dissatisfied with their professors.

8. The findings of the study indicated that the students in both colleges had similar satisfaction although the College of Natural Science does have a budget 77% greater than that of the College of Social Science.

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MAJOR FIELD ENVIRONMENT IN
COLLEGES OF NATURAL SCIENCE AND SOCIAL SCIENCE
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Sabah Bakir Al-Taiey

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DEDICATED TO
MY CHILDREN, AHMED AND SUHEIR,
who seldom knew what it all meant but certainly knew what it involved.

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This study is the result of the consideration and cooperation of many individuals. To these people the researcher is particularly grateful. The researcher wishes to acknowledge the assistance of the members of his Guidance Committee. The researcher wishes to thank Dr. William E. Sweetland, Committee Chairman, for his wise counsel and patience throughout the course of the study. The investigator extends to him deepest appreciation.

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CHAPTER I

THE PROBLEM

Statement of the Problem

Education and particularly higher education is of strategic importance in any society, not only as an agency of socialization but also as a selecting and sorting agency where individuals learn the skills and values which are needed to embark on various occupational careers.

The effectiveness of a college program is measured, in part, from the social, emotional and academic adjustment of the students and their perception of the program and the environment as a whole. In large, complex universities particularly, student's satisfaction and dissatisfaction with major field environment, such as college environment, courses, professors and fellow students, might differ according to the college program and according to the relationship between student and faculty and the relationship of student to student.

This study was designed to yield a comprehensive and meaningful picture of satisfaction and dissatisfaction among students enrolled in the College of Natural Science and the College of Social Science at Michigan State University.

Need for the Study

In order for a student to successfully attain the institution's objectives, a harmonious compromise has to be made between the

demands of the formal organization and the satisfaction of his personal goals. Imbalance in this compromise can sometimes be brought about by inconsistent and improper advisement given to the students and failure in the over-all adjustment process to the environment. When this imbalance dominates, dissatisfaction with all aspects of college life is likely to occur, followed sometimes by dropping from school. In order to avoid this eventuality, colleges and universities are attempting to do whatever is possible to help students achieve the goals they have set for themselves. Studies are being conducted and plans for further study are being made in order to investigate and evaluate the complex process of student adjustment to their environment, similar to the studies which have been done by Pace, Argyris and Berdie. Based on the evidence of these findings, new policies and practices are being formulated.

This study is an attempt to examine students' satisfaction with their major field environment, with the specific purpose of investigating the relationship between defined variables in the students' environment and their adjustment to them. This study is needed in as much as it may help in the analysis of this relationship, and especially as it might assist the policy-makers in the Colleges of Natural Science and Social Science at Michigan State University in providing an environment for their students that will be conducive to bringing about a normal adjustment and the consequent achievement of their goals.

The Purpose of the Study

It is the purpose of this study to investigate the students' satisfaction and dissatisfaction with the major field environment such as college environment, courses, professors and fellow students. Three goals consistent with this purpose have been established to guide the research:

1. To obtain a clearer understanding of the concerns of those students who choose Natural Science and Social Science as their college major.
2. To determine what relationships, if any, exist between a student's satisfaction and dissatisfaction with major field environment and his college, classes, sex, socio-economic status and the family's level of education.
3. To formulate hypotheses, whenever possible, which may serve as a basis for further investigations.

Satisfaction cannot be observed directly, but it can be inferred from verbal and written reports. In this study, satisfaction and dissatisfaction are to be measured by a questionnaire prepared by the researcher from questions selected from different scales.

A descriptive approach seems most appropriate in light of the lack of information available concerning satisfaction and dissatisfaction of natural science and social science students.

Research Questions

The problem the researcher is dealing with can be shown by the following questions:

1. Does the student's satisfaction depend on his college?
2. Does the student's satisfaction depend on the level of his class?
3. Does his satisfaction depend on the courses he takes?
4. Do his professors contribute to his satisfaction?
5. Do his fellow students contribute to his satisfaction?
6. Does the student's sex have anything to do with his over-all satisfaction?
7. Does the level of the student's family income have anything to do with the student's satisfaction?
8. Does the student's family-level of education have anything to do with his satisfaction?

Hypotheses in the Study

For purposes of closer investigation, the following hypotheses were generated from the research questions stated above:

1. There are differences in students' satisfaction and dissatisfaction with their college environment between the Colleges of Natural Science and Social Science.
2. There are differences in students' satisfaction and dissatisfaction with their courses between the Colleges of Natural Science and Social Science.

3. There is a relationship between students' perception about their professors and the colleges to which they belong.
4. There is a relationship between students' feelings about their student colleagues and the college of which they are a part.
5. There is a relationship between the student's satisfaction and dissatisfaction and the level of his class.
6. There is a relationship between the student's satisfaction and dissatisfaction and the courses he takes.
7. There is a relationship between the student's satisfaction and dissatisfaction and the professors with whom he comes in contact.
8. There is a relationship between the student's satisfaction and dissatisfaction and the fellow students with whom he comes in contact.
9. With regard to student's satisfaction and dissatisfaction, there is a relationship between the level of the student's class and his sex.
10. With regard to student's satisfaction and dissatisfaction, there is a relationship between the courses the student takes and his sex.
11. With regard to student's satisfaction and dissatisfaction, there is a relationship between the professors with whom he comes in contact and his sex.

12. With regard to student's satisfaction and dissatisfaction,
there is a relationship between the student's fellow students
and his sex.
13. With regard to student's satisfaction and dissatisfaction,
there is a relationship between the level of class and his
family's level of income.
14. With regard to student's satisfaction and dissatisfaction,
there is a relationship between the courses the student
takes and his family's level of income.
15. With regard to student's satisfaction and dissatisfaction,
there is a relationship between the student's perception
about professors and his family's level of income.
16. With regard to student's satisfaction and dissatisfaction,
there is a relationship between the student's feelings about
fellow students and his family's level of income.
17. With regard to student's satisfaction and dissatisfaction,
there is a relationship between the student's level of class
and his family's level of education.
18. With regard to student's satisfaction and dissatisfaction,
there is a relationship between the courses the student
takes and his family's level of education.
19. With regard to student's satisfaction and dissatisfaction,
there is a relationship between the professors with whom
he comes in contact and his family's level of education.

20. With regard to student's satisfaction and dissatisfaction, there is a relationship between the student's feelings about fellow students and his family's level of education.

Definition of Terms

The following terms are of significance for the researcher in conducting his study of concern with students' satisfaction and dissatisfaction with the major field environment:

1. Satisfaction is a measure of student's success in meeting the demands imposed upon him by the formal organizations and in satisfying his conscious and unconscious needs and in achieving the goals set by him.
2. Dissatisfaction is a measure of student's failure in meeting the demands imposed upon him by the formal organizations and in satisfying his conscious and unconscious needs and in achieving the goals set by him.
3. Major field environment includes the various factors of interaction that the student goes through in the stages of his educational growth and development, particularly the following: a-college environment, b-courses, c-professors, d-student colleagues.
4. College environment is a system of pressures, practices and policies intended to influence the development of students toward attainment of important goals of higher education.

5. Courses refer to a program of work that is academically oriented, set by the policies of administration, intended to expand the horizon of the student's learning and, subsequently, modify his behavior pattern by affording him opportunities for work.
6. Professors refer to all those who teach the sophomore and senior courses in the Colleges of Social Science and Natural Science.
7. Classes refer to sophomore and senior years of the student's level of academic standing.
8. Sex refers to males and females enrolled as sophomores and seniors in both Colleges during the Spring term of 1972.
9. Level of income refers to the income of the family indicated by salary and occupation.
10. Level of education refers to the number of years of schooling had by both parents.
11. Student's colleagues refer to all the students in both Colleges, Social Science and Natural Science, regardless of their year of study.
12. The natural mean refers to the mean which was set up by the researcher on the basis of scoring technique employing the mid-point to divide the groups; those students scoring above the mid-point were considered to be dissatisfied and those scoring below the mid-point were considered to be satisfied.

The Delimitation of the Study

This study is limited in the following ways:

1. The study is limited to investigation of a total of 160 sophomore and senior social science and natural science students enrolled during the 1971-1972 academic year at Michigan State University.
2. The study is limited to data gathered by means of a questionnaire that required the students to give their points of view about college environment, professors, courses, subjects (curriculum) and fellow students.
3. The study is limited to the researcher's questionnaire as a measure for satisfaction and dissatisfaction with the major field environment.

Hopefully, the results of this study will be of value to administrators, faculty and staff regarding questions of major field environment such as college environment and experiences, courses, professors and fellow students. It is assumed that these professionals have an interest in understanding more about the college student's satisfaction and dissatisfaction with major field environment, to the end that better college programs can be made available and permit the most effective way of dealing with the students in their daily problems.

Dissertation Plan

Chapter I has presented a brief statement of the need for and importance of this study and has also provided several questions and

hypotheses which were derived from a theoretical background which will be presented in Chapter II.

A review of the literature pertaining to student's satisfaction and dissatisfaction with environmental interaction will be presented in Chapter II.

Chapter III will contain a description of the design of the study, the sample and the instruments used in this study, and also will provide a statement of the statistical hypotheses and methods of analysis.

The results of this study, with a discussion of findings, will be presented in Chapter IV.

Recommendations and suggestions for further research will follow in Chapter V.

CHAPTER II

REVIEW OF THE LITERATURE

Theoretical Background

Studies of the college environment within the last decade have become an important aspect of educational research. Developments in research methodologies have made it possible for researchers to investigate areas of concern and importance for student growth and development. Theories have been formulated, based on the evidence of such research findings. Studies done on the positive and negative effects of teaching techniques, extra-curricular activities and other instructional procedures have helped to improve the process of education. In the review of literature, the researcher limited himself to the studies which have been done on students' satisfaction and dissatisfaction with the major field environment; that is, college environment, experiences, courses, professors and student colleagues. Within the last decade, other areas of interest have arisen. Researchers are now looking into the effects of the environment, courses and peer group relationships and college life on the academic and social development of students.

Educators, psychologists, sociologists and others interested in the process of education are beginning to look at education from the standpoint of the individual student. His needs and concerns, ambitions and aspirations, the environment in which he lives including the social

institutions and the processes of which he is a part, and the factors that give him satisfaction and success are now the main focus of attention. Studies done in the last decade, among them we may mention those by Stern¹, Argyris² and Brown,³ increasingly emphasize the importance of those satisfaction and dissatisfaction factors in the individual student's adjustment and growth.

Argyris contends that there exists a basic conflict between the needs of the individual and the demands of formal organizations. This conflict, however, is not one that is characterized by disharmony and frustration; it is one that challenges and stimulates the individual's growth. Such stimulation and challenge are best achieved when the conflict is not one of too high a level. When the conflict reaches levels that are beyond the sustenance of the student, frustration and dissatisfaction are the outcome, resulting in the blocking of self-expression. It is, therefore, theorized that the "satisfaction" or "dissatisfaction" of social science and natural science students with their college experience is a product of an interaction process between the needs of the student and the demands of his college environment. This appears to be the central concern or issue of how well an individual is able to resolve the conflicts

1

George G. Stern, "Environment for Learning," The American College, Nevit Sanford (Ed.), John Wiley & Sons, Inc., New York, 1962.

2

Chris Argyris, Integrating the Individual and the Organization, John Wiley & Sons, Inc., New York, 1964.

3

Roberta D. Brown, "Student Characteristics in Relation to Adjustment in Two Different College Environments," Dissertation Abstracts, 27 (3-A), 1966, pp. 596 - 597.

which arise between his developmental needs and the environmental demands.

This interaction of student with his environment is conceptualized as a process of reciprocation. The environment acts upon the student and the student acts upon the environment, the action of each being influenced by the action and reaction of the other. From the individual student's point of view, satisfaction is a measure of how successfully he fulfills his conscious and unconscious needs and achieves his goals; dissatisfaction is a measure of how unsuccessful he is in satisfying his conscious or unconscious needs or in achieving his goals.

Erickson⁴ describes student's satisfaction and dissatisfaction in terms of student's life as identity versus diffusion and intimacy versus isolation. He feels that the individual must either grow toward an increased awareness of and confidence in who he is and where he is going or he will remain unable to define himself adequately and fail to deal with life effectively.

Sullivan⁵ also approaches student's satisfaction and dissatisfaction from a similar view point and describes it in terms of the student's need for intimacy, for heterosexual activity and, most important of all,

4

Erik H. Erickson, Childhood and Society, W. W. Norton & Co., New York, 1963.

5

Harry S. Sullivan, Conceptions of Modern Psychiatry, W. W. Norton & Co., New York, 1940, and The Interpersonal Theory of Psychiatry, W. W. Norton & Co., New York, 1953.

for the stablization of his self-system. According to him, growth toward maturity means acquiring an understanding of the limitations, interests, possibilities and anxieties of self and others.

White⁶ describes satisfaction and dissatisfaction in the light of changes in four directions: 1) a "stablizing of the Ego Identity," 2) a "freeing of personal relationships," 3) a "deepening of interests," and 4) a "humanizing of values."

In all these theories, the growth and development of the individual is the pivotal point of attention and concern. They all emphasize the need for the individual student to make a satisfactory adjustment between the demands of the environment and the fulfillment of his personal needs. This satisfaction can be interpreted as a measure of "fit" or of how successful the student is in meeting the demands imposed upon him. In this approach, the environment can be conceptualized as a culture, exhibiting certain patterns of belief and behavior.

Since research findings seem to indicate that students differ with regard to their abilities and attitudes, it seems reasonable to assume that some students will be better equipped to meet the demands of their environment. Those who are more able will experience less strain and stress in their adjustment efforts, will fit better than others and, therefore, will be more satisfied with their experience. The less able will have to be content with a lower degree of satisfaction. However, policies and practices at the colleges could be formulated with

the objective of minimizing these differences and providing all with the most suitable conditions. (By the same token, the Colleges of Natural Science and Social Science at Michigan State University, by virtue of their own special character and limitations, either provide or restrict the opportunities that a student has to meet his various needs.)

Review of the Literature

One of the most extensive studies concerning student's satisfaction with the major field environment has been done by Pace,⁷ who developed the College Characteristics Analysis (CCA) for the study of sub-cultures within a complex college or university. The (CCA) is equally divided as follows:

- Part I College or university as a whole.
- Part II Major academic field.
- Part III Student colleagues.

Pace reported a diagnostic evaluation of the environments at nine colleges. Students were instructed to report what, in their experience and opinion, is or is not true of the particular part of their academic field or area, and the students with whom they associated most commonly and closely. In five of the nine schools Pace studied, a personality measure was administered. Among the conclusions reached by Pace were:

7

Robert C. Pace, The Influence of Academic and Student Sub-Culture in College and University Environments, Cooperative Research Project No. 1083, 1964, University of California, Los Angeles, California, pp. 207-208

1. In the colleges where personality tests were analyzed, there were significant differences between the sub-groups and the college composite in twenty-three per cent of the cases.
2. The nursing sub-groups were high in welfare.
3. The business sub-groups were typically low in humanism and scientism, but high on the practicality dimension.
4. The natural science fields were typically low in the welfare dimension and high on the scientism dimension.
5. Education groups were typically high on practicality and welfare.

Pace⁸ also reported that personality differences were found between academic sub-groups. The first general conclusion is also noteworthy; relating (CCA) dimensions to relevant personality measures, Pace found that the location of significant differences in personality characteristics shows concentration in certain sub-groups that is generally similar to the concentration of environmental press differences in the sub-groups. For example, business students tend to be below the average of their university on personality characteristics relevant to the humanistic and scientific scales, but above average on characteristics related to practicality. This pattern is identical to the perceived major field press by business students. Therefore, students who choose and remain in a field of study tend to have a pattern of personality/value characteristics related to the environment press of their major field as seen by those same students.

⁸ Ibid., p. 208

The College Characteristic Index has also been used in longitudinal studies to determine the change, if any, of student perceptions. Johnson and Kurpius,⁹ in 1962, administered the C.C.I. to 99 freshmen and 61 juniors at the University of North Dakota. The study dealt with the perceptions of students toward the intellectual and non-intellectual emphasis at the university. In 1964, 151 freshmen and 41 juniors were again administered the C.C.I. The juniors in the latter group were freshmen in 1962. Freshmen in both groups perceived a greater emphasis on intellectual climate than did juniors, but the difference was less in 1964. The 1962 freshmen who re-evaluated their perceptions in 1964 saw less intellectual emphasis in 1964 than they did in 1962. Compared to juniors in 1962, the juniors in 1964 perceived greater emphasis on intellectual environment since upper-classmen generally tend to perceive less emphasis than freshmen.

¹⁰
Stern¹⁰ also found that students in the same field have needs profiles which differ significantly from those students in other fields. But in four studies, the personality, ability and other characteristics of students were compared to their perceptions of the total environment.

9

R. W. Johnson and D. J. Kurpius, "A Cross-Section and Horizontal Study of Students' Perceptions of Their College Environment." The Journal of College Student Personnel, 8 (May, 1967), pp. 199-203.

10

George G. Stern, Student Values and Their Relationship to the College Environments, Research on College Students, Hall T. Sprague, Editor, Boulder, Colorado: WICHE and Center for the Study of Higher Education, 1960, p. 92.

McFee¹¹ found that total press scores were uncorrelated with their corresponding needs scale scores, the co-efficients all falling between -.01 and +.06 and Pace¹² reported no correlations significantly greater than zero when College and University Environment Scales (CUES) scores were correlated with the Heston Personality Inventory.

Berdie¹³ found no simple and direct relationship between freshmen perceptions of press at the University of Minnesota and such variables as ability, grade point average and parental background. In a discussion of Becker's¹⁴ study of student life at the University of Kansas Medical School, Everett C. Hughes suggests that the problems students encounter, because of the common nature of education, will be similar regardless of institutional setting. What will vary will be the collective responses of the students and this is an empirical matter. Therefore, it will be useful to examine the types of problems which medical students at the University of Kansas encountered in the course of their education which did give rise to collective responses.

11

Ann McFee, "The Relation of Students' Needs to Their Perceptions of a College Environment," Journal of Educational Psychology, 52, February, 1961, p. 26.

12

Robert C. Pace, College and University Environment Scales, Princeton, New Jersey: Educational Testing Service, 1963, p. 56.

13

Ralph F. Berdie, Perceptions of the University of Minnesota, A progress report, mimeo, 1965.

14 Howard S. Becker, Blanch Geer, Everett C. Hughes and Anselm Strauss, Boys in White, Chicago, Illinois, University of Chicago Press, 1961.

Hughes identifies three: ". . . The problem of overload, proper use of time against waste of time, and the proper relation of learning to doing. Each of these three problems has a common origin: the failure of the faculty and administration to specify in sufficient detail the proper behavior that will help students attain their goals, and in alleviating the resulting state of tension, the students formulate alternatives which are drawn from their own limited and imperfect knowledge of what is best."

Carl Berieter and Marvin Freedman,¹⁵ in their article "Fields of Study and the People in Them", note that ". . . students in social science come out as the most liberal of the groups in attitudes studies. With much greater consistency, students in engineering and agriculture appear among the least liberal groups." They continue to say that the most conservative groups are all in applied rather than academic fields.

Mechanic's¹⁶ study begins with the recognition that students, despite their position as "lower participants" in the organization, have a strong interest in not only the outcome of the educational experience, but also in the processes of education, and suggests that to the extent that the students cannot justify the existence and legitimacy of certain goals . . . from their perceptive . . . they will formulate their own goals, as well as their own means of attaining those goals.

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Carl Berieter and Marvin B. Freedman, "Fields of Study and the People in Them," in Nevitt Sanford Edition, The American College, New York: John Wiley and Sons, Inc., 1962, pp. 563-596.

16

David Mechanic, "Organizational Power of Lower Participants," Administrative Science Quarterly, 17,3 (December, 1962), pp. 357-364.

The problem, as Hughes ¹⁷ says, ". . . is not whether or not there will be students' opinions, customs and even rules on how much and what work to do, but whether the process by which they are made will be understood well enough, so that we can create an atmosphere in which the student culture will work for education rather than against it."

Michael F. Sherrick, Charles A. Davenport and Thomas L. Colina ¹⁸ presented a study which was performed to find the relationships between personality and satisfaction with college major. It was hypothesized that social science students who were most satisfied with their college major would be more flexible than those who were least satisfied, but natural science students who were most satisfied with their major would be less flexible than their relatively dissatisfied classmates. It was also predicted that social science students would, as a group, be more flexible than natural science students. The subjects of this study were 118 seniors in the College of Arts and Sciences at the University of Cincinnati. All the students in a course required of seniors in a particular major were tested. This procedure resulted in 15 sociology majors and 58 psychology majors representing the social sciences; the natural sciences were represented by 3 physics majors, 4 geology

¹⁷

Hughes, op. cit.

¹⁸

Michael F. Sherrick, Charles A. Davenport and Thomas L. Colina, "Flexibility and Satisfaction with College Major," Journal of Counseling Psychology, Volume 18, No. 5, September, 1971.

majors, 9 mathematics majors, 11 biology majors and 18 chemistry majors. The results confirmed the prediction. Firstly, social science students were more flexible than natural science students. Secondly, natural science students who were most satisfied with their major field were less flexible than their relatively dissatisfied classmates. These conclusions were reported to be statistically significant.

One of the most extensive studies concerning student satisfaction has been done by Peterson.¹⁹ He derived four scales: Satisfaction with 1-faculty (SF), 2-administration (SA), 3-major (SM), 4-students (SS). From the college student questionnaire and the related scores on these satisfaction scales to each other and to a number of personality and demographic variables, he then derived a number of hypotheses based on these relationships. Among his hypotheses were the following:

1. The Discontent-as-global hypothesis

Educational discontent in college students is essentially a global characteristic; i.e., discontent with one aspect of one's condition at college tends to be related to discontent with other areas of this condition.

2. The Institutional-size Hypothesis

Magnitude of student discontent varies directly with size of the student body.

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R. E. Peterson, "College Student: Some Hypotheses Based on Questionnaire Data," Unpublished Manuscript (Mimeo), Educational Testing Service, Princeton, New Jersey: 1965

3. The Grade-getting Hypothesis

Magnitude of student discontent varies inversely with grade-getting ability. This hypothesis was based on a comparison of mean scores of the four satisfaction scales for two groups of students classified as "grade-getters" (student with a cumulative grade point average of B+ or better) (n=115) and "grade-non-getters" (students with a cumulative grade point average of C- or less) (n=118). The mean satisfaction scores of the "grade-getters" were significantly different from the "grade-non-getters" on three of the four satisfaction scales, SF ($t=5.39$), SM ($t=3.97$) and SS($t=3.28$).

Davie²⁰ utilized a sociological and statistical approach to the study of the problem of satisfaction with college. The purpose of his study was two-fold. From a practical view point it sought to obtain a clearer picture of the undergraduate scene in order to better understand the student culture. His more technical purpose was to determine whether one could measure satisfaction with the college experience through questionnaire methods and, if so, to identify some of the types of factors associated with different degrees of satisfaction.

Davie sent questionnaires to random samples of the Yale classes of 1953, 1954, 1955 and 1956 in the Spring term of their senior years.

The sample percentages for the study were 20, 40, 25 and 26. The percentages of the samples returning the questionnaire were 80, 75, 79 and 78.

The findings indicate that satisfaction at Yale is related to social and personal background factors as well as to characteristics of the student's experience at Yale. Those students who experienced the least discontinuity between their secondary school experience and college experience tended to be the most satisfied.

In an analysis of relationships between student personality needs and the psychological press of college environment, Stern²¹ concluded that there exists sufficient evidence to warrant the conclusion that the inter-action scheme is useful for the purpose of characterizing some of the important aspects of student ecology. Stern's data were based on a selected group of 32 schools, reflecting in equal degree the characteristics of a small number of universities, denominational colleges, private liberal arts colleges and technical schools, the latter including teacher preparatory, business administration and engineering programs. Stern makes the further suggestion that student apathy might be the consequence of unfulfilled expectations in the transition from high school to college.

While many studies have attempted to measure the perceptions of students and faculty members toward the college environment at

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Stern, Op. cit.

four-year degree granting institutions, the literature reveals few studies concerned with the environmental characteristics of the junior college or two-year institutions. Pace²² administered the C.U.E.S. 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 upper-classmen from the same institutions. Substantial differences were shown, especially on the Scholarship, Awareness and Community Scales.

The freshmen expected none of the five institutions to rate lower than the seventy-ninth percentile for Scholarship and Awareness, whereas the actual rating by upper-classmen ranged as low as the forty-third percentile for the former and twenty-first for the latter scales. On the Community Scale, the freshmen expected no lower than the fiftieth percentile; the upper-classmen ranked one institution down in the twelfth. The author suggests that, "by alerting students to discrepancies as wide as these between expectation and reality, C.U.E.S. might be able to save them considerable 'cultural shock'."

Richards and Braskamp²³ conducted a study of 102 junior college environments by cataloging characteristics of the institutions into six categories: Private financial control, Conventionalism (related to the age of the institution), Transfer emphasis, Business orientation, Size

²² Robert C. Pace, "When Students Judge Their College," College Board Review, 58 (Winter, 1966), pp. 26-27.

²³ J. M. Richards, Jr., and L. A. Braskamp, "Who Goes Where to Junior College?" ACT Research Reports No. 20, American College Testing Program, July, 1967.

and Technological specialization. Students entering two-year colleges were influenced more by practical than intellectual or social consideration in choosing a college, and were concerned more with the instrumental value of education for higher income than with personal intellectual development.

A new approach to the study of differences in college environment and its effects was developed and tested by Thistlewaite.²⁴ In 1958-59, he selected a sample of 916 National Merit Scholars and certificate winners currently studying at 36 colleges and universities. The main instrument used was the College Characteristics Index (CCI). Students were asked to recall what their expectations were for college environments at the time they entered college and also what their perceptions were as experience members of the student body. He reports the following results:

1. The press of different colleges varies considerably.
2. Expectations held for the college environment are consistent with the perceived college press.
3. College environment is an important factor in the student's motivation to seek advance intellectual training.

There are a considerable number of research projects completed and reported since approximately 1960 which have dealt generally with the student's perception of the college environment as a member of

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D. L. Thistlewaite, "College Environments and the Development of Talent," Science CXXX (1959), pp. 71-76.

the student body at a specific college, and the effects of the student's perception on academic achievement or other variables. These projects represent a wide variety of methods and consequent results that exemplifies the increased interest in the study of college environments. It seems highly desirable to point out the methods and the results of some of those attempts at this time.

Hassenger²⁵ administered three measures of college environment (C.U.E.S.) to a cross-section of American Catholic Colleges. Those institutions surveyed indicated great variations in academic and social atmosphere, thus discouraging generalizations. They were, however, generally below the norm in encouragement of academic excellence, scholarship, and cultivation of personal, political and psychological "soul-searching." They were also generally above the norm in encouragement of group and community loyalty, social consideration, conformity and caution.

Chickering,²⁶ in a study of the relationship between institutional characteristics and student personality at 13 small colleges, found high correlations between institutional characteristics and student personality:

25

R. Hassenger and R. Weiss, "The Catholic College Climate," The School Review, 74 (Winter, 1966), pp. 419-445.

26

Arthur W. Chickering, "Institutional Differences and Student Characteristics." Paper presented at American College Health Association, San Diego, California, May, 1966.

- a. Students with conservative religious beliefs attended schools with similar emphasis.
- b. Altruistic students attended church-related schools where service was emphasized.
- c. Students who scored highest on intellectual interest sought out schools varying from traditional patterns.
- d. Students reluctant to express impulse attended colleges with many regulations and close supervision.

In another study, Chickering²⁷ administered the experience of college questionnaire to random samples of students at four colleges participating in the project on student development. Responses were obtained from 80 to 193 students at the colleges and were compiled in the categories of mental activities in class, mental activities in studying for courses, role of the teacher, reasons for studying, feelings about courses, patterns of work, and average number of hours spent studying, reading and watching television.

Mental activity in studying was keyed to the nature of the class: where listening and note-taking predominated, memorization predominated; where teachers primarily disseminated information, students seldom synthesized, applied or questioned. In classrooms using dialogue, teachers were often co-learners and resource people. Where lecture and discussion were used equally, teachers were more apt to

combine information giving and dialogue with creative individual methods. Student classroom participation tended to lead to motivation out of interest or concern, not merely to meet requirements. Students motivated intrinsically most frequently reported feeling challenged and confident and interested. At the experimental and progressive college, most students reported feeling challenged and confident. At the selective college with a highly structured curriculum, only about one-third of the students reported feeling challenged more often than rarely, but about half felt confident and interested. When fewer than two-thirds of its students feel challenged, confident and interested, a college should analyze its curriculum and teaching methods.

Jansen and Winborn²⁸ used the C.U.E.S. to compare leaders of campus social-political action groups with the leaders of four other categories of student leaders on the basis of their perceptions of the prevailing campus environmental press at Indiana University. A random sample of 257 students was chosen from the five following categories: social-political action leaders, religious organization leaders, university residence hall leaders, activities leaders and fraternal leaders. Significant differences were found among the five categories on four of the five scales of the C.U.E.S. Significant differences were also found between males and females in four of the five categories represented on the C.U.E.S.

Summary

The studies concerning individual-environmental interaction were examined. These studies seemed to emphasize the point that the relationship between personal needs and the demands of the environment might well influence a student's over-all satisfaction or dissatisfaction with the major field environment. Evidence was also offered for the premise that student satisfaction and dissatisfaction might be the result of the lack of continuity and good relationship between high school and the college.

Some studies indicated that the success of the learning process might depend upon the best combination of teaching techniques and student needs, and also suggested a need for increased student personnel services and programs at the colleges to provide more opportunities for personal and social development. Other studies indicated that satisfaction, at some colleges, was related to social and personal background factors as well as to characteristics of the student's experience. Those students who experienced the least discontinuity between their secondary school experience and college experience tended to be the most satisfied; in contrast, those students who experienced the most discontinuity between their secondary school experience and college experience tended to be the most dissatisfied.

CHAPTER III

METHODOLOGY

It was assumed that, in an institution of higher education, a student's satisfaction or dissatisfaction with his major field environment is an important factor for the student's personality and social development and for his academic achievement. The literature presented in Chapter II indicates such importance and gives examples of the efforts of colleges and universities to create a better environment and establish better atmosphere for students to more easily cope with their programs, courses, professors and fellow-students.

In order to test this assumption, it was hypothesized that there are significant differences in students' satisfaction and dissatisfaction with their major field environment, according to the influence of the following independent variables: 1-colleges, 2-class level, 3-sex, 4-family's socio-economic status, and 5-family's level of education. This hypothesis was based on the assumption that the academic and social environment in the College of Natural Science is different from that of the College of Social Science.

To test the hypothesis, the researcher undertook a student opinion survey of the satisfaction and dissatisfaction variables of both colleges. A questionnaire was developed for this purpose, and was administered to a randomly selected sample of students in both colleges.

The basic procedure making up the design of this study included the selection of the sample, collection of the data, analysis of the data, and the drawing of conclusions based on the evidence of the findings. In conducting this study, the researcher has utilized one survey instrument for collecting the data; the research technique was survey design.

Population and Samples

The population involved in this study consisted of 1406 sophomore and 3092 senior students enrolled in the Colleges of Natural Science and Social Science at Michigan State University during the Spring term of 1972. From this population, a random sample of 80 students from each college was drawn, sophomores and seniors included. The selection was done randomly; the students were selected through the random process of using every other name in the list of the sophomore and senior students, starting from the first name. In order to secure a more representative sample, courses required of all the students in both colleges were selected. The researcher attempted to minimize the loss of data resulting from either partly completed or unreturned questionnaires by its administration during a regular class period. This decision had been made on the recommendation of research consultants in the Office of Research Consultation in the College of Education; their experiences have revealed that returns from lengthy questionnaires, when administered by mail, are very poor.

Description of the Sample

Eighty students, sophomores and seniors, were selected from each college. The sample from the College of Natural Science consisted of 20 male senior students and 20 female senior students; there were also 20 male sophomore students and 20 female sophomore students. There were identical proportions in the sample from the College of Social Science.

With respect to the level of the family's education and socioeconomic status, the variance was somewhat remarkable. In the College of Natural Science, the questionnaire revealed:¹

Of 20 male seniors:

17 had fathers with a high and 3 with a low level of education
 13 had mothers with a high and 7 with a low level of education
 19 had family of high and 1 of low socio-economic status

Of 20 female seniors:

13 had fathers with a high and 7 with a low level of education
 8 had mothers with a high and 12 with a low level of education
 18 had family of high and 2 of low socio-economic status

Of 20 male sophomores:

9 had fathers with a high and 11 with a low level of education
 5 had mothers with a high and 15 with a low level of education
 17 had family of high and 3 of low socio-economic status

Of 20 female sophomores:

15 had fathers with a high and 5 with a low level of education
 13 had mothers with a high and 7 with a low level of education
 17 had family of high and 3 of low socio-economic status

¹

See the questionnaire in Appendix D

In the College of Social Science, with respect to the level of the family's education and socio-economic status, the results showed:

Of 20 male seniors:

10 had fathers with a high and 10 with a low level of education
7 had mothers with a high and 13 with a low level of education
18 had family of high and 2 of low socio-economic status

Of 20 female seniors:

16 had fathers with a high and 4 with a low level of education
14 had mothers with a high and 6 with a low level of education
19 had family of high and 1 of low socio-economic status

Of 20 male sophomores:

12 had fathers with a high and 8 with a low level of education
12 had mothers with a high and 8 with a low level of education
19 had family of high and 1 of low socio-economic status

Of 20 female sophomores:

8 had fathers with a high and 12 with a low level of education
8 had mothers with a high and 12 with a low level of education
13 had family of high and 7 of low socio-economic status

To summarize the totals of the sample data with respect to family's level of education and socio-economic status, the results showed 62.5% of the students had fathers with high and 37.5% with a low level of education while 50% of the students had mothers with high and 50% with a low level of education. Of the sample of 160 students, 87.5% came from families of high socio-economic status and 12.5% came from families of low socio-economic status.

The variance of the sample with respect to parents' occupations,² too, was of interest. The questionnaire, in the College of Natural Science, showed:

Of 20 male seniors:

- 12 had fathers in professional, technical and managerial occupations
- 3 had fathers in clerical and sales occupations
- 2 had fathers in processing occupations
- 3 had fathers in structural work occupations

- 3 had mothers in professional, technical and managerial occupations
- 1 had a mother in clerical and sales occupation
- 2 had mothers in service occupations
- 1 had a mother in a machine trade occupation
- 11 had mothers in housewife category

Of 20 female seniors:

- 10 had fathers in professional, technical and managerial occupations
- 3 had fathers in clerical and sales occupations
- 1 had a father in a service occupation
- 1 had a father in farming, fishery, forestry and related occupation
- 2 had fathers in machine trade occupations
- 1 had a father in structural work occupation
- 2 had fathers in miscellaneous occupations

- 3 had mothers in professional, technical and managerial occupations
- 3 had mothers in clerical and sales occupations
- 1 had a mother in a service occupation
- 12 had mothers in housewife category

Of 20 male sophomores:

- 5 had fathers in professional, technical and managerial occupations
- 2 had fathers in clerical and sales occupations
- 1 had a father in a service occupation
- 2 had fathers in farming, fishery, forestry and related occupations
- 4 had fathers in processing occupations
- 1 had a father in a machine trade occupation
- 2 had fathers in structural work occupations
- 3 had fathers in miscellaneous occupations

- 1 had a mother in professional, technical and managerial occupation
- 2 had mothers in service occupations
- 11 had mothers in housewife category

Of 20 female sophomores:

- 14 had fathers in professional, technical and managerial occupations
- 3 had fathers in clerical, and sale occupations
- 1 had a father in farming, fishery, forestry and related occupation
- 1 had a father in processing occupation
- 1 had a father in miscellaneous occupation

- 6 had mothers in professional, technical and managerial occupations
- 1 had a mother in service occupation
- 9 had mothers in housewife category

The questionnaire as it dealt with parents' occupations, in the College of Social Science, revealed:

Of 20 male seniors:

- 8 had fathers in professional, technical and managerial occupations
- 2 had fathers in farming, fishery, forestry and related occupations
- 3 had fathers in service occupations
- 1 had a father in structural work occupation
- 4 had fathers in miscellaneous occupations

- 1 had a mother in professional, technical and managerial occupation
- 3 had mothers in clerical and sales occupations
- 1 had a mother in a service occupation
- 11 had mothers in housewife category

Of 20 female seniors:

- 12 had fathers in professional, technical and managerial occupations
- 2 had fathers in clerical and sales occupations
- 2 had fathers in service occupations
- 2 had fathers in structural work occupations
- 2 had fathers in miscellaneous occupations

- 3 had mothers in professional, technical and managerial occupations
- 3 had mothers in clerical and sales occupations
- 2 had mothers in service occupations
- 10 had mothers in housewife category

Of 20 male sophomores:

10 had fathers in professional, technical and managerial occupations

3 had fathers in clerical and sales occupations

2 had fathers in service occupations

1 had a father in farming, fishery, forestry and related occupation

1 had a father in structural work occupation

3 had fathers in miscellaneous occupations

1 had a mother in professional, technical and managerial occupation

5 had mothers in clerical and sales occupations

2 had mothers in service occupations

9 had mothers in housewife category

Of 20 female sophomores:

5 had fathers in professional, technical and managerial occupations

8 had fathers in clerical and sales occupations

2 had fathers in farming, fishery, forestry and related occupations

2 had fathers in machine trade occupations

3 had fathers in miscellaneous occupations

5 had mothers in professional, technical and managerial occupations

3 had mothers in clerical and sales occupations

3 had mothers in service occupations

7 had mothers in housewife category

To summarize the totals of the sample data with regard to parents' occupations, 48% of the students had fathers in professional, technical and managerial occupations; there were 35 fathers of males and 41 fathers of females in this one occupational category alone, for a total of 76 out of the 158 responding to the question. Of the remaining 52% of fathers, 15.2% worked in clerical and sales occupations, 10.8% were in miscellaneous occupations, 6.35% were in structural work, 5.7% were in service and 5.7% were in farming and related occupations, 4.45% were in processing occupations, and 3.8% worked at machine trades.

For those students responding to the question of mother's occupation (136 responses), 59% were in the housewife category, 24% were in various occupations, and 17% were in professional, technical and managerial occupations. The main provider of the family was considered to be the father by 80% of the students, while 20% of the students replied that their mothers shared with their fathers in handling expenses.

Description of the Sample - Age, Race and Marital Status

The results showed that there was not a significant range of figures to be able to deal adequately with the three independent variables of age, race and marital status.

With respect to age, the data showed that 75% of the male seniors in both colleges were between 20 and 22 years old; the remaining 25% of male seniors were between 23 and 28 years of age. Male sophomores in both colleges between the ages of 19 and 20 totalled 80%; the remaining 20% were between 21 and 24 years of age.

Also with respect to age, the data revealed 85% of female seniors in both colleges were between 20 and 22 years of age, and 90% of the female sophomores in both colleges were between 19 and 21 years old.

Regarding race, 95% of the seniors and sophomores (males and females) in both colleges were white, with only 5% being black or chicano.

According to marital status, 95% of the seniors and sophomores (males and females) in both colleges were single persons.

Because of the disproportionate percentages with respect to age, race and marital status, these independent variables were dropped from the analysis of the data.

Collection of the Data

Development of the Questionnaire

The pertinent literature in the area of student personnel work and personality-social development in higher education was reviewed prior to developing a questionnaire for the study. A closed questionnaire which measured student's satisfaction and dissatisfaction with the major field environment was prepared by the researcher and selected from different scales such as College and University Environment Scales.³ The closed questionnaire was used as a device for obtaining a description of the college from students themselves, who presumably know what the environment is like because they live in it and are a part of it. The instrument contained a few introductory questions concerning the student's background, and was developed to test the following sub-scales:

1. College environment and experiences. This sub-scale of the questionnaire contained two sections. Section A was developed to obtain students' ideas about the college environment and contained 21 items. Section B was developed to gain their points of view about their sophomore or senior

experiences and whether the experiences would have been more valuable to them if they had had more involvement in such experiences; this section contained 13 items.

2. Courses and the classroom activities. This sub-scale of the questionnaire was developed to deal with students' points of view about their courses; this section contained 35 items.
3. Students' perception about their professors. This sub-scale was developed to deal with students' satisfaction and perception about their professors. This section contained 23 items.
4. Student colleagues. This sub-scale was designed to deal with students' feelings about their student colleagues. This section contained 32 items.

The researcher, with the assistance of the Office of Research Consultation and the Office of Evaluation Services, constructed and developed the questionnaire.

The questionnaire, after the few introductory questions, consisted of four parts:

Section I

Section I was intended to test the awareness of the subjects and their perception about the college environment and their experiences. It was anticipated that the students would differ in their satisfaction and dissatisfaction with college experiences.

Section II

Section II was intended to determine whether the students differ in their points of view about their courses and classroom activities, to what degree and extent they are satisfied or dissatisfied with their courses and their objectives, and whether their objectives and goals are being met by the courses.

Section III

Section III was developed to test the students' perceptions about their professors and to determine whether they are satisfied or dissatisfied with them and what kind of relationship or contact they do have with them.

Section IV

Section IV was intended to test the students' feelings about their student colleagues and whether they are satisfied or dissatisfied with them, and attempt to determine the nature of relationships existing between them.

The Reliability and the Validity of the Questionnaire

The Reliability

The reliability coefficient is of interest because it gives, by the single assumption that a test score has two components, true score and variable error. Usually, reliability is a function of the dispersion of individual scores. A formula for estimating the reliability of the questionnaire as developed by the researcher, based on the analysis

of variance theory as discussed by Hoyt,⁴ was adopted by the researcher.

According to Hoyt, "The reliability coefficient by means of split-halves may include an under-estimate or an over-estimate of the discrepancy between the obtained variance and the true variance." His criticism about the test-retest is that the coefficient reliability of this method is too high because of material remembered on the second application of the test.

Thus, is it clear that the method adopted by the researcher for estimating the reliability, based on the analysis of variance theory, gives a better estimate than any other method based upon an arbitrary division of the test into two halves or into any other fractional parts.

Table 1 - Indicates the analysis of variance for estimating the coefficient of the reliability of the test of 124 items in students' satisfaction and dissatisfaction with their major field environment as administered to 160 students.

Table 1

Source of Variation	D. F. Degree of Freedom	S. S. Sum of Squares	M. S. Mean Squares	F. Test Statistic
Among individuals	159	6.08	3.82	5.98
Among items	123	3.16	2.57	4.02
Error	19557	1.25	6.40	
Total	19839	1.62		

The coefficient of the reliability of the test is 0.8330

Table 2 - Indicates the analysis of variance for estimating the reliability of the first sub-scale of the test which contains 34 items in students' satisfaction with their college environment as administered to 160 students.

Table 2

Source of Variation	D. F. Degree of Freedom	S. S. Sum of Squares	M. S. Mean Squares	F. Test Statistic
Among individuals	159	2.70	1.70	2.72
Among items	33	8.50	2.60	4.14
Error	5247	3.24	6.18	
Total	5439	4.40		

The coefficient of the reliability of the first sub-scale test is 0.6335

Table 3 - Indicates the analysis of variance for estimating the coefficient of the reliability of the second sub-scale of the test which contains 35 items in students' satisfaction with the courses and class activities as administered to 160 students.

Table 3

Source of Variation	D. F. Degree of Freedom	S. S. Sum of Squares	M. S. Mean Squares	F. Test Statistic
Among individuals	159	2.73	1.72	2.62
Among items	34	8.72	2.60	3.91
Error	5406	3.54	6.60	
Total	5599	4.70		

The coefficient of the reliability of the second sub-scale test is 0.6190

Table 4 - Indicates the analysis of variance for estimating the coefficient of the reliability of the third sub-scale of the test which contains 23 items in students' perception about their professors as administered to 160 students.

Table 4

Source of Variation	D. F. Degree of Freedom	S. S. Sum of Squares	M. S. Mean Squares	F. Test Statistic
Among individuals	159	2.70	1.70	2.93
Among items	22	6.70	3.04	5.31
Error	3498	2.00	5.73	
Total	3679	2.94		

The coefficient of reliability of the third sub-scale test is 0.6587

Table 5 - Indicates the analysis of variance for estimating the coefficient of the reliability of the fourth sub-scale of the test which contains 32 items as to students' feelings about student colleagues as administered to 160 students.

Table 5

Source of Variation	D. F. Degree of Freedom	S. S. Sum of Squares	M. S. Mean Squares	F. Test Statistic
Among individuals	159	2.99	1.88	2.92
Among items	31	7.53	2.43	3.77
Error	4929	3.17	6.44	
Total	5119	4.22		

The coefficient of reliability of the fourth sub-scale test is 0.6577

The reliability coefficients for the whole test and for the four sub-scales are generally acceptable; particularly for the whole test with coefficient at 0.8330.

The Validity

The questionnaire was circulated among the staff of the Office of Research Consultation in the College of Education, as well as in the Office of Evaluation Services, to evaluate the content validity. The questionnaire was revised on the basis of their suggestions. Following revision, it was given to ten undergraduate students, five sophomores and five seniors enrolled in the College of Social Science, and to like numbers in the College of Natural Science. All twenty replies were received and again it was revised on the basis of their suggestions and comments. All testing for content validity and revision of the instrument were done under the supervision of and with the assistance of the Office of Research Consultation and the Office of Evaluation Services.

Method of Data Collection

The length of the questionnaire, and also the nature of the answers required, gave rise to some concern about the length of time that would be required to complete it. Accordingly, a pilot study was done, using as subjects five sophomores and five seniors. The time required to complete the questionnaire varied between 35 and 45 minutes. Since class periods are only 50 minutes in length, it was anticipated that students might fail to complete the entire instrument in the time allotted. This proved to be true for the pilot study in those classes where instructors allowed the researcher to administer the pilot questionnaire.

Having received the permission of the Assistant Dean for Students' Affairs for both colleges and the departmental chairmen,⁵ the researcher contacted the six instructors of the courses selected. Four of these instructors graciously agreed to relinquish a classroom period during which the questionnaire could be administered. The instructors in the other two courses selected, however, required the questionnaire to be completed by the subjects outside of the classroom; the researcher was obliged to give the questionnaire to these students, asking them to answer it either in their homes or dormitories. This method of administration provided the sample population of 160 students.

Those courses which were required from the majority of male and female sophomores and male and female seniors were chosen. Seniors and sophomores were selected because it was felt that the seniors are more familiar with their major field and the total environment of the college. Last-term sophomores were included because they are somewhat familiar with what is going on in their colleges and in dealing with their professors, courses and classroom activities, fellow students and college environment. The questionnaire was administered in both colleges by the researcher personally.

The questionnaire was preceded by half a page of instructions, in order to assist students' understanding of the instrument. The subjects in both colleges received the questionnaire from the researcher and were requested either to return their completed answer sheets at

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See letters in Appendices A, B and C

the end of the class period or to take the questionnaire with them and return their answer sheets during the next class period.

The return represented eighty-six per cent (86%) of the total of one hundred eighty-six (186) questionnaires administered. Those questionnaires with the least completed answers were eliminated and two samples of eighty (80) from each college were obtained for the purpose of analysis.

Statistical Testing

For purposes of statistical testing, the following null hypotheses were formulated:

- 1 A There will be no differences in students' satisfaction and dissatisfaction with their college environment between the College of Natural Science and College of Social Science.
- 1 B There will be no differences in students' satisfaction and dissatisfaction with their courses between the College of Natural Science and the College of Social Science.
- 1 C There will be no differences in students' perception about their professors between the College of Natural Science and College of Social Science.
- 1 D There will be no differences in students' feelings about student colleagues between the College of Natural Science and College of Social Science.

- 2 A There will be no differences in students' satisfaction and dissatisfaction with their college environment between classes in both the College of Natural Science and College of Social Science.
- 2 B There will be no differences in students' satisfaction and dissatisfaction with their courses between classes in both the College of Natural Science and the College of Social Science.
- 2 C There will be no differences in students' perception about their professors between classes in both the College of Natural Science and the College of Social Science.
- 2 D There will be no differences in students' feelings about student colleagues between the classes in both the College of Natural Science and the College of Social Science.
- 3 A There will be no differences in students' satisfaction and dissatisfaction with their college environment between the males and females in both the College of Natural Science and the College of Social Science.
- 3 B There will be no differences in students' satisfaction and dissatisfaction with their courses between the males and females in both the College of Natural Science and the College of Social Science.

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- 3 C There will be no differences in students' perception about their professors between the males and females in both the College of Natural Science and the College of Social Science.
- 3 D There will be no differences in students' feelings about student colleagues between the males and females in both the College of Natural Science and the College of Social Science.
- 4 A There will be no relationship between the students' satisfaction and dissatisfaction with their college environment and their families' level of income in both the College of Natural Science and the College of Social Science.
- 4 B There will be no relationship between students' satisfaction and dissatisfaction with their courses and their families' level of income in both the College of Natural Science and the College of Social Science.
- 4 C There will be no relationship between students' perception about their professors and their families' level of income in both the College of Natural Science and the College of Social Science.
- 4 D There will be no relationship between students' feelings about student colleagues and their families' level of income in both the College of Natural Science and the College of Social Science.

- 5 A There will be no relationship between students' satisfaction and dissatisfaction with their college environment and their families' level of education in both the College of Natural Science and the College of Social Science.
- 5 B There will be no relationship between students' satisfaction and dissatisfaction with their courses and their families' level of education in both the College of Natural Science and the College of Social Science.
- 5 C There will be no relationship between students' perception about their professors and their families' level of education in both the College of Natural Science and the College of Social Science.
- 5 D There will be no relationship between students' feelings about student colleagues and their families' level of education in both the College of Natural Science and the College of Social Science.

Treatment of Data

Statistical Techniques

Responses to the questionnaire were analyzed and punched on cards, two cards for each subject, for use at the Michigan State University Computer Center. For the purposes of statistical analysis, the researcher used the following techniques:

1. The analysis of variance (ANOVA) was employed to measure the consistency between the various segments of the two samples, and the interaction between the two colleges with the type of sample and its sub-scales.
2. Three-way analysis of variance was used to test the first three main hypotheses and two-way analysis of variance was used to test the other two main hypotheses.
3. The decision rule followed was to reject the null hypothesis at alpha .05 of probability at type one error.
4. Data that could not be tested through statistical devices were described. The percentages and frequencies were made use of to make subjective conclusions.

Scoring

Total satisfaction and dissatisfaction scores, obtained by simply adding the numerical values of the responses to each question, were used as a basis for differentiating the satisfied students from those who were dissatisfied.⁶

After arranging the students' questionnaires in terms of total scores on the questions, mid-point was employed to divide the groups, the students scoring above the mid-point were considered to be dissatisfied and those scoring below the mid-point were considered to be satisfied; that is, the higher the score the more dissatisfied the student with his major field environment.

The weights given to the alternative responses were one for agree (satisfaction), two for no opinion (mid-point), and three for disagree (dissatisfaction). However, the items in the total questionnaire were different in weight; sometimes, certain items were given a weight of three for agree (dissatisfaction), two for no opinion (mid-point), and one for disagree (satisfaction).

Summary

In this chapter the methodology of dealing with the sample of 160 full-time sophomore and senior students tested with the 124 items in the questionnaire, especially constructed for this study, was presented. A series of five main hypotheses concerned with students' satisfaction and dissatisfaction with major field environment were presented and will be tested through an analysis of the data collected.

The design and procedures for the study were described. Two programs of two colleges at Michigan State University were studied with regard to their efforts to influence their students.

The questionnaire was developed by the researcher with the assistance of the Office of Research Consultation and the Office of Evaluation Services.

Analysis of variance as statistical technique was used to determine the differences between the two colleges. The level of significance was set at alpha .05 of probability at type one error, to exclude chance

from the answers and to be certain that the differences are the result of factors other than chance.

In Chapter IV the results of the statistical analysis of the data will be presented.

CHAPTER IV

PRESENTATION AND ANALYSIS OF THE DATA

In this chapter the data collected from the questionnaire answered by students in both colleges, Natural Science and Social Science, are presented. Analysis was done by three-way analysis of variance for the first three hypotheses and by two-way analysis of variance for the remaining two hypotheses. The five main hypotheses are tested. Tables for analysis of variance of each of the sub-tests are presented, followed by tables of means where differences were found. Figures of the interaction found between the two colleges and other variables are presented.

The dependent variables tested in this study were:

1. Students' satisfaction with college environment and experience.
2. Students' satisfaction about their courses.
3. Students' perception about their professors.
4. Students' feelings about their student colleagues.

These variables were analyzed statistically from the responses provided by students in this questionnaire study.

The data from the eight groups of the sample provide the basis for determining if there are differences between the College of Natural Science and the College of Social Science in the area of students' satisfaction and dissatisfaction with their major field environment, such as

college environment and experiences, courses, professors and student colleagues. The eight groups of the sample were sophomore males and females and senior males and females from both colleges.

Table 6 - Illustrates the groups in the sample.

TABLE 6

College	Students Enrolled in Both Colleges				
	Sophomore		Senior		Total
	Male	Female	Male	Female	
College of Natural Science	20	20	20	20	80
College of Social Science	20	20	20	20	80
Totals	40	40	40	40	160

The data were accumulated and tested on the basis of five main hypotheses, each of which contains four sub-hypotheses. The five main hypotheses to be tested are:

Hypothesis I

There are no differences in students' satisfaction with their major field environment between the College of Natural Science and the College of Social Science.

Hypothesis II

There are no differences in students' satisfaction with their major field environment between the classes in the College of Natural Science and the College of Social Science.

Hypothesis III

There are no differences in students' satisfaction with their major field environment between males and females in the College of Natural Science and the College of Social Science.

Hypothesis IV

There is no relationship between students' satisfaction with their major field environment and their families' level of income in the College of Natural Science and the College of Social Science.

Hypothesis V

There is no relationship between students' satisfaction with their major field environment and their families' level of education in the College of Natural Science and the College of Social Science.

In this study the researcher attempted to determine whether the students of both colleges are differentially satisfied with their major field environment, and the relationship of the following independent variables to satisfaction: 1-colleges, 2-classes, 3-sex, 4-families' level of income, and 5-families' level of education. For the purpose of statistical tests of significance, several hypotheses were generated and the results are analyzed below in the following tables.

Table 7 - Illustrates the differences between colleges, classes and sexes and the interaction between them with respect to students' satisfaction with their college environment.

TABLE 7

Sources of Variation	M. S.	D. F.	F 1, 152=3.84	
	Mean Square	Degree of Freedom	Test Statistic	P less than .05
Colleges	10.000	1	0.1800	N. S.
Classes	189.230	1	3.4080	N. S.
Sexes	250.000	1	4.5030	> * .05
Colleges x classes	3.600	1	0.0648	N. S.
Colleges x sexes	5.630	1	0.1014	N. S.
Classes x sexes	10.000	1	0.1800	N. S.
Colleges x classes x sexes	216.230	1	3.8950	> * .05
Error	55.514	152		

* Significant at .05 level of type one error

Table 8 - Denotes the differences between colleges, classes and sexes and the interaction between them with respect to students' satisfaction with their courses.

TABLE 8

Sources of Variation	M. S. Mean Square	D. F. Degree of Freedom	F 1, 152=3.84 Test Statistic	P less than .05
Colleges	117.30	1	2.124	N.S.
Classes	28.05	1	0.508	N.S.
Sexes	113.90	1	2.062	N.S.
Colleges x classes	150.16	1	2.719	N.S.
Colleges x sexes	82.65	1	1.496	N.S.
Classes x sexes	3.30	1	0.059	N.S.
Colleges x classes x sexes	24.80	1	0.449	N.S.
Error	55.21	152		

Table 9 - Reveals the differences between colleges, classes and sexes and the interaction between them with respect to students' perception of their professors.

TABLE 9

Sources of Variation	M. S. Mean Square	D. F. Degree of Freedom	F 1, 152=3.84 Test Statistic	P less than .05
Colleges	2.02	1	0.056	N.S.
Classes	8.10	1	0.226	N.S.
Sexes	55.22	1	1.541	N.S.
Colleges x classes	235.22	1	6.566	> * .05
Colleges x sexes	1.60	1	0.044	N.S.
Classes x sexes	34.22	1	0.955	N.S.
Colleges x classes x sexes	28.90	1	0.806	N.S.
Error	35.82	152		

* Significant at .05 level of type one error

Table 10 - Presents the differences between colleges, classes and sexes and the interaction between them with respect to students' feelings about their student colleagues.

TABLE 10

Sources of Variation	M. S. Mean Square	D. F. Degree of Freedom	F 1, 152=3.84 Test Statistic	P less than .05
Colleges	27.23	1	0.503	N.S.
Classes	250.00	1	4.620	> * .05
Sexes	133.23	1	2.460	N.S.
Colleges x classes	275.63	1	5.090	> * .05
Colleges x sexes	2.50	1	0.046	N.S.
Classes x sexes	55.23	1	1.020	N.S.
Colleges x classes x sexes	1.60	1	0.029	N.S.
Error	54.10	152		

* Significant at .05 level of type one error

Hypothesis 1 A

There is no difference in students' satisfaction with their college environment between the College of Natural Science and the College of Social Science.

According to the first sub-hypothesis, the analysis of variance run on the data showed, in Table 7, that the test statistics were not significant at the .05 level. Consequently, the null hypothesis was not rejected and it was concluded that there was no significant difference between the students in both colleges regarding their satisfaction with their college environment. Hence, the first sub-hypothesis did not meet the level of .05 which was set up as satisfactory level of significance.

Hypothesis 1 B

There is no difference in students' satisfaction with their courses between the College of Natural Science and the College of Social Science.

Table 8 showed the results of the second sub-hypothesis in which the value of the test statistics were not significant at the .05 level; consequently, the null hypothesis was not rejected, and it was concluded that there was no significant difference in the two mean scores obtained.

Hypothesis 1 C

There is no difference in students' perception of their professors between the College of Natural Science and the College of Social Science.

Table 9 presented the results of the third sub-hypothesis in which the value of the test statistics were not significant at the .05 level; consequently, the null hypothesis was not rejected, and it was concluded that there was no significant difference in students' perception about their

professors between the College of Natural Science and the College of Social Science.

Hypothesis 1 D

There is no difference in students' feelings about student colleagues between the College of Natural Science and the College of Social Science.

According to the fourth sub-hypothesis, the analysis of variance run on the data showed, in Table 10, that the test statistics were not significant at the .05 level; consequently, the null hypothesis was not rejected and it was concluded that there was no significant difference between the students' feelings about their colleagues in both the Colleges of Natural Science and Social Science.

Hypothesis 2 A

There is no difference in students' satisfaction with their college environment between classes in both the Colleges of Natural Science and Social Science.

Table 7 revealed that the test statistic was not significant at the .05 level. Therefore, the null hypothesis was not rejected and it was concluded that there was no significant difference in students' satisfaction with their college environment between sophomores and seniors. However, the researcher could say that the test statistic is very close to the significant; this is supported by the fact that there is a slight difference between the test statistic score and the .05 level which is equal to 3.84 established as a satisfactory level of significance.

Hypothesis 2 B

There is no difference in students' satisfaction with their courses between classes in both the Colleges of Natural Science and Social Science.

Table 8 illustrated that the test statistic supported the null hypothesis, and the results showed that the test statistic was not significant at the .05 level. Consequently, the null hypothesis was not rejected and it was concluded that there was no significant difference in the two mean scores obtained. Thus, this sub-hypothesis did not meet the level of .05 which was established previously as the satisfactory level of significance.

Hypothesis 2 C

There is no difference in students' perception about their professors between classes in both the Colleges of Natural Science and Social Science.

According to this sub-hypothesis, the results of Table 9 showed that the test statistic was significant at the .05 level. Therefore, the null hypothesis was rejected and it was concluded that there was significant difference in the mean scores obtained. Since significance was obtained in the test, there were significant differences between students' perception about their professors; in other words, sophomore and senior students do differ in their perception about their professors not only in the different colleges but also within the same college. The cell means and Figure 1 show the significant interaction between the variables.

Table 11 - gives the cell means for groups in the two colleges for the sub-scale of professors.

TABLE 11

College	Sophomore	Senior
College of Natural Science	47.45	45.470
College of Social Science	44.80	47.675

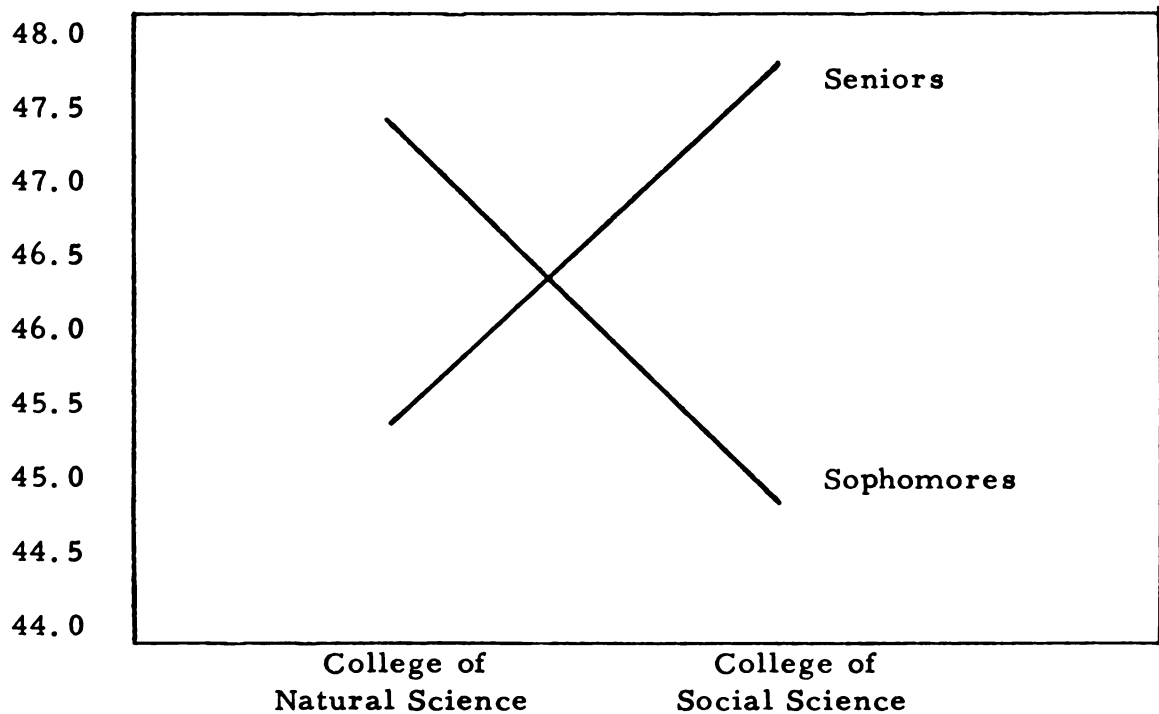


Figure 1 - Indicates the interaction between the cell means for groups in the two colleges for the sub-scale of professors.

Since there is difference here, it seems advisable to review the students' mean scores. The cell means show that sophomores in the College of Natural Science had a mean of 47.45, while the seniors had

a mean of 45.47; on the other hand, sophomores in the College of Social Science had a mean of 44.80 while seniors had a mean of 47.67. Since the scoring techniques showed that the natural mean for all the students in this sub-scale is 46, sophomores in the College of Natural Science are dissatisfied with their professors while seniors are satisfied. On the other hand, sophomores in the College of Social Science are satisfied with their professors while seniors are dissatisfied.

Hypothesis 2 D

There is no difference in students' feelings about student colleagues between classes in both the College of Natural Science and the College of Social Science.

According to this sub-hypothesis, the results in Table 10 showed that the test statistic was significant at the .05 level; consequently, the null hypothesis was rejected and it was concluded that there was a significant difference in students' feelings about student colleagues between classes. The cell means and Figure 2 show the significant differences between the variables.

Table 12 - Presents cell means for groups in the two colleges for the sub-scale of student colleagues.

TABLE 12

College	Sophomore	Senior
College of Natural Science	60.475	60.35
College of Social Science	58.670	63.80

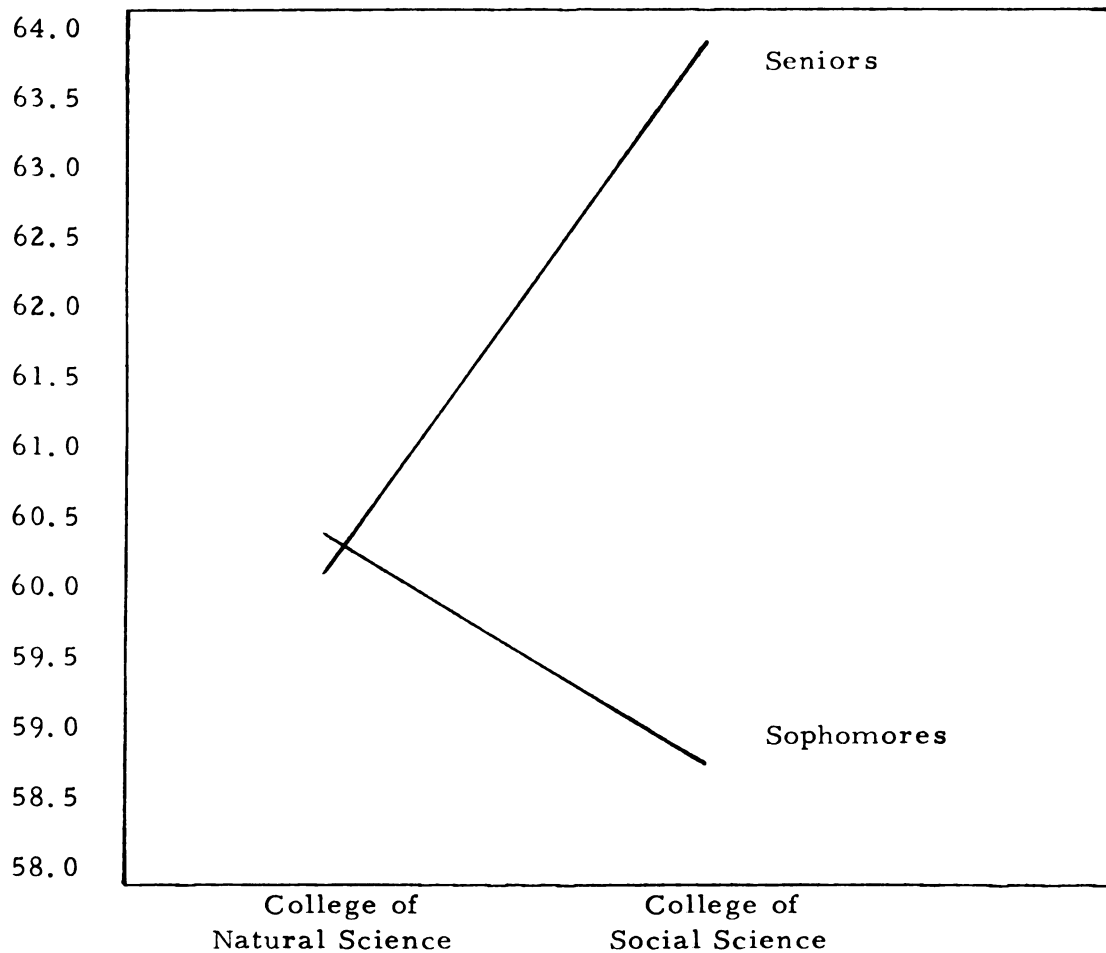


Figure 2 - Illustrates the interaction between the cell means for groups in the two colleges for the sub-scale of student colleagues.

The significant difference in the mean scores obtained shows that sophomores and seniors in both colleges are satisfied with their student colleagues and they do have a good relationship in general, since all of them had a mean score not exceeding the natural mean of 64 established for all the students in this sub-scale.

Table 12 and Figure 2 show that sophomores in the College of Social Science are more satisfied and pleased with their student colleagues than are seniors. On the other hand, sophomores and seniors in the College of Natural Science do not differ in their satisfaction although both of them are satisfied with their student colleagues and have a good relationship with them.

Hypothesis 3 A

There is no difference in students' satisfaction with their college environment between males and females in both the College of Natural Science and the College of Social Science.

According to this sub-hypothesis, the results in Table 7 showed that the test statistic was significant at the .05 level; consequently, the null hypothesis was rejected, indicating that the groups in the sample differ in their satisfaction with the college environment according to their sex. In other words, there was significant difference between the sexes according to their satisfaction with college environment; the males have different perception of the college environment than the females. The cell means show the significant differences found between the variables. Table 13 - Gives cell means for groups in the two colleges for the sub-scale of college environment.

TABLE 13

College	Males	Females
College of Natural Science	67.47	64.60
College of Social Science	66.60	64.47

The mean for the males is 67 and for the females is 64.5. The difference is significant at .05 level of probability.

Since there is a difference here, the researcher will examine their mean scores. All males in the College of Natural Science had a mean of 67.47 and the females had a mean of 64.60. All males in the College of Social Science had a mean of 66.60 and the females 64.47. Since the scoring techniques showed that the natural mean for the student is 68, therefore, all the males and females in both colleges are satisfied with their college environment but females are more satisfied than males in both colleges. The mean difference indicates also that males and females in the College of Social Science are more satisfied with their college environment than those in the College of Natural Science.

Although the writer did not set up a hypothesis to determine the interaction between the colleges, classes and the sex, the test statistics supported the interaction between these variables regarding students' satisfaction with their college environment and this could be seen in Table 7.

Hypothesis 3 B

There is no difference in students' satisfaction with their courses between males and females in both the College of Natural Science and the College of Social Science.

The results of this sub-hypothesis showed, in Table 8, that the test statistic was not significant at the .05 level. Therefore, the null hypothesis was not rejected. The test revealed the level at 0.15, which was far from meeting the level of significance predicted previously at

.05; hence, the test statistic supported the null hypothesis which emphasized the premise that there is no significant difference between males' and females' satisfaction with their courses.

Hypothesis 3 C

There is no difference in students' perception about their professors between males and females in both the College of Natural Science and the College of Social Science.

The test statistic in Table 9 supported the null hypothesis, and the results showed that the test statistic was not significant at the .05 level; consequently, the null hypothesis was not rejected, indicating that the groups in the sample did not differ in their perception about their professors. In other words, there is no difference between males' and females' satisfaction about their professors.

Hypothesis 3 D

There is no difference in students' feelings about student colleagues between males and females in both the College of Natural Science and the College of Social Science.

The results in Table 10 supported the prediction of this sub-hypothesis. The test statistic was not significant at the .05 level. Consequently, the null hypothesis was not rejected. The test disclosed the level at 0.12, which did not meet the level of .05 established previously as the satisfactory level of significance. Therefore, there were no significant differences between males' and females' feelings about student colleagues.

Hypothesis 4 A

There is no relationship between students' satisfaction with their college environment and their families' level of income in both the Colleges of Natural Science and Social Science.

Table 14 - Gives the relationship between students' points of view about the college environment and their families' level of income.

TABLE 14

Sources of Variation	M. S. Mean Square	D. F. Degree of Freedom	F Test Statistic	P less than
Differences between colleges	10.0000	1	0.1731	0.6780
Differences between income levels	88.1581	1	1.5262	0.2186
Interaction between colleges and level of income	13.3297	1	0.2308	0.6317

The results supported the null hypothesis and indicated that there was no major difference between students' points of view about the college environment and their families' level of income. The test statistic was not significant at the .05 level; thus, the null hypothesis could not be rejected.

Hypothesis 4 B

There is no relationship between students' satisfaction with their courses and their families' level of income in both the College of Natural Science and the College of Social Science.

Table 15 - Discloses the relationship between the students' satisfaction about their courses and their families' level of income.

TABLE 15

Sources of Variation	M. S. Mean Square	D. F. Degree of Freedom	F. Test Statistic	P less than
Differences between colleges	117.3063	1	2.1226	0.1472
Differences between income levels	129.9979	1	2.3522	0.1272
Interaction between colleges and level of income	43,8472	1	0.7934	0.3745

It is evident from the data in Table 15 that the null hypothesis, that no differences exist between the courses and the families' level of income, is accepted because the test statistic was not significant at the .05 level which was selected previously as satisfactory level of significance.

Hypothesis 4 C

There is no relationship between students' perception about the professors and their families' level of income in both the College of Natural Science and the College of Social Science.

Table 16 - Reveals the relationship between the students' perception about their professors and their families' level of income.

TABLE 16

Sources of Variation	M. S. Mean Square	D. F. Degree of Freedom	F. Test Statistic	P less than
Differences between colleges	2.0250	1	0.0565	0.8124
Differences between income levels	218.3777	1	6.0953	0.0147 *
Interaction between colleges and level of income	0.9916	1	0.0277	0.8681

* Significant at .05 level of type one error

The analysis of variance test in Table 16 and the cell means in Table 17 did not support the prediction of this sub-hypothesis. The test statistic was significant at the .05 level; consequently, the sub-hypothesis was rejected. Therefore, differences exist among the students' perception about their professors and their families' level of income.

Table 17 - Shows cell means for groups in two colleges for the sub-scale of perception about the professors.

TABLE 17

College	Level of Income	
	Low Income	High Income
College of Natural Science	43.5	46.80
College of Social Science	43.0	46.75

Low Level of Income	High Level of Income
43.22	46.76

The significant differences in the mean scores obtained indicate that students in both the Colleges of Natural Science and Social Science who came from families with low level of income are more satisfied with their professors than are those who came from families with high level of income, since the mean scores are so far below the natural mean of 46 established for the students in this sub-scale. Because their mean scores are above the natural mean previously established for this sub-scale, it appeared that students in both colleges who came from families with high level of income are dissatisfied with their professors.

Hypothesis 4 D

There is no relationship between students' feelings about student colleagues and their families' level of income in both the College of Natural Science and the College of Social Science.

Table 18 - Gives the relationship between the students' feelings about their student colleagues and their families' level of income.

TABLE 18

Sources of Variation	M.S. Mean Square	D. F. Degree of Freedom	F Test Statistic	P less than
Differences between colleges	27.2250	1	0.4779	0.4905
Differences between level of income	33.8601	1	0.5943	0.4420
Interaction between colleges and level of income	20.4016	1	0.3581	0.5505

It is evident from the data in Table 18 that the null hypothesis was not rejected because the test statistic was not significant at the .05 level. Therefore, no differences exist among students' feelings about their student colleagues and their families' level of income.

Hypothesis 5 A

There is no relationship between students' satisfaction with their college environment and their families' level of education in both the College of Natural Science and the College of Social Science.

Table 19 - Discloses the relationship between the students' point of view about the college environment and their families' level of education.

TABLE 19

Sources of Variation	M. S. Mean Square	D. F. Degree of Freedom	F. Test Statistic	P less than
Differences between colleges	10. 0000	1	0. 1718	0. 6791
Differences between level of education	32. 5489	1	0. 5593	0. 4557
Interaction between colleges and level of education	2. 2748	1	0. 0391	0. 8436

The results supported the null hypothesis and indicated that there were no major differences between students' point of view about the college environment and their families' level of education. The test statistic was not significant at the .05 level; therefore, the null hypothesis was not rejected.

Hypothesis 5 B

There is no relationship between students' satisfaction with their courses and their families' level of education in both the College of Natural Science and the College of Social Science.

Table 20 - Shows the relationship between the students' point of view about their courses and their families' level of education.

TABLE 20

Sources of Variation	M. S. Mean Square	D. F. Degree of Freedom	F. Test Statistic	P less than
Differences between colleges	117.3062	1	2.0840	0.1509
Differences between level of education	9.4508	1	0.1679	0.6826
Interaction between colleges and level of education	4.6991	1	0.0835	0.7731

The results of the null hypothesis showed that the test statistic was not significant at the .05 level. Consequently, the null hypothesis was not rejected, indicating that the groups in the sample do not differ in their satisfaction about the courses with respect to their families' level of education. In other words, those who came from families with a high level of education do have the same perception about the courses as do those who came from families of low level of education.

Hypothesis 5 C

There is no relationship between students' perception about the professors and their families' level of education in both the College of Natural Science and the College of Social Science.

Table 21 - Reveals the relationship between students' perception about their professors and their families' level of education

TABLE 21

Sources of Variation	M. S. Mean Square	D. F. Degree of Freedom	F. Test Statistic	P less than
Differences between colleges	2.0250	1	0.0544	0.8159
Differences between level of education	0.1189	1	0.0032	0.9551
Interaction between colleges and level of education	1.7029	1	0.0457	0.8310

It is evident from the data in Table 21 that the null hypothesis indicated no differences exist between students' perception about their professors and their families' level of education. Therefore, the null hypothesis is accepted because the test statistic was not significant at the .05 level previously established as satisfactory level of significance.

Hypothesis 5 D

There is no relationship between students' feelings about student colleagues and their families' level of education in both the College of Natural Science and the College of Social Science.

Table 22 - Gives the relationship between students' feelings about student colleagues and their families' level of education.

TABLE 22

Sources of Variation	M. S. Mean Square	D. F. Degree of Freedom	F. Test Statistic	P less than
Differences between colleges	27.2250	1	0.4825	0.4884
Differences between level of education	76.2868	1	1.3519	0.2468
Interaction between colleges and level of education	62.8503	1	1.1138	0.2929

The test statistic supported the null hypothesis, and the results showed that the test statistic was not significant at the .05 level. Consequently, the null hypothesis was not rejected, indicating that the groups in the sample do not differ significantly in their feelings about student colleagues and their families' level of education. Stated another way, those students who came from families of high level of education do have the same feelings about student colleagues as do those who came from families of low level of education.

Table 23 - Percentages of students' satisfaction and dissatisfaction with their major field environment with respect to colleges, classes and sex in the College of Natural Science.

TABLE 23 - COLLEGE OF NATURAL SCIENCE

SUB-SCALES																					
Classes	Sex	Satisfaction With College Environment				Point of View about Courses				Perception of Professors				Feelings About Student Colleagues				Total Scale			
		% Sat.		% Dis.		% Sat.		% Dis.		% Sat.		% Dis.		% Sat.		% Dis.		% Sat.		% Dis.	
		%		%		%		%		%		%		%		%		%		%	
		Sat.	Dis.	Sat.	Dis.	Sat.	Dis.	Sat.	Dis.	Sat.	Dis.	Sat.	Dis.	Sat.	Dis.	Sat.	Dis.	Sat.	Dis.	Sat.	Dis.
Sophomores	Male	50	50	40	60	30	70	55	45	40	60	55	45	40	60						
	Female	75	25	30	70	35	65	80	20	75	25										
Seniors	Male	45	55	40	60	50	50	65	35	45	55										
	Female	50	50	40	60	65	35	70	30	55	45										

Table 24 - Percentages of students' satisfaction and dissatisfaction with their major field environment with respect to colleges, classes and sex in the College of Social Science.

TABLE 24 - COLLEGE OF SOCIAL SCIENCE

SUB-SCALES													
Classes	Sex	Satisfaction With College Environment		Point of View about Courses		Perception of Professors		Feelings About Student Colleagues		Total Scale			
		%	%	%	%	%	%	%	%	%	%		
		Sat.	Dis.	Sat.	Dis.	Sat.	Dis.	Sat.	Dis.	Sat.	Dis.		
Sophomores	Male	65	35	45	55	65	35	65	35	70	30		
	Female	70	30	65	35	75	25	85	15	70	30		
Seniors	Male	45	55	45	55	35	65	35	65	50	50		
	Female	65	35	45	55	45	55	65	35	60	40		

In the College of Natural Science

Analysis of Table 23 indicates that in the College of Natural Science sophomore females are more satisfied with the college environment than are males. Regarding the satisfaction with the courses, the percentage of the females who are dissatisfied with the courses is higher than the percentage of the males. While the percentage of dissatisfaction about the professors is approximately the same, it was found that there is a difference between sophomores and seniors according to their feelings about their student colleagues; sophomores are more satisfied with them than seniors. The sophomore males and females also differ in their satisfaction and dissatisfaction about the total major field environment; the majority of the females are more pleased and satisfied with their major field environment than the minority which represents males.

Regarding senior male and female students, the table reveals that females are more pleased and satisfied with their college environment than the males. However, the points of view of both males and females are similar about courses, student colleagues and professors. Regarding the total scale, females are more satisfied with their major field environment than the males.

In the College of Social Science

Analysis of Table 24 discloses sophomore males and females are similar in their satisfaction about college environment and courses, but they differ in their satisfaction about their professors and student colleagues. Females are more satisfied than males.

With respect to senior students, females are more satisfied with their professors than males, but they are similar in the point of view about the courses. They differ about student colleagues; female seniors are more pleased and satisfied and have better relationships with colleagues than male seniors. Regarding the total scale, female students are more satisfied with their major field environment than male students.

Comparison Between Sophomores in Both Colleges

The results show that sophomore males in the College of Natural Science are less satisfied with college environment than the sophomore males in the College of Social Science; while the female students in both colleges do not differ in their satisfaction and they are pleased and satisfied. Regarding their point of view about the courses, sophomore males in both colleges do not differ, while there is a difference between the females in both colleges. Females in the College of Social Science are more satisfied with college environment than females in the College of Natural Science.

Regarding their perception about the professors, sophomores in the College of Natural Science are dissatisfied with their professors while sophomores in the College of Social Science are satisfied with them and have a good relationship and idea about their professors. Regarding their satisfaction about the major field environment as a total, they do not differ, but they do have similar satisfaction.

Comparison Between Seniors in Both Colleges

The results in Table 23 and Table 24 indicate that senior males in both colleges do not differ in their perception about the college environment and courses, while at the same time indicate a difference in their points of view about the professors. Senior males in the College of Social Science are more dissatisfied than senior males in the College of Natural Science, and this is true also with their feelings about student colleagues. Senior males in the College of Social Science are dissatisfied with respect to feelings about student colleagues, while in the College of Natural Science they are satisfied.

According to their perception about the professors, females in the College of Natural Science are satisfied while in the College of Social Science they are dissatisfied. With respect to their feelings about student colleagues, females in both colleges are satisfied with their colleagues and, as a total, they are satisfied with their major field environment.

Sophomore females, in general, are more satisfied than the sophomore males in both colleges; this is true also with senior females in both colleges.

Summary

In this chapter data gathered for the purpose of providing a clearer understanding of factors related to students' satisfaction and dissatisfaction were presented. Analysis of variance techniques (ANOVA) were used to determine the degree of significance of those differences noted between the students' satisfaction and dissatisfaction

and the influences of their college, classes, sexes, families' level of income and families' level of education. The analysis of data presented in this chapter revealed that there was no over-all difference between the colleges regarding students' satisfaction with their major field environment as a whole. Thus, Hypothesis I was not rejected on the grounds that there were no significant differences at the .05 level in students' satisfaction with their major field environment between both the College of Natural Science and the College of Social Science.

Hypothesis II could not be rejected entirely, because two sub-hypotheses were not rejected and the other two were rejected at .05 level of significance. However, the statistical analysis determined the rejection of the two sub-hypotheses which were part of the main Hypothesis II and one of the sub-hypothesis which was part of main Hypothesis III and one of the sub-hypothesis which was part of main Hypothesis IV. All the other sub-hypotheses were not rejected at .05 level of significance.

Hypothesis V was not rejected on the grounds that there was no significant difference in students' satisfaction between their families' level of education and college environment, courses, professors and student colleagues.

Statistical analysis revealed that there was a significant difference between the groups in their perception about their professors and also revealed that there was a significant difference between the groups in their feelings about student colleagues.

Statistical analysis proved also that there was a significant difference between the sexes about their points of view with college environment. Differences were also found in student's perception about the professors and their families' level of income. As seen in Tables 19, 20, 21 and 22, the test revealed that the probability level of significance did not meet the satisfactory level of .05.

Looking at the differences between the means in Tables 11, 12, 13 and 17 and Figures 1 and 2, the data in these tables revealed that there were significant differences in the means of sophomores and seniors in both the College of Natural Science and the College of Social Science with respect to their perception about the professors and student colleagues.

Table 13 revealed that there were significant differences in the means of the males and females in both the College of Natural Science and the College of Social Science with regard to their points of view about college environment.

Table 17 revealed that there were significant differences in the means of the groups in both colleges between their families' level of income and regarding their perception about their professors.

Finally, the percentages of students' satisfaction and dissatisfaction with their major field environment and the influences of the variables, such as colleges, classes and sex, are shown in Tables 23 and 24. The results of these tables and the interpretation were presented.

A discussion of the findings and the conclusions and the recommendations for further studies will be presented in Chapter V.

CHAPTER V

SUMMARY, FINDINGS, SPECULATIONS, CONCLUSIONS AND RECOMMENDATIONS

This chapter contains a summary of the study, summary of the findings, a discussion of the findings, some speculations, the conclusions and recommendations drawn from the results of the investigation and, finally, recommendations for further research are also suggested.

The Problem

Education and particularly higher education is of strategic importance in any society, not only as an agency of socialization but also as a selecting and sorting agency where individuals learn the skills and values which are needed to embark on various occupational careers.

The effectiveness of a college program is measured, in part, from the social, emotional and academic adjustment of the students and their perception of the program and the environment as a whole. In large, complex universities particularly, students' satisfactions and dissatisfaction with major field environment, such as college environment, courses, professors and fellow students, might differ according to the college program and according to the relationship between student and faculty and the relationship of student to student.

This study was designed to yield a comprehensive and meaningful picture of satisfaction and dissatisfaction among students enrolled in

the College of Natural Science and the College of Social Science at Michigan State University.

The Purpose of the Study

The purpose of this study is to investigate the students' satisfaction and dissatisfaction with the major field environment such as college environment, courses, professors and fellow students. Three goals consistent with this purpose have been established to guide the research:

1. To obtain a clearer understanding of the concerns of those students who choose Natural Science and Social Science as their college major.
2. To determine what relationships, if any, exist between a student's satisfaction and dissatisfaction with major field environment and his college, classes, sex, socio-economic status and the family's level of education.
3. To formulate hypotheses, whenever possible, which may serve as a basis for further investigations.

Hypotheses

The data were accumulated and tested on the basis of five main hypotheses, each of which contains four sub-hypotheses. The five main hypotheses to be tested were:

Hypothesis I

There are no differences in students' satisfaction with their major field environment between the College of Natural Science and the College of Social Science.

Hypothesis II

There are no differences in students' satisfaction with their major field environment between the classes in the College of Natural Science and the College of Social Science.

Hypothesis III

There are no differences in students' satisfaction with their major field environment between males and females in the College of Natural Science and the College of Social Science.

Hypothesis IV

There is no relationship between students' satisfaction with their major field environment and their families' level of income in the College of Natural Science and the College of Social Science.

Hypothesis V

There is no relationship between students' satisfaction with their major field environment and their families' level of education in the College of Natural Science and the College of Social Science.

Methodology

The researcher, to test the five hypotheses stated above, undertook an opinion survey of the satisfaction and dissatisfaction variables of both colleges. A questionnaire was developed for this purpose and was administered to a randomly selected sample of students in both colleges. The basic procedure making up the design of this study included the selection of the sample, collection of the data, analysis of the data, and the drawing of conclusions based on the evidence of the

findings. In conducting this study, the researcher has utilized one survey instrument for collecting the data. The research technique was survey design.

Population

The population involved in this study consisted of 1406 sophomore and 3092 senior students enrolled in the Colleges of Natural Science and Social Science at Michigan State University during the Spring term of 1972. From this population, a random sample of 160 sophomore and senior students was drawn.

Samples

Eighty students were selected from each college with the selection being done randomly. The sample from the College of Natural Science consisted of 20 male and 20 female sophomore students and 20 male and 20 female senior students. There were identical proportions in the sample from the College of Social Science. An effort was made to obtain a representative sample by administering the questionnaire in those courses which were required for all the sophomore and senior students in both the Colleges of Natural Science and Social Science.

Collecting the Data

A closed questionnaire to measure students' satisfaction and dissatisfaction with their major field environment was prepared by the researcher and selected from different scales. The questionnaire was administered in both Colleges by the researcher personally.

Courses which were required of the majority of male and female sophomores and male and female seniors were chosen. The questionnaire was preceded by half a page of instructions in order to assist students' understanding of the instrument. The subjects in both Colleges received the questionnaire from the researcher and were requested either to return their completed answer sheets at the end of the class period or to take the questionnaire with them and return their answer sheets at the next class period. This method of administration provided the sample population of 160 students.

Treatment of Data

Responses to the questionnaire were analyzed and punched on cards, two cards for each subject, for use at the Michigan State University Computer Center. For the purpose of statistical analysis, the Analysis of Variance (ANOVA) was employed to measure the consistency between various segments of the two colleges with the type of sample and its sub-scales. The decision rule followed was to reject the null hypotheses at alpha .05 of probability at type one error. Data that could not be tested through statistical devices were described. The percentages and frequencies were used to make subjective conclusions.

Summary of Findings

The analysis of the data presented in Chapter IV proved that there were no over-all differences between the College of Natural Science and the College of Social Science regarding students' satisfaction

with the major field environment as a whole. The level of significance was previously set at .05 and the test results showed that Hypothesis I, as a whole, was not rejected on the grounds that there were no significant differences, at the .05 level, in students' satisfaction with their major field environment between both the College of Natural Science and the College of Social Science.

Hypothesis II was not rejected entirely because two sub-hypotheses (2 A and 2 B) were not rejected and the remaining two (2 C and 2 D) were rejected. It was determined that there were significant differences between sophomores and seniors in their perception of professors, and also it was determined that there were differences between sophomores and seniors regarding their feelings about their student colleagues (Tables 9 and 10 and Figures 1 and 2 so indicate.)

Hypothesis III was not rejected as a whole but one of the sub-hypothesis (3 A) was rejected because there was significant difference, at the .05 level, between males and females in their points of view about the college environment (Table 7 indicates that.) The other three sub-hypotheses (3 B, 3 C and 3 D) were not rejected because the test statistics were not significant at the .05 level; in other words, there were no differences between males and females in their perception of their courses, professors and student colleagues.

Hypothesis IV was not rejected entirely, but one of the sub-hypothesis (4 C) was rejected because there was significant difference at the .05 level between students' perception of their professors and

their families' level of income. In other words, those who come from families of higher level of income differ in their perception of their professors from those who come from families of lower level of income. The other three sub-hypotheses (4 A, B and D) were not rejected because the test statistics were not significant at the .05 level; that is, there were no significant differences between families' level of income and students' satisfaction with the college environment, courses and student colleagues.

Hypothesis V, as a whole, was not rejected on the grounds that there were no significant differences at the .05 level between families' level of education and students' satisfaction with their college environment, courses, professors and student colleagues.

Discussion of the Findings

In order to examine the test statistics in a simplified manner, the researcher will discuss some sub-hypotheses as a group and others separately.

Hypotheses I - A, B, C, D

There are no differences in students' satisfaction and dissatisfaction with their college environment, courses, professors and student colleagues between the College of Natural Science and the College of Social Science

The test statistics for these four sub-hypotheses failed to yield significance. This consistency across the four sub-hypotheses can, perhaps, be explained by concluding that the students' satisfaction is not dependent on factors relating to the major field environment. The

researcher concludes that a student's satisfaction is dependent more on specific factors rather than on the major field environment as a whole.

Hypothesis 2 A

There is no difference in students' satisfaction with their college environment between classes in both the Colleges of Natural Science and Social Science.

The test failed to give significant differences. It is difficult for the researcher to be absolutely certain about the reasons for this lack of significance. In other words, there were no differences in students' satisfaction and dissatisfaction with their college environment between sophomores and seniors in both the Colleges of Natural Science and Social Science.

Hypothesis 2 B

There is no difference in students' satisfaction with their courses between classes in both the Colleges of Natural Science and Social Science.

The data failed to yield significance between these two variables. The researcher is not in a position to give clear-cut conclusions from the findings and, once again, he is forced to have recourse to speculation. It is likely that the courses the students take are such as will help the students satisfy their needs, or perhaps the students perceive their instructors as being competent and personally interested. Possibly the other students with whom they come in contact are helping to create a situation that is conducive to learning. Looking at the matter from the students' point of view, the researcher is inclined to believe that the expectations of the students in the different class levels and courses are

similar and, therefore, similar facilities and similar situations bring about more or less an equal degree of students' satisfaction and dissatisfaction.

Hypothesis 2 C

There is no difference in students' perception about their professors between classes in both the Colleges of Natural Science and Social Science.

The data indicated that the students' perception of their professors did differ significantly. In the College of Natural Science, sophomores indicated that they were less pleased than seniors. In contrast, in the College of Social Science, sophomores were more satisfied and pleased with their instructors than seniors at the same college.

In order to arrive at definitive conclusions from this significant difference, a complete study of the programs and of the individual instructors would be needed. It was beyond the scope and purpose of this study to investigate this aspect of the problem.

Hypothesis 2 D

There is no difference in students' feelings about student colleagues between classes in both the College of Natural Science and the College of Social Science.

The data also indicated that in the College of Social Science sophomores were more pleased and satisfied than seniors. Comparing the two colleges, sophomores in the College of Social Science were more satisfied and pleased with their student colleagues than sophomores in the College of Natural Science. In contrast, seniors in the College of Natural

Science were more pleased with their student colleagues than the seniors of the College of Social Science.

Hypothesis 3 A

There is no difference in students' satisfaction with their college environment between males and females in both the College of Natural Science and the College of Social Science.

The data showed that the females in both colleges were more pleased and satisfied with their college environment than the males. This seems to be consistent with the findings of other research which tends to show that women students, in general, are better scholastic performers than men students.

Hypothesis 3 B

There is no difference in students' satisfaction with their courses between males and females in both the College of Natural Science and the College of Social Science.

The data indicated that there was no significant difference in students' satisfaction between the sex of the students and course work. Hypothesis 3 A seemed to indicate that there was significant difference between student's sex and the college environment but, looking at the aspect of courses of this college environment, there seems to be no difference at all. Therefore, it is clear that both males and females are equally happy with their courses. What accounts for the difference found earlier must, therefore, be something else, such as differences between males and females about their satisfaction with their college environment or the differences between sophomores and seniors with

their perception of their professors or their feelings about student colleagues.

Hypothesis 3 C

There is no difference in students' perception about their professors between males and females in both the College of Natural Science and the College of Social Science.

The data indicated that there was no significant difference in students' satisfaction between the sex of the students and their perception of professors. The researcher is inclined to contend that both males and females are equally satisfied with their professors.

Hypothesis 3 D

There is no difference in students' feelings about student colleagues between males and females in both the College of Natural Science and the College of Social Science.

The data indicated that there was no significant difference in students' satisfaction in their feelings about student colleagues between the sex of the students. The researcher is inclined to contend that both males and females are equally satisfied with their student colleagues in spite of the fact that the percentages for females' satisfaction are greater than that of the males.

Hypothesis 4 A

There is no relationship between students' satisfaction with their college environment and their families' level of income in both the Colleges of Natural Science and Social Science.

Since the test failed to give significant difference between the variables, the researcher is inclined to say that the over-all collegiate satisfaction of all students, whether they come from families with a high or low level of income, is not significantly different. Since their expectations may be alike, the satisfaction and dissatisfaction with college environment may also tend to be alike. In the case of these particular variables, the researcher is inclined to generalize that there may not be a relationship at all between a student's collegiate satisfaction and the family's level of income.

Hypothesis 4 B

There is no relationship between students' satisfaction with their courses and their families' level of income in both the College of Natural Science and the College of Social Science.

Since the test failed to give significance, the researcher once again is inclined to conclude that the family's level of income is not a major factor affecting the level of a student's satisfaction or dissatisfaction with the courses. If there is any influence of the variable at all, the statistical analysis was not able to detect this influence. A student's satisfaction or dissatisfaction probably is dependent on other factors in the major field environment.

Hypothesis 4 C

There is no relationship between students' perception about their professors and their families' level of income in both the College of Natural Science and the College of Social Science.

The test of this hypothesis yielded significant difference and this fact compels the researcher to conclude that the family's level of income does affect a student's relationship with professors. The data indicated that the students from families of low level of income are more satisfied with professors than are students from families with a higher level of income.

Hypothesis 4 D

This is no relationship between students' feelings about student colleagues and their families' level of income in both the College of Natural Science and the College of Social Science.

The lack of significance in the test of this hypothesis seems to indicate that the families' level of income is not a major influence on students' ability to get along with other students. In spite of the differences of the level of family income, there are no differences in the way students perceive their colleagues. Probably, in these relationships, their own personality factors are of more importance than the factors that have to do with family income.

Hypotheses 5 - A, B, C, D

There are no relationships between students' satisfaction with their college environment, courses, professors and student colleagues and their families' level of education in both the Colleges of Natural Science and Social Science.

The test statistics for these four sub-hypotheses failed to yield significance. This consistency across the four sub-hypotheses can, perhaps, lead to the conclusion that a student's satisfaction is not dependent on factors relating to the family's level of education. The family's level of education obviously does not influence student satisfaction. The test results of Hypothesis 4 D indicated that the family's level of income, too, is not a major factor in determining a student's satisfaction. These findings, taken together, are a sufficient indication to conclude that student's satisfaction is dependent more on the actual factors in his major field environment and not on the factors of his home and family.

Speculations

Hypothesis 2 A

Regarding the sub-hypothesis 2 A, in which the test statistic failed to yield significant differences in students' satisfaction and dissatisfaction with their college environment between sophomores and seniors, the researcher can only arrive at possibilities rather than certitudes. It is likely that both colleges, being affiliates of the same university, are attempting to provide similar kinds of experience to

their students (even though the College of Natural Science does have a budget 77% greater than that of the College of Social Science.)¹ Therefore, from the findings, it is quite clear that it is not the level of the budget that is contributing to students' satisfaction. It could be that the students in both of the colleges have similar expectations and they find these expectations being fulfilled in spite of the differences of college budget.

Hypothesis 2 C

The test statistics showed that there were differences in students' perception of their professors between sophomores and seniors. The researcher is content to suggest some possible reasons for the differences in satisfaction and dissatisfaction. It may be that instructors are not giving sufficient time to sophomore students in the College of Natural Science and to the seniors in the College of Social Science for achieving the goals of the courses. Student dissatisfaction may also be a reflection of the situation created when instructors concentrate their attention on graduate students and graduate programs, or spend disproportionate time on research and publication. The practice of assigning graduate assistants the responsibility of handling undergraduate courses may also be a factor in students' perception about their professors. Whatever the reason or combination of reasons for the considerable difference in perception of professors, it is a situation which might well be of concern to those responsible for undergraduate programs.

¹ See letter of the Dean of College of Social Science in Appendix C

Hypothesis 2 D

The data indicated that there were significant differences in students' feelings about student colleagues between sophomores and seniors. The researcher is inclined to say that there is a possibility that the students in the College of Social Science are engaged in activities that are humanistically oriented, whereas the students in the College of Natural Science are engaged more in laboratory activities and related undertakings. However, this possible explanation is not applicable in the case of the seniors of the two colleges. It could be that the anticipation of the job future has something to do with colleague dissatisfaction. Perhaps the students perceive that there are more job opportunities available in Natural Science areas than in the Social Science fields and, therefore, senior students in the College of Natural Science tend to get along better with their colleagues than the senior students in the College of Social Science.

Hypothesis 3 A

The results indicated that the females in both colleges were more pleased and satisfied with their college environment than the males. The researcher is content to comment that the reason may be that there is a difference in the ability of females to organize study habits and in the over-all methods of spending free time. It is possible, when free time is available, males may spend that time in outdoor activities while females may spend their full time in indoor activities such as reading and studying. The difference between the

males and females in the Natural Science College in contrast with the College of Social Science was slight.

Hypothesis 4 C

The test of this hypothesis indicated that there was relationship between the families' level of income and students' perception of their professors. This finding could, perhaps, be explained by indicating that students from families of high level of income have greater expectations from their professors; when these expectations are not met, students are dissatisfied. Conversely, students from families of lower level of income seem to have lower expectations from their professors and, consequently, they are more easily satisfied.

Conclusions and Recommendations

The researcher may draw from the results of this study the following conclusions:

The Students

1. In terms of the questionnaire designed for this study, there were no over-all differences between the students' satisfaction at the two colleges as a result of their program activities. Even though there were some differences in the responses of the sample in some sub-scales, the total data did not support the hypothesis that there is a difference between the groups' satisfaction with their major field environment in both colleges.

2. The findings of this study indicated that there were significant differences in students' feelings about their colleagues between sophomores and seniors. Sophomores in the College of Social Science were more satisfied and pleased with their student colleagues than were seniors. Therefore, and because of the importance of social contacts among the students, special effort should be made to encourage students in both colleges to participate actively in students' clubs and organizations, and also both colleges should enlarge their extra curricular activities and programs to give the students an opportunity to establish a better relationship between themselves.
3. The results of the study indicated that, at both colleges, students' satisfaction was related to social and personal background factors. For instance, those who came from families of high level of income were not pleased but, rather were dissatisfied with their professors. This finding was supported by the study which had been done by James S. Davie.² Therefore, arrangements should be made to better satisfy students of all income levels and perhaps a complete study of the programs and of the individual instructors would be needed.

2

Davie, Op. Cit.

The Faculty

1. Results of this study indicated that there was a gap between students and faculty and it was determined significantly that sophomores and seniors did differ in their perception of their professors. Sophomores in the College of Natural Science were dissatisfied with their professors while seniors were satisfied. On the other hand, sophomores in the College of Social Science were satisfied with their professors while seniors were dissatisfied. Consequently, the results of the study seem to indicate that there is a need for encouraging social and informal gatherings of faculty and students to the end that better rapport between faculty and students and between students and advisors can be established in and outside the classroom.
2. Because of the reason mentioned above, the instructors in both colleges, interested in the processes of education and concerned about the students' future, should look at the educational and learning process from the stand-point of the individual student and his needs and concerns, ambitions and aspirations. Students must be dealt with as a functioning whole not separated from their surroundings. The environment in which students live, including the social institutions and the learning processes of which they are a part, must be of prime concern of faculty and administration.

The Colleges

1. From the results of this study, it could be inferred that in large colleges and universities it is not a matter of luxury for a college to establish and maintain a student services office in order to more adequately take care of students' needs and to establish a better relationship with them to be better able to satisfy these needs. Specifically, since most of the qualified professors are deeply involved with research projects, graduate courses and seminars, leaving little time to devote to undergraduate courses, it would be desirable to establish a student services program in each college to better satisfy students' needs and to assist in solving students' academic, social and personal problems.
2. Since the results of the study indicated that sophomore and senior students have problems with their college environment, professors and student colleagues, it would be useful for both colleges to examine the types of problems which sophomores and seniors encounter in the courses and their relationship with the instructors. Both colleges should try to understand well enough the students' problems with their colleagues also, so that a better atmosphere can be created in which the student culture will work for education rather than against it.

3. The College of Natural Science should re-evaluate its programs and its facilities because of the fact that the students in both colleges had similar satisfaction although the College of Natural Science does have a budget 77% greater than the College of Social Science.
4. Based on the findings of this study, both colleges should enlarge their students' affairs offices and activities by increasing the size and the quality of those offices through appointment of teams of faculty members in order to encourage and promote better student participation in college programs.
5. The findings of the study indicated that there were significant differences between the sexes in their satisfaction with college environment. The data showed that the females were more satisfied than the males in both colleges. On the other hand, both males and females in the College of Social Science were more satisfied with their college environment than were those in the College of Natural Science. Therefore, trained teams of people should be in charge of the students' affairs offices in both colleges. These teams must be aware of what is going on in the colleges and should have full knowledge of using the right medium at the right time to create a good and better relationship between students and staff and to enhance the image of the institution.

Recommendations for Further Study

1. It would be preferable for future researchers to use the open interview technique in addition to the administration of questionnaires, in order to get more varied and supplementary data for a more thorough understanding of students' satisfaction and dissatisfaction with their major field environment. Such combined procedures should lead to greater insight into the reasons for satisfaction and dissatisfaction among students.
2. The researcher strongly recommends to other researchers the practice of administering the test in the classes of those professors who are fully cooperative in order to assure a more complete return of all students' responses.
3. It might be worthwhile to use the semantic differential technique in building the questionnaire dealing with students' perception of their environment. The S. D. technique appears to have the clarity and precision needed for such research.
4. On the basis of wide differences indicated in the variables, the researcher recommends that study be conducted in each of these areas to investigate the causes of the following differences:
 - a. Sophomores in the College of Natural Science were dissatisfied with their professors while seniors were

satisfied. On the other hand, sophomores in the College of Social Science were satisfied with their professors while seniors were not pleased and were dissatisfied.

- b. Males and females in both colleges were satisfied with their college environment but females were more satisfied than males. On the other hand, males and females in the College of Social Science were more satisfied with their college environment than were those in the College of Natural Science.
 - c. Sophomores and seniors in both colleges were satisfied with their colleagues, but sophomores in the College of Social Science were more pleased and satisfied with their student colleagues than were seniors. On the other hand, sophomores and seniors in the College of Natural Science did not differ in their satisfaction and both groups were satisfied with their student colleagues and had a good relationship with them.
 - d. Students in both colleges who came from families with low level of income were satisfied with their professors, while those who came from families with high level of income were dissatisfied with their professors.
5. It would be of great significance for the researcher to conduct a similar study in colleges and universities in Baghdad

and in the other colleges and universities throughout his country (Iraq) in order to find out whether the Iraqi students are satisfied or dissatisfied with their major field environment and to determine what could be done to establish better programs and better relationships between students and faculty and between the students themselves.

6. It would be equally meaningful for the researcher to conduct a comparative study among similar colleges and universities in Iraq and those in the United States to discover the differences between students' satisfaction with their major field environment in the developed and developing countries , and to determine whether the facilities and the technology available in a developed country has something to do with students' satisfaction with their programs.

BIBLIOGRAPHY

BIBLIOGRAPHY

- Argyris, Chris. Integrating the Individual and the Organization, John Wiley & Sons, Inc., New York, 1964.
- Becker, Howard S.; and Geer, Blanch; Hughes, Everett C.; and Strauss, Anselm; Boys in White, Chicago, Illinois, University of Chicago Press, 1961.
- Berdie, Ralph F. Perceptions of the University of Minnesota, A Progress Report, Mimeo, 1965.
- Berierter, Carl; and Freedman, Marvin B. "Fields of Study and the People in Them," in Nevitt Sanford Edition, The American College, New York: John Wiley & Sons, Inc., 1962, pp. 563-596.
- Brown, Roberta D. "Student Characteristics in Relation to Adjustment in Two Different College Environments," Dissertation Abstracts, 27 (3-A), 1966, pp. 596-597.
- Chickering, Arthur W. "Institutional Differences and Student Characteristics." Paper presented at American College Health Association, San Diego, California, May, 1966.
- Chickering, Arthur W. "The Academic Experience," Paper presented at American Educational Research Association, Los Angeles, California, February, 1969.
- Davie, James S. "Satisfaction and the College Experience," in Psychological Problems of College Men, B. M. Wedge (Ed.), Yale University Press, New Haven, Connecticut, 1958.
- Erickson, Erik H. Childhood and Society, W. W. Norton & Co., New York, 1963.
- Goodwin, Robert C. Dictionary of Occupational Titles, Volume 1, Bureau of Employment Security, 1965.

- Jansen, D. G.; and Winborn, B. B. "Perceptions of a University Environment by Social-Political Action Leaders," Personnel and Guidance Journal, (November, 1968), pp. 218-222.
- Johnson, R. W.; and Kurpius, D. J. "A Cross-Section and Horizontal Study of Students' Perceptions of Their College Environment," The Journal of College Student Personnel, 8 (May, 1967), pp. 199-203.
- Hassenger, R.; and Weiss, R. "The Catholic College Climate," The School Review, 74 (Winter, 1966), pp. 419-445.
- Hoyt, C. J. "Test Reliability Estimated by Analysis of Variance," Principles of Educational and Psychological Measurement, A Book of Selected Readings, Rand McNally and Company, Chicago, Illinois, 1967.
- Mc Fee, Ann. "The Relation of Students' Needs to Their Perceptions of a College Environment," Journal of Educational Psychology, 52, February, 1961, p. 26.
- Mechanic, David. "Organizational Power of Lower Participants," Administrative Science Quarterly, 17, 3 (December, 1962), pp. 357-364.
- Pace, Robert C. College and University Environment Scales, Princeton, New Jersey: Educational Testing Service, 1963, p. 56.
- Pace, Robert C. The Influence of Academic and Student Sub-Culture in College and University Environments, Cooperative Research Project No. 1083, 1964, University of California, Los Angeles, California, pp. 207-208.
- Pace, Robert C. "When Students Judge Their College," College Board Review, 58 (Winter, 1966), pp. 26-27.
- Peterson, R. E. "College Student: Some Hypotheses Based on Questionnaire Data," Unpublished Manuscript (Mimeo), Educational Testing Service, Princeton, New Jersey: 1965.
- Richards, Jr., J. M.; and Braskamp, L. A. "Who Goes Where to Junior College?", ACT Research Reports, No. 20, American College Testing Program, July, 1967.
- Sherrick, Michael F.; Davenport, Charles A.; and Colina, Thomas L. "Flexibility and Satisfaction with College Major," Journal of Counseling Psychology, Volume 18, No. 5, September, 1971.

- Stern, George G. "Environment for Learning," The American College, Nevitt Sanford Edition, John Wiley & Sons, Inc., New York, 1962.
- Stern, George G. Student Values and Their Relationship to the College Environments, Research on College Students, Hall T. Sprague, Editor, Boulder, Colorado: WICHE and Center for the Study of Higher Education, 1960, p. 92.
- Sullivan, Harry S. Conceptions of Modern Psychiatry, W. W. Norton & Co., New York, 1940.
- Sullivan, Harry S. The Interpersonal Theory of Psychiatry, W. W. Norton & Co., New York, 1953.
- Thistlewaite, D. L. "College Environments and the Development of Talent," Science CXXX (1959), pp. 71-76.
- White, Robert W. Lives in Progress, Dryden, New York, 1952.

General References

- Barton, Allen H. Organizational Measurement and Its Bearing on the Study of College Environments, New York: College Entrance Examination Board, 1961.
- Clayton, Thomas E. Teaching and Learning: A Psychological Perspective, Foundation of Education Series, Prentice-Hall, Inc., Englewood Cliffs, New Jersey, 1965.
- Eddy, E. E. The College Influence on Student Character, Washington, D. C.: American Council on Education, 1959.
- Feldman, Kenneth A.; and Newcomb, Theodore M., The Impact of College on Students, Jossey-Bass, Inc., San Francisco, California, 1970.
- Glass, V. Gene; and Jullian, Stanley C. Statistical Methods in Education and Psychology, Prentice-Hall, Inc., Englewood Cliffs, New Jersey, 1970.
- Jourard, Sidney M. Personal Adjustment, MacMillan Company, New York, 1964.
- Shaffer, Laurance Frederic; and Shoben, Jr., Edward Joseph. The Psychology of Adjustment, Houghton Mifflin Company, Boston, The Riverside Press, Cambridge, Massachusetts, 1956.
- Yamamoto, K.; and Dizney, H. F. A Study on College Students' Preferences Among Their Teachers, Journal of Educational Psychology, 57, 1966, pp. 146-150.

APPENDICES

APPENDIX A

Letter to Dr. Richard U. Byerrum, Dean of the College of Natural Science, and Dr. C. L. Winder, Dean of the College of Social Science, from Dr. William E. Sweetland, Professor, Department of Administration and Higher Education.

APPENDIX A

LETTER

April 18, 1972

Dr. Richard U. Byerrum, Dean
College of Natural Science
103 Natural Science Building
MSU Campus

Dear Dean Byerrum:

Mr. Sabah Al-Taiey, a doctoral candidate in Higher Education at MSU is proposing to do a study for his dissertation on student satisfaction or dissatisfaction with the major field environment in the College of Natural Science and the College of Social Science. I am enclosing a sheet outlining the purpose of the study.

The doctoral committee, of which I am chairman, has approved the study, in the hope that the results may be useful to you and your staff, as well as to the candidate. He will see that the results of the study are sent to you as soon as possible after it has been accepted by the committee.

The candidate and the doctoral committee will be most appreciative of your approval of the study and your cooperation in helping him complete it.

Sincerely,

William E. Sweetland, Professor
Higher Education

WES:sed

Enclosure

Copy: Dr. C. L. Winder, Dean
College of Social Science
Berkey Hall
MSU Campus

APPENDIX B

**Letter to Dr. William E. Sweetland, Department of Administration
and Higher Education, from J. J. Butcher, Assistant Dean, Research
and Graduate Programs, College of Natural Science**

APPENDIX B

LETTER

MICHIGAN STATE UNIVERSITY East Lansing - Michigan 48823

College of Natural Science - Office of the Dean - Natural Science Building

April 21, 1972

Dr. William E. Sweetland
Department of Administration
and Higher Education
Campus

Dear Bill:

Your letter of April 18 to Dean Byerrum has been referred to me for reply.

I believe some of our faculty would be willing to cooperate with Mr. Al-Taiey. I am not sure what this will entail, but I assume a questionnaire is involved.

To insure good cooperation, I can make some suggestions of individuals to whom such a questionnaire could be sent. If this selective approach compromises its chances of success, we may be able to go to a departmental solicitation of some kind.

Best regards.

Sincerely,

J. W. Butcher, Assistant Dean
Research and Graduate Programs

JWB/jm

APPENDIX C

Letter to Dr. William E. Sweetland, College of Education from Dr.
C. L. Winder, Dean, College of Social Science

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APPENDIX C
LETTER

MICHIGAN STATE UNIVERSITY East Lansing - Michigan 48823

College of Social Science - Office of the Dean - Berkey Hall

21 April 1972

Professor William E. Sweetland
College of Education

Dear Bill:

Thanks for your note regarding Mr. Sabah Al-Taiey's dissertation plan. I will look forward to seeing the results, and I do have some sense of unease as to what the results will be. In 1971-72 the dollar expenditure of university general funds for the College of Natural Science was 77% greater than for the College of Social Science.

Students in the College of Natural Science have special facilities available to them and they benefit indirectly, at least, from the relatively greater availability of funds from outside sources.

I do support research on the university and on the programs within the university. I hope we will gain useful information from this dissertation.

Sincerely yours,

C. L. Winder
Dean

APPENDIX D

College Major and Experience Questionnaire

COLLEGE MAJOR AND EXPERIENCE QUESTIONNAIRE

This questionnaire is designed to obtain your opinion and perception about your college environment, professors, courses and fellow students. The results will be used to find common concerns among the sophomore class and senior class which could provide guidelines for better understanding the students' problems and to establish better programs for them.

Your cooperation in this study is greatly appreciated. All information will be treated confidentially and will be used for research purposes only. Work as quickly as you can, reading each question carefully before deciding upon your response. Do not skip any items. Answer all questions, even though you may not think about yourself in exactly the way the question is stated.

Check the one response for each item which best answers that question. Before going on to the questionnaire proper, there are a few introductory questions we would like to ask you:

1. What is your major field? (Check one) ☐ Natural Science
☐ Social Science
2. What is your age?
3. What is your race? (Check one) ☐ White
☐ Black
☐ Mexican American
☐ Oriental
☐ American Indian
☐ Other
(specify)
4. What is your sex? (Check one) ☐ Male ☐ Female
5. Are you? (Check one) ☐ Single ☐ Married
6. Are you a? (Check one) ☐ Sophomore
☐ Senior

7. What were the highest levels of education attained by your father and mother?

	FATHER	MOTHER
a. Had some post graduate work or earned a graduate or professional degree	_____	_____
b. Earned a Bachelor's Degree	_____	_____
c. Some college but did not earn a Degree	_____	_____
d. Graduated from high school	_____	_____
e. Some high school but did not graduate	_____	_____
f. Completed the 9th grade	_____	_____
g. Some grade school	_____	_____
h. No schooling or don't know	_____	_____

8. What is (was) the principal occupation of your father, mother or main provider? Please be specific.

_____ Father

_____ Mother

_____ Main Provider

9. What is (was) the yearly income for your father or main provider?

(Check the one which is most appropriate)

\$ 3,000 - \$ 4,999 _____

\$ 5,000 - \$ 7,999 _____

\$ 8,000 - \$11,999 _____

\$12,000 - \$19,999 _____

\$20,000 - and above _____

SECTION I

- A. THIS SECTION OF THE QUESTIONNAIRE WILL DEAL WITH YOUR SATISFACTION WITH COLLEGE ENVIRONMENT AND EXPERIENCES.

		No Agree Opinion Disagree		
1.	The school has an excellent reputation for academic freedom.	_____	_____	_____
2.	The school helps everyone get acquainted.	_____	_____	_____
3.	Counseling and guidance services are friendly and effective.	_____	_____	_____
4.	Laboratory facilities in the natural sciences are excellent.	_____	_____	_____
5.	This school is regarded as a good place to meet future business or marriage partners.	_____	_____	_____
6.	The faculty and administration at this school expect students to show proper respect for them.	_____	_____	_____
7.	Students are encouraged to criticize administrative policies and teaching practices.	_____	_____	_____
8.	Education here tends to make students more practical and realistic.	_____	_____	_____
9.	Education for leadership is strongly emphasized.	_____	_____	_____
10.	To complete requirements most students have to start work in their major field as freshmen.	_____	_____	_____

A. THIS SECTION OF THE QUESTIONNAIRE CONTINUES TO DEAL WITH YOUR SATISFACTION WITH COLLEGE ENVIRONMENT AND EXPERIENCES.

		No		
		Agree	Opinion	Disagree
✓	11. Accelerated or honors programs are available for qualified students.	_____	_____	_____
✓	12. The academic atmosphere is practical, emphasizing efficiency and usefulness.	_____	_____	_____
✓	13. The training of students for service to the community is one of the major responsibilities of this school.	_____	_____	_____
✓	14. It is practical to base college work upon students' interests.	_____	_____	_____
	15. School is helping me to understand myself better.	_____	_____	_____
	16. This school is providing me with vocational training, developing skills and techniques directly applicable to my career.	_____	_____	_____
	17. This school is developing my ability to get along with different kinds of people.	_____	_____	_____
	18. This school is providing me with a basic general education and appreciation of ideas.	_____	_____	_____
	19. This school is developing my knowledge and interest in community and world problems.	_____	_____	_____
✓	20. This school is helping me develop my moral capacities, ethical standards and values.	_____	_____	_____
—	21. This school is preparing me for a happy marriage and family life.	_____	_____	_____

B. AS YOU SEE YOUR EXPERIENCE NOW, WOULD YOUR SOPHOMORE AND SENIOR EXPERIENCES HAVE BEEN MORE VALUABLE IF THESE HAD:

		No	
		Agree	Opinion Disagree
1.	Provided more personal contacts with other classes.	_____	_____
2.	Contained fewer lectures, more discussion.	_____	_____
3.	Provided more personal contacts with the faculty.	_____	_____
4.	Allowed more time for social activities.	_____	_____
5.	Given you more personal direction in studies and course selection.	_____	_____
6.	Permitted greater freedom in course selection.	_____	_____
7.	Allowed more time for extra curricular activities.	_____	_____
8.	Provided more personal contacts with classmates.	_____	_____
9.	Provided more emphasis on liberal studies not closely related to any occupation.	_____	_____
10.	Placed more emphasis on occupational or professional preparation.	_____	_____
11.	Allowed more time for personal activities and social life.	_____	_____
12.	Required more work in courses.	_____	_____
13.	Emphasized theory more than application.	_____	_____

SECTION II

THIS SECTION OF THE QUESTIONNAIRE WILL DEAL WITH YOUR SATISFACTION ABOUT YOUR COURSES.

		No	
		Agree	Opinion Disagree
1.	Many lectures are delivered in monotone with little inflection or emphasis.	_____	_____
2.	There are good opportunities for students to study and criticize important works in classroom.	_____	_____
3.	Most courses require intensive study and preparation out of class.	_____	_____
4.	There is a lot of emphasis on preparing for graduate work.	_____	_____
5.	In many courses the broad social and historical setting of the material is discussed.	_____	_____
6.	Class discussions are typically vigorous and intense.	_____	_____
7.	I usually find something of interest in just about every course I take.	_____	_____
8.	Group discussions are a helpful aid to the students as well as to the professors in getting to know each other.	_____	_____
9.	Classroom discussion allows students to speak up freely that might not be permitted in the lecture situation.	_____	_____
10.	The take-home exam is quite fair and more beneficial for the students.	_____	_____
11.	Open-book exam is much better than multiple choice test.	_____	_____

THIS SECTION OF THE QUESTIONNAIRE CONTINUES TO DEAL WITH
YOUR SATISFACTION ABOUT YOUR COURSES.

		No		
		Agree	Opinion	Disagree
12.	Multiple choice test has no benefit for the students.	_____	_____	_____
13.	Group discussion gave the students an opportunity to express their feelings and solve some of the problems dealing with the courses.	_____	_____	_____
14.	Cheating in the exam is probably one of the most serious signs of a lack of moral education.	_____	_____	_____
15.	Success is more motivating than failure.	_____	_____	_____
✓ 16.	There is not too much emphasis on grading.	_____	_____	_____
17.	There is too great an emphasis upon memorizing what is in the text book.	_____	_____	_____
18.	Course grades should never be used as punishment.	_____	_____	_____
19.	Group discussions establish a definite rapport between the students and the professors, as far as discussing topics of importance to them.	_____	_____	_____
20.	Group discussion is very helpful in finding out what is going on in the heads of students.	_____	_____	_____
21.	Group discussion helps students realize and appreciate that other people have valuable ideas and feelings.	_____	_____	_____
22.	Most courses are a real intellectual challenge.	_____	_____	_____
✓ 23.	Many courses are designed to prepare students for well-informed citizenship.	_____	_____	_____

THIS SECTION OF THE QUESTIONNAIRE CONTINUES TO DEAL WITH
YOUR SATISFACTION ABOUT YOUR COURSES.

		No Agree	Opinion	Disagree
24.	The goals and purposes of most courses are clearly explained.	_____	_____	_____
25.	There are courses which involve field trips to slum areas, welfare agencies or similar contacts with under-privileged people.	_____	_____	_____
✓ 26.	It is easy to take clear notes in most courses.	_____	_____	_____
27.	In some classes students and instructors consider cooperatively the choice of readings and discussion topics.	_____	_____	_____
28.	Research methods are emphasized in many courses.	_____	_____	_____
29.	In many courses students carry out experiments and interpret the data.	_____	_____	_____
30.	Frequent tests are given in most courses.	_____	_____	_____
31.	Many courses are designed to prepare experts in the discipline, and future researchers.	_____	_____	_____
✓ 32.	The vocational value of many courses is emphasized.	_____	_____	_____
33.	There are many really practical courses available to students such as typing, report writing, etc.	_____	_____	_____
✓ 34.	Many courses stress the concrete and tangible rather than the speculative or abstract.	_____	_____	_____
✓ 35.	Learning what is in the text book is enough to pass most courses.	_____	_____	_____

SECTION III

THIS SECTION OF THE QUESTIONNAIRE WILL DEAL WITH YOUR SATISFACTION AND PERCEPTION ABOUT YOUR PROFESSORS.

		No		
		Agree	Opinion	Disagree
1.	The professors go out of their way to help you.	_____	_____	_____
2.	The professors regularly check up on the students to make sure that assignments are being carried out properly and on time.	_____	_____	_____
3.	The professors clearly explain the goals and purpose of their courses.	_____	_____	_____
4.	Faculty members rarely or never call students by their names.	_____	_____	_____
5.	Many professors permit, and sometimes welcome, class discussion of materials that are outside their field of specialization.	_____	_____	_____
6.	Many professors require students to submit an outline before writing a term paper or report.	_____	_____	_____
7.	Many professors think of themselves as no different from other adults in the community.	_____	_____	_____
8.	Some faculty members are active in experimenting with new methods of teaching, new courses, and other innovations.	_____	_____	_____
9.	Professors should be more friendly with the students.	_____	_____	_____
10.	Having better understanding of the students makes the professor very popular.	_____	_____	_____

THIS SECTION OF THE QUESTIONNAIRE CONTINUES TO DEAL WITH
YOUR SATISFACTION AND PERCEPTION ABOUT YOUR PROFESSORS.

		No Agree	Opinion	Disagree
11.	Most professors try to make the lectures easier for the students.	_____	_____	_____
12.	Most professors do not give sufficient explanation of their teaching.	_____	_____	_____
13.	Professors should know the home conditions of every one of their students.	_____	_____	_____
14.	The professors should print their lectures and hand these out to the students before lecturing in the class.	_____	_____	_____
15.	Professors should spend more time listening to views of the students.	_____	_____	_____
16.	I would like to talk with the professor not like an instructor but more as friend.	_____	_____	_____
17.	Professors can make a mistake as well as students.	_____	_____	_____
18.	Some of the professors react to questions in class as if the students were criticizing them personally.	_____	_____	_____
19.	A professor should not be expected to be concerned with students' academic and personal problems.	_____	_____	_____
20.	Many professors are not friendly enough with the students.	_____	_____	_____
21.	Professors will often increase a student's grade if they think he has worked especially hard and conscientiously.	_____	_____	_____
22.	Professors are typically scientific and objective in their approach to problems.	_____	_____	_____
23.	Professors encourage students to work on research projects.	_____	_____	_____

SECTION IV

THIS SECTION OF THE QUESTIONNAIRE WILL DEAL WITH YOUR FEELINGS ABOUT YOUR STUDENT COLLEAGUES.

		No Agree Opinion Disagree		
1.	Long, serious intellectual discussions are common among the students.	_____	_____	_____
2.	Most students have very little interest in round tables, panel meetings or other formal discussion.	_____	_____	_____
3.	Students commonly share their problems.	_____	_____	_____
4.	Activities in student organizations are carefully and clearly planned.	_____	_____	_____
5.	Students rarely get drunk and disorderly.	_____	_____	_____
6.	Students frequently attend chapel or religious services on or near the campus.	_____	_____	_____
7.	Students enjoy getting together for bowling, square dancing, card games, etc.	_____	_____	_____
8.	Many upperclassmen play an active role in helping new students adjust to campus life.	_____	_____	_____
9.	Students often help each other study and review for tests.	_____	_____	_____
10.	When students get together they often talk about science.	_____	_____	_____
11.	The future goals for most students emphasize job security, family happiness and good citizenship.	_____	_____	_____
12.	There is a lot of informal dating during the week at the library, snack bar, movies, etc.	_____	_____	_____
13.	Students are more interested in specialization than in general liberal education.	_____	_____	_____

THIS SECTION OF THE QUESTIONNAIRE CONTINUES TO DEAL WITH
YOUR FEELINGS ABOUT YOUR STUDENT COLLEAGUES.

		No		
		Agree	Opinion	Disagree
14.	Students spend a lot of time talking about their boy or girl friends.	_____	_____	_____
15.	For a period time upperclassmen give orders to freshmen.	_____	_____	_____
16.	Nearly everyone here has a date for the week-ends.	_____	_____	_____
17.	Students are involved in lots of dances, parties and social activities.	_____	_____	_____
18.	It is very difficult to get a group decision here without a lot of argument.	_____	_____	_____
19.	Students use parliamentary procedures in many of their group meetings.	_____	_____	_____
20.	Many students seem to expect other people to adapt to them rather than trying to adapt themselves to others.	_____	_____	_____
21.	Most students show a good deal of caution and self-control in their behavior.	_____	_____	_____
22.	Everyone has a lot of fun in this school.	_____	_____	_____
23.	A student who spends most of his time in a science laboratory is likely to be regarded as a little odd.	_____	_____	_____
24.	Students who work hard for high grades are likely to be regarded as odd.	_____	_____	_____
25.	The big college events draw a lot of students' enthusiasm and support.	_____	_____	_____
26.	It is easy to get a group together for card games, singing, going to the movies, etc.	_____	_____	_____

THIS SECTION OF THE QUESTIONNAIRE CONTINUTES TO DEAL WITH
YOUR FEELINGS ABOUT YOUR STUDENT COLLEAGUES.

		No		
		Agree	Opinion	Disagree
✓ 27.	Students are conscientious about taking good care of school property.	_____	_____	_____
28.	Most students want to get a degree because of its economic value.	_____	_____	_____
✓ 29.	Students are encouraged to take an active part in social reforms or political programs.	_____	_____	_____
✓ 30.	Students are actively concerned about natural and international affairs.	_____	_____	_____
31.	Many students here develop a strong sense of responsibility about their role in contemporary social and political life.	_____	_____	_____
32.	Students here learn that they are not only expected to develop ideals but also to express them in action.	_____	_____	_____

APPENDIX E

Scoring and Weighting the Questionnaire

SCORING AND WEIGHTING THE QUESTIONNAIRE

The numerical values of the responses to each question, used as a basis of differentiating the satisfied students from those who were dissatisfied, were:

SECTION I - A

Item	Agree	No Opinion	Disagree	Item	Agree	No Opinion	Disagree
1	1	2	3	12	1	2	3
2	1	2	3	13	1	2	3
3	1	2	3	14	1	2	3
4	1	2	3	15	1	2	3
5	1	2	3	16	1	2	3
6	1	2	3	17	1	2	3
7	1	2	3	18	1	2	3
8	1	2	3	19	1	2	3
9	1	2	3	20	1	2	3
10	3	2	1	21	1	2	3
11	1	2	3				

SECTION I - B

Item	Agree	No Opinion	Disagree	Item	Agree	No Opinion	Disagree
1	3	2	1	8	3	2	1
2	3	2	1	9	3	2	1
3	3	2	1	10	3	2	1
4	3	2	1	11	3	2	1
5	3	2	1	12	3	2	1
6	3	2	1	13	3	2	1
7	3	2	1				

SECTION II

Item	Agree	No Opinion	Disagree	Item	Agree	No Opinion	Disagree
1	3	2	1	19	1	2	3
2	1	2	3	20	1	2	3
3	3	2	1	21	1	2	3
4	1	2	3	22	1	2	3
5	1	2	3	23	1	2	3
6	1	2	3	24	1	2	3
7	1	2	3	25	1	2	3
8	1	2	3	26	1	2	3
9	1	2	3	27	1	2	3
10	1	2	3	28	1	2	3
11	1	2	3	29	1	2	3
12	3	2	1	30	1	2	3
13	1	2	3	31	1	2	3
14	1	2	3	32	1	2	3
15	1	2	3	33	1	2	3
16	1	2	3	34	1	2	3
17	3	2	1	35	3	2	1
18	3	2	1				

SECTION III

Item	Agree	No Opinion	Disagree	Item	Agree	No Opinion	Disagree
1	1	2	3	13	3	2	1
2	1	2	3	14	3	2	1
3	1	2	3	15	3	2	1
4	3	2	1	16	3	2	1
5	1	2	3	17	1	2	3
6	1	2	3	18	3	2	1
7	1	2	3	19	1	2	3
8	1	2	3	20	3	2	1
9	3	2	1	21	1	2	3
10	1	2	3	22	1	2	3
11	1	2	3	23	1	2	3
12	3	2	1				

SECTION IV

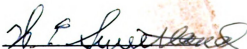
Item	Agree	No Opinion	Disagree	Item	Agree	No Opinion	Disagree
1	1	2	3	17	1	2	3
2	3	2	1	18	3	2	1
3	1	2	3	19	1	2	3
4	1	2	3	20	3	2	1
5	1	2	3	21	1	2	3
6	1	2	3	22	1	2	3
7	1	2	3	23	3	2	1
8	1	2	3	24	3	2	1
9	1	2	3	25	1	2	3
10	1	2	3	26	1	2	3
11	1	2	3	27	1	2	3
12	1	2	3	28	1	2	3
13	1	2	3	29	1	2	3
14	1	2	3	30	1	2	3
15	1	2	3	31	1	2	3
16	1	2	3	32	1	2	3

This is to certify that the
thesis entitled
STUDENTS' SATISFACTION AND DISSATISFACTION WITH
THE MAJOR FIELD ENVIRONMENT IN
COLLEGES OF NATURAL SCIENCE AND SOCIAL SCIENCE
AT MICHIGAN STATE UNIVERSITY
presented by

Sabah Bakir Al-Taiey

has been accepted towards fulfillment
of the requirements for

Ph. D. degree in Higher Education


Major professor

Date

10/24/72

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