

INFLUENCE OF CLASSROOM STRUCTURE ON COLLEGE
STUDENT'S ATTITUDES TOWARD EDUCATION:
AN EXPLORATORY STUDY

by 6402

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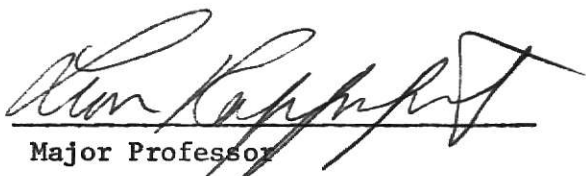
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Table of Contents

Chapter	Page
I. Statement of the Problem	1
General Background	1
1. The Impact of College on Students	1
2. The Impact of the University Classroom On Student's Attitudes Toward Education; Related Studies and Comments	4
3. Summary	10
Specific Aims and Rationale	11
II. Design and Procedure	13
Participants	13
Evaluative Instruments	15
Procedure	16
Design Summary	16
III. Results	18
Rating Scale	18
Item Check List	30
IV. Discussion	54
General Findings	54
Implications	58
References	61
Acknowledgements	62

Chapter I

Statement of the Problem

The purpose of this study was to explore and compare attitudes toward education held by students participating in conventional and innovative educational situations.

General Background

Support for the study mentioned above is derived from two sources: (1) investigations reported by Feldman and Newcomb (1969) concerning the impact of college on students; (2) and current research involving the influence of the classroom environment upon students' attitudes toward education. Each of these is discussed separately below.

1. The Impact of College on Students

Feldman and Newcomb (1969) have compiled what has been termed one of the most complete and comprehensive analyses ever written on the subject of how the college experience effects students.

Our report, then, is a review and an attempt to integrate a wide variety of studies of the effects of colleges on students over a forty year period from the middle twenties to the middle sixties... Our quest ... is best described by this kind of formulation: under what conditions have what kinds of students changed in what specific ways?

Their report divides the generalized college environment into subenvironments, emphasizing such topics as "The impacts of residence groupings", "Student culture and faculty", "Background, personality, and college impacts," and "Persistence and change after college". This arrangement serves to organize disparate research studies into a meaningful evaluation of the impact of college on the student.

Their summary of available research reveals that very little has been done to examine the effects of the classroom on students' attitudes toward education. It appears that most research has focused on the more global, overall impact of the college environment on the attitudes of students.

Feldman and Newcomb criticize these studies because the results:

...are clearly influenced by his (student's) location in the environment and perhaps by his own values, attitudes, and personality characteristics... Widely held sentiments are not necessarily group norms. To know whether the "is" of the environment represents pressures on students one needs to know such things as the degree to which there is shared awareness* about the desirability of certain attitudes and behaviors, the structural arrangements* and systems of rewards and punishments that implement and ensure conformity to norms, and the degree to which individuals accept these norms. (Feldman and Newcomb, 1969 p. 331.) (Italics are not Feldman and Newcomb's but are used for emphasis by present author.)

The implication is that the studies involving student attitudes toward the generalized college environment may have sampled commonly accepted notions or myths about the university and thus may not have represented the normative attitudes which constitute the actual college environment experienced by students.

Under the heading, "Student culture and faculty", Feldman and Newcomb summarize material relevant to students' primary concerns in college: academic work, friendship relationships, and extra-curricular activities. In this connection, they discuss several studies dealing with students' generalized goals, i.e., of what purpose is a college education. The results indicate that the primary purpose of a college education involves two major themes:

1. obtaining a general education and appreciation of ideas.
2. gaining vocational training, developing skills and techniques directly applicable to one's career.

But little is yet understood about specifics relating to how these two goals are achieved.

Furthermore, Feldman and Newcomb suggest that student goals or motives in attending college may be seriously influenced by their ongoing experience in specific situations.

Whatever the characteristics of an individual that selectively propel him toward particular educational settings--going to college, selecting a particular one, choosing a certain academic major, acquiring membership in a particular group of peers--those same characteristics are apt to be reinforced and extended by the experiences incurred in those selected settings.

(Feldman and Newcomb, page 333)

But what of the process that links the student and the experience, the milieu which fosters the students' participation in these important college experiences? Feldman and Newcomb comment:

This process of reinforcement of consolidation is less conspicuous than that of change in individual's attitudes and values. But it represents just as real an impact, in the sense that, in the absence of the reinforcing or consolidating experiences, outcomes would have been different. Students, like people, tend to meet or seek out and associate with others who have similar attitudes and values. Insofar as this occurs, processes of consolidation are ubiquitous: we suspect that they are at once the most common and the least noticed sources of college's impacts on their students.*

(Feldman and Newcomb, page 330.)

*Italics are not Feldman and Newcombs', but have been added for emphasis by author - Editor.

The classroom environment does provide a locus for the study of these consolidation/reinforcement processes. Students' attitudes are most certainly shaped by their experiences within the classroom experience. An understanding of what characterizes the classroom environment and its influence on the students' attitudes toward education would aid in investigating these elusive consolidation processes.

In sum, then, Feldman and Newcomb have stressed the importance of considering specific subenvironments on students' development. The classroom, as an important subenvironment of the student at the university, is a focus of students' energies and development at the university and consequently invites investigation.

2. The Impact of the University Classroom on students' Attitudes Toward Education.

Related Studies and Comments

Several recent studies have specified the interaction between the student and his learning environments as a meaningful area of investigation. Demos (1965) conducted an attitude survey of first semester freshmen toward their early college experience. Using semi-structured, open ended sentence completion items, he found student concern directed toward "their difficulty with such tasks as taking notes, budgeting time, learning to study, and taking tests". In addition the students reflected a positive attitude as well as awe and respect toward college in general, the professors, and their college courses.

Cassel (1970) developed a semantic differential to assess attitude change in college students toward the students' classroom experience. The results indicated that the students, after the particular classroom experience,

changed for the better but the basis of the change did not involve "a change in the attitude toward either teacher or what they had learned".

Sommer (1967) found that student seating patterns influenced the level of student participation in class; his results suggested that it is important for a teacher to learn to use the classroom space to maximal effectiveness, for the classroom setting provides many features that can enhance or detract from the classroom learning.

Looking at the student from the perspective of the guidance counselor, Danskin, Kennedy, and Friesen (1965) suggest a need for research to be directed toward the interaction between a student and his learning environments: "...to promote individual development we must greatly increase our awareness of the total learning environment in our schools..." Counselors and teachers both need to familiarize themselves with the impact that different learning environments have on students' development.

Generally, the studies mentioned above emphasize the classroom as a meaningful learning environment of the student area of research. Cassel's study in particular reflects growing interest in assessing student attitudes toward their classroom experience. Though researchers like Sommer (1967) and Demos (1965) have studied facets of the classroom situations, studies involving the impact of the university learning environment (i.e., like the classroom, for instance) in students' attitudes toward education are few. Even within Madison's (1969) assessment of the personality development of the college student, the influence of the classroom on students' development is not stressed.

Considering the fact that legislature and boards of regents allocate a large portion of the budget toward the classroom experience (i.e., salaries

of instructors, supplies, buildings, equipment, maintenance, etc.), few researchers have studied the impact of the classroom situation on student's personal and educational development. Perhaps this reflects the value placed upon the students' involvement in higher education--his input has been of little consequence, save for his attendance in class and his tuition payment.

From another perspective, the student, if thought of as a consumer vying for the attention of different educational development corporations (i.e., the universities and colleges), would be valued differently. His evaluation of the methods used in the education process and assessment of the end products' desirability (i.e., increased knowledge, abilities, skills in different areas) would be more readily sought than now; the assumption is that the student as a consumer would be involved in modifying the process in which he participates; his contribution to the modification of the institution's educational process would not go completely unnoticed.

Though students do contribute financially to institutions of higher education, few students have been involved in the decision making processes that affect not only their educational development but their very life styles. Whereas most major industries seemingly invite feedback from consumers, only of late have university administrations and faculty offered students a share of the responsibility for developing the educational alternatives within the university. Versions of the "Better Business Bureau" for student consumers of education are not emerging on the university campus as rapidly as might be expected.

Research on the university classroom does not seem to reflect the importance that is placed upon it by the university hierarchy. Supposedly the classroom has been considered the primary focus of educational development

for the student: learning efforts at the university are theoretically directed toward, culminated and evaluated in the classroom. Continuance at the university is contingent upon a student's performance within the structure of the classroom situation. Yet the significance of the classroom to the students is little understood or seemingly valued.

Research effort for the most part (Gage, 1963) has been directed toward the evaluation of the teaching process within the classroom rather than toward the mutual learning process of teacher and student. Information dissemination from teacher to student appeared to be the major theme in Gage's synthesis of teaching research. In experimental terms, these research studies emphasized the effects of the independent variables, (i.e., types of examinations, styles of teaching, class size, impact of audio-visual equipment, etc.,) on the dependent variable, the behavior of the student.*

Previously much of the research on the learning process in the university has been directed toward the teaching process. Gage, for instance, in his Handbook of Teaching (1963) compiled a synthesis of research on teaching. The student, from the perspective of these research studies, appears to be passively manipulated within the context of the classroom, akin to a rat in a skinner box. The following tends to summarize the results of teaching research:

*Historically the student has been reduced to his responses on examinations, his grades, productivity in class, verbalizations in class, attendance, written work, etc. However, a trend in viewing the student's participation in education is toward valuing the student as a whole person: an organism actively participating in the learning process. His sensing, intuiting, perceiving, emoting, and thinking capabilities are valued in the learning situation; the student is more than a fractionated, intellectual, thinking-learning machine. The impact of Humanistic Psychology on education has helped to encourage a re-evaluation of the student's role in the learning process.

...the experimental evidence submitted to the present time tends to support the general conclusion that there is little difference in student development in large or small classes, and also, that it makes little difference as to what method of presentation of the materials or of the course is used. (McKeachie, 1968)

As McKeachie indicates in his review article on recent trends in educational research, this conclusion held by Longstaff in 1932 is true even today.

Consequently,

One might well conclude from all of this that we in the Division of the Teaching of Psychology should put our chalk away and gracefully retire from the classroom, where we are no longer needed, wanted, or make any difference. (McKeachie, 1968).

University researchers have concentrated efforts in the past toward studying the process of teaching and have overlooked the very essence of the classroom situation, that is, the process of learning (Hoyt, 1971).

As Bruner (1960) remarks,

...educational psychologists turned their attention with great effort to the study of aptitude and achievement and to social and motivational aspects of education, but did not concern themselves directly with the intellectual structure of the class activities.

The essential rethinking in current research involves studying the process of learning. Consequently the attitude toward the student's involvement in the educational process has shifted: the student is more actively sharing the responsibility for the development of educational alternatives offered within the university. (Evidence for this stems from the rapidly growing literature on independent seminars, integrative studies, and the free college movement.)

With the change in attitude toward the student's role in the learning process comes the re-evaluation of teaching in the learning process. The

teacher's role now develops from one of being an information disseminator to one of being a "learning manager" (Hoyt, 1971).

The "learning manger" assumes the role as a resource person with whom the student consults on developing a program of study to meet the student's needs; both student and "learning manager" contribute to each others development. The process of education, consequently, is modified from the traditional conceptualization of unidirectionality (i.e., the teacher disseminating information to the passive/receptive student to one conceptualized by the feedback loops between student and student, student and teacher, and teacher and student--the roles of teacher/student becoming interchangeable and redefinable as the situation suggests.

Teachers have to learn how to help students share in the responsibility for their education. Consequently students must be valued as individuals, valued for their particular level of development (Maslow, 1968). The interaction between the student and the teacher at the interface of the learning process is now emphasized.

Research evidence cited in McKeachie's review article on current trends in educational research indicated that "teaching--involving mutual growth of student and teacher--is coming into its own." (McKeachie, 1968). For instance, McKeachie describes a study by Thistlewaite in which National Merit Scholars reported characteristics of teachers who contributed most to their learning; those teachers who listened to student's concerns and respected the students as individuals were most favored. Student feedback is helpful in determining the characteritics of the effective teachers. This is but one study cited by McKeachie suggesting the importance of using student feedback in examining the learning process.

In addition McKeachie cited research efforts involving the lecture versus discussion method controversy, student-centered versus instructor-centered teaching, use of instructorless discussion groups, application of technology in teaching, the changing role of the teacher, and current educational strategies as being indicative of current research emphasis on the learning process: how individual needs could be readily met even in the large university learning situations with the help of recent technological advances in teaching.

McKeachie's work reinforces the importance of obtaining student feedback in educational reform movements. Students can contribute actively in the development and formation of alternatives within the existing university system of education.

Summary:

Two main sources support the following study on the influence of the classroom on students' attitudes toward education. Feldman and Newcomb (1968) provided a background for the classroom as being an important sub-environment of the university. The current research represented by Sommer (1967), Cassel (1970), Demos (1965), and McKeachie (1968) indicate that the learning environment of the student, the classroom, is a meaningful area of research and that student feedback is important in reformulating approaches to the university system of education. The impact of Humanistic Psychology on the study of learning process has helped to shift the emphasis from the unidirectionality of the education process toward the study of the mutuality between student and teacher in the learning process. Assessing students' reactions to their education would help center research on the very heart of education, that interface between student and teacher, the learning process itself.

Specific Aims and Rationale

The present study is designed to explore student attitudes toward education as influenced by the setting of their educational experience, i.e., the degree of structure in the classroom/learning situation.

The rationale for the present study originates from a trend in many universities toward the development of alternatives to traditional university system of education. This clearly requires further understanding of students' attitudes toward education. Furthermore, assessment of the relationship between university goals and student goals, as well as how students perceive the fulfillment of these goals would help clarify some of the ambiguities within the university system of education.

The present study is exploratory in nature and suffers from the fact that no particular guidelines have been previously established in the literature. Nonetheless, students' attitudes toward education is a fruitful area of research within the university. Since the structure of the classroom situation has been largely ignored as to its effects on students, the present study attempts to probe into this area.

The rationale for using differently structured learning situations to determine students' attitudes toward education was based upon the importance usually attached to the structure of the learning situation; that the structure of the learning situation, given that a student has a choice of differently structured learning experiences, does differentiate students.

The practical aspect of this study lies in its applicability to the current problems of student discontent with the existing system of university education and the pressing demand for reform. For instance, one of the

stated objectives of a mid-western university (Kansas State University) is:

To provide every student with an opportunity
...to develop habits of self-evaluation,
responsibility, and enterprise which will
increase the effectiveness of the educative
process in college, and provide the basis
for continued self-improvement.
(p. 5, KSU General Information Bulletin,
1970-71).

The university has determined certain objectives for its students. However, the manner in which these objectives are fulfilled is rather unclear. Does the student perceive his learning environment as being supportive of the particular objectives of the university? Student feedback relative to the actualization of the university's goals would help determine those areas in need of reform.

Consequently the present study is designed to incorporate ongoing, existing groups within the university which are currently engaged in different types of educational experiences. The study is relevant to the needs of students who are actively concerned with educational reform in the university.

The theoretical significance of the problem stems from the fact that a study of this nature has never been undertaken previously, though attempts have been made to identify some of the sources of student discontent with university education. Previous research has pointed out the gross or general distinctions in regard to students' attitudes toward education. However, investigations of existing, specific educational experiences and their effects on students attitudes toward education have not been done.

Chapter II

Design and Procedure

The research plan involves sampling three groups of students' attitudes on education. The groups differ from one another because they are composed of students who have selected differently structured educational experiences. Three different educational situations, characteristic of a high-, moderate- and minimal-structured educational experience, were involved. An evaluative instrument using the semantic differential and an item check list was administered to explore students attitudes about their present (real) experience in education and the ideal they would aspire to have.

Participants

Participants were undergraduate students enrolled at a mid-western university. These students were selected from three differently structured educational situations:

1. Highly structured educational experience (HS)

The following criteria defined the highly structured experience:

- a. all students were required to read the same material for class.
- b. lectures were the predominant method of teaching.
- c. multiple-choice examinations were given periodically.
- d. classroom work and procedure were determined entirely by the teacher.
- e. minimal opportunity was given from discussion or for mutual exchange between student-teacher and student-student.

This group included 157 students from an introductory psychology class.

2. Moderately structured educational experience (MS)

The criteria for this group involved:

- a. reading selections were assigned but the material used in class was open to class negotiation; class assignments were flexible.
- b. discussion was encouraged throughout the class though lectures were used at times; teaching methods were somewhat flexible.
- c. no tests per se were given or were required; alternatives for evaluation were open for negotiation between the student and teacher.
- d. the atmosphere in the classroom was conducive to a free exchange of ideas; students were encouraged to participate in classroom discussion.
- e. the work, though at times determined by the teacher, was determined mostly by what the students wanted to explore;

This group consisted of 45 students enrolled in special introductory psychology seminars.

3. Minimally structured educational experience (LS)

The criteria for this group involved:

- a. no assigned readings were given in class.
- b. no tests were given.
- c. group or individualized discussion was stressed.
- d. independent study was encouraged.
- e. learning by experiencing was directly encouraged both within class and outside of class.
- f. the teacher was used as a resource person.
- g. the work selected was determined by the individuals in the group.

This group included a total of 50 students in special sociology seminars and in an independent study program.

Evaluative Instrument

Development of the Questionnaire. University students were interviewed initially about their attitudes toward education. A large sample of responses was collected from which the evaluative instrument was constructed.

The final form of the evaluative instrument consisted of two different orientations toward students' attitudes (IDEAL ATTITUDES and PRESENT or REAL ATTITUDES). Within each condition two research techniques were used: the semantic differential and an item check list. (See Appendix A for evaluative instrument).

The Rating Scale consisted of 15 pairs of adjective or adjective phrases that were derived from the response pool mentioned above. The pairs chosen were considered to be representative of students' attitudes obtained during the initial interviewing. The directions for the semantic differential under the two attitude orientations were:

A. IDEAL ATTITUDE ORIENTATION

"If your present education could be considered to be an IDEAL EDUCATIONAL EXPERIENCE for you, these thoughts, come to mind:

"AN IDEAL EDUCATIONAL EXPERIENCE FOR ME..."

B. REAL OR PRESENT ATTITUDE ORIENTATION

"Using the following scales, what thoughts come to mind when you think about your present overall educational situation?

"WHEN I THINK ABOUT MY OVERALL EDUCATIONAL SITUATION, THESE THOUGHTS OCCUR TO ME..."

The Item Check list consisted of 66 statements about characteristics of a student's educational experience as previously determined in the initial student interviews mentioned previously. The directions for the item check list under the two attitude orientations were:

A. IDEAL ATTITUDE ORIENTATION

Consider for a moment what would be an ideal educational experience for you. If you could have any type of educational experience, what would you consider to be the ideal characteristics of this situation?

Please read the following items and then check off those which you feel would be most representative of an IDEAL EDUCATIONAL EXPERIENCE for you. Which items would be most characteristic of this ideal educational experience for you?

CHECK THOSE ITEMS MOST DESCRIPTIVE OF AN IDEAL EDUCATIONAL EXPERIENCE FOR YOU.

"IDEALLY, I WANT AN EDUCATIONAL EXPERIENCE WHERE..."

B. REAL OR PRESENT ATTITUDE ORIENTATION

Think about your overall educational experience. What are its characteristics?

Please reread the following items and check off those items that you feel are most characteristic of your PRESENT overall educational experience. Please confine your choices to what you are actually experiencing in your education now. Check those items that you feel are most characteristic of your present overall experience in education.

CHECK THOSE ITEMS MOST CHARACTERISTIC OF YOUR PRESENT OVERALL EDUCATIONAL EXPERIENCE.

"IN REALITY I AM GETTING OR HAVING AN EDUCATIONAL EXPERIENCE WHERE..."

Procedure

The questionnaire was administered to the different groups during one class period. The students were asked to return the completed questionnaire at their following class meeting.

Design Summary

The evaluative instrument was given to 3 groups of students, each of which was experiencing a different degree of educational structure. The

general purpose of the study was to explore the influence of different degrees of structure on students' attitudes toward education. More specifically, since the students involved had chosen to be in the different educational situations, it might be expected that their ideal attitudes would vary accordingly. Since the LS group has the least constraints of all the groups, it might be expected that their ideal attitudes would be reflected in their present experience. Generally, since this study was exploratory in nature, the purpose was to probe both students idealized attitudes toward education and their current attitudes toward their educational experience.

Chapter III

Results

Questionnaire Returns

40% of the HS group (high structure, N = 157), 51% of the MS group (moderate structure, N = 45), and 36% of the LS group (low structure, N = 50) returned the questionnaire.

Rating Scale

Those Ss who did not follow the directions of the rating scale were not included in the analyses described below, leaving N = 51 for HS, N = 19 for MS, and N = 15 for LS.

Tables I and II represent a summary of students' attitudes toward an ideal educational experience and their present educational experience respectively. Each table contains the mean and variance (columns 2, 3, 4) for each group as well as the F ratio (column 5) across the three groups for each of the 15 items in the ideal-and present-attitude conditions.

High-Structure Group. Students in the HS group indicate that an ideal educational experience would be characterized as having slightly more "self-initiated motivation to learn" than "teacher-initiated motivation to learn", as being an experience which stimulates them to activity, is thought provoking, challenging, and sensitive to their needs as an individual. There is a strong tendency for this experience to be both relevant to them in the present and valuable to them in the future. The characteristics of this experience would tend to be student oriented, somewhat on the small side, relatively informal, and tending to be slightly more cognitive than feeling/emotion oriented. These students require that the experience be more organized and structured than unorganized and

Table 1

Summary Table: Ideal Attitudes Toward Education of Students Who Were Enrolled In Differently Structured Educational Experiences As Measured by a Seven-point Rating Scale.

(The means shown were calculated on a seven-point scale and are arranged so that 1.0 indicates agreement with the item on the left of the scale, 4.0 indicates ambivalence, and 7.0 indicates agreement with the item on the right side of the scale.)

STRUCTURE OF THE EDUCATIONAL SITUATION

	<u>HIGH</u>	<u>MODERATE</u>	<u>LOW</u>	<u>F ratio</u>
<u>GROUPS:</u> Total	Introductory Psychology	Psychology Seminars	Sociology- Independent Study	
N = 85	N = 51	N = 19	N = 15	

1. STUDENT ORIENTED - TEACHER ORIENTED				
$\bar{X} =$ 2.62	2.84	2.53	2.00	1.91
$\sigma^2 =$ 2.26	2.17	2.93	1.43	

2. SMALL - LARGE				
$\bar{X} =$ 3.04	3.37	2.79	2.20	2.42
$\sigma^2 =$ 3.74	3.36	4.84	2.89	

3. INFORMAL - FORMAL				
$\bar{X} =$ 2.21	2.43	1.79	2.00	2.09
$\sigma^2 =$ 1.60	1.33	2.51	1.14	

4. UNPREDICTABLE - PREDICTABLE				
$\bar{X} =$ 4.42	4.82	3.89	3.73	3.88*
$\sigma^2 =$ 2.84	2.87	2.21	2.50	

5. UNORGANIZED - ORGANIZED				
$\bar{X} =$ 5.52	5.84	4.95	5.13	4.51*
$\sigma^2 =$ 1.66	1.29	2.27	1.41	

6. PERSONAL - IMPERSONAL				
$\bar{X} =$ 2.42	2.88	1.79	1.67	6.29**
$\sigma^2 =$ 2.41	2.63	2.18	0.38	

7. THOUGHT PROVOKING - STIFLING				
$\bar{X} =$ 1.82	2.06	1.53	1.40	3.23*
$\sigma^2 =$ 1.17	1.22	1.26	0.54	

* $p \leq .05$, at $F = 3.15$

** $p < .01$, at $F = 4.98$

Table 1 (continued)

Summary Table: Ideal Attitudes Toward Education of Students Who Were Enrolled In Differently Structured Educational Experiences As Measured by a Seven-point Rating Scale

STRUCTURE OF THE EDUCATIONAL SITUATION

	<u>HIGH</u>	<u>MODERATE</u>	<u>LOW</u>	<u>F ratio</u>
<u>GROUPS:</u> Total	Introductory Psychology	Psychology Seminars	Sociology-Independent Study	
N = 85	N = 51	N = 19	N = 15	

8. CHALLENGING - BORING				
\bar{X} =	1.78	1.98	1.53	1.40
σ^2 =	1.10	1.26	1.04	0.40

9. RELEVANT TO ME NOW - IRRELEVANT TO ME NOW				
\bar{X} =	1.81	1.83	1.95	1.60
σ^2 =	0.99	0.95	1.61	0.40

10. SENSITIVE TO MY NEEDS AS AN INDIVIDUAL - INSENSITIVE TO MY NEEDS ...				
\bar{X} =	1.99	2.06	2.05	1.67
σ^2 =	1.27	1.02	2.27	0.95

11. VALUABLE TO ME IN THE FUTURE - WORTHLESS TO ME IN THE FUTURE				
\bar{X} =	1.55	1.61	1.37	1.60
σ^2 =	0.82	0.92	0.69	0.69

12. COGNITIVE: IDEA ORIENTED - AFFECTIVE: EMOTION/FEELING ORIENTED				
\bar{X} =	3.38	3.25	3.47	3.67
σ^2 =	2.05	1.59	2.37	3.38

13. UNSTRUCTURED - STRUCTURED				
\bar{X} =	4.58	5.14	4.11	3.27
σ^2 =	2.37	1.52	2.88	1.78

14. STIMULATES ME TO ACTIVITY AND PRODUCTION - DOES NOT STIMULATE ME ...				
\bar{X} =	2.00	2.24	1.74	1.53
σ^2 =	1.40	1.50	1.65	0.41

15. SELF-INITIATED MOTIVATION TO LEARN - TEACHER-INITIATED MOTIVATION ...				
\bar{X} =	2.56	3.04	1.79	1.93
σ^2 =	2.34	2.44	1.73	1.07

* $p < .05$, at $F = 3.15$

** $p < .01$, at $F = 4.98$

Table 2

Summary Table: Present Attitudes Toward Education of Students Who Were Enrolled In Differently Structured Educational Experiences As Measured on a Seven-point Rating Scale

(The means shown were calculated on a seven-point scale and are arranged so that 1.0 indicates agreement with the item on the left of the scale, 4.0 indicates ambivalence, and 7.0 indicates agreement with the item on the right of the scale.)

STRUCTURE OF THE EDUCATIONAL SITUATION

		<u>HIGH</u>	<u>MODERATE</u>	<u>LOW</u>	<u>F ratio</u>
<u>GROUPS:</u>	Total	Introductory Psychology	Psychology Seminars	Sociology- Independent Study	
	N = 85	N = 51	N = 19	N = 15	
1. STUDENT ORIENTED - TEACHER ORIENTED					
\bar{X} =	4.46	4.25	5.00	4.80	1.59
σ^2 =	3.04	2.87	2.71	2.60	
2. SMALL - LARGE					
\bar{X} =	4.94	4.98	5.00	4.73	0.16
σ^2 =	2.37	1.86	3.56	2.92	
3. INFORMAL - FORMAL					
\bar{X} =	4.60	4.59	4.74	4.47	0.12
σ^2 =	2.55	1.97	4.09	2.98	
4. UNPREDICTABLE - PREDICTABLE					
\bar{X} =	2.13	4.98	5.42	5.27	0.80
σ^2 =	1.88	1.90	1.70	2.07	
5. UNORGANIZED - ORGANIZED					
\bar{X} =	5.49	5.35	5.79	5.60	1.41
σ^2 =	1.01	1.03	1.06	0.83	
6. PERSONAL - IMPERSONAL					
\bar{X} =	4.80	4.78	5.16	4.40	0.98
σ^2 =	2.47	2.29	2.70	2.83	
7. THOUGHT PROVOKING - STIFLING					
\bar{X} =	3.85	3.82	4.21	3.47	1.15
σ^2 =	2.06	1.99	2.62	1.55	

Table 2 (continued)

Summary Table: Present Attitudes Toward Education of Students Who Were Enrolled In Differently Structured Educational Experiences As Measured on a Seven-point Rating Scale

STRUCTURE OF THE EDUCATIONAL SITUATION

		<u>HIGH</u>	<u>MODERATE</u>	<u>LOW</u>	<u>F ratio</u>
<u>GROUPS:</u>	Total	Introductory Psychology	Psychology Seminars	Sociology- Independent Study	
	N = 85	N = 51	N = 19	N = 15	

8. CHALLENGING - BORING					
\bar{X} =	3.99	3.98	4.53	3.33	2.05
σ^2 =	2.99	2.82	3.71	2.24	

9. RELEVANT TO ME NOW - IRRELEVANT TO ME NOW					
\bar{X} =	3.88	3.75	4.42	3.67	1.12
σ^2 =	3.20	2.91	4.26	2.81	

10. SENSITIVE TO MY NEEDS AS AN INDIVIDUAL - INSENSITIVE TO MY NEEDS ...					
\bar{X} =	4.49	4.43	5.00	4.07	1.36
σ^2 =	2.90	2.57	3.44	3.21	

11. VALUABLE TO ME IN THE FUTURE - WORTHLESS TO ME IN THE FUTURE					
\bar{X} =	2.96	2.75	3.32	3.27	1.46
σ^2 =	2.13	2.31	1.89	1.64	

12. COGNITIVE: IDEA ORIENTED - AFFECTIVE: EMOTION/FEELING ORIENTED					
\bar{X} =	3.01	3.12	2.95	2.73	0.61
σ^2 =	1.46	1.15	1.83	2.21	

13. UNSTRUCTURE - STRUCTURED					
\bar{X} =	5.31	5.18	5.74	5.20	1.62
σ^2 =	1.43	1.31	1.20	2.03	

14. STIMULATES ME TO ACTIVITY AND PRODUCTION - DOES NOT STIMULATE ME ...					
\bar{X} =	4.21	4.14	4.42	4.20	0.17
σ^2 =	3.15	2.96	4.59	2.31	

15. SELF-INITIATED MOTIVATION TO LEARN - TEACHER INITIATED MOTIVATION ...					
\bar{X} =	4.25	4.10	4.58	4.40	0.55
σ^2 =	3.19	2.33	5.59	3.40	

unstructured. There appears to be ambivalence about the predictability of the experience.

However, there is a contrast in their attitudes toward their present educational experience (Table II). Their present experience is characterized as being somewhat thought provoking, challenging, and relevant to them now. They tend to view their experience now as having some value to them in the future but nothing of any great degree. There appears to be ambivalence as to the source of their motivation in learning (self-or teacher- initiated motivation to learn), as well as to the influence of the present situation on their activity and production. The present situation is neither impersonal nor personal, sensitive or insensitive to their needs as individuals.

They characterize present education as tending to be somewhat organized and structured. Cognitive, idea-oriented experiences appear to be somewhat more present than affective, feeling/emotion oriented experiences. Ambivalence characterizes their attitudes toward whether the present educational experience is student- or teacher-oriented, large or small, formal or informal, predictable or unpredictable. Students generally in this group do not see their experience in education at present as being highly differentiated.

HS, in sum, view their ideal education as being highly responsive to themselves as individuals. They desire ideally a flexible, challenging and relevant experience. In contrast they perceive the present experience as primarily valuable to them in the future. The remaining 14 scales indicate a rather ambivalent, undifferentiated attitude toward their present experience.

Moderate-Structure Group. Students in the MS group indicate that an ideal educational experience tends to be quite personal, thought provoking, challenging, valuable to them in the future, action producing, relevant to them now, sensitive to their needs as individuals and more self-initiated motivation than teacher-initiated motivation to learn. They characterized the experience as being somewhat student-oriented, rather small, and informal. They seemed somewhat more interested in idea-oriented rather than emotion-felling-oriented learning experiences. This experience tended to be somewhat more unpredictable than predictable, but somewhat more organized than unorganized. Their attitude toward the structure of the ideal experience was ambivalent. Their ideal attitudes, then, reflected a desire for an extremely individual and personal approach to education.

However, their attitudes toward the present educational situation revealed a somewhat impersonal, somewhat insensitive, somewhat valuable, present educational experience. Ambivalence marked their attitudes toward this experience as being thought provoking or stifling, challenging or boring, relevant or irrelevant, stimulating to activity or not stimulating, motivating or not motivating to learn, and self- or teacher-motivated to learn. The experience is characterized as being somewhat more idea oriented than feeling/emotion oriented, somewhat more structured than unstructured, a bit larger than smaller, somewhat more predictable than unpredictable, and a bit more organized than unorganized. No indication was given as to whether the experience was more formal or informal, or whether it was more student than teacher oriented.

Overall there seems to be much ambivalence as to the nature of the present educational experience. The students in this MS group manifest

only slight differentiation in their attitudes toward their present educational experience. Their ideal attitudes indicate a desire for a more personalized, flexible, challenging experience than they are getting.

Low-Structured Group. The LS group tends to characterize an ideal educational experience as being quite personal, very thought provoking and challenging, quite relevant to their needs now, valuable to them in the future, quite stimulating to activity, and more self-initiated motivation to learn. The experience can be described as being more student oriented than teacher oriented, rather small and informal, tending to be somewhat unpredictable, unstructured, ideal oriented, and organized. The ideal experience, then, seems to emphasize the individual in the learning experience, though the learning experience tends to be somewhat organized/unstructured/unpredictable and small.

These students react to their present educational experience as one being somewhat each of the following: thought provoking, challenging, relevant to their needs now, valuable to them in the future. However, their attitudes toward the experience as being personal or impersonal, sensitive to their needs as individuals, having self- or teacher-initiated motivation to learn, and as being stimulating to activity are all ambivalent. The situation tends to be predictable, somewhat organized, somewhat structured, and quite idea oriented. Ambivalence marks their attitudes toward student oriented-teacher oriented, small-large, and formal-informal. In sum, the present situation is marked by rather undifferentiated attitudes by these students, tending to be ambivalent or only slightly differentiated.

Educational Ideal. An analysis of all the students in the three groups (N = 85) reveals the following attitudes toward an ideal educational experience: very challenging, relevant to them now, valuable to them in the future, more personal than impersonal, rather thought provoking, rather sensitive to their needs as individuals, and quite stimulating to activity. They seem to desire an experience which emphasizes self-motivation rather than teacher motivation to learn. The situation is described as being rather student-oriented, informal, tending to be somewhat small, somewhat organized/structured, idea oriented rather than emotion-feeling oriented, and as being neither predictable nor unpredictable. The group overall emphasized a more personal interaction with the learning process, though the characteristics of the situation (small/large, predictability, organization, and its structure) are not of great importance.

Present Education. The same students characterize their present experience quite ambivalently. Little differentiation occurred on the following: informal/formal, personal/impersonal, sensitive to my needs/insensitive to my needs, self-/teacher-initiated motivation to learn, degree to which the experience stimulates them to activity, student/teacher oriented, large/small, predictability. The students described a present situation which tended to be only somewhat of the following: thought provoking, organized, relevant to them now, valuable to them in the future, idea oriented, and structured. These students appeared to have many mixed attitudes about their present educational experience, tending either to be ambivalent or slightly differentiated in their attitudes.

Differences Between Groups. An analysis of variance was calculated for each item across the three groups. The results are listed in Tables I and II for the ideal and present attitude orientation respectively in column 5. Six items concerning students' attitudes toward an ideal educational experience proved to have significant F ratios: unpredictable/predictable ($F = 3.88$, $p < .05$), thought provoking/stifling ($F = 3.23$, $p < .05$), unstructured/structured ($f = 12.34$, $p < .01$), and self-initiated motivation to learn/teacher motivation to learn ($F = 7.05$, $p < .01$).

The direction of these six significant scales indicated a slight tendency toward a predictable and organized ideal educational experience, as well as being rather personal, quite thought provoking, and somewhat manifesting self-initiated motivation to learn. The greatest degree of differentiation involved the structure of the experience, with the HS tending toward a structured experience, the MS manifesting ambivalence, and the LS tending toward an unstructured ideal educational experience. Only on this variable of "structuredness" did the groups respond in a manner anticipated.

t tests were then calculated for the significant F ratios (Table III), which indicated significant differences between the HS group and the other two groups respectively (LS and MS) for all comparisons except between HS and MS on "unstructured/structured" ($t = 1.80$, N.S.). No significant differences were found for the comparisons between the MS and LS groups for any of the significant F ratios.

The significant t tests indicated differences between the highly structured group and the groups involved in innovative experiences. Except for item #7 (thought provoking/stifling) in Table III, the trend in the significant results indicated a difference between structure of the

Table 3

t Tests Between Groups for Significant F Ratios in Table 1

IDEAL ATTITUDE ORIENTATION:

Comparisons Between the following groups:

	Introductory Psychology (N = 51) and Psychology Seminars (N = 19)	Introductory Psychology (N = 51) and Sociology/ Independent Study (N = 15)	Psychology Seminars (N = 19) and Sociology/ Independent Study (N = 15)
4. UNPREDICTABLE - PREDICTABLE			
<u>t</u> =	2.11*	2.22*	0.31
5. UNORGANIZED - ORGANIZED			
<u>t</u> =	2.70**	2.10*	0.40
6. PERSONAL - IMPERSONAL			
<u>t</u> =	2.60**	2.83**	0.30
7. THOUGHT PROVOKING - STIFLING			
<u>t</u> =	1.80	2.17*	0.40
13. UNSTRUCTURED - STRUCTURED			
<u>t</u> =	2.80**	5.10**	1.60
15. SELF-INITIATED MOTIVATION TO LEARN - TEACHER-INITIATED MOTIVATION TO LEARN			
<u>t</u> =	3.10**	2.60**	0.40

* p < .05

** p < .01

educational experiences. The comparison between the two relatively small groups yielded no significant t tests, suggesting that structure did not differentiate these two innovative experiences from each other but just from the traditional experience (HS group).

Summary

The results of the 15 items of the rating scale indicated that only for the ideal-attitude orientation did structure have a significant influence. Six scales yielded significant F ratios (predictable/unpredictable, organized/unorganized, personal/impersonal, structured/unstructured, thought provoking/stifling, and self-initiated motivation to learn/teacher initiated motivation to learn), indicating structure-related variables were differentiated across groups. Further examination of the F ratios with t tests produced significant differences between HS and the other two groups respectively (MS and LS), except for item #7 (thought provoking/stifling). No significant differences were found between the MS and LS groups, indicating relative agreement between those two innovative experiences.

In contrast none of the comparisons between groups for the 15 scales relative to present attitudes produced significant F ratios, suggesting uniformity as to how the present educational situation was perceived by its students regardless of the groups structure. The 15 scale items were markedly ambivalent across all groups for the present attitude condition.

The results suggested a desire by students for relatively free, flexible ideal educational experiences. However, there was an emphasis on having this experience somewhat organized, predictable and structured, implying students' need for guidance and direction.

Item Check List

The following results were based upon those Ss who completed the item check lists, leaving these readjusted group totals: HS group, N = 57 on the ideal characteristic condition, and N = 56 for the present characteristic condition; MS group, N = 20 for both conditions; and LS group, N = 14 for both conditions. Totals for all Ss were N = 91 for the ideal condition and N = 90 for the present condition.

Summary tables (Tables IV and V) show the percentage of Ss in a group selecting each of the 66 characteristics for both the ideal and present educational conditions. The percentage of Ss across all groups (N = 91 for ideal, N = 90 for present) selecting each of the 66 items is given in column 5 of Tables IV and V to show how students in general characterize their ideal and present educational experience.

A Spearman who rank correlation with tied data (Seigel, 1967) was calculated to compare the concordance between groups in ordering the 66 items for both the ideal and present attitude conditions (Table VI). The items in each group were ranked in quintiles, deciles, and quartiles for comparison. For both the ideal and present attitude conditions, there was a high degree of agreement between groups (significant at the $p < .01$ level of confidence). Consequently, structure of the groups did not seem to differentiate either the groups ideal or present attitudes toward education as indicated by the item check list.

Table VII (ideal characteristics) and Table VIII (present characteristics of the educational experience) represent those items which were selected at least by 75% or more (up to 100%) of the Ss in each group. The same analysis

Table 4

Summary Table: Survey of Student Attitudes on an Item-Check List
Concerning the Characteristics of an Ideal Educational
Experience in Different Educational Settings

(The percentages shown were calculated on the basis
of those Ss within each group who checked that
particular item; HS, MS, and LS refer to high,
moderate, low structure respectively.)

STRUCTURE OF THE
EDUCATIONAL EXPERIENCE

Item num- ber	HS N= 57	MS N= 20	LS N= 14	Total N= 91	"Ideally I want an educational experience where..."
1.	86%	100%	93%	90%	The classroom organization is informal and relaxed.
2.	70	100	100	80	Open discussion is encouraged.
3.	7	0	0	4	The teacher lectures during the entire class.
4.	39	50	72	45	Students are rewarded for original thinking in class.
5.	100	95	100	98	The teacher is knowledgeable in his field.
6.	23	5	7	16	The material covered in class does not deviate from the material covered in the text very much.
7.	9	0	0	4	Class attendance is required in order to make me attend the class.
8.	84	85	100	87	Class attendance is optional.
9.	46	85	50	55	There are less than 15 students enrolled in the class.
10.	89	95	93	90	I am taking the class or courses because I want what these classes have to offer.
11.	21	5	7	14	The number of students in the class makes no difference to me. Large or small classes still give me the same type of experience.
12.	82	90	79	82	The teacher develops a close relationship with his students in class.

Table 4 (continued)

Summary Table: Survey of Student Attitudes on an Item-Check List
Concerning the Characteristics of an Ideal Educational
Experience in Different Educational Settings

STRUCTURE OF THE EDUCATIONAL EXPERIENCE					"Ideally I want an educational experience where..."
Item num- ber	HS N= 57	MS N= 20	LS N= 14	Total N= 91	
13.	61%	95%	100%	74%	Educational experiences outside of the immediate classroom situation are encouraged.
14.	72	35	36	57	Assignments and class work are clearly specified in the course.
15.	16	5	7	12	The classroom is the main focus of my education.
16.	2	0	0	1	The teacher ignores student's questions or evades them.
17.	89	95	100	91	The teacher tries hard to understand the student's questions even though the questions may be poorly phrased.
18.	42	85	79	57	The classroom experience is oriented around a discussion type of education relating more to what the student wants than to what the teacher wants.
19.	14	45	43	24	A minimum of guidance is given by the teacher.
20.	21	10	0	15	The teacher feeds the class facts through lectures.
21.	16	25	7	16	The class is a bull session mostly.
22.	60	55	50	57	Learning is more practical than theoretical in its orientation.
23.	95	95	93	95	The teacher is enthusiastic about teaching students.
24.	91	55	79	80	The teacher organizes the course well.

Table 4 (continued)

Summary Table: Survey of Student Attitudes on an Item-Check List
Concerning the Characteristics of an Ideal Educational
Experience in Different Educational Settings

STRUCTURE OF THE
EDUCATIONAL EXPERIENCE

Item num- ber	HS N= 57	MS N= 20	LS N= 14	Total N= 91	"Ideally I want an educational experience where..."
25.	9	15	21	12	Students have the sole responsibility for determining their work in the class.
26.	14	0	0	9	Competition for grades in the class is keen.
27.	19	0	0	12	The instructor determines what is taught.
28.	70	95	93	79	Students determine the course content jointly with the teacher.
29.	88	90	100	89	The teacher gives individual help to members of the class.
30.	0	0	0	0	The teacher is concerned more with research than with teaching the students.
31.	2	0	0	1	The teacher does not add anything to my learning.
32.	4	5	7	4	The course content is not directly relevant or applicable to my life.
33.	18	40	57	29	Essay tests are used.
34.	51	20	7	37	The tests are multiple choice.
35.	26	60	43	36	Only papers and class discussions are used for evaluation.
36.	51	75	57	57	Papers are assigned but students have the choice of topic.
37.	7	0	0	4	The course requirements are rigid.
38.	68	60	57	64	My motivation for learning is stimulated by the teacher.
39.	93	95	86	91	I find the subject matter covered in the course stimulating and thought provoking.

Table 4 (continued)

Summary Table: Survey of Student Attitudes on an Item-Check List
Concerning the Characteristics of an Ideal Educational
Experience in Different Educational Settings

Item num- ber	STRUCTURE OF THE EDUCATIONAL EXPERIENCE				
	HS N= 57	MS N= 20	LS N= 14	Total N= 91	
					"Ideally I want an educational experience where..."
40.	4	5	7	4	I am learning but I don't know if I really want this experience; since I don't know in what I want to major, I can't decide what is relevant to my life.
41.	2	0	0	1	Education is based on a system of punishments rather than on a system of rewards or positive experiences.
42.	4	0	0	2	I am satisfied with whatever happens during the course mainly because it is the teacher's responsibility to run the class.
43.	2	0	0	1	A bunch of useless notes are being taken that are good only for passing the tests.
44.	75	0	0	43	The information is more technical trivia than useful information for me.
45.	60	90	93	70	Opinions of other students on the material being discussed is actively sought in class.
46.	60	80	72	65	There is assistance in developing my writing/verbal skills.
47.	72	90	79	76	A good time in learning both inside of and outside of class is emphasized.
48.	32	65	57	43	A bibliography of readings is prepared by the teacher for the class's own personal use.
49.	19	10	0	14	The information given in class represents entirely what the teacher feels is relevant.
50.	4	5	0	3	I am just working for the credits toward graduation.

Table 4 (continued)

Summary Table: Survey of Student Attitudes on an Item-Check List
Concerning the Characteristics of an Ideal Educational
Experience in Different Educational Settings

STRUCTURE OF THE EDUCATIONAL EXPERIENCE					"Ideally I want an educational experience where..."
Item num- ber	HS N= 57	MS N= 20	LS N= 14	Total N= 91	
51.	72%	90%	100%	79%	Assistance from other members of the class in my learning is readily available.
52.	72	90	100	79	The classroom learning is extended outside the classroom experience.
53.	7	0	7	5	A grade is the primary source of motivation.
54.	2	20	0	5	Intensive preparation and study is required for each class.
55.	44	40	36	42	A broad introduction to a body of knowledge is being given.
56.	4	0	0	2	The education offered is unrealistic, too artificial for me.
57.	35	45	50	38	The opportunity to develop my analytical abilities is given in class by the teacher.
58.	60	90	64	67	I can develop or at least have the chance to develop at any rate I want to.
59.	56	75	100	67	The opportunity to share in the responsi- bility for my learning is offered.
60.	61	90	86	70	I am learning what is important to me by being given freedom to explore on my own.
61.	58	40	57	54	The teacher seems to spend a lot of time preparing for each class.
62.	60	60	79	62	An introduction to many different facets and areas of the subject matter is given.
63.	67	35	43	56	The goals of the course are clearly specified, outlined, and explained.

Table 4 (continued)

Summary Table: Survey of Student Attitudes on an Item-Check List
Concerning the Characteristics of an Ideal Educational
Experience in Different Educational Settings

STRUCTURE OF THE EDUCATIONAL
EXPERIENCE

Item num- ber	HS N= 57	MS N= 20	LS N= 14	Total N= 91	"Ideally I want an educational experience where..."
64.	56%	85%	86%	67%	There is encouragement to try different educational experiences in class.
65.	60	90	100	71	My ability to know where to get the infor- mation and whow to apply the information for my own purposes is being fostered.
66.	7	45	36	20	I am becoming more alienated from the traditional university educational system with each succeeding class experience.

Table 5

Summary Table: Survey of Student Attitudes on an Item-Check List Concerning the Characteristics of the Present Educational Experience in Different Educational Settings

(The percentages shown were calculated on the basis of those Ss within the group who checked that particular item.)

STRUCTURE OF THE
EDUCATIONAL EXPERIENCE

Item num- ber	HS N= 56	MS N= 20	LS N= 14	Total N= 90	
					"In reality I am getting or having an educational experience where..."
1.	39%	10%	29%	30%	The classroom organization is informal and relaxed.
2.	47	15	50	38	Open discussion is encouraged.
3.	64	80	57	67	The teacher lectures during the entire class.
4.	12	5	43	14	Students are rewarded for original thinking in class.
5.	82	95	86	73	The teacher is knowledgeable in his field.
6.	43	70	64	52	The material covered in class does not deviate from the material covered in the text very much.
7.	32	65	29	39	Class attendance is required in order to make me attend the class.
8.	59	40	64	54	Class attendance is optional.
9.	5	20	14	10	There are less than 15 students enrolled in the class.
10.	37	20	36	32	I am taking the class or courses because I want what these classes have to offer.
11.	18	5	7	13	The number of students in the class makes no difference to me. Large or small classes still give me the same type of experience.
12.	12	10	21	13	The teacher develops a close relationship with his students in class.

Table 5 (continued)

Summary Table: Survey of Student Attitudes on an Item-Check List
Concerning the Characteristics of the Present
Educational Experience in Different Educational
Settings

STRUCTURE OF THE EDUCATIONAL EXPERIENCE					"In reality I am getting or having an educational experience where..."
Item num- ber	HS N= 56	MS N= 20	LS N= 14	Total N= 90	
13.	36%	10%	29%	28%	Educational experiences outside of the immediate classroom situation are encouraged.
14.	66	85	86	72	Assignments and class work are clearly specified in the course.
15.	50	70	79	48	The classroom is the main focus of my education.
16.	12	10	7	11	The teacher ignores student's questions or evades them.
17.	71	30	57	59	The teacher tries hard to understand the student's questions even though the questions may be poorly phrased.
18.	11	10	14	11	The classroom experience is oriented around a discussion type of education relating more to what the student wants than to what the teacher wants.
19.	21	20	14	20	A minimum of guidance is given by the teacher.
20.	86	85	79	83	The teacher feeds the class facts through lectures.
21.	7	5	7	7	The class is a bull session mostly.
22.	16	15	36	19	Learning is more practical than theoretical in its orientation.
23.	41	25	36	36	The teacher is enthusiastic about teaching students.
24.	77	65	64	71	The teacher organizes the course well.
25.	9	5	7	8	Students have the sole responsibility for determining their work in the class.

Table 5 (continued)

Summary Table: Survey of Student Attitudes on an Item-Check List
Concerning the Characteristics of the Present
Educational Experience in Different Educational
Settings

STRUCTURE OF THE EDUCATIONAL EXPERIENCE					"In reality I am getting or having an educational experience where..."
Item num- ber	HS N= 56	MS N= 20	LS N= 14	Total N= 90	
26.	43%	75%	43%	50%	Competition for grades in the class is keen.
27.	86	90	79	84	The instructor determines what is taught.
28.	9	10	14	10	Students determine the course content jointly with the teacher.
29.	45	40	64	46	The teacher gives individual help to members of the class.
30.	7	10	21	10	The teacher is concerned more with research than with teaching the students.
31.	11	10	7	10	The teacher does not add anything to my learning.
32.	29	45	14	30	The course content is not directly applicable or relevant to my life.
33.	29	30	71	36	Essay tests are used.
34.	70	90	57	72	The tests are multiple choice.
35.	27	10	21	22	Only papers and class discussions are used for evaluation.
36.	25	10	43	24	Papers are assigned but students have the choice of topic.
37.	39	50	57	44	The course requirements are rigid.
38.	30	15	36	27	My motivation for learning is stimulated by the teacher.
39.	25	20	36	24	I find the subject matter covered in the course stimulating and thought provoking.
40.	25	30	21	26	I am learning but I don't know if I really want this experience; since I don't know in what I want to major I can't decide what is relevant to my life.

Table 5 (continued)

Summary Table: Survey of Student Attitudes on an Item-Check List
Concerning the Characteristics of the Present
Educational Experience in Different Educational
Settings

STRUCTURE OF THE
EDUCATIONAL EXPERIENCE

Item num- ber	HS N= 56	MS N= 20	LS N= 14	Total N= 90	"In reality I am getting or having an educational experience where..."
41.	27%	45%	29%	31%	Education is based on a system of punishments rather than on a system of rewards or positive experiences.
42.	14	5	0	9	I am satisfied with whatever happens during the course mainly because it is the teacher's responsibility to run the class.
43.	37	70	50	47	A bunch of useless notes are being taken that are good only for passing the tests.
44.	39	55	29	41	The information is more technical trivia than useful information to me.
45.	21	10	21	18	Opinions of other students on the material being discussed is actively sought in class.
46.	30	15	21	24	There is assistance in developing my writing/verbal skills.
47.	23	10	21	20	A good time in learning both inside of and outside of class is emphasized.
48.	18	10	14	16	A bibliography of readings is prepared by the teacher for the class's own personal use.
49.	55	65	64	58	The information given in class represents entirely what the teacher feels is relevant.
50.	21	50	21	28	I am just working for the credits toward graduation.
51.	12	20	21	16	Assistance from other members of the class in my learning is readily available.

Table 5 (continued)

Summary Table: Survey of Student Attitudes on an Item-Check List
Concerning the Characteristics of the Present
Educational Experience in Different Educational
Settings

STRUCTURE OF THE EDUCATIONAL EXPERIENCE					"In reality I am getting or having an educational experience where..."
Item num- ber	HS N= 56	MS N= 20	LS N= 14	Total N= 90	
52.	18%	10%	21%	17%	The classroom learning is extended outside the classroom experience.
53.	73	85	71	74	A grade is the primary source of motivation.
54.	21	20	21	20	Intensive preparation and study is required for each class.
55.	37	25	50	37	A broad introduction to a body of knowledge is being given.
56.	21	30	21	22	The education offered is unrealistic, too artificial for me.
57.	12	10	29	13	The opportunity to develop my analytical abilities is given in class by the teacher.
58.	21	15	14	18	I can develop or at least have the chance to develop at any rate I want to.
59.	21	30	21	22	The opportunity to share in the responsi- bility for my learning is offered.
60.	21	15	36	21	I am learning what is important to me by being given freedom to explore on my own.
61.	37	40	50	40	The teacher seems to spend a lot of time preparing for each class.
62.	32	20	43	30	An introduction to many different facets and areas of the subject matter is given.
63.	61	55	64	59	The goals of the course are clearly ex- plained and outlined by the teacher.
64.	7	10	14	9	There is encouragement to try different educational experiences in class.

Table 5 (continued)

Summary Table: Survey of Student Attitudes on an Item-Check List Concerning the Characteristics of the Present Educational Experience in Different Educational Settings.

STRUCTURE OF THE EDUCATIONAL
EXPERIENCE

Item num- ber	HS N= 56	MS N= 20	LS N= 14	Total N= 90	
					"In reality I am getting or having an educational experience where..."
65.	32%	30%	29%	30%	My ability to know where to get the inform- ation and how to apply the information for my own purposes is being fostered.
66.	27	30	50	30	I am becoming more alienated from the traditional university educational system with each succeeding class experience.

was applied to the upper 25% of respondents for the total Ss surveyed (Table VII, N = 91; Table VIII, N = 90).

Ideal High Structured Group. Eleven items were selected in the upper quartile as characteristic of an ideal educational experience. One half of the items concerned teacher attributes (i.e., "the teacher organizes the course well") and the other half were associated with facets of the classroom experience (i.e., "The classroom organization is informal and relaxed."). Oddly enough, 75% of the HS group chose as characteristic of an ideal educational experience "the information is more technical trivia than useful information for me", a choice that is quite baffling.

Moderately Structured Group. Twenty-five items were selected as characteristic of an ideal educational experience. Though some of the items emphasized the characteristics of the teacher (i.e., "teacher is knowledgeable in his field", "...offers help in learning", "...is enthusiastic about teaching students") and personal requirements (i.e., "I can develop ... at any rate I want to"), most items concerned the educational atmosphere (i.e., desire for open, relaxed, supportive classroom experiences). The 25 items in sum reflect a desire for more personal attention by students from the teacher, the emphasis being upon the individual needs of the students being acknowledged.

Low Structured Group. Twenty-three items characterized the ideal educational situation for this group. Half of the items reflected situation desires (i.e., "classroom attendance is optional", "I am learning what is important to me by being given the freedom to explore on my own", "classroom learning is extended outside of the classroom experience"). The remaining

Table 6

Spearman-Rho Rank Correlation for Tied Data
Computed Between Groups for both the Ideal-
and Present Attitude Conditions on the Item-
Check List

COMPARISON BETWEEN GROUPS									
	Introductory Psychology (HS, N = 57) *			Introductory Psychology (HS, N = 57)			Psychology Seminars N = 20, MS		
	and			and			and		
	Psychology Seminars (MS, N = 20)			Sociology- Independent Study (LS, N = 14)			Sociology- Independent Study (LS, N = 14)		
PERCENTILE INTERVALS:	5th	10th	25th	5th	10th	25th	5th	10th	25th
Ideal Attitude Condition **									
rho =	.98	.99	.99	.98	.99	.99	.99	.99	.99
Present Attitude Condition **									
rho =	.98	.99	.99	.97	.99	.99	.99	.99	.99

* For the present attitude condition, the N for the HS group is 56.

** For both the ideal attitude condition and the present attitude
condition all rho values are significant at the $p < .01$ level.

Table 7

Characteristics of an Ideal Educational Experience
As Indicated by Items on a 66 Item-Check List
Chosen by 75% or More of the Students Three Dif-
ferently Structured Educational Situations

CHARACTERISTICS OF AN IDEAL EDUCATIONAL EXPERIENCE

A. Introductory Psychology Students (HS group, N = 57)

Ss responding at or above 75%	item number
100%	5. The teacher is knowledgeable in his field.
95%	23. The teacher is enthusiastic about teaching students.
93%	39. I find the subject matter covered in the course stimulating and thought provoking.
91%	24. The teacher organizes the course well.
89%	17. The teacher tries hard to understand the student's questions even though the questions may be poorly phrased.
88%	29. The teacher gives individual help to members of the class.
86%	1. The classroom organization is informal and relaxed.
84%	8. Class attendance is optional.
82%	12. The teacher develops a close relationship with his students in class.
75%	44. The information is more technical trivia than useful information for me.

B. Psychology Seminar Students (MS group, N = 20)

Ss responding at or above 75%	item number
100%	1. The classroom organization is informal and relaxed.
"	2. Open discussion is encouraged.
95%	5. The teacher is knowledgeable in his field.
"	10. I am taking the class or courses because I want what these classes have to offer.
"	13. Educational experiences outside of the immediate classroom situation are encouraged.
"	17. The teacher tries hard to understand the student's questions even though the questions may be poorly phrased.
"	23. The teacher is enthusiastic about teaching students.
"	28. Students determine the course content jointly with the teacher.

Table 7 (continued)

Characteristics of an Ideal Educational Experience
As indicated by Items on a 66 Item-Check List
Chosen by 75% or More of the Students in Three
Differently Structured Educational Situations

CHARACTERISTICS OF AN IDEAL EDUCATIONAL EXPERIENCE

B. Psychology Seminar Students (MS group, N = 20): continued

<u>Ss responding</u> <u>at or above</u> <u>75%</u>	<u>item</u> <u>number</u>
95%	39. I find the subject matter covered in the course stimulating and thought provoking.
90%	12. The teacher develops a close relationship with his students in class.
"	29. The teacher gives individual help to members of the class.
"	45. Opinions of other students on the material being discussed is actively sought in class.
"	47. A good time in learning both inside of class and outside of class is emphasized.
"	51. Assistance from other members of the class in my learning is readily available.
"	52. The classroom learning is extended outside the classroom experience.
"	58. I can develop or at least have the chance to develop at any rate I want to.
"	60. I am learning what is important to me by being given the freedom to explore on my own.
"	65. My ability to know where to get the information and how to apply the information for my own purposes is being fostered.
85%	8. Class attendance is optional.
"	9. There are less than 15 students enrolled in the class.
"	18. The classroom experience is orientated around a discussion type of education relating more to what the student wants than to what the teacher wants.
"	64. There is encouragement to try different educational experiences in class.
80%	46. There is assistance in developing my skills in writing/ speaking.
75%	36. Papers are assigned but students have choice of topic.
"	59. The opportunity to share in the responsibility for my learning is offered.

Table 7 (continued)

Characteristics of an Ideal Educational Experience
As Indicated by Items on a 66 Item-Check List
Chosen by 75% or More of the Students in Three
Differently Structured Educational Situations

CHARACTERISTICS OF AN IDEAL EDUCATIONAL EXPERIENCE

C. Sociology-Independent Study (LS group, N = 14)	
<u>Ss</u> responding at or above 75%	item number
100%	2. Open discussion is encouraged.
"	5. The teacher is knowledgeable in his field.
"	8. Class attendance is optional.
"	13. Educational experiences outside of the immediate classroom situation are encouraged.
"	17. The teacher tries hard to understand student's questions even though the questions may be poorly phrased.
"	29. The teacher gives individual help to members of the class.
"	51. Assistance from other members of the class in my learning is readily available.
"	52. The classroom learning is extended outside the class- room experience.
"	59. The opportunity to share in the responsibility for my learning is offered.
"	65. My ability to know where to get the information and how to apply the information for my own purposes is being fostered.
93%	1. The classroom organization is informal and relaxed.
"	10. I am taking the class or courses because I want what these classes have to offer.
"	23. The teacher is enthusiastic about teaching students.
"	28. Students determine the course content jointly with the teacher.
"	45. Opinions of other students on the material being discussed is actively sought in class.
86%	39. I find the subject matter covered in the course stimulating and thought provoking.
"	60. I am learning what is important to me by being given the freedom to explore on my own.
"	64. There is encouragement to try different educational experiences in class.
79%	12. The teacher develops a close relationship with students in class.
"	18. The classroom experience is oriented around a discussion type of education relating more to what the student wants than to what the teacher wants.

Table 7 (continued)

Characteristics of an Ideal Educational Experience
As Indicated by Items on a 66 Item-Check List
Chosen by 75% or More of the students in Three
Differently Structured Educational Situations

CHARACTERISTICS OF AN IDEAL EDUCATIONAL EXPERIENCE

C. Sociology-Independent Study (LS, N = 14)-continued

<u>Ss responding</u> <u>at or above</u> <u>75%:</u>	<u>item</u> <u>number:</u>
79%	24. The teacher organizes the course well.
"	47. A good time in learning both inside of the class and outside of the class is emphasized.
"	62. An introduction to many different facets and areas of the subject matter is given.
<u>D. Total of all three groups (N = 91)</u>	
<u>Ss responding</u> <u>at or above</u> <u>75%:</u>	<u>item</u> <u>number:</u>
98%	5. The teacher is knowledgeable in his field.
95%	23. The teacher is enthusiastic about teaching students.
91%	17. The teacher tries hard to understand the student's questions even though the questions may be poorly phrased.
"	39. I find the subject matter covered in the course stimulating and thought provoking.
90%	1. The classroom organization is informal and relaxed.
"	10. I am taking the class or courses because I want what these classes have to offer.
89%	29. The teacher gives individual help to members of the class.
87%	8. Class attendance is optional.
82%	12. The teacher develops a close relationship with his students in class.
80%	2. Open discussion is encouraged.
"	24. The teacher organizes the course well.
79%	28. Students determine the course content jointly with the teacher.
"	51. Assistance from other members of the class in my learning is readily available.
"	52. The classroom learning is extended outside the classroom experience.
76%	47. A good tim in learning both inside of and outside class is emphasized.

items are mostly requirements of the teacher (i.e., "...knowledgeable in his field", "...attempts to understand student's questions in class", "...give individual help in class"). These students desire a teacher who is tuned into students, who can see them as individuals, who can create an atmosphere that is conducive to learning. Generally the ideal situation is open, informal, relaxed, and non-threatening, where students are invited to explore.

Educational Ideal. Inspection of the combined results from all three groups (N=91) reveals half the items suggesting the students' need for a very competent, personable teacher, who can appreciate the students as individuals at their particular point of development. The other half indicates a desire for a rather informal, relaxing atmosphere conducive to exploration of student questions.

Present Condition

Table VIII reflects the upper 25% of respondents across the three groups including the total (N = 90) for the 66 characteristics of the present educational situation. A glance at Table VIII reveals the conspicuous decrease in the number of items listed as compared to Table VII, suggesting a rather wide disparity between what students want and what they are getting in their present educational experience.

The characteristics listed in all the groups are indicative of the rather mundane aspects of a student's educational experience. Education, from this perspective, appears to be rather dull, empty, and far from the stated objectives of a university. The lacklustre experience reflected by these characteristics reinforces the precarious position evident in education today.

Table 8

Characteristics of the Present Educational Experience
As Indicated by Items on a 66 Item-Check List
Chosen by 75% or More of the students in Three
Differently Structured Educational Situations

CHARACTERISTICS OF PRESENT EDUCATIONAL EXPERIENCES

Ss responding at or above 75%:	A. Introductory Psychology Students (HS group, N = 56) item number:
86% " 82% 77%	20. The teacher feeds the class facts through lectures. 27. The instructor determines what is taught. 5. The teacher is knowledgeable in his field. 24. The teacher organizes the course well.
	B. Psychology Seminar Students (MS group, N = 20) item number:
95% 90% " 85% " " 80% 75%	5. The teacher is knowledgeable in his field. 27. The instructor determines what is taught. 34. The tests are multiple choice. 14. Assignments and class work are clearly specified in the course. 20. The teacher feeds the class facts through lectures. 53. A grade is the primary source of motivation. 3. A teacher lectures during the entire class. 26. Competition for grades in the class is keen.
	C. Sociology-Independent Study (LS group, N = 14) item number:
86% " 79% " "	5. The teacher is knowledgeable in his field. 14. Assignments and class work are clearly specified. 15. The classroom is the main focus of my education. 20. The teacher feeds the class facts through lectures. 27. The instructor determines what is taught.

Table 8 (continued)

Characteristics of the Present Educational Experience
As Indicated by Items on a 66 ITEM Check List
Chosen by 75% or More of the Students in Three
Differently Structured Educational Situations

CHARACTERISTICS OF PRESENT EDUCATIONAL EXPERIENCES

D. Total of all three groups (N = 90)

Ss responding
at or above
75%:

item
number:

84%

27. The instructor determines what is taught.

(clustering close to the upper 25% of respondents are the following
items for the entire group of students sampled, N = 90:

74%

53. A grade is the primary source of motivation.

73%

5. The teacher is knowledgeable in his field.

72%

14. Assignments and class work are clearly specified
in the course.

"

34. The tests are multiple choice.

71%

24. The teacher organizes the course well.)

High Structure Group. Only four items were agreed upon as indicative of their present experience as compared to 17 items selected as indicative of their ideal experience. The emphasis in the present experience was all on teacher variables, and nothing on the reciprocity of the learning process between student and teacher.

Moderately Structured Group. Eight items were selected as characteristic of their present experience which emphasized the teachers' tight control upon the learning process. There was very little relationship between the 25 items selected for the ideal experience and the eight items selected in Table VIII. Eighty-five percent of the students agreed that the "teacher feeds the class facts through the lectures" and "a grade is the primary source of motivation" in the present educational situation.

Low Structured Group. Only five items were indicated as characteristic of their present educational experience. This is in sharp contrast to the 23 items selected for their ideal educational experience. These 5 items describe the cold realities of present educational for students (i.e., "teacher feeds facts through lectures", "teacher is knowledgeable in his field").

Present Educational Situation. Of the 66 items only one item was agreed upon by 75 % or more of the total group of students in the three groups (N = 90). And this characteristic sums up the state of how students seem to view their present educational experience: "the instructor determines what is taught".

Summary of the Item-Check List

The results of the item-check list indicated that students in the three different groups considered many things to be characteristic of an ideal educational experience. However, they selected very few characteristics as indicative of their present educational experience. Structure of the educational experience did not differentiate the different groups of students' attitudes either toward the ideal or present educational experience; there was a high degree of concordance between groups as indicated by the Spearman rho rank correlation statistic for tied data.

The content of the items selected as present and ideal features of education was markedly different within each group. Also there was a noticeable difference in the number of items selected within each group for the ideal and present attitude conditions. Though the groups did not differ within attitude conditions, the results suggested a rather wide disparity between ideal and present attitude measures. Students appeared to be expressing needs for modification of their present educational experience as indicated by the numerous ideal characteristics not apparent in the Ss present educational situation.

Chapter IV

Discussion

General Findings

The present study produced these findings: 1. there was a high degree of similarity across groups for both the ideal and present attitude orientations; 2. a rather great disparity was evidenced within each group between the ideal and present attitude conditions; 3. the students' general attitude toward their present education was one of having little share of the responsibility for organizing and developing their own educational experiences within the classroom; the instructor was seen as determining what was taught; 4. students' ideal attitudes reflected numerous unfulfilled desires conspicuously absent in their present educational experiences in the classroom; 5. some students expressed the desire to have teachers serve more as guides or facilitators of their learning than as information disseminators; 6. the differences between groups were negligible statistically on the item-check list and the semantic differential for the most part.

Due to the relatively small returns from each group, the present findings are not generalizable beyond the immediate groups of students surveyed. One possible explanation for the sparse return is that students realize that questionnaire surveys on their attitudes have not produced any significant changes in their immediate educational experiences. Considering that students have been sampled, explored, manipulated, but seldomly have been consulted as to what are their needs in education, it is no wonder that completing a questionnaire appears to be of little value to them--perhaps they see this activity as another attempt to manipulate them into an unproductive experience.

The expected futility of using questionnaire results as a means for achieving educational reform coupled with the increasing academic demands placed upon students by the educational system would suggest some possible reasons for the poor returns from each group.

The implication of the above speculation indicates to the author that research of this type in the future might more profitably be conducted in conjunction with the students who would be sampled. By involving the students more closely with the research planning and development, some assurance can be gained that the students would be more motivated to participate if they felt that they had something to gain and benefit from the research. Though there are the inherent problems of subject bias and distortion of the research objectives if the students were involved in the research planning, perhaps these difficulties are the very sources of variability that must be better understood in developing programs for institutional change. If, for instance, students were attempting to put pressure on a department for curriculum change, a joint attitude survey would help bolster the students' position. This procedure would be akin to the idea of a petition, but on a larger scale involving many petitions in one (i.e., each question becomes a petition or expression of students' attitudes). Then, the results would truly reflect the students' attitudes and those areas in need of change--if the attitude survey were conducted with the purpose of acting on the results, more credibility would be given to the research effort than in the present study and the likelihood of greater participation by students would arise.

However, though it is questionable whether a representative sampling of each group was obtained, nonetheless the findings of this exploratory study can be interpreted in their own right.

Though the results defy easy interpretation, they are suggestive of the needs students have and the dilemmas they face in obtaining a university education. For instance, the study suggested that students wanted a rather open, informal, flexible type of educational experience but indicated a need for some organization and structure in this situation--hence the teacher must be responsive to individual and/or group needs, offering varying degrees of support and guidance to the individual students and groups. This raises considerations for the re-evaluation of teacher preparation to teach at the university level of education and the need to create atmospheres which foster a more flexible working arrangement between student and teacher. Both points will be discussed below.

As education is in a state of major reform and re-orientation to a changing set of values (from authoritarian, in loco parentis, toward humanism), students might require an atmosphere that is conducive to the deconditioning of and desensitization to existing conditioned attitudes toward education. Edelman (1971) has observed in his work with educational innovation at a midwestern university that students want the freedom to explore and to develop their abilities, but want to be told how to do it. The students need an atmosphere that can support their struggle to break away from the more traditional authoritarian attitude in higher education and move toward a humanistic attitude which encourages individual exploration and values the individual in his struggles on their own merit.

Students have expressed ideals which yearn to be explored and reached yet these students also reflect their insecurity in acting out these ideals by desiring a more sensitive type of teacher. Can the teacher perceive the students' struggles, their conflict between ideal and real, and help the student work through this dilemma?

As Hoyt (1971) suggested, educating the instructor as a "learning manager" would involve developing the instructor's sensitivity to the students as individuals; the student would be recognized as having particular unfulfilled needs and would be valued as a unique individual at his own particular point of development. The instructor would assist the student in cultivating his abilities and skills to learn what is important to know in the present as well as in the future. "Learning how to learn" welcomes the focus of student energies, the process guided in part by the learning manager.

The goal of the university education now becomes teaching the student that he doesn't need a classroom or university to learn--that learning stems from the students' internal motivation and curiosity "to know". The "process" in education is valued as much as the "content" of the subject matter: experiential, affective, cognitive, intellectual, sensing, intuiting modes of learning are valued in their own right. This in no way denigrates the intellectual and epitomize the affective/emotional development, for a balance is to be achieved.

Interpretation of the present attitudes toward education on both the semantic differential and item-check list indicates a rather bleak picture painted by students of the existing system of higher education. The results suggest that current educational practices which engender such sterile attitudes partially reveal the potentiality. If the most exciting aspect of the present situation that Ss can select is "the instructor determines what is taught", then this is but a small indication of the problem facing the university today.

Though the Ss selected numerous characteristics of the ideal experience, a major problem remains as to how the ideals can be actualized by students into present realities. As the system of education re-orientes itself toward the process of learning, it might be anticipated that Ss would play a larger role in the development of the very experiences which comprise their education. The students' need for involvement is apparent from the results of the present study--how student feedback can be incorporated in the present system of education remains a challenge for educational reform within the university.

And the ominous reality is that the university, if it continues to ignore meeting students' needs for educational exploration, would suffer the fate of other historic institutions that did not respond to the will of the people. Even now, the lustre of a university degree and "education" is being tarnished as more students see alternatives to the existing modes of education within the university outside of the ivy tower of higher education and realize that learning can take place outside of the classroom and beyond the university.

Implications

The present study raises many questions in light of the current crisis in higher education. First of all, evaluations of innovative programs should be spaced at intervals after the initial experience to assess the impact of the innovative program. The current study revealed differences between groups of students in the different groups but not to the extent expected. Since evaluation of the programs was completed shortly after the experience, a clear picture of the influence of these experiences was not obtained.

Some support for follow-up evaluations at different time intervals has been obtained from interviews of the students who participated in previous

innovative educational experiences. Their reports indicated that the impact of the experience was not realized until a period of time after the initial experience. Though only a few students were sampled, this occurrence suggests the need for follow-up evaluation of innovative programs at intervals after the conclusion of the experience.

A similar question is raised in regard to traditional educational experiences. As a general rule, semester exams are an attempt to evaluate the impact of the course on the student. But the same question might be raised: would not the full impact of the experience be registered at a later time afterward? Further research is indicated.

Need for a Process Vocabulary. Since the present study dealt with a comparison of different types of educational experiences, there is the assumption that current research instruments can be used to evaluate the "process" of the experience. However, there has not been developed a "process" vocabulary which can describe the dynamics of an experience. To evaluate the dynamics of different educational experiences would require at least a vocabulary to describe each experience on its own merit. Research in the area of bio-feedback and altered states of consciousness suggest some possible basis for developing "process" vocabularies. At present research must depend upon "thing-oriented" vocabularies which identify elements of the experience but miss the dynamics of the "process" and the impact on the participants. Research to develop a clearer understanding of the "process" in experiencing is needed.

Educational Research Implications. If teachers are to assume additional roles in the learning process, how can this new breed of teacher be developed

within the existing research-oriented Ph.D. programs which are responsible for generating so many of the university instructors? Can the university reward good teaching efforts and value an effective teachers' contributions just as productive researchers are valued and rewarded in the current schema of faculty development? Can the university be responsive to the needs of teachers who desire to explore alternatives to accepted teaching methods and still be rewarded for their innovative teaching endeavors?

The above are questions each suggesting extensive consideration. The challenge is offered to academic departments within the university to develop answers to the above questions. These questions are not only of research value but also are of practical value.

The challenge remains as to how a system of mass education could develop the type of alternatives responsive to the needs of its individual teachers and students. No easy solutions are offered.

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INFLUENCE OF CLASSROOM STRUCTURE ON COLLEGE
STUDENT'S ATTITUDES TOWARD EDUCATION:
AN EXPLORATORY STUDY

by

CHARLES NICHOLAS EDWARDS III

B. A., Trinity College, Hartford, Connecticut, 1967

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AN ABSTRACT OF A MASTER'S THESIS

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Ideal and present attitudes toward education of students enrolled in traditional and two innovative educational experiences were explored using a 15-item rating scale and an item check list. Though it was questionable whether a representative sampling of each group was obtained, the results were evaluated and discussed on their own merit. The results indicated that student's present attitudes toward education; 1. were highly similar across groups; 2. were not influenced significantly by the type of structure of the educational experience; 3. were described as being entirely determined by the instructor; 4. and reflected a rather bleak picture of the student's present education experience. However, the results for the student's ideal attitudes indicated: 1. a high degree of similarity across groups; 2. the preponderance of expressed needs which were unfulfilled in the present academic situation; 3. a desire for a teacher who was supportive and sensitive to their needs as individuals; 4. a desire for more of a share of the responsibility in developing educational alternatives; 5. and a need to be shown how to reach their ideals. The results signaled student's growing desire to be more involved in determining educational alternatives within the university than in the past. Implications for further research were given.