

1973

The Impact of University Departmental Social Organization on Student Attitudes Toward Education

James J. Graham
Eastern Illinois University

Recommended Citation

Graham, James J., "The Impact of University Departmental Social Organization on Student Attitudes Toward Education" (1973).
Masters Theses. 3811.
<https://thekeep.eiu.edu/theses/3811>

This is brought to you for free and open access by the Student Theses & Publications at The Keep. It has been accepted for inclusion in Masters Theses by an authorized administrator of The Keep. For more information, please contact tabruns@eiu.edu.

PAPER CERTIFICATE #2

TO: Graduate Degree Candidates who have written formal theses.

SUBJECT: Permission to reproduce theses.

The University Library is receiving a number of requests from other institutions asking permission to reproduce dissertations for inclusion in their library holdings. Although no copyright laws are involved, we feel that professional courtesy demands that permission be obtained from the author before we allow theses to be copied.

Please sign one of the following statements:

Booth Library of Eastern Illinois University has my permission to lend my thesis to a reputable college or university for the purpose of copying it for inclusion in that institution's library or research holdings.

Nov 11/13
Date

I respectfully request Booth Library of Eastern Illinois University not allow my thesis be reproduced because _____

Date

Author

THE IMPACT OF UNIVERSITY DEPARTMENTAL SOCIAL ORGANIZATION

ON STUDENT ATTITUDES TOWARD EDUCATION

(TITLE)

BY

James J. Graham

THESIS

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF

MASTER OF ARTS

IN THE GRADUATE SCHOOL, EASTERN ILLINOIS UNIVERSITY
CHARLESTON, ILLINOIS

1973

YEAR

I HEREBY RECOMMEND THIS THESIS BE ACCEPTED AS FULFILLING
THIS PART OF THE GRADUATE DEGREE CITED ABOVE

11-13-73

DATE

ADVISER

Nov. 13, 1973

DATE

ACKNOWLEDGEMENTS

I am indebted to Dr. Byron Munson, Professor Richard Hummel, Dr. Victor Stoltzfus and Mrs. Betty Thomason who have provided me with a most conducive departmental culture, and to my wife, Sue, who provides most everything else.

TABLE OF CONTENTS

LIST OF TABLES.....	iv
CHAPTER I, INTRODUCTION	
Introduction to the Study.....	1
Objectives of the Study.....	2
Statement of the Hypothesis.....	3
Summary of the Hypothesis.....	5
CHAPTER II, REVIEW OF RELATED LITERATURE	
Introduction.....	7
Impact of the Background Variables.....	8
Attitude and Value Formation.....	9
Departmental Influence.....	10
The Works of Vreeland and Bidwell.....	15
CHAPTER III, PROCEDURAL ORIENTATION	
Introduction.....	19
Procedures.....	20
Summary of the Sample.....	22
CHAPTER IV, STATISTICAL ANALYSIS	
Introduction.....	25
Analysis.....	26
CHAPTER V, DESCRIPTIVE ANALYSIS, SUMMARY AND FINDINGS	
Introduction.....	57
Description.....	58
APPENDIX I.....	67
APPENDIX II.....	75
BIBLIOGRAPHY.....	85

LIST OF TABLES

LIST OF TABLES

Table	Page
1. Departments Ordered by Interest In and Interaction With Undergraduates.....	17
2. Type of Goal and Presence of Various Academic Departments....	18
3. Attitudes Toward Education, As Effected by Departmental Goal Orientation.....	27
4. Attitudes Toward the Department As Effected by Departmental Goal Orientation.....	28
5. Attitudes Toward Education As Effected by Student-Faculty Interaction.....	31
6. Attitudes Toward the Department As Effected by Student-Faculty Interaction.....	32
7. Faculty-Student Interaction and Its Effect on Attitudes Toward the Department for Students Scoring Low on Attitudes Toward Education.....	33
8. Faculty-Student Interaction and Its Effect on Attitudes Toward the Department for Students Scoring High on Attitudes Toward Education.....	34
9. Faculty-Student Interaction and Its Effect on Attitudes Toward the Department for Students from Departments that Least Emphasize Non-Student Oriented Items.....	36
10. Faculty-Student Interaction and Its Effect on Attitudes Toward the Department for Students from Departments that Least Emphasize Student Oriented Items.....	37
11. Attitudes Toward Education As Effected by Faculty Interests.....	39
12. Attitudes Toward the Department As Effected by Faculty Interests.....	39
13. Attitudes Toward Education As Effected by Departmental Inter-Faculty Interaction.....	41
14. Attitudes Toward the Department As Effected by Departmental Inter-Faculty Interaction.....	42

Table	Page
15. Traditional, Personal and Academic Variables and Their Relationship to Attitudes Toward Education.....	44
16. Comparison of Relationships Between Academic Major and Attitudes; and Departmental Cultural Components and Attitudes.....	47
17. Attitudes Toward Education as Effected by Attitudes Toward the Department.....	49
18. Student-Faculty Interaction as Effected by Departmental Orientation.....	51
19. Departmental Cultural Attributes.....	53
20. Departments Demonstrating Attributes Associated with Positive Attitudes Toward the Department.....	54
21. Frequency of Association with Attributes Associated with Positive Attitudes Toward the Department.....	55
22. Quartile Placement of Departmental Scores on Attitudes Toward the Department.....	56
23. Expected Relationships Between Variables.....	58
24. Demonstrated Relationships Between Variables.....	59
25. The Interrelationship of Inter-Faculty Interaction and Student-Faculty Interaction.....	67
26. The Interrelationship of Faculty-Student Interaction and Departmental Concern (Goal Orientation).....	68
27. The Interrelationship of Faculty-Faculty Interaction and Departmental Concern (Goal Orientation).....	69
28. The Interrelationship of Student-Faculty Interaction and the "Least Emphasized" Variable.....	70
29. The Interrelationship Between Faculty-Faculty Interaction and the "Least Emphasized" Variable.....	71
30. The Interrelationship Between the "Least Emphasized" Variable and Departmental Emphasis.....	72
31. The Interrelationship Between Departmental Emphasis and Departmental Concern (Goal Orientation).....	73
32. The Interrelationship of the Departmental Cultural Attributes.....	74

CHAPTER I

CHAPTER I

INTRODUCTION

Evidence is accumulating, demonstrating the importance of universities as sources of socialization. Related research has investigated several aspects of college influence upon undergraduates, and demonstrated its importance in value and attitude formation. These findings have indicated a diverse range of forces having substantial impacts on students. The effect of residence grouping, faculty, and facilities have all been subjects of intensive study. The influence of academic departments upon undergraduates has been largely ignored because of negative findings in many early studies (Newcomb, 1943, for example).

These results have been challenged in light of several more recent works. Vreeland and Bidwell maintain departmental influence does have significant impact on student values and attitudes (Vreeland, Bidwell, 1966). The authors suggest that inconsistency in the operational definition of departmental influence is the major cause of ambiguous findings in this area. Researchers to this point, have not agreed as to which of four major aspects of departmental influence should be measured. The four aspects of departmental influence can be summarized as:

1. The unique impact upon students as a result of course program.
2. The effect of a particular course upon its members.

3. The effect of personal values and attitudes of individual faculty members.
4. The effects attributable to a departments distinctive social organization.

It is the impact of distinctive departmental social organization which will be the subject of this research. More specifically, it is hypothesized that aspects of the "departmental culture" have direct effect upon student attitudes toward the department and toward education in general.

Many behavioral scientists are convinced that attitudes, values, and beliefs play a substantially more significant role in determining the way individuals and groups act than do more empirically established facts (Barrett, 1961). This research suggests that attitudes toward education are a meaningful reflection of student experience.

OBJECTIVES OF THE STUDY

The specific objectives of this project are:

1. to investigate the relationships between several aspects of departmental culture and attitudes toward the department and education in general.
2. to examine the impact of several personal and academic variables traditionally associated with attitude formation, on attitudes toward education.
3. to investigate the impact of a total departmental culture upon its student members.
4. to construct an instrument and methodology capable of replication, which will encourage further investigation into the impacts of university departmental culture.

STATEMENT OF THE HYPOTHESES

This work will test several original hypotheses as well as replicating the work (although through a somewhat altered methodological framework) of Vreeland and others.

Vreeland and Bidwell suggest several possible hypotheses, as a result of their work with a classification system for university departments aimed at an analysis of their effects. These hypotheses, however, are left largely untested at the conclusion of their work.

On the basis of two working hypotheses of the Bidwell study, it is predicted that technically-oriented departments would have the least consistent effects upon student attitudes, while morally-oriented departments would have the greatest effect.

In addition, the authors suspect that those departments highest in departmental attributes (student-faculty interaction, faculty interests, etc.) would produce the greatest effects upon student attitudes, while those departments scoring low in these attributes would have the least effects on attitude formation.

Inter-faculty interaction is hypothesized to have the same effect on attitudes as student-faculty interaction, that is high interaction is expected to be associated with favorable attitudes toward the department and toward education in general.

The relationship between attitudes toward education and eight variables commonly associated with attitude formation will be explored. These variables are: sex, age, religion,

size of home town, school, year in school and grade point average and the number of courses taken in the individual major. Previous studies have established significant relationships between these. It is hypothesized, however, that as suggested in research cited in previous sections of this work. Aspects of university departmental culture will be more directly associated with formation of attitudes toward education than these traditionally accepted variables.

It is also predicted that the correlation usually noted between academic major and attitude formation is more accurately a product of these same aspects of departmental culture. The relationship between major and attitudes toward education should, therefore, be weaker than those between departmental cultural components and attitude formation.

A variable designed to measure student conception of the value of his own department is an integral part of this project. It is predicted that students who find the departmental culture of their own academic major agreeable (reflected in a high evaluation of the department) will also hold positive attitudes toward education.

It is felt that Gamson's assumption that departments emphasizing a utilitarian approach to education offer low degrees of student-faculty interaction; and that normatively oriented departments offer high interaction, is a significant relationship. This research hypothesizes a direct relationship between departmental orientation (either technical or moral) and student-faculty interaction.

The final hypothesis states that a score representing total departmental influences (the presence or absence of these measured cultural attributes) will be directly associated with attitudes toward education. It is suspected that those departments which have been scored as morally-oriented, high in interaction, and student centered, will hold the most favorable attitudes toward education while departments which are technically-oriented, low interaction, and non-student centered will hold negative attitudes toward education.

SUMMARY OF THE HYPOTHESES

1. There is a direct relationship between departmental goal orientation and student attitudes toward the department and toward education in general.
2. A direct relationship exists between student-faculty interaction and attitudes toward the department and education in general.
3. A direct relationship exists between inter-faculty interaction and attitudes toward the department and education in general.
4. A direct relationship exists between departmental emphasis and attitudes toward education and the department.
5. An inverse relationship exists between the "least emphasized" variable and attitudes toward education and the department.
6. The direct relationship between departmental cultural attributes and attitudes toward the department and toward education is stronger than the relationships between eight variables commonly associated with student attitude formation.
7. The direct relationship between academic major and attitudes toward education is weaker than that between the individual departmental cultural components and attitudes.

8. A direct relationship exists between attitudes toward the department and attitudes toward education.
9. A direct relationship exists between departmental orientation and student-faculty interaction.
10. A direct relationship exists between total departmental influences, and attitudes toward the department and toward education in general.

CHAPTER II

REVIEW OF RELATED LITERATURE

CHAPTER II

REVIEW OF RELATED LITERATURE

INTRODUCTION

An abundance of material was available concerning the impacts of college on the undergraduate. Those studies found to be most related to the present research are outlined in this section. A few worthwhile studies were found, which dealt directly with the impact of university departments on students. These are also included. The work of Vreeland and Bidwell is particularly important in the formation of the theoretical and methodological perspective of this project. It is, therefore, covered in considerable detail.

IMPACT OF BACKGROUND VARIABLES

Dr. Carolyn Ritter cites research findings indicating the existence of a relationship between student attitudes and values and several personal and academic variables. This research indicated that males differed significantly from female students on eighteen of twenty items of the Polyphasic Values Inventory. The findings indicate males seemed to be more conservative on all issues other than personal moral issues.

While studying the relationship between year in school and attitude formation, it was demonstrated that freshmen differed significantly from graduate students. Ritters work indicates freshmen were more liberal on issues dealing with education than were their fifth year counterparts.

The college major variable indicated that significant differences do exist among students concentrating in various academic departments. Ritters findings demonstrate that such majors as history and the social sciences tend to score liberally on eighteen of the twenty test items.

The age variable seemed to demonstrate no significant pattern of deviation from the norm in this study (Ritter, 1968: 142-149).

The work of Davis (1965), presents evidence that the size of home town, religious background, race and other demographic variables are related to choice of major as well as career plans

and several other major decisions made by college students. The same study reveals a relationship between these variables and attitude and value formation. It seems likely then, that a statistical relationship between academic major and attitude formation may reflect a recruitment pattern by certain university departments rather than attitude change as a result of curricular experience. These relationships must be carefully interpreted and controlled for the possible influence of extraneous variables.

ATTITUDE AND VALUE FORMATION

Katz and Allport conducted an early investigation into the formation of student attitudes and values in 1926. The research used a large number of value categories, most of which were aimed at attitudes toward college and related activities. Their initial success lead to several follow-up studies by both men (Katz, 1931).

Allport and Vernon constructed a study of values published originally in 1931 and revised in 1951 and 1960. This project measured the relative importance given each of six attitudinal categories by college undergraduates. The measure, titled the Spranger Values inventory, showed students in the humanities to score high when rated an importance of aesthetic values. Education majors were found to score either high or medium on the same scale while students of the social sciences scored consistently middle range scores. The natural sciences, math and physics were demonstrated to score consistently low on the asethetic values scale. Although

results were most convincing on the asethetic scale, the findings were consistent on all six items measured by the instrument (Feldman, 1970).

Research by Nelson concerning radical-conservative attitudes found correlations between year in school and attitudinal reference, as well as religious affiliation and attitude formation (Nelson, 1938: 1-32).

The value of the above mentioned research to the present study, is the demonstration of potential socializing agents at work within the University environment. It is partially on the strength of these findings, that the present hypothesis concerning the impact of university departmental cultures, is made.

DEPARTMENTAL INFLUENCES

The current sociological literature maintains a conflicting position as to whether or not curricular divisions, such as science, social science, art, business, etc., represent significant social impacts on undergraduate attitudes and values. These antithetical viewpoints can be demonstrated through an examination of the related studies..

Philip Jacob supports the null hypothesis in his work "Changing Values in College: An Old Issue Revisited". In capsule form, the conclusions reached pertaining to influence of the curriculum, suggests that the study "...has not discerned significant changes in student values which can be attributed directly either to the character of the curriculum or to the basic courses in social

science which students take as a part of their general education" (Jacob, 1957: 1-11).

Jacob further reports that students demonstrate only slight variations on value and attitude scales, regardless of their membership in liberal arts or professionally oriented schools and curriculums. The only corollary between undergraduate curriculum experiences and attitude formation supported by Jacobs 1957 findings, was a reported correlation between a basic introduction to one or more of the social sciences and a redirection of academic and vocational interests. It would seem that this last set of findings indicates a departmental socializing force (however slight) which seems incompatible with Jacobs insistence of the insignificance of university departments as socializing agents.

Jacob, and others, concluded that with few exceptions neither courses, instructors, curricula nor method of instruction had any perceptible impact upon student values and attitudes (Jacob, 1957: summary). Studies supporting these negative findings have come under attack in the face of numerous conflicting reports. In "The College Student", Brookover criticizes the Jacob report as consisting of research of varying quality. The data used to support Jacobs findings were drawn from several samples, some operationalized by means of a standardized test and others through original questionnaires as well as paper and pencil tests (Brookover, 1967: 71). This methodological error leaves the reliability of Jacobs instrument open to question. Brookover also suggests that Jacob attempted to "tease out"

generalizations rather than seek direct answers to specific questions (a pitfall this research will attempt to avoid). There are several other valid criticisms which might be pointed at this work. There was for example very few controls employed. Findings for males and females were discussed as though the sex variable had no effect upon attitude formation, a proposition which is highly unlikely.

It should also be noted that Jacob divided his sample using university major divisions as his only criterion. As demonstrated by Vreeland and Bidwell (discussed in detail later in this chapter) although some university major divisions are predisposed in certain directions (moral vs. technical for example) they cannot be assumed to share major characteristics from school to school and department to department. They therefore cannot be expected to influence student attitudes in consistent directions. To attempt to explain the impact of history, (as an academic discipline), on undergraduate attitudes and values, would be comparable to trying to explain the impact of the family on the same. This research will attempt to demonstrate that the impact of a university department, like that of the family, is a product of its subcultural makeup. Studies which lump their data into categories based totally on subject matter, are ignoring those cultural aspects demonstrated to be most important in other areas of attitude formation while emphasizing a relatively minor one. Such work may be accountable for the inconsistent findings published to date.

Reissman and Jencks (1962) provide some evidence of the positive influence of university departments. Their work, as reported by Feldman in The Impact of College on Students, describes departmental influence as follows:

"San Francisco State is no longer a homogeneous college, and its different departments and divisions are moving toward different models at quite uneven rates... It is the departments and its divisions that carry the main burden of States effort to upgrade its...student body, both in the classroom and the departmental activities outside of class. It was our experience in encountering students to discover that they make friendships more easily on the basis of doing alike than being alike, so that 'are you in Education?' provided a more common conversational opener than the changeless weather, and the discovery that someone else was in a very disparate field often cut off further inquiry... It is understandable, if hardly ideal that the Dean should advise incoming students that 'The College is too big to provide a focus for your education. Your department will have to be your home' (Feldman, 1969: 151).

The above quotation outlines two major conclusions from the work of Reissman and Jencks. First it indicates that colleges are heterogeneous institutions. Modern colleges are simply too big and diverse to provide a focus for the student. Secondly, it suggests that curricular divisions are "academic homes" for students and faculty alike. A major portion of the socializing impact of the academic community will be a product of the students major department.

Several other studies have lent support to related areas of this research. The work of Pace (1964) as reported by Feldman and Newcomb (1970), deals with the effect of departmental environments on perceived change in educational objectives. Pace found a positive correlation between predominantly technically oriented departments and student attitudes. The author concluded that students in particular

majors do have distinctive characteristics attributable to their personal background similarities. Differential departmental experiences however, do have an impact not explained by initial selection of the major field (Feldman, 1970: 193).

This work was consistent with the findings of Watts and Whittaker (1966) which found that students majoring in the social sciences, arts, and humanities were over-represented in demonstrations at Berkeley University even after controlling for personal and demographic variables. Business and Math majors on the other hand were under-represented (Feldman, 1970: 197).

Gamson has compiled research concerning student conceptions, educational objectives, and the impact of various degrees of student-faculty interaction. All of these topics are of particular concern to the present research.

The author found that at Hawthorn College, instructors of the natural sciences felt they had not been a significant influence on undergraduates while instructors of the social sciences felt they had. The research also demonstrates that instructors of the natural sciences favored a utilitarian approach, roughly comparable to the technological orientation measured in this research. The social sciences were shown to favor a normative approach, which is similar to the moralistic orientation used in this paper.

Student-faculty interaction was found to be correlated with the departmental orientation as normative emphasis seemed to inspire high interaction while utilitarian emphasis inspires the traditional separation between students and teachers (Gamson, 1966: 46-69).

Henderson and Northrup (1964) report that 96 percent of the respondents involved in their research listed departmental objectives (academic activities, classes, lectures, and exams) as being the most important of their socializing experiences at a major university. Casual relationships and organized social activities were rated second and third (Feldman, 1970: 1963).

In The American College, Sanford provides several studies related to this work, as well as a good survey of student culture and the impact of various aspects of the university upon it. In these sections he emphasizes the need for consistent role demands as outlined in educational objectives (Sanford, 1967: 63).

If role demands are key factors in student performance it seems to be a simple extension of this thought that departmental objectives would also be key factors in performance (departmental objectives structure student role demands).

Sanford was also able to provide some insights into interaction of students and educators which proved to be helpful in proposing potential spurious and intervening variables.

THE WORKS OF VREELAND AND BIDWELL (1966)

Two studies were instrumental in the formulation of the present project. Perhaps the most important of the two is Vreeland and Bidwell's "Classifying University Departments: An Approach to the Analysis of Their Effect Upon Undergraduates".

This research uses the concept of college "atmosphere" or "climate", (which has been often referred to in research but has had little

analytical power) and operationalizes it. The research is designed to investigate the effect of the university upon student attitudes and values. The authors hypothesize the existence of a departmental social structure which operates independently from the aggregated characteristics of the member students.

The authors state four objectives: (1) to develop an operational framework for classifying university departments (this framework was adopted, with modification, to form the measures of departmental attributes used in this paper); (2) to attempt to apply the instrument to the departments of a large university; (3) to suggest working hypothesis to be used in later research, and (4) to discuss structural properties of the departments and their associated effects.

The research is divided into two major components. The first is a measure of departmental goals. Goal orientations are scored as (1) technical emphasizing the subject matter, (2) technical emphasizing occupational training, (3) technical emphasizing occupational attitudes and values, (4) moral emphasizing stimulation of the student, and (5) moral emphasizing the change of attitudes and values.

The second major division is the measure of departmental attributes. This measure includes faculty interest, student-faculty interaction, and student peer interaction. Faculty interest was scored as: (1) interest in the curriculum; (2) interest in teaching; (3) interest in students; and (4) interest in student product. Student-faculty interaction was scored as: (1) less frequent than required by the job; (2) minimum interaction required by the job; (3) more frequent than required; and (4) much more frequent and intimate than required by the job. The 1966 works of

Vreeland and Bidwell did not include a measure of student peer interaction because faculty interviews proved to be an ineffective measure of this variable.

The authors collected data for each of the variables mentioned above through a direct interview technique in a large Eastern University. Once compiled the data concerning departmental interest and interaction is combined on a single grid as in Figure 1.

FIGURE 1

DEPARTMENTS ORDERED BY INTEREST IN AND INTERACTION WITH UNDERGRADUATES

		<u>Interaction</u>		
		Low	Medium	High
<u>Interest</u>	Low	Physics Chemistry Architecture	Language	Math
	Medium		Astronomy English Government	Classics Economics
	High	Engineering	Arts Biology Philosophy	History Sociology Psychology

The relationship reported between interest and interaction produced a gamma of .61. The results of Figure 1 are eventually reduced to form one variable called "departmental attributes". This variable is coded in values of high, medium, and low, and is combined with departmental goal orientation to form a final nine-celled grid (Figure 2).

FIGURE 2

TYPE OF GOAL AND PRESENCE OF ATTRIBUTES OF VARIOUS
ACADEMIC DEPARTMENTS

		<u>Goals</u>		
		Technical	Mixed	Moral
<u>Presence of Attributes</u>	Low	Physics Chemistry	Languages	Architecture
	Medium	Engineering Math Astronomy	Biology English	Classics Government
	High	Psychology Philosophy	Sociology	Economics History Arts

The general findings suggest that the most consistent and extensive effects on student attitudes and values should occur among students majoring in history, economics on the fine arts. The least extensive should occur among physics and chemistry majors. The architecture department should have weak but consistent effects while psychology and philosophy should have strong but inconsistent effects.

CHAPTER III

PROCEDURAL ORIENTATION

CHAPTER III

PROCEDURAL ORIENTATION

INTRODUCTION

Chapter III outlines the major methodological procedures involved in this project. It includes a description of the basic measures involved in the research, as well as a report of their reliability and validity. This section also explains the scoring of the various items and outlines the procedure for recoding used to produce the final correlations. A summary of the total sample is included which gives the distribution of responses for each item. The final section of the chapter provides the hypothesis which will structure the subsequent research.

PROCEDURAL ORIENTATION

The instrument used in this research was composed of three basic inventories. The first contains items seeking personal background information. This section is designed to measure nine variables; sex, age, religion, size of home town, year in school, size of high school, grade point average, academic major, and the number of courses taken in the major field. As was demonstrated in the review of literature, these variables have been significantly correlated with attitude and value formation in college students. (Ritter, 1968).

No attempt was made at regulating the distribution of cases falling into any of these categories with the exception of the academic major, and the year in school variables. In these two instances, the sample distribution was controlled so as to insure representation in certain desired categories. The instrument was administered in upper level courses, (300 level and above) corresponding to those academic departments studied by Vreeland and Bidwell. This was done to enable the testing of several of the working hypotheses of their research. Such distribution concentrates the sample in certain academic fields (although several others were represented as well) and at the same time, systematically reduces the numbers of freshmen and sophomores responding to the instrument.

The second section of the questionnaire includes five items measuring university departmental attributes and orientations while the third contains an attitudes toward education scale. These two

sections were included for the purpose of multiple correlation between attitudes toward education and all other variables.

When possible the questionnaires were distributed, and collected, by the author (with the permission of the instructor) during the first ten minutes of class time. This method proved to be the most effective, since approximately 95 percent of the data collected in this manner was complete and usable. Questionnaires handed out by instructors, filled out during class time, and returned, were about 91 percent complete and usable. In some cases it was necessary (in order to secure the aid of the instructor) to allow the questionnaires to be taken home and filled out and returned during the following class meeting. This method produced less than a 50 percent return of usable questionnaires.

The instrument was determined reliable through a 20 percent random sample, split-half correlation. $R_1 = .75$

$$R_2 = .86 \text{ (corrected by Spearman Brown Formula)}$$

The instrument displays content validity for the six attitudinal referents toward which it is directed (as determined by a panel of educators).

Once collected the data was processed and analyzed through the NUCROS program, a general multivariate cross-classification program in Fortran IV for the IBM 360.

Measures of association were determined by either gamma values, or tau values when appropriate, and by chi square. Gammas of .25 or greater were accepted although they are described as weak relationships. It is suspected that the strength of some relationships was effected by the limited size of the sample. The .05 level of significance was set as the acceptance level for values of chi square.

SUMMARY OF THE SAMPLE

The data for this project was collected at Eastern Illinois University in Charleston, during the summer session, 1973. Eastern is a small liberal arts institution which has traditionally specialized in education degrees.

The sample consisted of 380 cases. Of the total sample, 168 respondents were males, and 212 were female. Background information requested in the first section of the questionnaire, revealed the respondents ranged in age from seventeen to fifty-four. There were however only nine cases reported under the age of nineteen. (This is understandable, as the instrument was administered in predominantly upper-level courses to insure that respondents would have declared majors and be familiar enough with them to propose a proper evaluation of its characteristics.)

Protestant religions were the most dominant category reported. Two-hundred twenty-five of those questioned were Protestant. Eighty-seven

were Catholic, 12 reported other religions including Hindu and Moslem and 56 specified no religious affiliation.

The sample was fairly evenly divided as to the size of their home towns. One hundred thirty-four came from towns smaller than 5,000. One hundred twenty-four came from moderate sized hometowns (5,001-20,000) and 122 came from local environments of over 20,000. The reported size of high school, corresponded to size of home town in most cases. This is observed in the roughly equal categories of size of high school. One hundred eleven respondents come from small high schools (500 students or less), 116 from schools of the 501 to 1,000 range, and 153 respondents from large schools (over 1,000 student population).

Reported grade point averages ranged from 2.0 to 4.0. The majority of these however were clustered between 2.5 and 3.3. Over 60 percent of the total number of cases are represented within these limits. (The absence of GPAs under 2.0 is explainable, as the sample is dominated by upperclassmen with declared majors. University standards for upperclassmen require a 2.0 average.)

Twenty-two academic majors were reported. These were collapsed into 16 major categories while coding and were regrouped again during analysis. The majors were ordered to range from highly technical such as math and physics to highly moral disciplines such as the arts. General Education was the most frequently reported major. 18.2 percent of the sample were represented in this category. Other highly represented areas were Physical Education, Business, and Sociology. They accounted for 13.9, 13.7 and 10 percent of the total sample respectively.

Forty-seven of the respondents were coded as having few courses in their declared major (five or less). One hundred seventy two had from six to twelve and 161 of those questioned had taken at least thirteen courses in their major field.

CHAPTER IV

STATISTICAL ANALYSIS

INTRODUCTION

This chapter explains the relationships within a statistical framework. Each hypothesis is covered in a subunit of the chapter.

Included in each subunit is:

1. a statement of the relationship under study.
2. a theoretical justification of the hypothesized relationships.
3. a variable summary including description of the variables at the theoretical, empirical, and operational levels.
4. a summary of the findings including tables and the appropriate statistical measures.

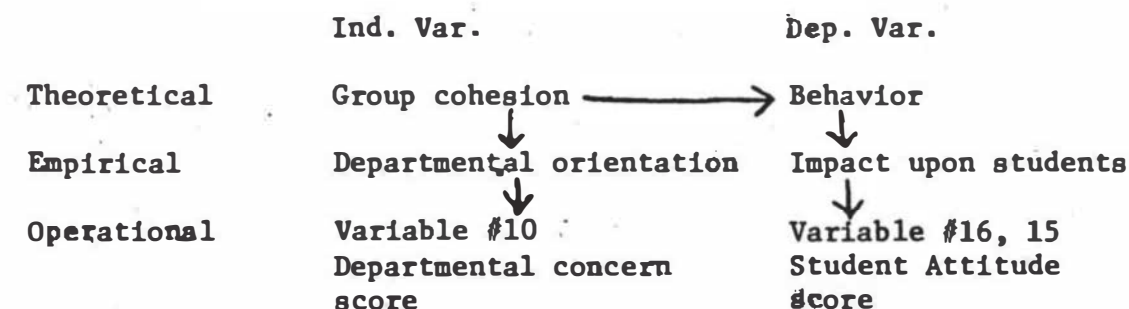
The purpose of this section is to supply the reader with data which either supports or rejects the hypothesized relationships. This chapter will be confined, when possible to statistical description, analysis will be reserved for the following section.

TECHNICAL AND MORAL DEPARTMENTAL GOAL ORIENTATIONS
AND THEIR IMPACT ON ATTITUDES TOWARD EDUCATION

The research of Vreeland and Bidwell used the preceeding relationship as one of two major working hypothesis. The present study predicted a positive relationship between morally oriented departments and positive (favorable) attitudes toward education. It was further suspected that technically oriented departments might demonstrate an inverse relationship (or at least a significantly weakened relationship).

The theoretical justification for these hypothesis is based on the rationale that departments which have a moral orientation, have defined their purpose as being that of changing student attitudes and values. When moral goals are emphasized instructional activities are expected to reflect preferred attitudes and values. Technical orientations, however, should produce unanticipated attitudes and values. Technical orientations, however, should produce unanticipated attitude changes in response to technical instruction. The effect should therefore be non directive and fairly homogeneous.

VARIABLE SUMMARY FOR THIS RELATIONSHIP



RESULTS

The research findings fail to prove the existence of this relationship ($\text{Gamma} = .023$). The data indicates that students from morally-oriented departments are as likely to have low (or negative) attitudes toward education as are students from technically-oriented departments. Control tables reveal no other significant relationships. The findings are summarized in Figure 3.

FIGURE 3

ATTITUDES TOWARD EDUCATION, AS AFFECTED BY DEPARTMENTAL GOAL ORIENTATION

		Departmental Orientation	
		Technical Orientation	Moral Orientation
Attitudes Toward Education	Negative Attitude	N = 91 48%	86 46%
	Positive Attitude	102 52%	101 54%
	Totals	100% 193	100% 187

Total N = 380

Chi Square = .051 (D.F. = 1) $P > .05$

Not Significant

Gamma = .023

The table demonstrates that 48 percent of those students from technically-oriented departments held negative attitudes toward education, while 52 percent of this group held positive attitudes. Those coming from morally-oriented departments held negative attitudes

in 46% of the cases while having positive attitudes toward education 54% of the time. On the basis of this data, one must accept the null hypothesis; that is, departmental orientation does not directly affect student attitudes toward education in general. As will be demonstrated, however, this variable was shown to effect several other relationships.

The research did show a weak but positive relationship between departmental orientation and attitudes toward the department ($\text{Gamma} = .224$).

The relationship between these two variables is demonstrated in Figure 4.

FIGURE 4

ATTITUDES TOWARD THE DEPARTMENT AS AFFECTED
BY DEPARTMENTAL GOAL ORIENTATION

		Departmental Orientation	
Attitudes Toward Department		Technical Orientation	Moral Orientation
	Negative Attitude	N = 97 50%	73 39%
	Positive Attitude	96 50%	114 61%
	Totals	100% 193	100% 187

Total N = 380

Chi Square = 4.838 (D.F. = 1) $.01 < P < .05$

Significant

Gamma = .224 .

The table indicates that those students from technically-oriented departments were equally divided between positive and negative

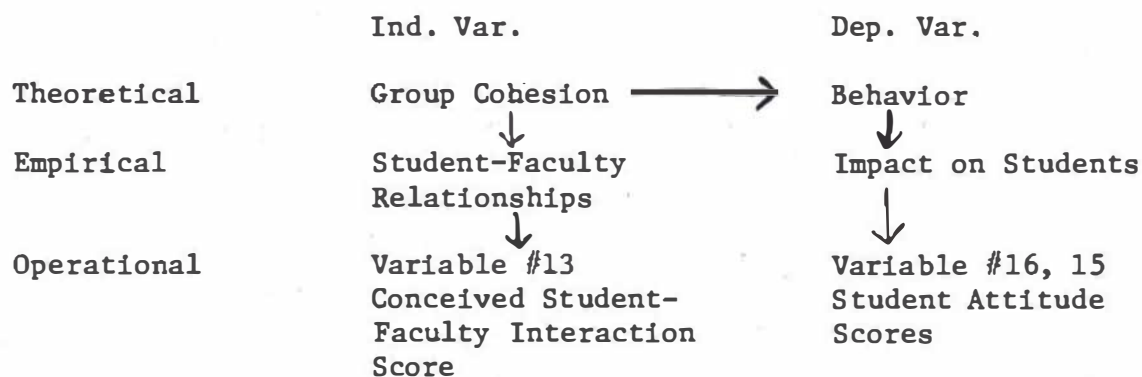
attitudes toward the department. Students from moral orientations however, held negative attitudes in only 39% of the the cases while exhibiting positive attitudes toward the department 61% of the time.

STUDENT-FACULTY INTERACTION AND ITS IMPACT
ON STUDENT ATTITUDES TOWARD EDUCATION

Student-faculty interaction was expected to be a major component of departmental cultures. The hypothesis suggests that the degree of faculty interaction is directly related to student attitude formation. Therefore, as interaction increases it is suspected that the students evaluation of education will also increase. Departments described as low in student-faculty interaction are expected to have low evaluations of education.

The theoretical justification for this hypothesis is based on the relationship of departmental culture and attitude change. It is reasoned that students from departments demonstrating high student-faculty interaction will feel more closely associated with their department than will those from low interaction environments. This greater identification is presumed to be related to a greater capacity for normative control or influence. A departments socializing power then, should be directly related to the interaction of its faculty and students.

VARIABLE SUMMARY FOR THIS RELATIONSHIP



RESULTS

The findings indicate a positive but weak relationship between student-faculty interaction and attitudes toward general education ($\text{Gamma} = .109$) as demonstrated in the following table. Control tables revealed no significant relationships.

FIGURE 5

ATTITUDES TOWARD EDUCATION AS AFFECTED STUDENT-FACULTY INTERACTION

		Student-Faculty Interaction	
		Low Interaction	High Interaction
Attitudes Toward Education	Negative Attitude	N = 56 50%	121 45%
	Positive Attitude	55 50%	148 55%
	Totals	100% 111	100% 269

Total N = 380

Chi Square = .945 (D.F. = 1) $.05 < P$
Not Significant

$\text{Gamma} = .109$

Students scoring their departments as being low in student-faculty interaction, were equally divided among positive and negative attitudes toward education. Those from departments scored as high in interaction scored in the negative attitude range in 45% of the cases. 55% of these students scored positive attitudes toward education.

Another positive and considerably stronger relationship ($\text{Gamma} = .657$) was demonstrated between student-faculty interaction and the students evaluation of his department. This relationship is provided in Figure 6.

FIGURE 6

ATTITUDES TOWARD THE DEPARTMENT AS AFFECTED
BY STUDENT-FACULTY INTERACTION

		Student-Faculty Interaction	
		Low Interaction	High Interaction
Attitude Toward the Department	Negative Attitude	N = 79 71%	91 34%
	Positive Attitude	32 29%	178 66%
	Totals	100% 111	100% 269

Total N = 380

Chi Square = 44.319 (D.F. = 1) $P < .001$
Significant

Gamma = .657

As demonstrated in the table, 71% of the students who perceived the interaction of their department to be low, also scored negative attitudes toward their departments, while 29% scored in the positive range. Students who perceived student-faculty interaction as being high held negative attitudes toward the department in only 34% of the cases while having positive attitudes 66% of the time.

CONTROL TABLES

Controlling this relationship to eliminate the effects of other variables involved in the departmental cultural milieu, revealed several other statistically significant correlations. Figure 7 illustrates the relationship between student-faculty interaction and attitudes toward the department when values of the attitude toward education variable are controlled for. In the control tables, faculty-student interaction is shown to be strongly correlated with a students evaluation of his department for students from departments which gave high evaluations of general education (Gamma = .740).

The relationship demonstrated for students who gave low evaluations of education is somewhat reduced (Gamma = .545). The results of both tables are given in Figure 7 and 8.

FIGURE 7

FACULTY-STUDENT INTERACTION AND ITS AFFECT ON
ATTITUDES TOWARD THE DEPARTMENT FOR STUDENTS
SCORING LOW ON ATTITUDES TOWARD EDUCATION

Faculty-Student Interaction

Attitudes Toward Department		Low Inter.	High Inter.
	Negative Att.	N = 41 73%	54 45%
	Positive Att.	15 27%	67 55%
	Totals	100% 56	100% 121

Total N = 177

Chi Square = 12.581 (D.F. = 1) $P < .001$
Significant

Gamma = .545

Figure 7 shows the relationship between student-faculty interaction and a students evaluation of his department for students who scored in the lower half on the attitudes toward education scale. Of those students in this category who perceived interaction in their departments to be low, 73 percent held low departmental evaluations. Only 27 percent of those from low interaction departments gave those departments high evaluations. Students who perceived of the student-faculty interaction in their department to be high, gave low departmental evaluations 45 percent of the time. Fifty-five percent of those students reporting high interaction also reported a high departmental evaluation.

FIGURE 8

FACULTY-STUDENT INTERACTION AND ITS AFFECT ON
ATTITUDES TOWARD THE DEPARTMENT FOR STUDENTS
SCORING HIGH ON ATTITUDES TOWARD EDUCATION

Faculty-Student Interaction

Attitudes Toward Department	Faculty-Student Interaction	
	Low Inter.	High Inter.
	N = 38	37
	69%	25%
Negative Att.		
	17	111
	31%	75%
Positive Att.		
Totals	100% 55	100% 148

Total N = 203 .

Chi Square = 33.462 (D.F. = 1) $P < .001$
Significant

Gamma = .740

The preceding table demonstrates the relationship between student-faculty interaction and student departmental evaluation for students scoring in the upper half of the attitudes toward education scale. Of the students in this category who came from departments low in student-faculty interaction, 69 percent gave low departmental evaluations, while 31 percent gave high evaluations. Students representing departments scoring high in student-faculty interaction gave low evaluations in only 25 percent of the cases. Seventy-five percent of these students gave high department evaluations.

Control tables revealed at least one other significant relationship. While controlling for values of variable 12, which asked students to choose those areas least emphasized by their department, it was discovered that students who listed non-student oriented items as least emphasized by their department, demonstrated a strong correlation between student-faculty interaction and departmental evaluation ($\text{Gamma} = .763$). The relationship was somewhat reduced for students who listed student oriented items as those least emphasized by their department ($\text{Gamma} = .578$). Figures 9 and 10 illustrate these findings.

FIGURE 9

FACULTY-STUDENT INTERACTION AND ITS AFFECT ON
ATTITUDES TOWARD THE DEPARTMENT FOR STUDENTS
FROM DEPARTMENTS THAT LEAST EMPHASIZE
NON-STUDENT ORIENTED ITEMS

Faculty-Student Interaction		
	Low Inter.	High Inter.
Attitudes Toward Department	Negative Att. N = 47 65%	83 34%
	Positive Att. 25 35%	165 66%
	Totals 100% 72	100% 248

Total N = 320

Chi Square = 23.408 (D.F. = 1) $P < .001$
Significant

Gamma = .578

Figure 9 illustrates the relationship between student-faculty interaction and departmental evaluation for those students from departments that place least emphasis on non-student oriented items (that is, they are probably student oriented). Students falling in this category and coming from departments low in interaction held low departmental evaluations 65 percent of the time while holding high evaluations in 35 percent of the cases. Students from departments high in interaction, held low departmental evaluations 33 percent of the time while holding high evaluations in 67 percent of the cases.

FIGURE 10

FACULTY-STUDENT INTERACTION AND ITS AFFECT ON
ATTITUDES TOWARD THE DEPARTMENT FOR STUDENTS
FROM DEPARTMENTS THAT LEAST EMPHASIZE
STUDENT ORIENTED ITEMS

		Faculty-Student Interaction	
		Low Inter.	High Inter.
Attitudes Toward Department	Negative Att.	N = 32 82%	8 38%
	Positive Att.	7 18%	13 62%
	Totals	100% 39	100% 21

Total N = 60

Chi Square = 11.868 (D.F. = 1) $P < .001$
Significant

Gamma = .763

This diagram represents the relationship between departmental interaction and departmental evaluation for students from departments which least emphasized student oriented items (that is, they were most likely non-student oriented). Students in this category from departments low in interaction gave low departmental evaluations in 82 percent of the cases while giving high evaluations in only 18 percent. Students from departments scored high in interaction gave low evaluations only 38 percent of the time while giving high ones in 62 percent of the cases.

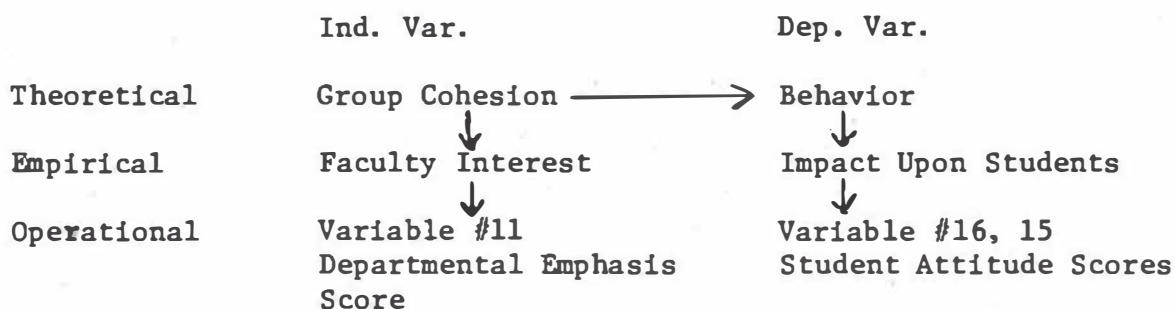
FACULTY INTEREST AND ITS IMPACT ON
STUDENT ATTITUDES TOWARD EDUCATION

Faculty interest was conceptualized as being associated with departmental goal orientation and combining with orientation, and

interaction as a part of the total departmental culture. As such it is hypothesized to bear a direct relationship to attitudes toward education. It is suspected that student centered scores on the faculty interest variable will be associated with high evaluations of both general education and of the department. Non-student centered departments will of course be expected to receive low evaluations.

The theoretical argument for this hypothesis suggests that departments that do not define the student as their prime concern, will not be as effective in achieving student attitude change. Those departments which are student centered, however, will actively seek the development of the student, will seek to influence his attitudes and values and will therefore have a much greater impact.

VARIABLE SUMMARY FOR THIS RELATIONSHIP



RESULTS

Research does not support the hypothesized relationship between faculty interest (as measured by the departmental emphasis score) and student attitudes toward education in general ($\Gamma = -.038$). Control tables failed to yield any significant relationships. These findings are summarized in Figure 11.

FIGURE 11

**ATTITUDES TOWARD EDUCATION AS AFFECTED
BY FACULTY INTERESTS**

Attitudes Toward Education	Faculty Interest			
	Non-Student Centered		Student Centered	
	Negative Attitude	N = 104 46%	73 48%	
	Positive Attitude	123 54%	80 52%	
Totals		100% 227	100% 153	

Total N = 380

Chi Square = .132 (D.F. = 1) $.05 < P$
Not Significant

Gamma = -.038

A weak positive relationship exists between faculty interest and the students evaluation of his own department (Gamma = .293). This relationship is demonstrated in the following table.

FIGURE 12

**ATTITUDES TOWARD THE DEPARTMENT AS AFFECTED
BY FACULTY INTEREST**

Attitudes Toward the Department	Faculty Interest			
	Non-Student Centered		Student Centered	
	Negative Attitude	N = 115 . 51%	55 36%	
	Positive Attitude	112 49%	98 64%	
Totals		100% 227	100% 153	

Total N = 380

Chi Square = 8.003 (D.F. = 1) $.001 < P < .01$
Significant

Gamma = .293

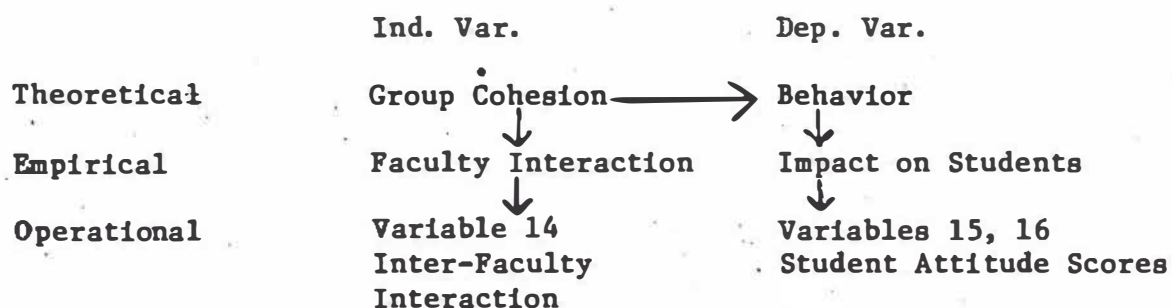
Students who experienced non-student centered departments were equally divided between positive and negative attitudes toward the department, while those from student-centered departments reported negative attitudes toward their department in 36% of the cases. 64% of those from student-centered departments held positive attitudes toward the department.

ATTITUDES TOWARD EDUCATION AS AFFECTED
BY DEPARTMENTAL INTRA-FACULTY INTERACTION

It was predicted that high level of intra-faculty interaction would produce favorable attitudes toward education while low interaction would produce negative attitudes.

The theoretical explanation for this relationship assumes that departments with high faculty interaction scores are most likely to be the most unified departments. It is suspected that such departments will be the most efficient agents of attitude change. Departments with low interaction scores are presumed to be revealing departmental cleavages which would generate attitudinal influences in several directions; thus not supplying a consistent model. The effect of such an impact is hypothesized to be negative.

VARIABLE SUMMARY FOR THIS RELATIONSHIP



RESULTS

A moderate association between faculty interaction and student attitudes toward general education was demonstrated in the research findings. The data indicates that students from departments ranked as high in faculty interaction are more likely to hold positive attitudes toward education than their colleagues. Figure 13 demonstrates this relationship.

FIGURE 13

ATTITUDES TOWARD EDUCATION AS AFFECTED BY DEPARTMENTAL INTRA-FACULTY INTERACTION

		Inter-Faculty Interaction	
		Low	High
Attitudes Toward Education	Negative Attitude	N = 67 68%	110 42%
	Positive Attitude	49 42%	152 68%
	Totals	100% 116	100% 262

Total N = 378

Chi Square = 8.034 (D.F. = 1) .001 < P < .01
Significant

Gamma = .308

Sixty-eight percent of the students from departments low in faculty interaction held negative attitudes toward education in general, while those from high interaction departments held positive attitudes

42% of the time. The percentages were exactly the reverse for students from high interaction departments. Forty-two percent of this group held negative attitudes toward the department while 68% scored in the positive range.

Intra-faculty interaction and attitudes toward the department demonstrated a similar but stronger relationship. Figure 14 illustrates these findings.

FIGURE 14

ATTITUDES TOWARD THE DEPARTMENT AS AFFECTED
BY DEPARTMENTAL INTRA-FACULTY INTERACTION

Intra-Faculty Interaction

Attitudes Toward the Department	Intra-Faculty Interaction	
	Low	High
	Negative Attitude	Negative Attitude
	66% N = 77	35% 92
Positive Attitude	34% 39	65% 170
Totals	100% 116	100% 262

Total N = 378

Chi Square = 31.793 (D.F. = 1) $P < .001$

Significant

Gamma = .570

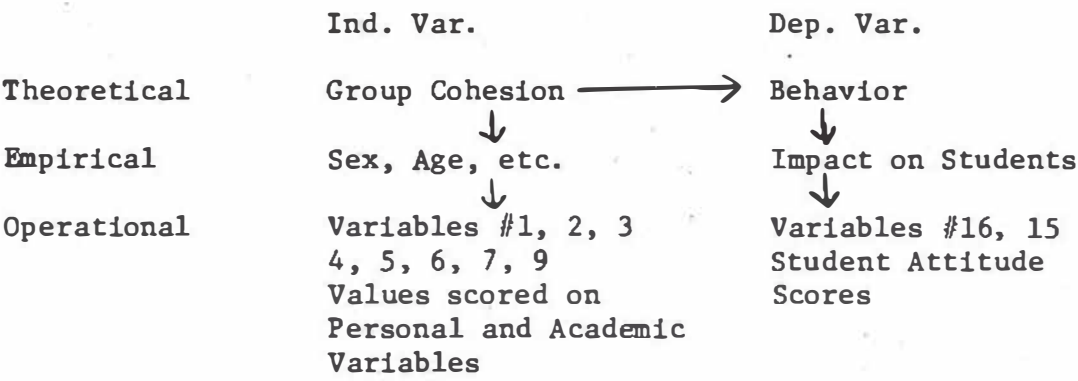
Of those students experiencing low intra-faculty interaction, 66% reported negative attitudes toward the department, while 34% reported positive attitudes. Students scoring their departments as high in interaction held negative attitudes toward the department in only 35% of the cases while holding positive attitudes 65% of the time.

ATTITUDES TOWARD EDUCATION AS AFFECTED BY EIGHT
PERSONAL AND ACADEMIC VARIABLES WHICH ARE
COMMONLY ASSOCIATED WITH ATTITUDE FORMATION

It is suspected that the formation of attitudes toward education will be more strongly related to elements of the departmental culture than those personal and academic variables which have been used to explain differential attitudes. The variables used to test this hypothesis were sex, age, religion, size of home town, year in school, size of school, grade point average, and the number of courses taken in a given major.

The theoretical justification for such a hypothesis is based on the positions of both sets of variables (personal, and departmental cultural) in relation to the object of change (attitudes toward education). It is assumed that the effect of a departments distinctive culture is most logically transferred into attitudes toward the department and toward education in general. The effects of the assorted personal and academic variables, though they may have some impact on attitudes toward education, are not so intimately related to the dependent variable.

VARIABLE SUMMARIES FOR THESE VARIABLES



RESULTS

The research indicates that the departmental culture is more directly related to attitude formation than the traditional, personal and academic variables. Figure 15 summarizes the correlations between the eight variables which compose the independent variables of this hypothesis, and attitudes toward the department and general education.

FIGURE 15

TRADITIONAL, PERSONAL AND ACADEMIC VARIABLES AND THEIR RELATIONSHIP TO ATTITUDES TOWARD EDUCATION

Variable	Attitudes Toward Education		Attitudes Toward Department	
	Gamma	Chi Square	Gamma	Chi Square
1 Sex	-.197	DF = 1 3.671	-.111	DF = 1 1.148
2 Age	.205	DF = 1 * 3.848	-.032	DF = 1 .093
3 Religion	.098	DF = 3 13.230	-.022	DF = 3 3.309
4 Year in School	.196	DF = 1 3.268	.203	DF = 1 3.520
5 Size of Home Town	-.039	DF = 2 .692	-.056	DF = 2 1.069
6 Size of High School	-.116	DF = 2 3.060	-.085	DF = 2 1.167
7 Grade Pt. Average	.167	DF = 2 2.684	.300	DF = 1 ** 8.887
8 Number of Courses	.209	DF = 2 5.566	.173	DF = 2 6.473

* - $P < .05$

** - $P < .001$

As demonstrated in Figure 15 only two significant relationships were found of a possible sixteen (eight variables vs. attitudes toward education and attitudes toward the department). These findings are in disagreement with preceding studies which have maintained significant correlations between these traditional demographic measures and attitude formation. It is suspected that such traditional indicators as religion are in fact, declining in importance.

Positive but weak relationships exist between age and attitudes toward education and grade point average and attitudes toward the department. The gammas are .205 and .300 respectively. Both relationships have Chi squares significant to at least the .05 level of confidence.

A COMPARISON OF ACADEMIC MAJOR AND DEPARTMENTAL COMPONENTS,
AND THEIR AFFECT ON ATTITUDES TOWARD EDUCATION

If attitudes toward education are influenced by departmental cultural traits rather than academic divisions as hypothesized, the relationships between the cultural components and attitude scales should be stronger than those observed between academic major and attitudes.

Theoretically it is expected that majors would be inconsistent forces effecting attitude change, and would therefore be inefficient effectors. A single academic department could provide a different set of cultural experiences for each student. Student attitude formation would be more accurately a product of the unique combinations of departmental cultural experiences as perceived by the student.

VARIABLE SUMMARY FOR THIS RELATIONSHIP

	Ind. Var.		Dep. Var.
Theoretical	Group Cohesion	→	Behavior
	↓		↓
Empirical	Declared Major & Departmental Culture		Impact on Student Attitudes
	↓		↓
Operational	Variables #8, 10, 11, 12, 13, 14 Academic Major and Cultural Component Score		Variables #16, 15 Student Attitudes Scale

RESULTS

The research demonstrates that there is no relationship between academic major and attitudes toward education or the department (the gammas were $-.048$ and $-.028$ respectively).

The departmental cultural components however, exhibit strong relationships to attitude formation. One of the cultural components is shown to have a moderate correlation with attitudes toward education, while all of the cultural components held significant relationships with attitudes toward the department. The gammas range from moderate to strong. Chi squares range from $P < .05$, in the case of departmental concern, to $P < .001$, in three relationships (least emphasized, student-faculty interaction and inter-faculty interaction). Figure 16 lists all gammas and chi squares involved in the preceding discussion.

FIGURE 16

COMPARISON OF RELATIONSHIPS BETWEEN ACADEMIC
MAJOR AND ATTITUDES, AND DEPARTMENTAL
CULTURAL COMPONENTS AND ATTITUDES

	Variable	Attitudes Ed.		Attitudes Dept.	
		Gamma	Chi Square	Gamma	Chi Square
Major	Academic Major	-.048	DF = 2 3.611	-.028	DF = 2 1.374
Department Cultural Components	Department Concern	.023	DF = 1 .051	.224	DF = 1 * 4.838
	Dept. Emphasis	-.019	DF = 1 .132	.293	DF = 1 ** 8.003
	Least Emphasis	-.198	DF = 1 2.031	-.490	DF = 1 *** 13.860
	Stud-Fac. Interaction	.109	DF = 1 .945	.657	DF = 1 *** 44.319
	Fac-Fac Interaction	.308	DF = 1 8.034 **	.570	DF = 1 *** 31.793

* = $P < .05$

** = $P < .01$

*** = $P < .001$

In All Relationships Not *, $.05 < P$

ATTITUDES TOWARD THE DEPARTMENT AND THEIR
EFFECT ON ATTITUDES TOWARD EDUCATION

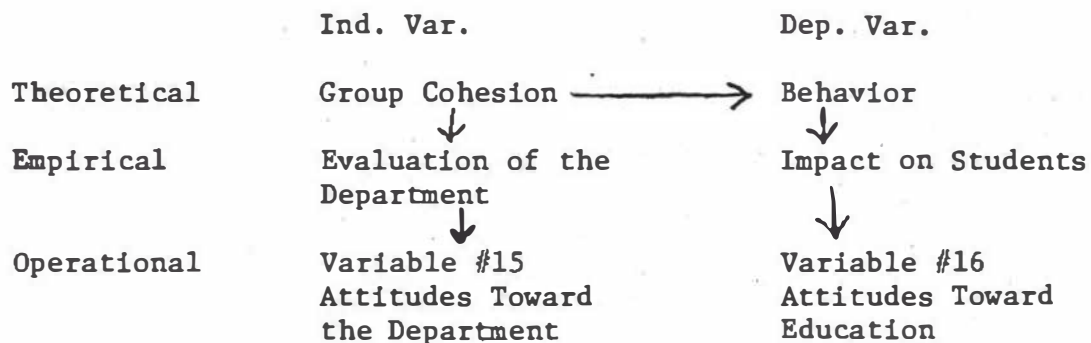
It is hypothesized that components of a department's culture have a socializing impact on students. This research has investigated two such impacts, attitudes toward education and attitudes toward the department.

It is believed that attitudes toward the specific department in which an individual student has majored, becomes an independent variable

in the formation of attitudes toward the broader category education. It is further hypothesized then, that attitudes toward the department will be directly related to attitudes toward education.

The preceding data has found aspects of the departmental culture to be more closely related to departmental attitudes. It is suspected that a departmental cultural attribute therefore, is closely related to the formation of attitudes toward the department while being only a small contributor to the formation of attitudes toward education. While the single cultural component would have little influence on attitudes toward education, the entire departmental cultural complex would, theoretically, have a significant impact.

VARIABLE SUMMARY FOR THIS RELATIONSHIP



RESULTS

The hypothesis is supported by the resultant research. Attitudes toward the department were found to be significantly correlated with attitudes toward education, ($\Gamma = .328$). The findings are summarized in Figure 17.

FIGURE 17

ATTITUDES TOWARD EDUCATION AS AFFECTED BY
ATTITUDES TOWARD THE DEPARTMENT

		Attitudes Toward the Department	
		Negative Attitude	Positive Attitude
Attitudes Toward Education	Negative Attitude	N = 95 44%	82 38%
	Positive Attitude	75 56%	128 62%
	Totals	100% 170	100% 210

Total N = 380

Chi Square = 10.70 (D.F. = 1) .001 < P < .01
Significant

Gamma = .328

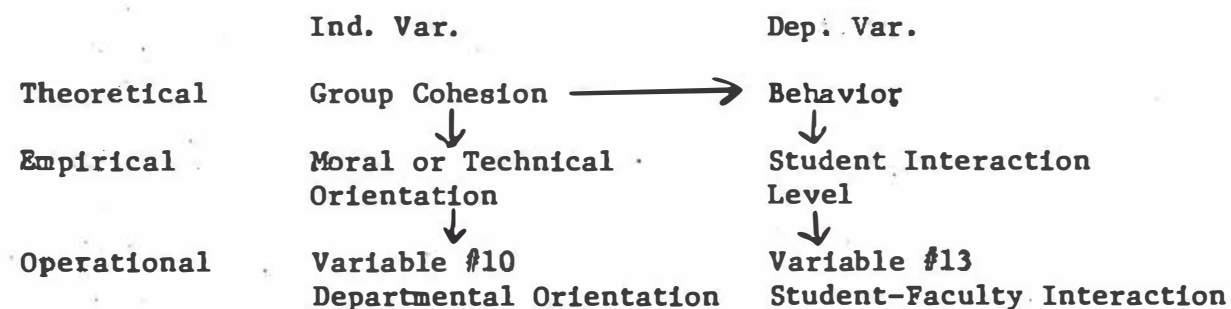
As demonstrated in the table, 44 percent of those students scoring low on attitudes toward the department also scored low in attitudes toward education in general. Fifty-six percent of those scoring in this category scored high in attitudes toward education. Of those students scoring high in attitudes toward the department, only 38 percent scored low in attitudes toward education while 62 percent scored high.

THE INTERRELATIONSHIP OF DEPARTMENTAL ORIENTATION
AND STUDENT-FACULTY INTERACTION

Research conducted by Gamson provides the framework for this hypothesis. Gamson predicts that utilitarian departments (a term roughly equivalent to "technical orientation" as used in this work) are predisposed toward low student-faculty interaction while normative departments (similar to "morally oriented") are predisposed toward high interaction.

The rationale for this hypothesis assumes that technical or utilitarian departments are concerned primarily with the transmission of subject matter. This objective is most efficiently obtained through such techniques as lectures. High degrees of student participation restricts the flow of information. Student interaction with technically oriented faculty would tend to threaten the authoritarian position desired by such faculty and would therefore be discouraged. Morally oriented faculty would be concerned with the changing of attitudes in addition to the transmission of subject matter, and would seemingly then, encourage student participation and interaction.

VARIABLE SUMMARY FOR THIS RELATIONSHIP



RESULTS

The hypothesis is accepted on the basis of a moderately strong, (Gamma = .409) highly significant relationship. As expected, morally oriented departments were shown to be associated with high interaction levels while technically oriented departments were associated with low interaction. Figure 118 illustrates these findings.

FIGURE 18

STUDENT-FACULTY INTERACTION AS AFFECTED
BY DEPARTMENTAL ORIENTATION

Department Orientation	Student-Faculty Interaction	
	Low Inter.	High Inter.
	Technical	
	66% N = 73	45% 120
Moral	34% 38	55% 149
Totals	100% 111	100% 269

Total N = 380

Chi Square = 14.071 (D.F. = 1) $P < .001$
Significant

Gamma = .409

Students scoring low in departmental interaction came from technically oriented departments 66 percent of the time while coming from moral orientations in only 34 percent of the cases. Students from departments scored high in interaction came from technically oriented departments 45 percent of the time, while 55 percent came from moral orientations.

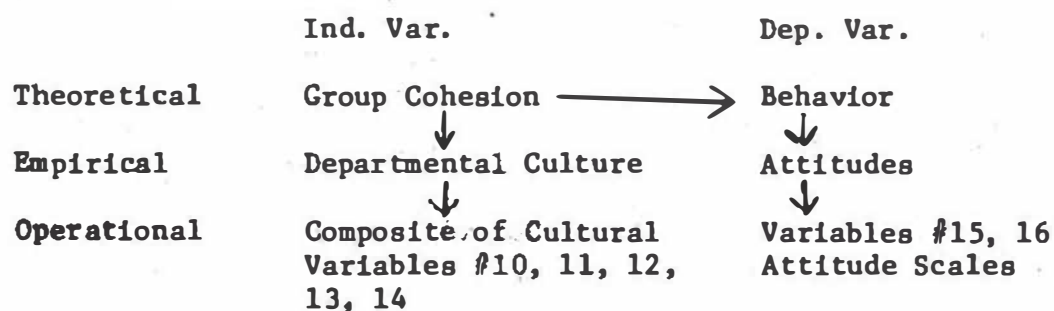
THE AFFECT OF DEPARTMENTAL CULTURE
OF ATTITUDES TOWARD EDUCATION

Several individual departmental attributes have demonstrated significant correlations with attitudes toward education and the department. It was hypothesized that a measure indicating the collective presence of high interaction, student centeredness, and moral orientation,

is associated with positive attitudes toward education; while departments which are low in interaction, non-student centered, and technically oriented are associated with negative attitudes toward education.

The rationale used in support of this prediction assumes that there are qualities in the total departmental culture which have substantial impact on student attitudes.

VARIABLE SUMMARY FOR THIS RELATIONSHIP



RESULTS

A strong relationship was found between departmental culture and attitudes toward the department (Kendall Tau = .487, with significance to the .01 level). The relationship between departmental culture and attitudes toward education was rejected (Kendall Tau = .269 $P < .05$).

In order to establish a means for testing the preceding hypothesis the thirteen academic departments represented in this study, were scored along the extremes of the four departmental cultural attributes. Departments were placed into the category in which the majority of their respondents had scored them. For example, 75 percent of the Industrial Arts majors involved in the study scored their department as being technically oriented while 25 percent scored it as morally

oriented. Industrial arts was therefore categorized as technical.

Figure 19 illustrates the coding of each department used in this section.

FIGURE 19
DEPARTMENTAL CULTURAL ATTRIBUTES

	Goal Orientation	Departmental Emphasis	Student/Fac Interaction	Fac/Fac Interaction
Math & Physics	T	NSC	L	H
Languages	T	NSC	H	L
Ind. Arts	T	NSC	H	H
Psychology	T	NSC	H	H
Biology	T	NSC	H	H
Education	M	SC	H	H
Home Econ.	M	NSC	H	H
Business	T	NSC	H	H
English	T	NSC	H	H
Phys. Ed.	T	NSC	H	H
Sociology	M	NSC	H	L
Pol Sci.	M	NSC	H	H
History	M	SC	H	H

DEPARTMENTS

T = Technical Orientation
 M = Moral Orientation
 SC = Student Centered
 NSC = Non-Student Centered
 H = High Interaction
 L = Low Interaction

Once coded, the departments are given an ordinal ranking ranging from those hypothesized to be instrumental in the formation of positive attitudes toward the department, to those expected to produce negative attitudes. This was accomplished, by listing all of those departments coded as being morally oriented, student centered, or high in interaction (these have been hypothesized to be associated with positive attitudes toward education).

FIGURE 20

DEPARTMENTS DEMONSTRATING ATTRIBUTES
 ASSOCIATED WITH POSITIVE ATTITUDES
 TOWARD THE DEPARTMENT

Departmental Attributes

Departments	Moral Orientation	Student Centered	High Stud/Fac Interaction	High Fac/Fac Interaction
	education home econ. sociology pol. sci. fine arts	education fine arts	Indust. Arts psychology biology education home econ. business english phys. ed. sociology pol. sci. history fine arts	math & physics Indust. Arts psychology biology education home econ. business english phys. ed. pol. sci. history fine arts

If the presence of these cultural attributes is associated with student attitude formation as expected, those departments listed on Table 20 most often should hold the most favorable attitudes toward education. Figure 21 lists the departments under study in order of their frequency of appearance in Figure 20.

FIGURE 21

FREQUENCY OF ASSOCIATION WITH ATTRIBUTES ASSOCIATED
WITH POSITIVE ATTITUDES TOWARD THE DEPARTMENT

Department	Number of Appearances on Table 22
Fine Arts	4
Education	4
Pol. Sci.	3
Home Econ.	3
History	2
Sociology	2
Phys. Ed.	2
English	2
Business	2
Biology	2
Psychology	2
Industrial Arts	2
Math & Physics	1

In order to confirm the hypothesis this ordinal ranking should be positively correlated with an ordinal ranking of scores representing attitudes toward the department. To establish an ordinal ranking for attitudes toward the department, attitude scores were divided into four categories. The scores were first standardized using the highest recorded score as a base of 100 percent. The remaining scores were then divided into increments of 25 percent of the base to generate four categories. These represent the lowest 25 percent, negative attitudes toward the department; the second quartile, moderately negative

attitudes toward the department; the third quartile, moderately positive attitudes; and the upper 25 percent representing positive attitudes toward education. Figure 22 illustrates this step.

FIGURE 22
QUARTILE PLACEMENT OF DEPARTMENTAL SCORES
ON ATTITUDES TOWARD THE DEPARTMENT

1st Quartile	2nd Quartile	3rd Quartile	4th Quartile
Math & Physics	Sociology Indust. Arts	English Business Education	Fine Arts History Pol. Sci. Phys. Ed. Home Econ. Biology Psychology

If the hypothesized relationship is a true one, departments of the first quartile (representing the low range of scores on the attitude scale) should be those least often associated with moral orientations, student centeredness and high interaction. They should therefore have a low score on table 21. Those departments represented in the fourth quartile (the high range of scores on the attitude scale) should be those most frequently associated with the cultural attributes mentioned and should, therefore, have a high score on Figure 21.

The Kendall Tau rank order correlation is particularly suited to this project as it allows the correlation of two ordinal scales when the number of ties is large. Using this formula the two scales were found to be significantly ordered at the .01 level of confidence, supporting the acceptance of the initial hypothesis.

CHAPTER V

DESCRIPTIVE ANALYSIS, SUMMARY AND FINDINGS

CHAPTER V

DESCRIPTIVE ANALYSIS, SUMMARY AND FINDINGS

INTRODUCTION

This chapter is designed to provide the reader with a simple description of the research findings. The analysis in this section is supported by the data provided in Chapter IV. No reference will be made to the more complicated statistical measures as these are easily accessible in the preceding chapter. The relationships will be described in the same order as they were presented in Chapter IV to make reference to statistical support an easy matter.

FIGURE 23

EXPECTED RELATIONSHIPS BETWEEN VARIABLES

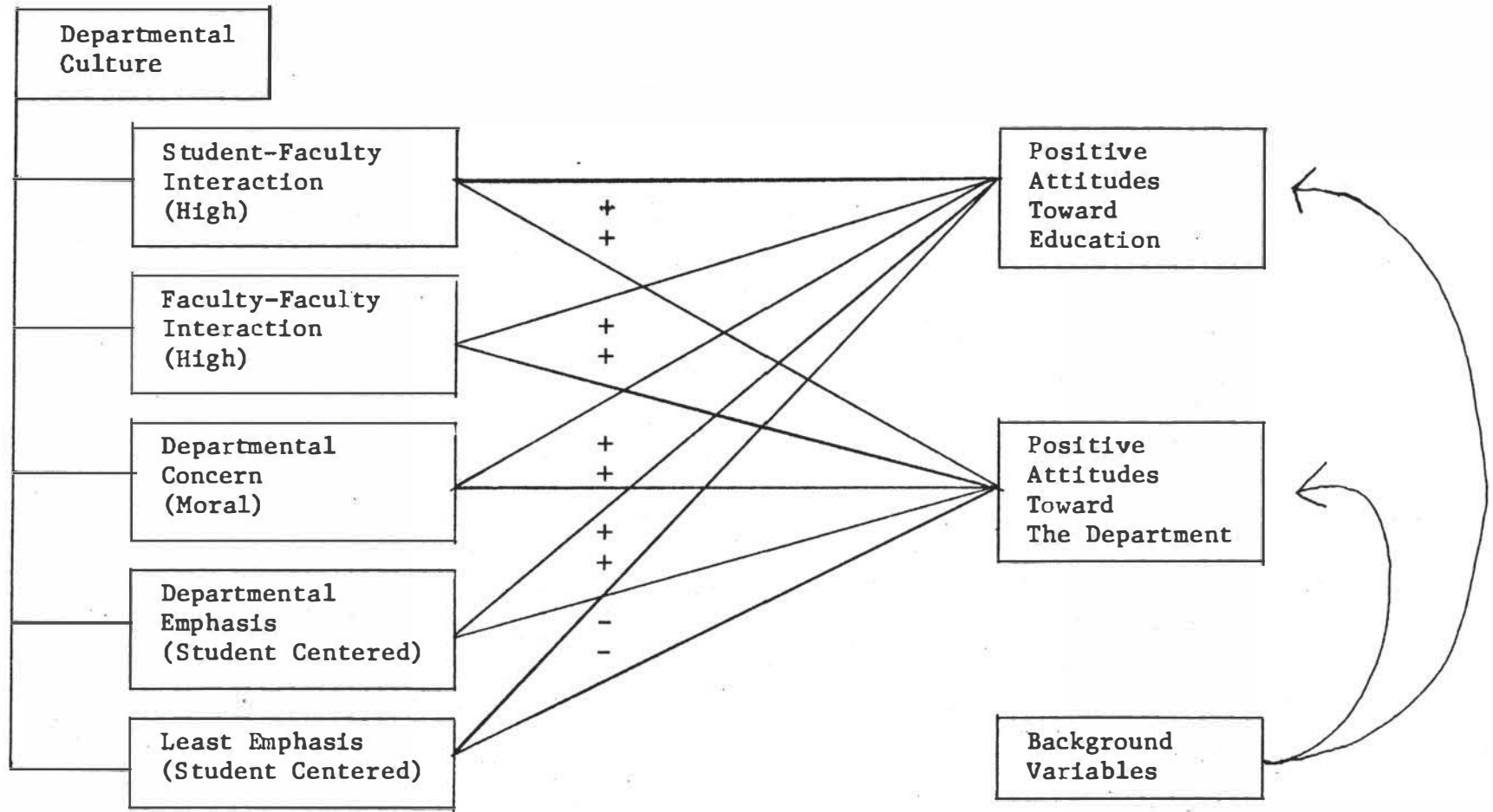
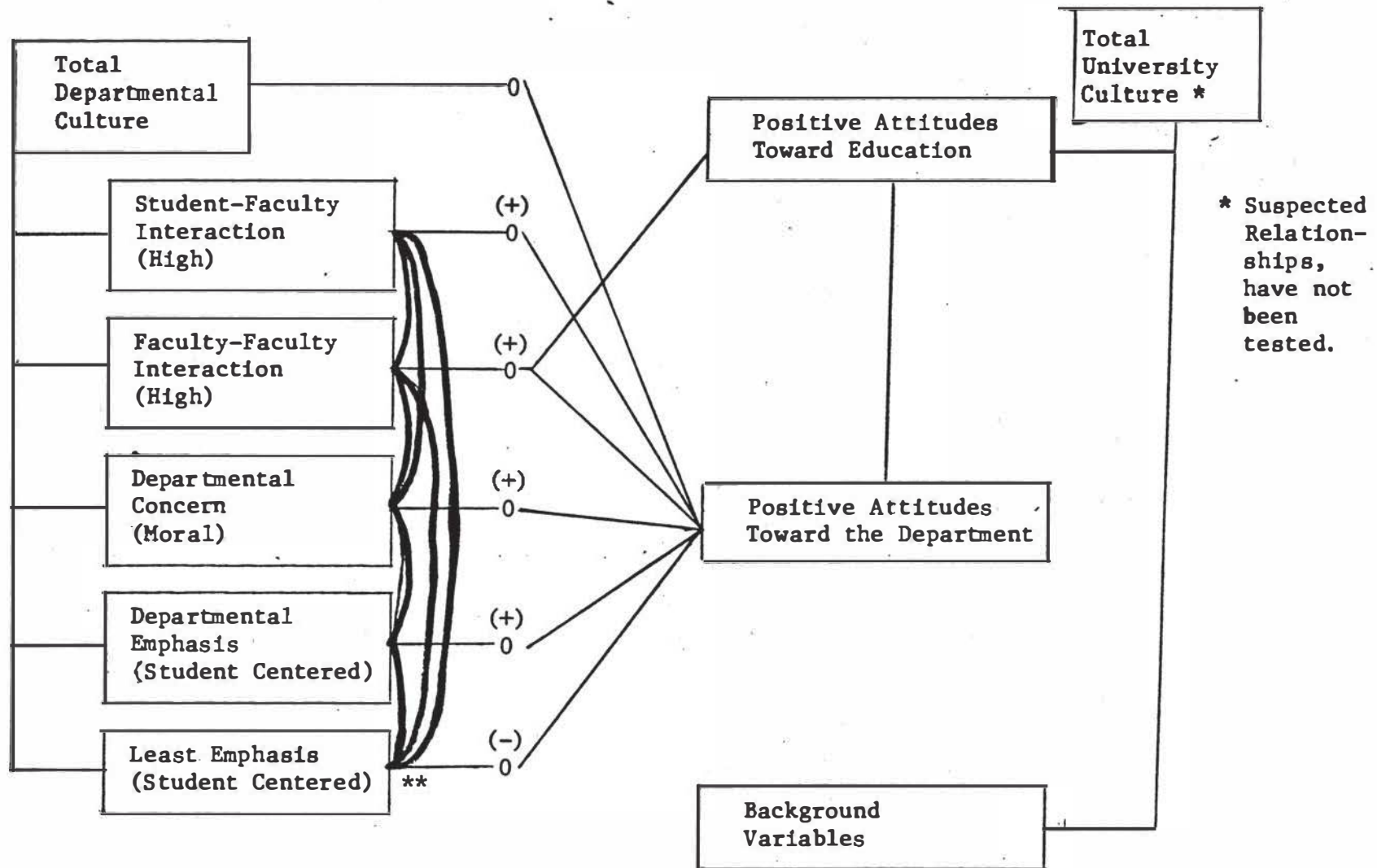


FIGURE 24

DEMONSTRATED RELATIONSHIPS BETWEEN VARIABLES



All Relationships Established on the Basis of Gamma and Chi Square Values.

** The Interrelationships of Cultural Variables are Supported in Appendix I.

DEPARTMENTAL GOAL ORIENTATION AND ITS
AFFECT ON ATTITUDES TOWARD EDUCATION

This hypothesis was borrowed from an unresolved working hypothesis in the works of Vreeland and Bidwell. The research indicates that departmental orientation is not related to attitudes toward education. A significant relationship does exist, however, between goal orientation and attitudes toward the department.

Moral orientations reflect departments that are concerned with attitude and value change in their students. Technically oriented departments, on the other hand, are more concerned with the transmission of certain facts and skills related to the discipline rather than attitude change.

It is assumed that all educators would prefer students to hold positive attitudes toward their major department. Yet the fact remains that students from morally-oriented majors tend to hold positive attitudes toward the department more often than do students from technical departments. It is suspected that this inconsistency is explained by the direct attempt of morally-oriented departments to influence attitudes in a desired direction.

Attitudes toward general education were not significantly affected by departmental goal orientation, or any of the other departmental cultural attributes (with the exception of inter-faculty interaction). Although this is a partial contradiction of the original hypothesis, it is now felt that departmental cultural attributes will logically have their most obvious impact on the department. A hypothesis formulated for future research suggests that as departmental cultural attributes

produce significant impacts on attitudes toward the department, attributes of the total educational culture will produce significant impacts on attitudes toward education. A strong relationship between attitudes toward the department (a collective measure of a single aspect of the total educational culture) and attitudes toward general education, has been demonstrated in Chapter IV.

STUDENT-FACULTY INTERACTION AND ITS AFFECT ON STUDENT ATTITUDES TOWARD THE DEPARTMENT

A strong relationship was demonstrated between student-faculty interaction and attitudes toward the department in Chapter IV. Departments high in student-faculty interaction were found to have significantly more positive attitudes toward their departments than were students from departments low in interaction.

High degrees of student-faculty interaction would have an obvious advantage in the area of normative control. Assuming once again that all educators prefer their students to hold positive attitudes toward the academic departments in which they are concentrating; those departments highest in interaction would be expected to be the most efficient effectors of attitudes toward the department.

FACULTY INTEREST AND ITS IMPACT ON STUDENT ATTITUDES TOWARD THE DEPARTMENT

Student-centered departments were shown to be associated with positive attitudes toward the department. The departmental emphasis score, (either student-centered or non-student centered) is directly related to departmental orientation. It is assumed that, as in the case

of moral goal orientation, student-centered departments emphasize the student, rather than the subject matter as their prime responsibility. Student-oriented faculty therefore would seem to be in the best position to significantly influence student attitudes. It is once again assumed that educators desire to promote positive attitudes toward their department. Normative influence would then, most likely be achieved in that department most concerned with the individual student. In this case that influence is translated into positive attitudes toward the department.

ATTITUDES TOWARD THE DEPARTMENT AS AFFECTED
BY INTER-FACULTY INTERACTION

High inter-faculty interaction is shown to be associated with positive attitudes toward the department as well as general education. This variable is also directly related to departmental concern (goal orientation) and student-faculty interaction (as demonstrated in Appendix I).

Inter-faculty interaction represents to some degree, departmental integration. Faculty actively engaged in interpersonal relationships are more likely to provide a consistent departmental program than are faculty who do not interact. Highly integrated departments, that is, departments which "push" students in consistent directions should be efficient socializing agents. These departments then should have the greatest impact on student attitude formation.

ATTITUDES TOWARD EDUCATION AS AFFECTED BY
EIGHT PERSONAL AND ACADEMIC VARIABLES

Only two of the sixteen possible relationships involved in this hypothesis were found to be significant. Previous research; however, as demonstrated by the review of the literature, has found each of these items to be related to attitude and value formation. It is felt that perhaps such traditional variables as sex and religion do not have the impact on attitudes and values they once had. Certainly the traditional sex roles have been challenged in this decade. The fundamental religions have undergone similar changes. It is assumed that the altered nature of these variables would, logically, alter their impact on undergraduate values and attitudes. The size of school and size of home town variables have been affected by an improved and expanding educational system, as well as major changes in the traditional rural life style. It is unlikely that these variables could be affected themselves by such major change, without their impact on other variables being similarly affected.

These assumptions however remain untested. They are possible hypotheses for future research. The findings of this project merely demonstrate that the relationships usually noted between traditional, academic and personal variables were not found in this sample.

A COMPARISON OF THE RELATIONSHIPS BETWEEN
ACADEMIC MAJOR AND ATTITUDES; AND
DEPARTMENTAL CULTURAL COMPONENTS AND ATTITUDES

Academic majors were classified in the traditional groupings of math, sciences, social sciences, arts, etc. The list was ordered from those majors generally accepted as utilitarian to those generally accepted as normative. The research fails to find a significant relationship between major and attitudes toward education or toward the department. When these departmental categories are ordered on the basis of presence of departmental cultural attributes however, a strong relationship is demonstrated between the various majors and attitudes toward the department. It is the conclusion of this work that there is nothing inherent in the nature of a given discipline that pre-determines its impact on undergraduates. Yet the effect of individual majors on attitude formation can be demonstrated and predicted on the basis of presence of cultural attributes. It is felt that this is a demonstration of the effects attributable to a department's distinctive social organization.

ATTITUDES TOWARD EDUCATION AS AFFECTED
BY ATTITUDES TOWARD THE DEPARTMENT

Many of the hypothesized relationships between cultural attributes and attitudes toward education were not found to be significant. The relationships between cultural attributes and attitudes toward the department however were all found to be significant. In addition, a strong positive relationship was found between attitudes toward the department and attitudes toward general education. These findings

have promoted the formulation of a new hypothesis which is suggested as a possibility for future research. It is hypothesized that attitudes toward the department is one of many cultural elements of the total educational culture which influence attitudes toward education. This hypothetical relationship is included in Figure 24.

The proposed relationship is grounded in the theoretical assumption that, if university departments do have the socializing force predicted, (and demonstrated) its most obvious reflection would be found in attitudes toward the department rather than toward education in general.

THE INTERRELATIONSHIP OF DEPARTMENTAL ORIENTATION AND STUDENT-FACULTY INTERACTION

This relationship was suggested in the work of Gamson. The present study finds the correlation to be significant. On the basis of these findings, the interrelationships of all departmental cultural attributes were examined. The resultant correlations are presented in Figure 32 (Appendix I). As was expected the cultural attributes were strongly interrelated.

THE AFFECT OF DEPARTMENTAL CULTURE ON ATTITUDES TOWARD THE DEPARTMENT

The final relationship examined in this research, establishes a significant correlation between attitudes toward the department and the presence of departmental cultural attributes. It was found that, ordering the departments under study on the basis of their exposure to departmental cultural attributes (in a direction which has been

hypothesized to be related to positive attitudes toward the department) produced a strong and significant relationship between majors and attitudes toward the department. This relationship indicates the impact of a department's distinctive social organization on attitude formation.

THEORETICAL AND PRACTICAL SIGNIFICANCE

This research supports the theoretical statements on which it has been based. In this project, departmental cultural attributes were designed to measure the distinctive social organization of particular university departments. Measures of association and significance demonstrate the relationship of departmental cultural attributes, and attitude formation. These relationships reflect the impact of the group upon its individual members.

The practical significance of the work is centered around its description of the impact of departmental cultural attributes upon university students. The influence of a societies culture upon its members has been the focus of sociological theory and research since its origin. The description and study of various social units as subcultures has given significant insights into the social process. Such insights allow those who will make use of them, to more efficiently integrate a social experience within the cultural milieu.. Educators can hardly be expected to produce effective programs, without an understanding of those social forces effecting their transmission.

APPENDIX I

THE INTERRELATIONSHIP OF DEPARTMENTAL
CULTURAL ATTRIBUTES

Several significant relationships were demonstrated between the independent cultural attributes. Figure 25 illustrates the interrelationship of the various components of departmental culture measured in this study. No initial hypotheses were made concerning these relationships (with the exception of that existing between student faculty interaction, and departmental concern) the strength of the resultant gammas however, indicate the interrelated nature of these various aspects and deserve mention.

Student-faculty interaction was found to be significantly associated with three other independent variables. A strong relationship was demonstrated between student-faculty interaction and inter-faculty interaction (Gamma = .524). Figure 25 summarizes these findings.

FIGURE 25

THE INTERRELATIONSHIP OF INTER-FACULTY INTERACTION
AND STUDENT-FACULTY INTERACTION

Faculty-Faculty Inter.

	Faculty-Faculty Inter.	
	Low	High
Student-Faculty Inter.	Low 47% N = 54	56 21%
	High 53% 62	206 79%
Totals	100% 116	100% 262

Total N = 378

Chi Square = 24.703 (D.F. = 1) $P < .001$
Significant

Gamma = .524

Departments which exhibit high levels of faculty-faculty interaction also display high levels of student-faculty interaction. This may reflect a consistent philosophy on the part of these faculty members, that is, faculty who value inter-faculty interaction also value student-faculty interaction.

In addition, both of these variables (faculty-faculty and student-faculty interaction) are related to a third cultural component, departmental concern (goal orientation).

A moderately strong relationship ($\text{Gamma} = .409$) between student-faculty interaction and departmental concern is demonstrated in Figure 26.

FIGURE 26

THE INTERRELATIONSHIP OF FACULTY-STUDENT INTERACTION AND
DEPARTMENTAL CONCERN (GOAL ORIENTATION)

Faculty-Student Inter.

Departmental Concern		Low	High
	Technical	N = 73 66%	120 45%
	Moral	38 34%	149 55%
	Total	100% 111	100% 269

Total N = 380

Chi Square = 14.071 (D.F. = 1) $P < .001$
Significant

$\text{Gamma} = .409$

The data indicates that departments with moral orientations are associated with high student-faculty interaction. This relationship is explained in the statistical analysis portion of this work, as it is a part of the major hypothesis.

Faculty-faculty interaction shows a weak but significant positive correlation with departmental concern ($\text{Gamma} = .241$). Departments with moral orientations are shown to be associated with departments high in faculty-faculty interaction. This relationship is included in Figure 27.

FIGURE 27

THE INTERRELATIONSHIP OF FACULTY-FACULTY INTERACTION AND
DEPARTMENTAL CONCERN (GOAL ORIENTATION)

		Faculty-Faculty Interaction	
		Low	High
Departmental Concern	Technical	N = 69 60%	124 47%
	Moral	47 40%	138 53%
	Totals	100% 116	100% 262

Total N = 378

Chi Square = 4.753 (D.F. = 1) $.01 < P < .05$
Significant

$\text{Gamma} = .241$

In summary, those departments' interest in value and attitude change (morally oriented) as a part of their student product, tend to emphasize interaction while those with technical orientations seem significantly less concerned with student-faculty and faculty-faculty interaction.

Student-faculty interaction is also significantly related to a variable representing the area least emphasized by the department ($\Gamma = -.730$). The relationship is an inverse one as would be expected due to the negatively stated variable. Figure 28 demonstrates this relationship.

FIGURE 28

THE INTERRELATIONSHIP OF STUDENT-FACULTY INTERACTION
AND THE "LEAST EMPHASIZED" VARIABLE

Student-Faculty Inter.

"Least Emphasized"	Student-Faculty Inter.	
	Low	High
	Non-Student Centered	248
	Student Centered	21
	Totals	Totals
	100% 111	100% 269

Total N = 380

Chi Square = 44.135 (D.F. = 1) $P < .001$
Significant

$\Gamma = -.730$

The data indicates, that departments which rank student centered items (that is student centered items are least emphasized) are associated with low student-faculty interaction. While those ranking non-student centered items lowest are associated with high interaction.

This "least emphasized" variable holds inverse relationships with two other variables. Figure 29 illustrates the association of the item least emphasized and faculty-faculty interaction.

FIGURE 29

THE INTERRELATIONSHIP BETWEEN FACULTY-FACULTY INTERACTION
AND THE "LEAST EMPHASIZED" VARIABLE

		Faculty-Faculty Inter.	
		Low	High
"Least Emphasized"	Non-Student Centered	N = 88 76%	230 88%
	Student Centered	28 24%	32 12%
	Totals	100% 116	100% 262

Total N = 378

Chi Square = 8.561 (D.F. = 1) .001 < P < .01
Significant

Gamma = -.392

A moderate inverse relationship is demonstrated in the preceding table (Gamma = -.392). Departments ranking student centered items below all non-student centered items, are associated with low faculty-faculty interaction.

Figure 30 demonstrates the relationship of the "least emphasized" variable and departmental emphasis. It is understandable that this would be a strong inverse relationship, as those departments which rank student centered items as least emphasized would be expected to rank student oriented items as the emphasis of their department (Gamma = -.603). This is supported by the data in Figure 30.

FIGURE 30

THE INTERRELATIONSHIP BETWEEN THE "LEAST EMPHASIZED"
VARIABLE AND DEPARTMENTAL EMPHASIS

Departmental Emphasis	"Least Emphasized"	
	Non-Student Centered	Student Centered
	Non-Student Centered	Student Centered
	Non-Student Centered	Student Centered
Non-Student Centered	N = 177 55%	50 83%
Student Centered	143 45%	10 17%
Totals	100% 320	100% 60

Total N = 380

Chi Square = 16.494 (D.F. = 1) $P < .001$
Significant

Gamma = -.603

Departmental emphasis was significantly correlated with one additional variable, departmental concern. The relationship was positive and moderate (Gamma = .293). Figure 31 demonstrates this correlation.

FIGURE 31

THE INTERRELATIONSHIP BETWEEN DEPARTMENTAL EMPHASIS AND
DEPARTMENTAL CONCERN (GOAL ORIENTATION)

		Departmental Emphasis	
		Non-Student Centered	Student Centered
Departmental Concern	Technical	N = 129 57%	64 42%
	Moral	98 43%	89 58%
	Totals	100% 227	100% 153

Total N = 380

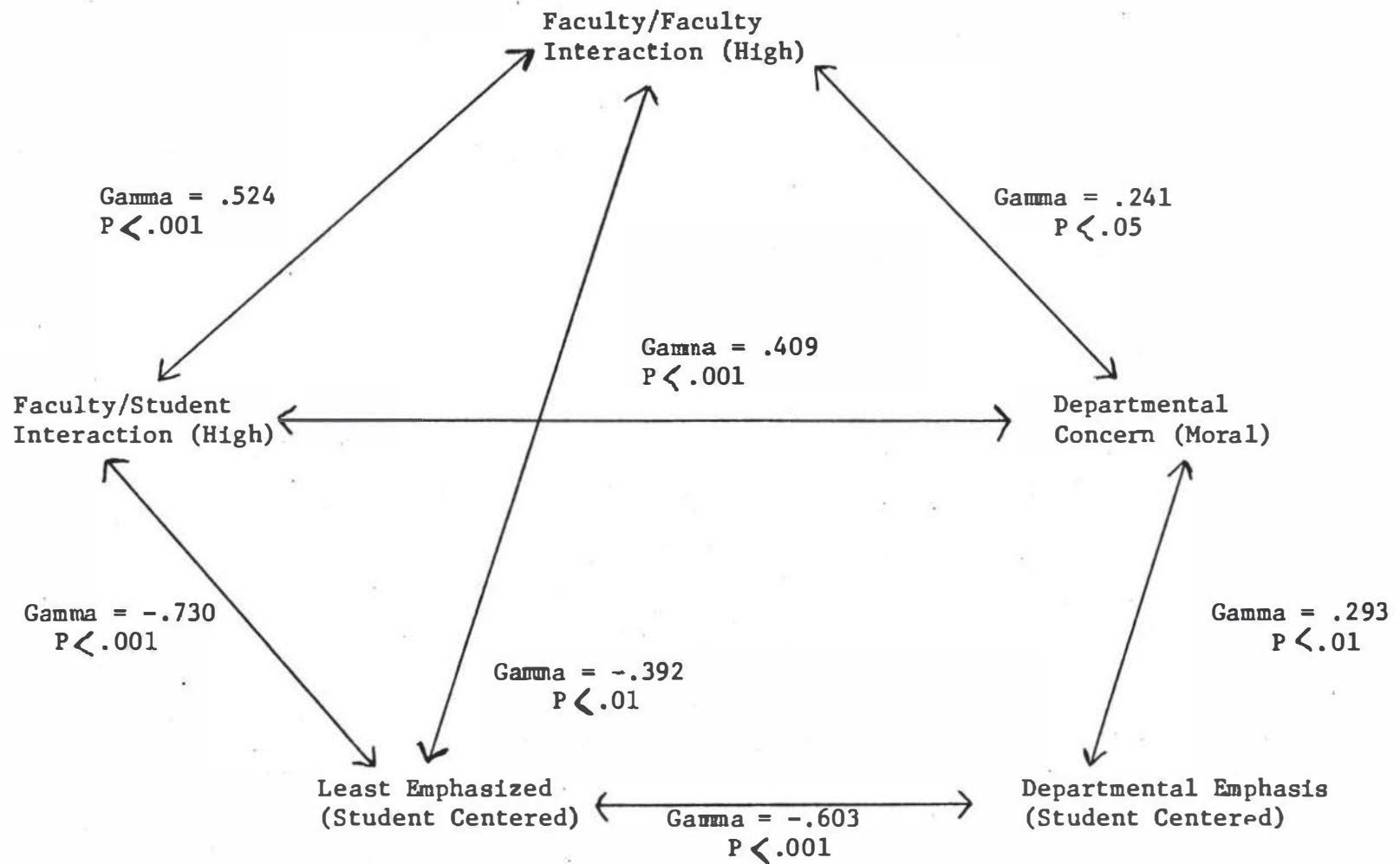
Chi Square = 8.226 (D.F. = 1) .001 < P < .01
Significant

Gamma = .293

The table illustrates that morally-oriented departments are associated with student-centered emphasis, while technically-oriented departments are correlated with non-student centered emphasis. This finding lends further support to the contention that morally-oriented departments seek student interaction in order to transmit attitude and value change. The emphasis of student-centered items is one means of facilitating interaction and thus achieving the overall morally-oriented goals of the department.

FIGURE 32

INTERRELATIONSHIP OF DEPARTMENTAL CULTURAL ATTRIBUTES



APPENDIX II

The following questionnaire is designed to examine some aspects of university departmental influence. The data will be used in research involving the completion of my thesis, and will remain totally anonymous. Please answer all questions as accurately as possible, marking what you believe to be the most correct answer.

Thank you,

James J. Graham
Department of Sociology
Eastern Illinois University
Charleston, Illinois, 61920

PLEASE FILL IN THE ANSWER:

1. Sex: _____
2. Age: _____
3. Religion: _____
4. Home Town: _____
5. Yr. in School: _____
6. Size of High School: _____
7. Grade Point Average: _____
8. Academic Dept. (Major): _____
9. Number of Courses You Have Taken in This Major: _____
10. Which of the following statements best describes your department as you have experienced it: _____
 - a. the subject matter is my departments major concern.
 - b. preparation for the "job market" is my departments major concern.
 - c. the stimulation of ideas and attitudes within the field, is the prime concern of my department.
 - d. commitment to the values of a related occupation is the prime concern of my department.
 - e. the changing of existing political and social attitudes is the prime concern of my department.
11. Rank the following items in the order that you believe your department emphasizes them, let #1 be that item which seems most important to the faculty of your department, #5 least important.
 - a.. interest in the curriculum _____
 - b. interest in teaching _____
 - c. interest in students _____
 - d. interest in the student product _____
 - e. interest in other professional concerns (publishing, etc.) _____
12. Which of the following statements best describes the faculty-student interaction in your department? _____
 - a. interaction takes place in the classroom only.
 - b. interaction takes place in the classroom and established office hours.
 - c. interaction takes place as often as is needed to complete the educational task.
 - d. interaction sometimes blends with the faculties personal lives, in addition to that required by the educational task.

13. Which of the following statements best describes your conception on the faculties interaction with each other? _____
- not much interaction.
 - professional interaction during office hours only.
 - the faculty interact both professionally and on a personal level.
14. Which of the following statements best describes your feelings toward your department? _____
- it isn't really an adequate department.
 - adequate.
 - it offers something in addition to the average university department.
 - it is a superior department.

The following section includes 30 questions which are to be answered on a five point scale ranging from strongly agree to strongly disagree, please mark the response which most closely reflects your feelings.

	<u>Strongly</u> <u>Agree</u>	<u>Agree</u>	<u>Neutral</u>	<u>Disagree</u>	<u>Strongly</u> <u>Disagree</u>
1. Classrooms are dull places.	_____	_____	_____	_____	_____
2. I enjoy going to class.	_____	_____	_____	_____	_____
3. A classroom is a place where you put in your time.	_____	_____	_____	_____	_____
4. When I am in class I think of what's going on tonight.	_____	_____	_____	_____	_____
5. Classrooms are okay if you have friends there.	_____	_____	_____	_____	_____
6. There is too much apple polishing in classrooms.	_____	_____	_____	_____	_____
7. Rules make school seem like a prison.	_____	_____	_____	_____	_____
8. We should always follow rules with courtesy.	_____	_____	_____	_____	_____
9. Some rules were practically made to be broken.	_____	_____	_____	_____	_____
10. Some rules are stupid and unreasonable.	_____	_____	_____	_____	_____
11. I don't think too highly of having so many rules.	_____	_____	_____	_____	_____

	<u>Strongly</u> <u>Agree</u>	<u>Agree</u>	<u>Neutral</u>	<u>Disagree</u>	<u>Strongly</u> <u>Disagree</u>
12. We should help make others obey rules.	_____	_____	_____	_____	_____
13. Instructors think they're martyrs.	_____	_____	_____	_____	_____
14. Teachers often favor certain students.	_____	_____	_____	_____	_____
15. Some teachers are lazy.	_____	_____	_____	_____	_____
16. Most teachers are lazy.	_____	_____	_____	_____	_____
17. Sometimes teachers' rules are a little strict and stupid.	_____	_____	_____	_____	_____
18. Some teachers are unreasonable.	_____	_____	_____	_____	_____
19. Most teachers are unreasonable.	_____	_____	_____	_____	_____
20. Some teachers should be in the student's chairs and the students should be teaching.	_____	_____	_____	_____	_____
21. I enjoy school.	_____	_____	_____	_____	_____
22. I think it's a privilege to attend school.	_____	_____	_____	_____	_____
23. I think school is boring.	_____	_____	_____	_____	_____
24. I study hard.	_____	_____	_____	_____	_____
25. I think there are better things to do than go to school.	_____	_____	_____	_____	_____
26. I dislike studying.	_____	_____	_____	_____	_____
27. Studying interferes with some of my other plans and activities.	_____	_____	_____	_____	_____
28. There isn't any fun in studying.	_____	_____	_____	_____	_____
29. I put study above most other things.	_____	_____	_____	_____	_____
30. I think I should give up going places for studying.	_____	_____	_____	_____	_____
31. Study is a bother.	_____	_____	_____	_____	_____

THANK YOU FOR YOUR COOPERATION.

CODING AND RECODING

The instrument used in this research requires responses to questions dealing with sixteen variables. The first nine questions deal with student background information. The next six items measure several aspects of departmental attributes and orientations. The final section of the questionnaire is concerned with student attitudes toward education. The questions are designed to allow the respondent to answer in as "raw" a form as possible, and still allow for accurate coding.

Questions in the first section were coded as follows:

1. Sex: _____

This item was simply coded as (1) for males, and (2) for females.

2. Age: _____

Respondents filled in their age in years. This data was later divided into theoretically meaningful categories. Several groupings were tested with moderate success. The final tables code the age variable as either (1) twenty-one and under, or as (2) over twenty-one. This decision was made because of the small number of cases experienced in control tables when attempting to use a greater number of categories. I believe that four age categories (18 and under, 19-20, 21-25, and 25 and over) would have provided the most meaningful results had the sample been larger than the 380 cases used in this project.

3. Religion: _____

Again the respondent is asked to write in the appropriate answer. This data was later divided into four groups; (1) Catholics, (2) Protestants, (3) Other religions, and (4) no religion.

4. Home Town: _____

Allowing respondents to fill in this information proved to be a costly mistake in terms of research time. Home towns were later coded as to the size of their populations. Familiar towns were easily converted, small towns however had to be located on indexed maps. Towns were coded as (1) under 5,000; (2) 5,000-10,000; and (3) over 10,000.

5. Year in School: _____

This information was originally coded as college grade levels, one through five. These categories were later collapsed to three and finally to two to provide greater number of cases and hopefully more accurate interpretation in control tables. The first category (1) includes freshmen, sophomores, and juniors, the second (2) includes seniors and graduate students. These divisions were particularly attractive as they split the sample nearly in half (60%, 40%) as well as their theoretical significance in terms of identification with a major field.

6. Size of High School: _____

This question was coded as (1) schools of less than 500, (2) schools of 500 but less than 1,000, and (3) schools of over 1,000.

7. Grade Point Average: _____

This item was coded as a two digit score, and later collapsed into three and finally two categories. The first (1) includes grade point averages of 2.8 and under, and (2) includes all averages over 2.8.

8. Academic Department: _____

This information was gathered in raw form, responses represented over 28 departments. The 15 most commonly reported majors were listed

and numbered ((1) through (15) in order of most technically oriented to least technically oriented. (The work of Bidwell and Vreeland was used as a guide in performing this operation. Their work is outlined in the review of the literature portion of this work.) Academic majors representing similar departments were put into the same category (for example: environmental biology majors were simply coded as biology). Majors not fitting into one of the commonly reported categories were coded as ((16) and were not used in correlations involving variable eight, academic major. The responses from these questionnaires were used however in all other correlations.

These items were later recoded into two categories; ((1), technically oriented, and ((2) morally oriented departments.

9. Number of Courses Taken in This Major: _____

This response was grouped several ways, the final correlations code variable nine as ((1) five courses or fewer, ((2) six to ten courses, and ((3) more than ten courses.

Coding for the second section is a bit more complicated. Questions in the second section were coded as follows:

10. Which of the following statements best describe your department as you have experienced it:

- a. the subject matter is my departments major concern.
- b. preparation for the "job market" is my departments major concern.
- c. the stimulation of ideas and attitudes within the field, is the prime concern of my department.
- d. commitment to the values of a related occupation is the prime concern of my department.
- e. the changing of existing political and social attitudes is the prime concern of my department.

In the original coding the responses "a" through "e" were given number values. The number scores were ordered so that ((1) would equal

the most technically oriented response while (5) would represent the most morally oriented. An "a" response was coded as (1), and "b" as (2). Answer "d" represents a more technically oriented evaluation than does "c"; therefore "d" was coded as (3) and "c" as (4) and "e" as (5). These categories were later reduced to two values through recoding. The final values coded responses a, b, and d as (1), technical departmental concerns; while c and e were coded as (2), moral departmental concerns.

11. Ranking the following items in the order that you believe your department emphasizes them, let 1 be that item which seems most important to the faculty of your department, 5 the least important.
- interest in the curriculum.
 - interest in teaching.
 - interest in students.
 - interest in the student product.
 - interest in other professional concerns (publishing, etc.).

The information from this question supplies data for two variables.

The response marked as most important to the individuals department is scored as variable number eleven, departmental emphasis. The response marked as that least important to the individuals department becomes the data for variable twelve, least emphasis.

These variables were coded in the same manner as variable ten.

Responses a, b, and e were eventually coded as (1) professional emphasis while c and d were coded as (2) student centered emphasis.

12. Which of the following statements best describes the faculty-student interaction in your department?

- interaction takes place in the classroom only.
- interaction takes place in the classroom and established office hours.
- interaction takes place as often as is needed to complete the educational task.
- interaction sometimes blends with the faculties personal lives, in addition to that required by the educational task.

Variable thirteen (Question 12) was coded with numerical values from one to four with one being the response representing the least faculty-student interaction and four being the most. The data was later collapsed into two categories ((1) low interaction, including responses a and b, and ((2) high interaction, including responses c and d.

13. Which of the following statements best describes your conception of the faculties interaction with each other?
- not much interaction.
 - professional interaction during office hours only.
 - the faculty interact both professionally and on a personal level.

Variable fourteen was coded in the same manner as thirteen. When recoded, category ((1) included responses a and b while ((2) included response c.

14. Which of the following statements best describes your feelings toward your department?
- it is a poor department.
 - is isn't really an adequate department.
 - adequate.
 - it offers something in addition to the average university department.
 - it is a superior department.

Variable fifteen is coded similarly to the two preceding items. After recoding responses a, b and c as ((1) a low evaluation of the individuals department, d and e were coded as ((2) a high evaluation of the major.

The final section of the questionnaire includes a 31 item scale measuring attitudes toward education. The responses to these items were given on a five response scale as follows:

<u>Strongly</u> <u>Agree</u>	<u>Agree</u>	<u>Neutral</u>	<u>Disagree</u>	<u>Strongly</u> <u>Disagree</u>
_____	_____	_____	_____	_____

Before coding all items were stated in an order indicating a favorable attitude toward education. This requires reversing the scaled responses for items 2, 8, 12, 21, 22, 24, 29, and 30.

Numerical values from one to five were given each response, with one being a negative attitude toward education and five being a positive attitude. The score for each respondent was summed making a combined score termed attitudes toward education (variable 16). A constant of fifty was subtracted from each of these scores to insure that no score would exceed two digits (the maximum acceptable on the Nucros program).

BIBLIOGRAPHY

BIBLIOGRAPHY

- Barrett, Conrad., ed. Values in America. Notre Dame: University of Notre Dame Press, 1961.
- Davis, J. A. Undergraduate Career Decisions: Correlates of Occupational Choice. Chicago: Aldine Press.
- Dennis and Kauffman. The College and the Student. American College on Education. Washington, 1966.
- Feldman, Kenneth, and Newcomb, Theodore. The Impact of College on Students. New York: Jassay-Bass, Inc., 1969.
- Gamson, Z. F. "Utilitarian and Normative Orientations Toward Education", Sociology of Education. Vo. 39, 1966.
- Heath, Douglas. Growing Up in College. San Francisco: Jassay-Bass, Inc., 1968.
- Huntly. "College Student Survey", Genetic Psychology Monographs, 1965.
- Jacob, Philip. Changing Values in College. New York: Harper & Row Brothers Publishers, 1957.
- Katz, D., and Allport, F. H. Students Attitudes: A Report of the Syracuse University Action Study. Syracuse, New York: Craftsman Press, 1931.
- Nelson, E. "Radicalism-Conservatism in Student Activities. Psychology Monographs, Vol. 50, 1938.
- Newcomb, Theodore. Personality & Social Change. New York: Holt, Rinehart and Winston, 1957.
- Ritter, C. American College Student Values: Their Relationship to Selected Personal and Academic Variables. Ann Arbor: University Microfilms, Inc., 1968.
- Sanford, Neuitt. The American College. New York: John Wiley & Sons, Inc., 1967.
- Shaw, Marvin, and Wright, Jack. Scales for the Measurement of Attitudes. New York: McGraw-Hill Publishers, 1967.

Vreeland, Rebecca, and Bidwell, Charles. "Classifying University Departments: An Approach to the Analysis of Their Effect Upon Undergraduates", Sociology of Education. Summer, 1966.

Wallace, Walter. Student Culture. Chicago: Aldine Publishing Company, 1966.

Yamamoto, Keoru. The College Student and His Culture: An Analysis. Boston: Houghton Mifflin Publishing Company, 1968.