TEACHING STYLES PREVALENT IN SATISFYING AND DISSATISFYING COLLEGE CREDIT COURSES AS PERCEIVED BY ADULT STUDENTS

DISSERTATION

Presented in Partial Fulfillment of the Requirements for the Degree Doctor of Philosophy in the Graduate School of The Ohio State University

By

Emerson D. Gilbert, A.B., M.Ed.

* * * * * *

The Ohio State University
1972

Approved by

William O. Dowling
Advisor
College of Education
Copyright by
Emerson D. Gilbert
1972
ACKNOWLEDGEMENTS

Special recognition is due those who worked closely with me on various portions of this project. I am grateful to each of them.

The professional guidance of Dr. William Dowling during the design, research and writing phase kept the project directed toward a meaningful conclusion. His subtle prodding and moral support were invaluable.

Students of the Columbus Center of Indiana University-Purdue University at Indianapolis contributed their time and opinions as participants in the research. The Columbus Center associate faculty allotted class time for administration of the questionnaire. The Research Centers of The Ohio State University and Indiana University-Purdue University at Indianapolis donated computer and staff time.

It is doubtful that this project, or my degree program, would have been started had it not been for the time released from my professional duties by Professor Owen Paul and Vice-Chancellor Jack Ryder.

Dr. Robert Mortenson and Harry Brittain assisted in the selection of appropriate statistics and analysis procedures. Dr. Rensis Likert reviewed the questionnaire, offered suggestions for its content and approved the
adaptation of the format of his management styles scale for use in the questionnaire and the Teaching Styles Chart. Kay Asher typed and duplicated materials, often rushing to meet deadlines, without complaint.

This dissertation was a family project involving my parents, in-laws, children and wife. Victor Gilbert assisted in library research and spent many days entertaining our children, as did Leonard Wines. Anna Gilbert cooked meals, cared for our children and proofed copy. Edith Wines, editor par excellence, proofed and edited copy. Brenda, Karen and Kathy, always considerate of my need for quiet study, have patiently awaited completion of the dissertation when more of my time could be spent with them.

This research would not have been started or finished without the total support of my wife. Evelyn typed most of the drafts and all final copy of this document. She has patiently endured my time away from home in library work or active research and the many hours spent in writing.
January 7, 1937  . . . . .  Born - Salem, West Virginia

1959  . . . . . . . . . . .  A.B., Asbury College, Wilmore, Kentucky

1961-1963  . . . . . . .  Industrial Arts Instructor, Yamhill-Carlton Union High School, Yamhill, Oregon

1962  . . . . . . . . .  M.Ed., Oregon State University, Corvallis, Oregon

1963-1965  . . . . . . .  Drafting Instructor, Centennial High School, Gresham, Oregon


1967-1969  . . . . . . .  Assistant Professor, Department of Industrial Supervision, Purdue University, Indianapolis, Indiana

1969-1970  . . . . . . .  Teaching Associate, Center for Adult Education, The Ohio State University, Columbus, Ohio

1970-  . . . . . . . . .  Director, Columbus Center of Indiana University-Purdue University at Indianapolis, Columbus, Indiana

FIELDS OF STUDY

Major Area of Concentration: Adult Education

Studies in Adult Education. Professors William D. Dowling and John F. Ohliger

Studies in Higher Education Administration. Professor Hugh D. Laughlin

# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACKNOWLEDGEMENTS</td>
<td>ii</td>
</tr>
<tr>
<td>VITA</td>
<td>iv</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>vii</td>
</tr>
<tr>
<td>LIST OF FIGURES</td>
<td>ix</td>
</tr>
<tr>
<td><strong>Chapter</strong></td>
<td></td>
</tr>
<tr>
<td>I. INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>The Problem</td>
<td>2</td>
</tr>
<tr>
<td>Hypotheses</td>
<td>4</td>
</tr>
<tr>
<td>Significance of the Study</td>
<td>6</td>
</tr>
<tr>
<td>Limitations of the Study</td>
<td>8</td>
</tr>
<tr>
<td>Basic Assumptions</td>
<td>10</td>
</tr>
<tr>
<td>Definitions</td>
<td>11</td>
</tr>
<tr>
<td>II. LITERATURE REVIEW</td>
<td>13</td>
</tr>
<tr>
<td>Introduction</td>
<td>13</td>
</tr>
<tr>
<td>Classification of Teaching Styles</td>
<td>14</td>
</tr>
<tr>
<td>Teaching Styles and Achievement</td>
<td>17</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>22</td>
</tr>
<tr>
<td>III. METHODOLOGY</td>
<td>24</td>
</tr>
<tr>
<td>Introduction</td>
<td>24</td>
</tr>
<tr>
<td>Selection of the Population</td>
<td>25</td>
</tr>
<tr>
<td>The Questionnaire</td>
<td>26</td>
</tr>
<tr>
<td>Statistical Techniques</td>
<td>33</td>
</tr>
<tr>
<td>IV. DATA ANALYSIS</td>
<td>36</td>
</tr>
<tr>
<td>Introduction</td>
<td>36</td>
</tr>
<tr>
<td>Analysis of Responses by the Total Population</td>
<td>42</td>
</tr>
<tr>
<td>Analysis of Responses by Population Segment</td>
<td>55</td>
</tr>
<tr>
<td>Analysis of Selected Factors and Teacher</td>
<td></td>
</tr>
<tr>
<td>Behaviors Which May Be Related to Satisfaction and Dissatisfaction</td>
<td>68</td>
</tr>
</tbody>
</table>
# V. Conclusions, Observations, Recommendations and Summary

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conclusions</td>
<td>78</td>
</tr>
<tr>
<td>Observations</td>
<td>93</td>
</tr>
<tr>
<td>Recommendations for Further Study</td>
<td>96</td>
</tr>
<tr>
<td>Summary</td>
<td>97</td>
</tr>
<tr>
<td>BIBLIOGRAPHY</td>
<td>103</td>
</tr>
<tr>
<td>APPENDIX</td>
<td>108</td>
</tr>
<tr>
<td>Appendix A: Teaching Styles Chart</td>
<td>109</td>
</tr>
<tr>
<td>Appendix B: Questionnaire</td>
<td>113</td>
</tr>
<tr>
<td>Appendix C: Index of Variables</td>
<td>130</td>
</tr>
<tr>
<td>Appendix D: Tables and Figures Depicting Frequency and Percent of the Total Population's Responses to Selected Factors and Teacher Behaviors Which May be Related to Satisfaction and Dissatisfaction</td>
<td>137</td>
</tr>
<tr>
<td>Appendix E: Correspondence from Rensis Likert</td>
<td>154</td>
</tr>
</tbody>
</table>
# LIST OF TABLES

<table>
<thead>
<tr>
<th>Tables</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Frequency and Percent of Total Population Responding by Degree of Satisfaction or Dissatisfaction Felt With Both the Satisfying and Dissatisfying Course</td>
<td>37</td>
</tr>
<tr>
<td>2. Number of Respondents and Percent of the Total Population Exposed to Each Teaching Style</td>
<td>38</td>
</tr>
<tr>
<td>3. Composite Means, Standard Deviations and the t Ratio for &quot;S&quot; and &quot;D&quot; Responses by the Total Population to All Characteristics of Teaching Style</td>
<td>43</td>
</tr>
<tr>
<td>4. Mean, Standard Deviation and t Ratio for &quot;S&quot; and &quot;D&quot; Responses to Each Characteristic of Teaching Style by the Total Population</td>
<td>48</td>
</tr>
<tr>
<td>5. Number of Teacher Behaviors Within Each Teaching Style Observed as Satisfying and Dissatisfying</td>
<td>50</td>
</tr>
<tr>
<td>6. Rank Order by t Ratio of Characteristics of Teaching Styles</td>
<td>52</td>
</tr>
<tr>
<td>7. Composite Means, Standard Deviations and t Ratios of &quot;S&quot; and &quot;D&quot; Responses by Each Population Segment</td>
<td>62</td>
</tr>
<tr>
<td>8. Frequency and Percent of Total Population Responding by the Main Purpose of Courses &quot;S&quot; and &quot;D&quot;</td>
<td>137</td>
</tr>
<tr>
<td>9. Frequency and Percent of Total Population Responding by Student's Main Motivation to Take Courses &quot;S&quot; and &quot;D&quot;</td>
<td>138</td>
</tr>
<tr>
<td>10. Frequency and Percent of Total Population Responding by the Most Significant Motivation Factor Felt During Courses &quot;S&quot; and &quot;D&quot;</td>
<td>139</td>
</tr>
<tr>
<td>Table</td>
<td>Title</td>
</tr>
<tr>
<td>-------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>11</td>
<td>Frequency and Percent of Total Population Responding by Instructor's Ability to Utilize Resources (Own Knowledge, Students, Outside Resource Persons, Informational Materials)</td>
</tr>
<tr>
<td>12</td>
<td>Frequency and Percent of Total Population Responding by the Level of Academic Achievement Instructor Expected From Students</td>
</tr>
<tr>
<td>13</td>
<td>Frequency and Percent of Total Population Responding by Extent of Training Given in New Educational Techniques</td>
</tr>
<tr>
<td>14</td>
<td>Frequency and Percent of Total Population Responding by Instructor's Attitude Toward Attendance</td>
</tr>
<tr>
<td>15</td>
<td>Frequency and Percent of Total Population Responding by Degree of Emphasis Instructor Placed on Achieving the Final Grade From the Beginning of the Course</td>
</tr>
<tr>
<td>16</td>
<td>Frequency and Percent of Total Population Responding by Logical or Random Presentation of Content For the Total Course and For Each Class Session</td>
</tr>
<tr>
<td>17</td>
<td>Frequency and Percent of Total Population Responding by Accuracy of Course Grade to Indicate Achievement of Course Objectives</td>
</tr>
<tr>
<td>18</td>
<td>Frequency and Percent of Total Population Responding by Voluntary or Non-Voluntary Basis For Enrolling in Courses &quot;S&quot; and &quot;D&quot;</td>
</tr>
<tr>
<td>19</td>
<td>Frequency and Percent of Total Population Responding by Source of Tuition</td>
</tr>
<tr>
<td>20</td>
<td>Frequency and Percent of Total Population Responding by the Number of Students in &quot;S&quot; and &quot;D&quot; Courses</td>
</tr>
<tr>
<td>21</td>
<td>Frequency and Percent of Total Population Responding by Academic Competence of Instructor</td>
</tr>
</tbody>
</table>
# LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figures</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Original Question Format</td>
<td>28</td>
</tr>
<tr>
<td>2. Random Order of Characteristics of Teaching Styles as Placed in the Questionnaire</td>
<td>29</td>
</tr>
<tr>
<td>3. Continuum of Teaching Styles</td>
<td>41</td>
</tr>
<tr>
<td>4. Profile of Teacher Behaviors Used in Satisfying and Dissatisfying Courses as Identified by the Total Population</td>
<td>49</td>
</tr>
<tr>
<td>5. Profile of Teacher Behaviors Ranked According to t Ratios</td>
<td>53</td>
</tr>
<tr>
<td>6. Teaching Styles Used in Satisfying and Dissatisfying Courses as Identified by Each Population Segment</td>
<td>65</td>
</tr>
<tr>
<td>7. Percent of Total Population Responding by the Main Purpose of Courses &quot;S&quot; and &quot;D&quot;</td>
<td>137</td>
</tr>
<tr>
<td>8. Percent of Total Population Responding by Student's Main Motivation to Take Courses &quot;S&quot; and &quot;D&quot;</td>
<td>138</td>
</tr>
<tr>
<td>9. Percent of Total Population Responding by the Most Significant Motivation Factor Felt During Courses &quot;S&quot; and &quot;D&quot;</td>
<td>140</td>
</tr>
<tr>
<td>10. Percent of Total Population Responding by Instructor's Ability to Utilize Resources (Own Knowledge, Students, Outside Resource Persons, Informational Materials)</td>
<td>141</td>
</tr>
<tr>
<td>11. Percent of Total Population Responding by the Level of Academic Achievement Instructor Expected From Students</td>
<td>142</td>
</tr>
<tr>
<td>12. Percent of Total Population Responding by Extent of Training in New Educational Techniques</td>
<td>143</td>
</tr>
</tbody>
</table>

ix
<table>
<thead>
<tr>
<th>Figures</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>13. Percent of Total Population Responding by Instructor's Attitude</td>
<td>145</td>
</tr>
<tr>
<td>Toward Attendance</td>
<td></td>
</tr>
<tr>
<td>14. Percent of Total Population Responding by Degree of Emphasis</td>
<td>146</td>
</tr>
<tr>
<td>Instructor Placed on Achieving the Final Grade from the Beginning</td>
<td></td>
</tr>
<tr>
<td>of the Course</td>
<td></td>
</tr>
<tr>
<td>15. Percent of Total Population Responding by Logical or Random</td>
<td>147</td>
</tr>
<tr>
<td>Presentation of Content For the Total Course and For Each Class</td>
<td></td>
</tr>
<tr>
<td>Session</td>
<td></td>
</tr>
<tr>
<td>16. Percent of Total Population Responding by Accuracy of Course</td>
<td>148</td>
</tr>
<tr>
<td>Grade to Indicate Achievement of Course Objectives</td>
<td></td>
</tr>
<tr>
<td>17. Percent of Total Population Responding by Voluntary or Non-</td>
<td>149</td>
</tr>
<tr>
<td>Voluntary Basis for Enrolling in Courses &quot;S&quot; and &quot;D&quot;</td>
<td></td>
</tr>
<tr>
<td>18. Percent of Total Population Responding by Source of Tuition</td>
<td>150</td>
</tr>
<tr>
<td>19. Percent of Total Population Responding by the Number of Students</td>
<td>152</td>
</tr>
<tr>
<td>in &quot;S&quot; and &quot;D&quot; Courses</td>
<td></td>
</tr>
<tr>
<td>20. Percent of Total Population Responding by Academic Competence of</td>
<td>153</td>
</tr>
<tr>
<td>Instructor</td>
<td></td>
</tr>
</tbody>
</table>
CHAPTER I
INTRODUCTION

This study was conducted to determine the styles of teaching prevalent in college credit courses adult students consider most satisfying and in those they consider most dissatisfying. It was also to discover whether the styles employed in the satisfying courses differed from those used in the dissatisfying courses. The research measured the presence of other teacher behaviors and selected factors in satisfying and dissatisfying courses.

Students were asked to select two college credit courses they had completed while classified as an adult: the one course which had been most satisfying and the one which had been most dissatisfying. Participants, responding through a questionnaire,¹ specified the teacher behaviors employed in each course and categorized themselves by demographic data related to the time they enrolled in the respective courses. The questionnaire was developed from the Teaching Styles Chart.² This chart is composed of a matrix of teacher behaviors designed to present the ingredients of seventeen basic characteristics for four teaching styles.

¹See Appendix B, p. 113.
²See Appendix A, p. 109.
The Problem

Adult educators stress the importance of recognizing unique characteristics of adults when designing learning experiences. An aspect of the student often neglected by the educator, however, is the effect of his emotions on learning. One particular emotional factor is stressed by some writers as important if the adult is to extend supreme effort to succeed in learning: he should experience a feeling of satisfaction. Kidd says that "the individual will tend to persist in a task, no matter how difficult, if he is getting enough satisfaction from it." Beer shows that learning is best achieved if it is a result of satisfaction and reward rather than punishment.

Lewin, Lippitt and White found that the teacher is the most important influencing factor in the classroom. Likewise, industrial studies of job satisfaction and

---

3Kidd, J.R., How Adults Learn, p. 94.
4Ibid., p. 104.
dissatisfaction by Mann,\textsuperscript{7} Herzberg\textsuperscript{8} and Zaleznik\textsuperscript{9} show that supervisory influence is an important determinant of this feeling. Therefore, the emphasis selected for this study was the instructors' classroom behaviors in courses which were satisfying or dissatisfying to students.

The investigation sought answers to six questions related to college credit courses taken by adult students:

1. What teaching styles were employed in the courses which students considered most satisfying?

2. What teaching styles were employed in the courses which students considered most dissatisfying?

3. For the total population, were the teaching styles used in the most satisfying courses significantly different from those used in the most dissatisfying courses?

4. For selected segments of the population, was there a significant difference in the teaching style identified with the most satisfying course and the teaching style identified with the most dissatisfying course?

5. Of selected teacher behaviors\textsuperscript{10} which were not characteristic of a teaching style, which were used in the most satisfying courses and which were employed in the most dissatisfying courses?

\textsuperscript{7}Mann, F.C.; Indik, B.P.; and Vroom, V.H., \textit{The Productivity of Work Groups}.

\textsuperscript{8}Herzberg, Frederick; Mausner, Bernard; and Snyderman, B.B., \textit{The Motivation to Work}.

\textsuperscript{9}Zaleznik, A.; Christensen, C.R.; and Roethlisberger, F.J., \textit{The Motivation, Productivity, and Satisfaction of Workers}.

\textsuperscript{10}See Appendix C, Section III, p. 132.
6. To what degree were selected factors\textsuperscript{17} present in the most satisfying and in the most dissatisfying courses?

The emphasis of this descriptive study is the teacher behaviors students have observed. While it is desirable to know the causes of student satisfaction and dissatisfaction with learning activities, this research is not designed to identify the cause-effect dimension. Research to isolate the effect of teaching styles on student feelings would require control of other influencing variables.

Hypotheses

The hypotheses were developed in the null form to provide an objective basis for answering the questions posed in the problem definition. General statements are given in this section. The detailed hypotheses, indicating standards of measurement and rejection, are listed in Chapter IV. Hypotheses are used to guide the quest for answers to questions 3 and 4 of the previous page. The other questions are answered without stating hypotheses.

Hypotheses 1.0 and 3.0 are complete statements. Hypothesis 2.0 must be completed with items .01 through .17 to read the total hypothesis. These seventeen sentence endings are the characteristics of teaching style taken

\textsuperscript{17}See Appendix C, Section III, p. 132.
For the total population, there was no significant difference between the teaching style employed in the most satisfying courses and the style used in the most dissatisfying courses.

For the total population, there was no significant difference between the most satisfying courses and the most dissatisfying courses....

.01 In the degree of student and/or instructor involvement in determining course objectives.

.02 In the degree of student and/or instructor involvement in determining course content.

.03 In the degree of student and/or instructor involvement in determining the sequence of presenting or discussing content.

.04 In the degree of student and/or instructor involvement in determining the techniques used to aid learning.

.05 In the degree of domination by the instructor.

.06 In the direction of communication flow.

.07 In the degree of instructor and/or student involvement in determination of criteria for establishing course grade.

.08 Regarding the instructor's view of the student as perceived by the student.

.09 In the degree to which the instructor responds to student reactions.

.10 In the instructor's relationship with students during class.

.11 In the instructor's attitude toward students outside of class.

.12 In the degree of confidence and trust the instructor has in the student.

12 See Appendix A, p. 109.
.13 In the degree of confidence and trust the student has in the instructor.

.14 In the instructor's knowledge and understanding of student problems.

.15 In the amount of cooperative teamwork among students.

.16 In the kind of encouragement for good performance each student receives from the instructor.

.17 In the kind of encouragement for good performance each student receives from other students.

3.0 For each of the selected population segments, there is no significant difference between the teaching style employed in the most satisfying courses and the style used in the most dissatisfying courses.

Significance of the Study

Elementary schools are beginning to recognize the need for a change in the teacher's role. Mt. Healthy Elementary School in Columbus, Indiana, was the first Indiana school to adopt the Individually Guided Education (IGE) system of learning. This approach, developed by the Kettering Foundation of Dayton, Ohio, changed the teacher's role to that of learning manager.

In the past, students have been molded to a set curriculum. With the IGE approach, the curriculum is changed to meet individual differences and needs. Students

\[13\] See Appendix C, Section I, p. 130.
at Mt. Healthy are involved in planning their own learning (with teacher guidance), setting objectives, designing learning experiences and evaluating their progress. This flexible (but structured) system permits each student to learn at a rate comfortable to him and at a level where he can achieve success. School officials say that much improved attendance and happier students (as indicated by fewer headaches and stomachaches) are the result of this new system of learning. Additional Columbus, Indiana, elementary schools will become "IGE schools" each year.

The students who have learned in this fashion will progress through local junior and senior high schools which are developing similar approaches. As they move into college they may not readily accept the traditional teacher-dominated approach to learning.

Students often appear to be dissatisfied with courses, faculty and educational institutions. This is not only true with young college students but is also evident with adults. It has not yet been established whether satisfaction or dissatisfaction is most desirable for optimum learning and further research should be conducted to determine that relationship. The findings of this study would then assist the instructor in developing learning activities which would create the desirable achievement-satisfaction correlation.
Mcloughlin found no significant difference in achievement between experimental groups which participated in planning an educational program and control groups which were not involved in planning the program. However, he did discover that the experimental group had more positive attitudes about that program.\textsuperscript{14} Even learning is not improved by the students' involvement in the decision-making process or by changing teaching techniques, but a positive or satisfied attitude would seem desirable. On this premise, it is essential that the instructor design the learning experience to achieve those feelings.

The vacuum of research in the realm of the satisfied and dissatisfied adult student and the possible effect of the instructor on those feelings, is reduced by the findings of this study.

Limitations of the Study

This study was limited to adults participating in university credit courses at the Columbus Center of Indiana University-Purdue University at Indianapolis, located in Columbus, Indiana. There will be no attempt to generalize the findings to audiences other than adults in college credit courses.

\textsuperscript{14}Mcloughlin, David, "Participation of the Adult Learner in Program Planning," \textit{Adult Education} 22:30-35, Fall, 1971.
While the results may prove helpful to adult educators who are attempting to modify their behavior to develop greater student satisfaction with the learning experience, much broader studies in population and longevity would be required prior to extensive use of these results. Educators should recognize that this is a descriptive study of existing teacher behaviors in courses completed by the respondents; therefore, any indication of direct relationship between the teaching styles used and student reactions to the course must wait for further study. From the findings of this research, the relationship may only be assumed.

This study was not concerned with the degree of attitude change, knowledge obtained or skill learned. It was restricted to that feeling a student has about a course—that feeling of satisfaction or dissatisfaction. There was no attempt to discover a correlation between learning and satisfaction or dissatisfaction.

Courses in which the respondents were enrolled while participating in this study were exempt so the results would be based on entire courses.

The investigation was limited to styles of teaching, or patterns of teacher behavior, without stressing the personality traits of the instructor.
Basic Assumptions

Persons who have completed two or more college credit courses, as adult students, were assumed to have been exposed to both satisfying and dissatisfying courses. It was assumed that each respondent would reflect on all courses taken as adults, and only those courses, and would objectively describe the teaching styles of the faculty conducting those courses.

There was no assumption that satisfaction or dissatisfaction are desirable emotions in achieving educational objectives. This study examined teaching styles as a possible factor in affecting those emotions, but further study is required to determine which emotion is most desirable and how much effect the teaching style has on that feeling.

Reliability and validity of the research instrument were assumed sufficient to give credibility to the study. This decision was based on the merit of Dr. Rensis Likert's and Dr. William Dowling's professional judgment of those characteristics of the questionnaire. Likert's scale, from which this instrument was adapted, had a reliability coefficient of .95. He estimated a reliability of .85 - .90 for the questionnaire used in this study. There was a marked relationship between the responses on Likert's scale and the actual behaviors or job performance; therefore,
his instrument was judged valid.\textsuperscript{15}

Definitions

1. Style: "A distinctive or characteristic mode of execution in any art, employment or product."\textsuperscript{16}

2. Teaching style: "A pattern composed of classroom behaviors of a teacher which are consistent over time and which distinguish him from other teachers."\textsuperscript{17}

3. Four distinct teaching styles were identified for this study:
   
   Teacher Dominated: Authoritarian
   Teacher Dominated: Benevolent
   Consultative
   Participative Group

   Each of these is defined by 17 teacher behaviors specified on the Teaching Styles Chart.\textsuperscript{18} Some discussion of these is important, however, to avoid restrictive interpretation of these styles. While the styles are identified as four distinct types, they actually blend into each other forming "a continuum with many intermediate patterns." This continuum is based on the degree of student and/or instructor influence, and on the relative roles of the instructor and the student as related to classroom behavior.

\textsuperscript{15}See Appendix E, p. 154.

\textsuperscript{16}Solomon, Daniel, and Miller, H.L., Exploration in Teaching Styles, p. 3.

\textsuperscript{17}Ibid., p. 12.

\textsuperscript{18}See Appendix A, p. 109.
These styles were adapted from Likert's four management systems. Following Likert's review of each style definition, recommended changes were incorporated in the final seventeen definitive statements of teacher behaviors.

4. Satisfaction: an internal feeling that needs and expectations are fulfilled.20

5. Dissatisfaction: An "uneasiness, disturbance or distress resulting from" unfulfilled needs and expectations.21

6. Adult: a person who can be categorized by one or more of these statements:

   a. He has taken a one-year (or more) break in his formal high school or college education and is 21 years or older.

   b. He has taken a one-year (or more) break in his formal high school or college education, he is married and he is holding a full-time job.

   c. He is married and 21 years or older.

This definition of an adult is based on the assumption that a person who has the responsibilities of an adult, such as a family and full-time work experience, responds in a classroom the same as an adult of chronological age. His maturity and sense of purpose is assumed similar to that of the person 21 years or older.

19Likert, Rensis, New Patterns of Management, p. 234.


21Ibid., p. 656.
CHAPTER II
LITERATURE REVIEW

Introduction

The review of material related to this study was focused on two areas: styles of teaching and satisfaction. While considerable research is available which examined the effects of leadership and management styles on such areas as employee satisfaction and production, the effects of a particular pattern of teacher behavior on students are not really comparable to these industrial studies. The student plays a totally different role from that of the subordinate in industry or business. The student does not anticipate an extended association with the instructor and he is seeking learning for himself rather than productive effort for the organization. Therefore, no assumptions should be made about any similar effects on student satisfaction as compared to job satisfaction affected by supervisory or leadership styles. The same logic applies to any research on teacher-job satisfaction.

In searching the literature on styles of teaching, several patterns of research were identified. Some
provide interesting comparisons in categorizations of teaching styles. Other studies examined the effects of those styles on several aspects of the learning situation and on students. Some research studies point out the most desirable styles of teaching as indicated by students.

Classification of Teaching Styles

The categorization of teaching styles varies among researchers. Some classify teaching behaviors by a simple contrast. Varnado compared teacher-dominated, restricted-procedure behaviors with pupil-initiated, class-cooperative procedures.¹ Other simple classifications include the teacher-centered class versus the group-centered class,² group-centered and leader-centered,³ and group-oriented versus content-oriented styles.⁴

Ryans reviewed the literature on the organization of human personality and the traits theorized to be most desirable for teachers. Through an assembly of

¹Varnado, J.G., The Relationship Between Achievement of Adult Students and Various Structured Classroom Situations.


"critical incidents" observed in the classroom and by the assessment of the classroom behaviors of a large group of teachers, three major patterns of classroom behavior were identified:

1. Understanding, friendly versus aloof, egocentric, restricted teacher behavior.

2. Responsible, businesslike, systematic versus evading, unplanned, slipshod teacher behavior.

3. Stimulating, imaginative, enthusiastic versus dull, routine behavior.5

Other studies give three to five possible descriptions of teaching styles. Morris uses five categories: drillmaster, content-centered, instructor-centered, intellect-centered and person-centered. The drillmaster, Morris' title for the recitation class teacher, and the content-centered instructors tend to be most concerned with subject matter. The intellect-centered and the person-centered are both student oriented and Morris says that instructor-centered behavior is really not concerned with either the subject or the student.6

This continuum from complete rigidity to total freedom for the students is expressed in varying terms throughout the studies reviewed. In his study of those

5 Ryans, David G., Characteristics of Teachers: Their Description, Comparison, and Appeal, p. 77.

6 Morris, W.H., Effective College Teaching, p. 43.
personal characteristics which low socio-economic rural youth desired in their adult leaders, Apps used authoritarian, democratic and laissez-faire categories.\(^7\)

In his dissertation based on first-grade children, Dawson seems to want more internal feeling expressed in his typology of style. He used four categories of teaching styles: system centered - cold, system centered - warm, learner centered - cold and learner centered - warm.\(^8\)

Verner does not speak of teaching styles, but he does categorize a predominant element of style in his classification of teaching methods. His continuum moves from passive methods through those titled "limited participation possible," "limited participation required" and "opportunity for extensive and sustained participation" to those methods which require complete participation by the students. The passive methods require no participation by the student.\(^9\)

Various researchers report teaching styles as being a composite of numerous variables. Ryans included

---

\(^{7}\)Apps, J.W., Style of Adult Leadership and Personal Characteristics Desired in an Adult Leader by Low Socio-Economic Rural Youth.

\(^{8}\)Dawson, Jr., C.A., Leadership and Achievement: The Effects of Teaching Styles on First-Grade Children.

\(^{9}\)Verner, Coolie, A Conceptual Scheme for the Identification and Classification of Processes, p. 22.
eighteen teacher behaviors in his Classroom Observation Record, which provided for continuous scoring of each item on a scale of 1 through 7.\textsuperscript{10}

A group of excellent teachers involved in adult education was invited to an informal conference on teaching to develop hypotheses. From thirteen interviews, statements were catalogued into a set of categories descriptive of teacher behavior. During the opening sessions of the conference, the group was asked, "What do you do in the classroom when you are teaching, and which of those actions do you think are most important to your effectiveness as a teacher?" The conference was followed by individual interviews through which the researchers tried to obtain a thorough description of a class the teacher conducted which he felt was really effective. Solomon and Miller found that the 169 items of descriptive behavior could be reduced to seven behavioral clusters.\textsuperscript{11}

Teaching Styles and Achievement

A number of research projects have examined the effect styles of teaching have on achievement in learning.

\textsuperscript{10}Ryans, op. cit., p. 86.

\textsuperscript{11}Solomon, Daniel, and Miller, H.L., Exploration in Teaching Styles, pp. 5-33.
In a study of the effects of teaching styles on first-grade children, teaching style was analyzed by three dimensions: use of authority, ways of completing assigned tasks and the teacher's verbal and non-verbal behavior as it showed expressiveness of "caring." Based on these factors, student actors adapted one of four teaching styles: learner centered - warm, learner centered - cold, system centered - warm and system centered - cold. Each group of students was taught how to print large block letters by a different teaching style. For each style, the researchers recorded the number of errors, the reduction in errors and the number of letters attempted after exposure to the instructor. They found that there was no significant difference between the groups in the amount of learning acquired, but system centered - cold resulted in poor quality during initial performance. Dawson felt the data indicated that autocratic teaching had a detrimental effect on morale from the beginning of formal schooling. He also concluded that this style was effective in spite of the attitudes associated with it rather than because of that style.¹²

In studying the student achievement in teacher-centered and group-centered classes, Haigh and Schmidt

¹²Dawson, op. cit.
also found that there was no significant gain in knowledge of the subject.\textsuperscript{13}

While gain in knowledge was not achieved in a study of six groups of teachers taking in-service training under persons classified as group-centered or leader-centered, there were significant differences between the groups. Perkins found that more concepts of the subject (child development) were expressed under group-centered instruction when comparisons were made by the total group and with group members minus their leaders. Those working with the group-centered leaders also showed greater objectivity and warmth toward children; they were much superior in the use of supportive evidence to back up statements and showed greater soundness of reasoning.\textsuperscript{14}

In a basic management course, Graham applied McGregor's Theory Y to an experimental class and Theory X to the control class. The hypothesis was, "College students at the sophomore level have the capacity for self-control and self-direction and will perform up to their potential with little or no external control and discipline from their instructor."

\textsuperscript{13} Haigh, G.V. and Schmidt, W., \textit{op. cit.}, p. 300.
\textsuperscript{14} Perkins, \textit{op. cit.}, p. 116.
This interesting application of Theory Y to education resulted in no significant difference in scores from the objective tests given to both groups, when the total group scores were analyzed. However, when the control and experimental groups were compared by GPA quartiles, those in the upper quartile scored significantly higher. Of those in the second quartile, the X group scored higher. Even though GPA's for the Y group were higher, there was no significant difference on the test scores between X and Y groups in the third and fourth quartile. 15

Vernado found that adult Negroes participating in adult basic education classes showed a definite increase in learning when new materials were used, regardless of the instructional method, but the greatest improvement was found in the pupil-centered classroom in which new materials were used. 16

Contrary to other studies examined, Solomon, working through the Center for the Study of Liberal Education for Adults, found that certain aspects of teaching styles did effect gains in comprehension and in knowledge of


16 Vernado, op. cit.
factual material. His studies indicated that the lecture method and the classification "clarity and expressiveness" tended to produce gain in factual information. In contrast, gains in comprehension were related to those teachers rated as "energetic", flamboyant" and aggressive" and who placed at a moderate position on a permissive-control continuum.

There were interesting differences in achievement among the adults studied by Solomon. Working students achieved best with teachers who were relatively aggressive and who stressed factual participation by the students. Women performed best under the lecture method. Students under age 19 learned factual information best from teachers emphasizing student growth and those 19 and older learned best when teachers emphasized factual information.17

In Solomon's study which found that correlations existed between teaching styles, class size and achievement, the permissive teacher who stressed student growth and who rated high on the scale of "warm" and "flamboyant" obtained best results in student achievement in large classes. Students in smaller classes learned best with

17Solomon, Daniel; Bezdek, W.E.; and Rosenberg, Larry, Teaching Styles and Learning, p. 6, 7.
the "dry teacher" who stressed student factual participation and was classed as a lecturer.\(^{18}\)

When examining teaching styles from the viewpoint of students, Apps found that rural youth in grades five through eight preferred a democratic style of leader. This study of desirable leadership characteristics in leaders of extension youth programs was conducted with 176 of lower socio-economic status and with 174 in the high socio-economic level. Both groups chose the democratic styles when asked to select from leadership styles: authoritarian, democratic and laissez-faire.\(^{19}\)

The literature discussed showed no significant effort to identify what elements or combination of elements of teacher behavior affect the adult's feeling of satisfaction with his learning experience.

Satisfaction

Amir and Krausz examined sources of satisfaction for graduate and undergraduate students, comparing those sources to the students' biographical data. They found that factors which affected the study of course material ranked high while nonrelated items ranked low. This would

\(^{18}\)Ibid., p. 7.

\(^{19}\)Apps, op. cit.
indicate that such an influencing force as the instructor should be expected to affect the students' satisfaction. There was no significant relationship between biographical data, level of satisfaction and the importance of topics.²⁰

CHAPTER III

METHODOLOGY

Introduction

Adult students, responding through a questionnaire, identified the teaching styles used in two college credit courses: the one course which had been more satisfying to him than any other he had taken and the one course which had been most dissatisfying to him. The styles employed in the most satisfying courses were compared to the styles used in the most dissatisfying courses to determine any significant difference between the two. In addition to examining responses by the total population, teaching styles experienced by each population segment and other selected factors were identified and compared.

Simultaneously with the development of the questionnaire items, the Teaching Styles Chart¹ was designed. This chart was used to place the characteristics of teaching style in logical order and to portray the style categories in comprehensible form. The results of the study shown in the tables and figures are given in the order specified by this chart. The chart is similar to the one used by

¹See Appendix A, p. 109.
Likert to portray organizational and performance characteristics of different management styles.²

Selection of the Population

The population for this study was composed of students who had completed two or more college credit courses while classified as an adult.

Adult status included any person who could be categorized by one or more of these statements:

1. He had taken a one-year (or more) break in his formal high school or college education and was 21 years or older.

2. He had taken a one-year (or more) break in his formal high school or college education, he was married and he was holding a full-time job.

3. He was married and 21 years or older.

To qualify as a participant, the person had to be classified as an adult at the time he registered for two or more college credit courses.

Participants in this study were students at the Columbus Center of Indiana University-Purdue University at Indianapolis. This group was selected because the results are to be incorporated into in-service education programs for local faculty.

²Likert, Rensis, New Patterns of Management, pp. 223-233.
As it was possible to distribute the instrument to all persons taking classes at Columbus Center during the fall semester of 1971, the entire population was used in the study.

The Questionnaire

Development of the instrument. The questionnaire items were developed specifically for this project. While the first draft of the questionnaire consisted of original items, other instruments were reviewed to assure that the important ingredients of teaching style were included. Items from those instruments were adapted for use in this study if they complimented the original material in testing the hypotheses. Solomon's work on teaching style and student achievement included 52 items on teacher behavior. While these identified teacher behaviors in much smaller segments than desired for the purpose of this study, it was used to evaluate the completeness of the questionnaire. The concepts found in Likert's scale of management styles were reviewed. Those which were not included in the first draft questionnaire, but which were relevant to the study,

---

3 Solomon, Daniel; Bezdek, W.E.; and Rosenberg, Larry, Teaching Styles and Learning, pp. 140-151.

were adapted for the final instrument.

Other items were included in the questionnaire as they appeared to have played a significant role in developing attitudes in the classroom. These were drawn from the researcher's experience in many facets of education, including secondary education, college credit work with college-age students and adults and non-credit work with management personnel.

After the initial form was developed, four drafts of the questionnaire were administered to adults enrolled in five college credit courses. Each group was asked to write suggested improvements and to indicate unclear areas. Each suggestion was carefully evaluated, and those which occurred repeatedly were incorporated in the final questionnaire.

Although the format was different from the instrument used by Likert to identify styles of management in effective or desirable industrial situations, Likert was asked to react to the concepts included. Upon his recommendation, the format for questions identifying teacher behaviors was altered to one similar to his, with an eight-point continuum provided for recording the responses to each question. The original format is shown in Figure 1 and the final form in Appendix B, items 17-27.
23. To what extent did students and/or instructor determine the content of the course?

1. Students determined goals without any guidance from the instructor.
2. Determination of course content was a cooperative effort between instructor and students.
3. Student recommendations were seriously considered, but the final decision was made by the instructor.
4. Students were asked to help determine course content, but were guided to identify content which had been predetermined by the instructor.
5. Course content was determined solely by the instructor.

Figure 1. Original Question Format.

After reviewing the questionnaire and Teaching Styles Chart, Likert suggested three additional concepts which should be included to give a complete analysis of style. These are reflected in questionnaire items 15, 17 and 22 and on the Teaching Styles Chart as items 15, 16 and 17.

Figure 2 indicates items from the Teaching Styles Chart as they were positioned in random order on the questionnaire. It also specifies those items which were reversed in the instrument so the continuum from "Teacher Dominated:Authoritative" to "Participative Group" would not always read from left to right. Items to be reversed were determined by arbitrarily selecting the even items of the Teaching Styles Chart for reversal. The questionnaire, in final form, is included as Appendix B.
<table>
<thead>
<tr>
<th>Teaching Styles Chart</th>
<th>Random* Order</th>
<th>Questionnaire Item Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>16R</td>
<td>26R</td>
</tr>
<tr>
<td>2R*</td>
<td>13</td>
<td>23</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>11</td>
</tr>
<tr>
<td>4R</td>
<td>3</td>
<td>13</td>
</tr>
<tr>
<td>5</td>
<td>6R</td>
<td>16R</td>
</tr>
<tr>
<td>6R</td>
<td>11</td>
<td>21</td>
</tr>
<tr>
<td>7</td>
<td>9</td>
<td>19</td>
</tr>
<tr>
<td>8R</td>
<td>4R</td>
<td>14R</td>
</tr>
<tr>
<td>9</td>
<td>14R</td>
<td>24R</td>
</tr>
<tr>
<td>10R</td>
<td>15</td>
<td>25</td>
</tr>
<tr>
<td>11</td>
<td>2R</td>
<td>12</td>
</tr>
<tr>
<td>12R</td>
<td>8R</td>
<td>18R</td>
</tr>
<tr>
<td>13</td>
<td>17</td>
<td>27</td>
</tr>
<tr>
<td>14R</td>
<td>10R</td>
<td>20R</td>
</tr>
<tr>
<td>15</td>
<td>7</td>
<td>17</td>
</tr>
<tr>
<td>16R</td>
<td>12R</td>
<td>22R</td>
</tr>
<tr>
<td>17</td>
<td>5</td>
<td>15</td>
</tr>
</tbody>
</table>

Figure 2. Random Order of Characteristics of Teaching Styles as Placed in the Questionnaire

*The continuum from Teacher Dominated: Authoritative to Participative (left to right) is reversed on items marked "R".


Content of the instrument. There are four major segments in the questionnaire. The first section defines the criteria for responding to the questionnaire as an adult. Those who had completed less than two college credit courses as adult students were not eligible to complete the questionnaire. The student was also asked to identify the one college credit course, taken as an adult, which was more satisfying to him than others he had experienced. He was then to select the one college
credit course, taken as an adult, which had been the most dissatisfying. While the names of these courses were not used in analyzing the data, the respondent was to specify each course so it would be clearly implanted in his thinking as he reacted to it throughout the remainder of the questionnaire.

The respondent was to answer twice for each question: one response for the most satisfying course (designated "S") and the second response for the most dissatisfying course (designated "D"). The method of responding is described in the questionnaire.

Two segments of the questionnaire categorize the respondents in various groupings. Through Section II, IV and V the respondents indicated their status in selected categories. These categories include twelve major divisions of population segments and sixteen areas which are not characteristic of teaching style, but may affect the student's feeling of satisfaction with the learning experience. These categories are listed in Appendix C.

In addition to identifying teaching styles which produce satisfaction and dissatisfaction for the total population, styles have been identified for each of the population segments.

The heart of this study is found in Section III of the questionnaire which embodies the concepts of teaching
style given in the Teaching Styles Chart. The student was to respond twice for each of the seventeen items in this section. One response described the teacher's behavior in his most satisfying course while the second response identified the teacher's behavior in the most dissatisfying course. Each of the items in this section represents one characteristic of teacher behavior which, when included with the other behavioral characteristics, forms the definitive aspects of teaching style.

Two isolated items are used to obtain special information. Each respondent was to indicate what degree of satisfaction or dissatisfaction he had felt with each course and a second question was used to determine what basic styles of teaching the student had encountered.

Administration of the instrument. The entire faculty of Columbus Center was contacted for their approval to have the questionnaire administered to their students during a scheduled class period.

After questionnaires had been distributed and the instructions read, the questionnaire administrator answered questions to assure that the students:

1. Understood the adult classifications.
2. Selected the most satisfying and most dissatisfying courses.
3. Selected courses which were taken as an adult.
4. Did not select courses in which they were currently enrolled.

The questionnaires were administered to the entire population during a three-week period. Students absent when the instrument was administered in their classes received questionnaires from their instructors during the following class session.

**Processing the data.** The data was keypunched on computer cards directly from the questionnaire except for three items which gathered open-ended responses. Questionnaire Item 29 asked for the age of the respondent when he enrolled in each course. Item 37 requested the number of courses taken, as an adult, for college credit and Item 42 determined the class size for the respondent's most satisfying course (S) and his most dissatisfying course (D). These questions were left open to allow for any special groupings which might not be identified if the participants could respond only by categories. From the frequency distribution of the responses to each item, groupings were established and the assigned codes punched into the complete cards.

The punched cards were processed by the computer centers at Indiana University-Purdue University at Indianapolis and The Ohio State University to provide the desired statistical analysis.
Statistical Techniques

In analyzing the data, the main emphasis was on the means of the responses and the difference which existed between the mean of the answers which described the most satisfying courses (S) and the mean of the responses related to the most dissatisfying courses (D). Two statistics were used which should be described here: the t test between correlated means and the t test between independent means.

**t test between correlated means.** This statistic was used to determine whether the difference between the mean of the "S" responses was significantly different from the mean of the "D" responses to test hypotheses 1.0 and 2.01-2.17.

\[
t = \frac{\bar{D}}{\sqrt{\frac{\sum d^2}{N(N-1)}}}
\]

\(\bar{D}\) = The mean difference scores computed by subtracting the scores of "S" responses from the scores of the "D" responses

\(d^2\) = The square of the difference between the "S" responses and the "D" responses

\(N\) = Number of pairs

\(N-1\) = df (degrees of freedom)\(^5\)

---

The computer program used to calculate this t ratio was "Paired Observations t-Test Program, IUPUI-RCC, Version of May, 1970" from the Research Computer Center, Indiana University-Purdue University at Indianapolis.

**t-test between independent means.** Fisher's t test was used when the number of cases responding to "S" was different from the number responding to "D". Hypothesis 3.0 required this statistic. As the scores vary around two means, two degrees of freedom are lost; therefore, \( df = N_1 + N_2 - 2 \).

\[
t = \frac{M_1 - M_2}{\sqrt{\frac{\sum x_1^2 + \sum x_2^2}{N_1 + N_2 - 2} \cdot \frac{N_1 + N_2}{N_1 N_2}}}
\]

\( M_1 \) and \( M_2 \) = Mean of "S" responses and the mean of "D" responses.

\( \sum x_1^2 \) and \( \sum x_2^2 \) = Sums of squares of the "S" responses and the mean of "D" responses.

\( N_1 \) and \( N_2 \) = Number of cases responding to "S" and number of cases responding to "D".\(^6\)

The Ohio State University's Computer Center provided the program for this t test.

---

Confidence level. The original intent was to use the .05 level of confidence as this is generally accepted as sufficiently stringent for educational studies. However, when the data was tabulated and t ratios calculated, it was evident that the difference between satisfying and dissatisfying scores was significant at the .01 level. Therefore, the .01 level of confidence was used as a basis for accepting or rejecting the null hypotheses throughout the study.
CHAPTER IV
DATA ANALYSIS

Introduction

There were two areas which could have produced a biased study. One was the degree of satisfaction or dissatisfaction the student felt with his most satisfying and his most dissatisfying course. If a substantial number of students had experienced only satisfying courses, even the course specified as being more dissatisfying than any other they had taken would have actually satisfied them. Therefore, the teachers' behaviors described would have been descriptive of those in satisfying courses rather than in dissatisfying courses. A similar bias would exist if the student had never completed a dissatisfying course. Table 1 shows the number of students rating the "S" and the "D" course by the degree of satisfaction or dissatisfaction felt with that course.

As only two respondents indicated their most satisfying course was dissatisfying or very dissatisfying and only nine rated their dissatisfying course as satisfying or very satisfying, it was assumed that no significant bias existed.
### Table 1. Frequency and Percent of Total Population Responding by Degree of Satisfaction or Dissatisfaction Felt with Both the Satisfying and Dissatisfying Course.

<table>
<thead>
<tr>
<th></th>
<th>Satisfying Course</th>
<th></th>
<th>Dissatisfying Course</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Percent</td>
<td>Total</td>
<td>Percent</td>
</tr>
<tr>
<td>Very satisfied</td>
<td>168</td>
<td>66.14</td>
<td>1</td>
<td>0.39</td>
</tr>
<tr>
<td>Satisfied</td>
<td>75</td>
<td>29.53</td>
<td>8</td>
<td>3.15</td>
</tr>
<tr>
<td>Neutral</td>
<td>3</td>
<td>1.18</td>
<td>51</td>
<td>20.08</td>
</tr>
<tr>
<td>Dissatisfied</td>
<td>1</td>
<td>0.39</td>
<td>94</td>
<td>37.01</td>
</tr>
<tr>
<td>Very dissatisfied</td>
<td>1</td>
<td>0.39</td>
<td>93</td>
<td>36.61</td>
</tr>
<tr>
<td>No response</td>
<td>6</td>
<td>2.36</td>
<td>7</td>
<td>2.75</td>
</tr>
</tbody>
</table>

*N = 264*

A Carnegie Commission sponsored survey found that 71% of undergraduate students were satisfied with their undergraduate education. The Columbus Center adult student body responded in a similar fashion. Table 1 shows that 24% had never experienced a "dissatisfying" or "very dissatisfying" college credit course as an adult student.

It is interesting to note that while one-fourth of the students had never been dissatisfied, only 2% had never taken a course which was satisfying to them!

A second area of concern involved the possibility that the respondents may not have been exposed to all styles of teaching. Obviously, if this had been the case, teacher behaviors could not be described for those styles not experienced. Thus, if the respondents had never

---

completed a college credit course as an adult student where the instructor had used participative techniques, there would be no chance for these behaviors to be described as either satisfying or dissatisfying to the student. Table 2 shows the exposure of the total population to each teaching style as determined by Questionnaire Item 46.\(^2\)

<table>
<thead>
<tr>
<th>Style</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher Dominated: Benevolent</td>
<td>182</td>
<td>71.65</td>
</tr>
<tr>
<td>Teacher Dominated: Authoritative</td>
<td>145</td>
<td>57.01</td>
</tr>
<tr>
<td>Consultative</td>
<td>197</td>
<td>77.56</td>
</tr>
<tr>
<td>Participative Group</td>
<td>180</td>
<td>70.87</td>
</tr>
</tbody>
</table>

This substantial exposure to each of the four teaching styles was judged sufficient to assume that each style existed in both satisfying and dissatisfying courses.

To simplify comprehension of the findings, certain factors associated with this study should be placed in perspective. Several terms are closely related: Teaching Styles Chart, teacher behaviors, teaching styles, Characteristics of Teaching Style and continuum of teaching styles. An understanding of the relationships between these items is desirable to assist the reader in following the subsequent

\(^2\)See Appendix B, p. 129.
discussion.

The Teaching Styles Chart\(^3\) is composed of a matrix of teacher behaviors. Vertically, seventeen teacher behaviors are listed in columns, each column of behaviors defining a teaching style. On the left of the chart are seventeen Characteristics of Teaching Style. For each of these characteristics of style there is a row of four teacher behaviors which are definitive of that characteristic. Each of the teacher behaviors for a specified style characteristic is also a descriptor of one teaching style.

The teacher behaviors used in any specific course were not characteristic of only one of the teaching styles specified on the chart. The four styles are interrelated, with actual behaviors of an instructor found under two or more categories. The style experienced in the satisfying and dissatisfying courses by the total population is illustrated by a profile of teaching styles.\(^4\) The points on that profile are defined by the mean response to each of the seventeen Characteristics of Teaching Style (items 11-27 on the questionnaire). When viewed as a unit, these seventeen points on the profile define the actual styles of teaching observed by the respondents.

\(^3\)See Appendix A, p. 109.

\(^4\)See Figure 4, p. 49.
The continuum of teaching styles reflects the full scale of teacher behaviors from the authoritative style, where decisions are made by the instructor, to participation by students and instructor in the decision-making process. (Laissez-faire behaviors were not included as they represent the absence of control. Likert says that as management systems do operate with varying degrees of control, the laissez-faire model is not located on the same plane as the continuum of management styles. As the teaching styles defined in the Teaching Styles Chart were adapted to the conceptual format of management style, laissez-faire behaviors were omitted from the continuum of teaching styles.)

Throughout this manuscript, the continuum of teaching styles is presented in several formats. Each of these is shown in Figure 3.

The continuum labeled Form 1 is the basic scale for conceptualizing the four teaching styles. When reading other forms of the continuum, it is helpful to keep this simple form in mind as in each case the study is discussed by the four teaching styles. Form 1 is used for the Teaching Styles Chart.

---

5 Likert, op. cit., p. 222.
The eight point continuum shown as Form 2 was used in the questionnaire to give participants greater latitude of response than would have been available if Form 1 had been used.

Form 3 was used to plot the mean responses to each Characteristic of Teaching Style and the composite mean of all scores for the seventeen Characteristics of Teaching Style which reflects, in one score, the teaching style observed. As a score is not a point on the scale, but is an interval from a half unit below a specified number to a half unit above that number, the full continuum ranged from

---

6 See Figure 4, p. 49, and Figure 5, p. 53, for uses of Form 3.
0.5 to 8.5 to cover scores 1 through 8.\(^7\)

Analysis of Responses by the Total Population

The hypotheses stated originally in Chapter I are restated to give specific criteria for acceptance or rejection and to indicate the statistical measurements to be used. Each hypothesis is followed by the discussion of the findings. Hypotheses 1.0 and 2.01-2.17 require examination of the responses made by the total population.

Hypothesis 1.0

There is no significant difference at the .01 confidence level between the mean response to all seventeen Characteristics of Teaching Style for the most satisfying courses and the mean response to all seventeen Characteristics of Teaching Style for the most dissatisfying courses as specified by the total population.

This hypothesis was used to summarize the findings in a single score. It was to determine whether a difference existed between the basic style of teaching employed in the satisfying courses (S) and the basic style used in the dissatisfying courses (D). The t test between correlated means was used to calculate this difference. The resulting t ratio, based on the two composite mean responses of the total population (N = 254) to all seventeen Characteristics of Teaching Style, is given in Table 3.

TABLE 3. COMPOSITE MEANS, STANDARD DEVIATIONS AND THE 
t RATIO FOR "S" AND "D" RESPONSES BY THE TOTAL POPULATION 
TO ALL CHARACTERISTICS OF TEACHING STYLE.

<table>
<thead>
<tr>
<th>Mean</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>S</td>
<td>D</td>
</tr>
<tr>
<td>5.3323</td>
<td>3.3437</td>
</tr>
</tbody>
</table>

*p < .01

For 253 df, a t value of 2.596 or less is required 
to accept this hypothesis. Rejection of the null hypothesis 
indicates that the teaching styles used in "S" courses 
were definitely different from those used in the "D" courses. 
Furthermore, the mean responses show that courses which 
have been most satisfying to students were taught by 
instructors following consultative patterns of behavior; 
whereas, the behavioral patterns of the instructors in 
courses which the adult students considered most dissatisfy-
ing tended to be teacher dominated. From 3 in Figure 3 
shows that the "D" mean of 3.3437 falls within the Teacher 
Dominated:Benevolent teaching style while the "S" mean of 
5.3323 indicates the Consultative style.

To establish the validity of these composite measure-
ments, the same tests were applied to each component of 
teaching style. Hypotheses 2.01-2.17 state the basis for 
determining what teacher behavior existed within each 
Characteristic of Teaching Style for both "S" and "D" courses.
These hypotheses also provided the criteria for determining any difference between the teacher behaviors observed in the "S" and "D" courses.

**Hypotheses 2.01-2.17.** These seventeen hypotheses correspond to the seventeen Characteristics of Teaching Style. Each is stated prior to presenting and discussing the findings.

2.01 For the total population, there is no significant difference at the .01 confidence level between the mean response for the most satisfying courses and the mean response for the most dissatisfying courses in the degree of student and/or instructor involvement in determining course objectives.

2.02 For the total population, there is no significant difference at the .01 confidence level between the mean response for the most satisfying courses and the mean response for the most dissatisfying courses in the degree of student and/or instructor involvement in determining course content.

2.03 For the total population, there is no significant difference at the .01 confidence level between the mean response for the most satisfying courses and the mean response for the most dissatisfying courses in the degree of student and/or instructor involvement in determining the sequence of presenting or discussing content.

2.04 For the total population, there is no significant difference at the .01 confidence level between the mean response for the most satisfying courses and the mean response for the most dissatisfying courses in the degree of student and/or instructor involvement in determining the techniques used to aid learning.

---

8See Appendix A, p. 109.
2.05 For the total population, there is no significant difference at the .01 confidence level between the mean response for the most satisfying courses and the mean response for the most dissatisfying courses in the degree of domination by the instructor.

2.06 For the total population, there is no significant difference at the .01 confidence level between the mean response for the most satisfying courses and the mean response for the most dissatisfying courses in the direction of communication flow.

2.07 For the total population, there is no significant difference at the .01 confidence level between the mean response for the most satisfying courses and the mean response for the most dissatisfying courses in the degree of instructor and/or student involvement in determination of criteria for establishing course grade.

2.08 For the total population, there is no significant difference at the .01 confidence level between the mean response for the most satisfying courses and the mean response for the most dissatisfying courses regarding the instructor's view of the student as perceived by the student.

2.09 For the total population, there is no significant difference at the .01 confidence level between the mean response for the most satisfying courses and the mean response for the most dissatisfying courses in the degree to which the instructor responds to student reactions.

2.10 For the total population, there is no significant difference at the .01 confidence level between the mean response for the most satisfying courses and the mean response for the most dissatisfying courses in the instructor's relationship with students during class.

2.11 For the total population, there is no significant difference at the .01 confidence level between the mean response for the most satisfying courses and the mean response for the most dissatisfying courses in the instructor's attitude toward students outside of class.
2.12 For the total population, there is no significant difference at the .01 confidence level between the mean response for the most satisfying courses and the mean response for the most dissatisfying courses in the degree of confidence and trust the instructor has in the student.

2.13 For the total population, there is no significant difference at the .01 confidence level between the mean response for the most satisfying courses and the mean response for the most dissatisfying courses in the degree of confidence and trust the student has in the instructor.

2.14 For the total population, there is no significant difference at the .01 confidence level between the mean response for the most satisfying courses and the mean response for the most dissatisfying courses in the instructor's knowledge and understanding of student problems.

2.15 For the total population, there is no significant difference at the .01 confidence level between the mean response for the most satisfying courses and the mean response for the most dissatisfying courses in the amount of cooperative teamwork among students.

2.16 For the total population, there is no significant difference at the .01 confidence level between the mean response for the most satisfying courses and the mean response for the most dissatisfying courses in the kind of encouragement for good performance each student receives from the instructor.

2.17 For the total population, there is no significant difference at the .01 confidence level between the mean response for the most satisfying courses and the mean response for the most dissatisfying courses in the kind of encouragement for good performance each student receives from other students.
The t test between correlated means was used to determine whether a significant difference existed between those teacher behaviors used in the students' most satisfying courses and the teacher behaviors used in their most dissatisfying courses for each Characteristic of Teaching Style.

A t ratio of 2.596 or less was required to accept each of the null hypotheses 2.01-2.17 at the .01 level of significance. As the t ratios found in testing these hypotheses were substantially greater than 2.596, each hypothesis was rejected. Therefore, within every Characteristic of Teaching Style, the teacher behavior experienced in the students' most satisfying courses was significantly different from the behavior they had encountered in their most dissatisfying courses. The probability of this difference occurring by chance was less than 1 out of 100 for each of the seventeen Characteristics of Teacher Behavior.

Table 4 gives the results of these tests, identified by the Characteristic of Teaching Style. Characteristics 1-17\(^9\) correspond to hypotheses 2.01-2.17.

\(^9\)See Appendix A, p. 109.
<table>
<thead>
<tr>
<th>Characteristics of Teaching Style</th>
<th>Mean</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>S</td>
<td>D</td>
</tr>
<tr>
<td>1. Course objectives</td>
<td>3.6408</td>
<td>2.2408</td>
</tr>
<tr>
<td>2. Course content</td>
<td>4.0984</td>
<td>2.1762</td>
</tr>
<tr>
<td>3. Sequence of content</td>
<td>3.2980</td>
<td>2.4694</td>
</tr>
<tr>
<td>4. Teaching/learning techniques</td>
<td>4.5714</td>
<td>2.4141</td>
</tr>
<tr>
<td>5. Teacher domination</td>
<td>5.9756</td>
<td>3.8577</td>
</tr>
<tr>
<td>6. Communication flow</td>
<td>6.3960</td>
<td>3.6531</td>
</tr>
<tr>
<td>7. Course grade</td>
<td>2.9265</td>
<td>2.0571</td>
</tr>
<tr>
<td>10. Relationship during class</td>
<td>6.8279</td>
<td>4.6189</td>
</tr>
<tr>
<td>12. Confidence/trust in student</td>
<td>6.4449</td>
<td>3.8082</td>
</tr>
<tr>
<td>13. Confidence/trust in instructor</td>
<td>6.3184</td>
<td>3.3553</td>
</tr>
<tr>
<td>15. Student teamwork</td>
<td>4.4877</td>
<td>2.7377</td>
</tr>
<tr>
<td>17. Encouragement from students</td>
<td>6.0000</td>
<td>4.7951</td>
</tr>
</tbody>
</table>

*For all 17 items p < .01
<table>
<thead>
<tr>
<th>Characteristics of Teaching Style</th>
<th>Teacher Dominated Authoritative</th>
<th>Teacher Dominated Benevolent</th>
<th>Consultative</th>
<th>Participative Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Course objectives</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Course content</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Sequence of content</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Teaching/learn. tech.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Teacher domination</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Communication flow</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Course grade</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Instructor's view</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Response to student</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Relationship during</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Attitude outside of</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Confidence/trust stu.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Confidence/trust inst.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. Student teamwork</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. Encour. from instr.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17. Encour. from students</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 4. Profile of Teacher Behaviors Used in Satisfying and Dissatisfying Courses as Identified by the Total Population

--- Dissatisfying course

--------- Satisfying course
The mean response to the "S" course and the mean response to the "D" course were calculated for each of the seventeen Characteristics. These means are plotted in Figure 4 to show the style of teaching generally used in the satisfying courses and the style most prevalent in the dissatisfying courses. The location of these "S" and "D" means on the continuum of teaching styles supports the findings of hypothesis 1.0 which indicated that teacher behaviors in "S" courses tended to be "consultative" and those behaviors in "D" courses were "teacher dominated: benevolent." For further clarification of this point, Table 5 gives the number of teacher behaviors for which the mean for "S" and the mean for "D" fall within the limits of each teaching style.

**TABLE 5. NUMBER OF TEACHER BEHAVIORS WITHIN EACH TEACHING STYLE OBSERVED AS SATISFYING AND DISSATISFYING.**

<table>
<thead>
<tr>
<th>Type of Course</th>
<th>Authoritative</th>
<th>Benevolent</th>
<th>Consultative</th>
<th>Participative Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;S&quot;</td>
<td>0</td>
<td>5</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>&quot;D&quot;</td>
<td>5</td>
<td>8</td>
<td>4</td>
<td>0</td>
</tr>
</tbody>
</table>

The number of behaviors in each category (Table 5) was determined by counting the means which fell within each teaching style in Figure 4. For "S" courses, ten of
the seventeen teacher behaviors (each behavior representing one Characteristic of Teacher Behavior) were classified as "Consultative;" whereas eight of the seventeen teacher behaviors in "D" courses were "Teacher Dominated:Benevolent."

For both "S" and "D" courses, the teacher behaviors which had been most used fell within the same style which was found to be most satisfying and most dissatisfying by the composite means of hypothesis 1.0.

With each of the t ratios indicating a significant difference between behaviors used in the "S" and "D" courses, it is important to note the relative degree of difference which existed between each of the Characteristics of Teaching Style. Table 6 ranks the Characteristics by t ratio. The "S" mean and the "D" mean for each Characteristic is plotted in Figure 5 according to that ranking. From this figure, it is apparent that there are substantial differences between the style used in the satisfying course and the style used in the dissatisfying course. The width between the two lines progressively narrows as the figure is read from top to bottom. Toward the upper part of the figure are the style characteristics which reflected the greatest difference between "S" and "D" behaviors.

Ranking of the t ratios to show the relative distance between means is valid as the number of cases is large and varies between characteristics by only nine cases (236-245).
<table>
<thead>
<tr>
<th>Rank</th>
<th>Teaching Styles Chart Item No.</th>
<th>Characteristics of Teaching Style</th>
<th>Mean</th>
<th>SD</th>
<th>N</th>
<th>t Ratio*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>14</td>
<td>Understanding of student problems</td>
<td>6.0369</td>
<td>3.1230</td>
<td>244</td>
<td>20.0754</td>
</tr>
<tr>
<td>2</td>
<td>13</td>
<td>Confidence/trust in instructor</td>
<td>6.3184</td>
<td>3.3551</td>
<td>245</td>
<td>19.9821</td>
</tr>
<tr>
<td>3</td>
<td>12</td>
<td>Confidence/trust in student</td>
<td>6.4449</td>
<td>3.8082</td>
<td>245</td>
<td>19.7207</td>
</tr>
<tr>
<td>4</td>
<td>6</td>
<td>Communication flow</td>
<td>6.3960</td>
<td>3.6531</td>
<td>245</td>
<td>17.9310</td>
</tr>
<tr>
<td>5</td>
<td>16</td>
<td>Encouragement from instructor</td>
<td>6.9407</td>
<td>4.6653</td>
<td>236</td>
<td>16.4814</td>
</tr>
<tr>
<td>6</td>
<td>10</td>
<td>Relationship during class</td>
<td>6.8279</td>
<td>4.6189</td>
<td>244</td>
<td>15.9708</td>
</tr>
<tr>
<td>7</td>
<td>8</td>
<td>Instructor's view of student</td>
<td>6.4350</td>
<td>4.1789</td>
<td>246</td>
<td>14.7877</td>
</tr>
<tr>
<td>8</td>
<td>9</td>
<td>Response to student reactions</td>
<td>6.1393</td>
<td>3.8525</td>
<td>244</td>
<td>14.0452</td>
</tr>
<tr>
<td>9</td>
<td>5</td>
<td>Teacher domination</td>
<td>5.9756</td>
<td>3.8577</td>
<td>246</td>
<td>12.0571</td>
</tr>
<tr>
<td>10</td>
<td>4</td>
<td>Teaching/learning techniques</td>
<td>4.5714</td>
<td>2.4141</td>
<td>245</td>
<td>11.9085</td>
</tr>
<tr>
<td>11</td>
<td>2</td>
<td>Course content</td>
<td>4.0984</td>
<td>2.1762</td>
<td>244</td>
<td>10.8890</td>
</tr>
<tr>
<td>12</td>
<td>15</td>
<td>Student teamwork</td>
<td>4.4877</td>
<td>2.7377</td>
<td>244</td>
<td>10.6340</td>
</tr>
<tr>
<td>13</td>
<td>11</td>
<td>Attitude outside of class</td>
<td>6.3786</td>
<td>4.9218</td>
<td>243</td>
<td>9.0189</td>
</tr>
<tr>
<td>14</td>
<td>17</td>
<td>Encouragement from students</td>
<td>6.0000</td>
<td>4.7951</td>
<td>244</td>
<td>8.6452</td>
</tr>
<tr>
<td>15</td>
<td>1</td>
<td>Course objectives</td>
<td>3.6408</td>
<td>2.2408</td>
<td>244</td>
<td>7.9738</td>
</tr>
<tr>
<td>16</td>
<td>7</td>
<td>Course grade</td>
<td>2.9265</td>
<td>2.0571</td>
<td>245</td>
<td>5.2524</td>
</tr>
<tr>
<td>17</td>
<td>3</td>
<td>Sequence of content</td>
<td>3.2980</td>
<td>2.4694</td>
<td>245</td>
<td>4.3381</td>
</tr>
</tbody>
</table>

*p < .01 for each Characteristic of Teaching Style
As these Teaching Style Characteristics were ranked according to the magnitude of the t ratio, a pattern of related Characteristics emerged. Those which dealt with the instructor-student relationships and communication flow were the most significant in the difference between teacher behaviors observed in "S" courses and those experienced in "D" courses. The least difference in behaviors experienced in "S" and "D" courses was found in the three Characteristics which described student involvement in determining course objectives, the criteria for grading and the sequence of content presentation. As shown in Figure 5, the means for the "S" courses of these last three Characteristics were located under the Teacher Dominated:Benevolent style. This may mean that students have never been involved, to any great degree, in the decisions concerning these areas. It could also indicate, however, that students felt more comfortable when the instructor made these decisions.

Figure 5 shows other Characteristics which were ranked between Characteristics of instructor-student relationship and those related to the degree of student involvement in decisions concerning objectives, grades and sequence of content presentation. These Characteristics involved peer relations, instructor-student relations outside of class, degree of teacher domination and those identifying the degree of student participation in decisions concerning the selection of educational techniques and course content.
It is significant to note that the Characteristics of Teaching Style were randomly placed in the questionnaire and there was no relationship between the placement of the items in that instrument and the clusters indicated in Figure 5.

Analysis of Responses by Population Segment

The responses of each segment of the population were analyzed to determine whether these subgroups agreed on the teaching styles found in satisfying and dissatisfying courses. The two composite means of all seventeen Characteristics of Teaching Style were used as a basis for identifying the style of teaching which had been experienced and to determine whether a difference existed between teaching styles employed in satisfying courses and those used in dissatisfying courses for each of these groups. There were three reasons for using these composite means when examining the responses of each population segment rather than examining every group's responses to each of the seventeen Characteristics of Teaching Style:

1. For every Characteristic of Teaching Style analyzed with the total population's responses, there was a significant difference between the behaviors in satisfying courses and those in dissatisfying courses.
2. For every Characteristic of Teaching Style analyzed with the total population's responses, teacher behaviors in satisfying courses were located toward the participative end of the authoritative-participative continuum in relation to the teacher behaviors in dissatisfying courses.

3. Nine of the seventeen teacher behaviors described for dissatisfying and eleven of the seventeen behaviors identified for satisfying courses fell within the style indicated for those courses by the composite means for the total population.

Due to these factors, the composite means and t ratio for all seventeen Characteristics of Teaching Style were accepted as representing the style of teaching observed in both the satisfying and the dissatisfying courses.

The hypotheses discussed in this section provided the basis for examination of teacher behaviors experienced by each population segment. The analysis used to test each hypothesis was the mean and the t test between independent means.

One hypothesis was stated for each type of population segment, such as age, marital status and highest grade of formal education attained. Within each type of population there were several individual segments. For example, marital status included population segments of married, single and divorced, separated or widowed. Each hypothesis
was accepted or rejected for individual population segments. The detailed breakdown of all population segments, or subgroups, is given in the Index of Variables, Appendix C.

The respondents identified the population segment in which they fit at the time they enrolled in the "S" course and at the time they enrolled in the "D" course. Therefore, a person may have been married when he enrolled in his most satisfying course and divorced when enrolling in his most dissatisfying course.

**Hypotheses 3.01-3.12.** The hypotheses used in determining whether adults observed different teacher behaviors in their most satisfying college credit courses from those experienced in their most dissatisfying courses are listed before the discussion of the findings.

3.03. For each population segment categorized by marital status, there is no significant difference at the .01 confidence level between the mean response to all seventeen Characteristics of Teaching Style for the most satisfying courses and the mean response to all seventeen Characteristics of Teaching Style for the most dissatisfying courses.

3.04. For each population segment categorized by the highest grade of formal education attained, there is no significant difference at the .01 confidence level between the mean response to all seventeen Characteristics of Teaching Style for the most satisfying courses and the mean response to all seventeen Characteristics of Teaching Style for the most dissatisfying courses.

3.05. For each population segment categorized by occupational status, there is no significant difference at the .01 confidence level between the mean response to all seventeen Characteristics of Teaching Style for the most satisfying courses and
the mean response to all seventeen Characteristics of Teaching Style for the most dissatisfying courses.

3.06. For each population segment categorized by type of occupation, there is no significant difference at the .01 confidence level between the mean response to all seventeen Characteristics of Teaching Style for the most satisfying courses and the mean response to all seventeen Characteristics of Teaching Style for the most dissatisfying courses.

3.07. For each population segment categorized by length of time since the student's last college course, there is no significant difference at the .01 confidence level between the mean response to all seventeen Characteristics of Teaching Style for the most satisfying courses and the mean response to all seventeen Characteristics of Teaching Style for the most dissatisfying courses.

3.08. For each population segment categorized by length of time since the student's last non-credit structured course, there is no significant difference at the .01 confidence level between the mean response to all seventeen Characteristics of Teaching Style for the most satisfying courses and the mean response to all seventeen Characteristics of Teaching Style for the most dissatisfying courses.

3.09. For each population segment categorized by previous experience related to the content of that course, there is no significant difference at the .01 confidence level between the mean response to all seventeen Characteristics of Teaching Style for the most satisfying courses and the mean response to all seventeen Characteristics of Teaching Style for the most dissatisfying courses.

3.10. For each population segment categorized by number of college courses taken, there is no significant difference at the .01 confidence level between the mean response to all seventeen Characteristics of Teaching Style for the most satisfying courses and the mean response to all seventeen Characteristics of Teaching Style for the most dissatisfying courses.

3.11. For each population segment categorized by school admission status, there is no significant difference at the .01 confidence level between the mean response to all seventeen Characteristics of
Teaching Style for the most satisfying courses and the mean response to all seventeen Characteristics of Teaching Style for the most dissatisfying courses.

3.12. For each population segment categorized by sex, there is no significant difference at the .05 confidence level between the mean response to all seventeen Characteristics of Teaching Style for the most satisfying courses and the mean response to all seventeen Characteristics of Teaching Style for the most dissatisfying courses.

The results of t tests between independent means, used for hypotheses 3.01-3.12, are reported in Table 7, p. 62. All of these null hypotheses were rejected, except those related to subgroups comprised of ten or less respondents to "S" and to "D" courses. Any credibility attributed to the mean responses of these small segments would be invalid.

Two subgroups with less than 20 respondents to the "S" and "D" courses were significantly different at the .05 level, but not at the .01 confidence level. Eleven cases were tabulated as students whose highest level of education attained was an associate degree or a two-year certificate (Hypothesis 3.04). Eighteen cases were categorized as taking their last non-credit courses 6-10 years prior to the "S" or "D" course (Hypothesis 3.08). As each of these subgroups experienced different teaching styles in "S" and "D" courses at the .05 level and their N was relatively small, they were not considered sufficiently different from other groups to warrant special consideration.

With the elimination of these small segments, the
rejection of these hypotheses supports the findings based on the total population: the teaching style used by instructors of college credit courses which were satisfying to the population segments differed significantly from the style of teaching employed in those courses which had resulted in feelings of dissatisfaction for those same segments of the population.

The composite mean responses to all Characteristics of Teaching Style are plotted in Figure 6 to show the style of teaching used in the "S" and "D" courses as observed by each population segment. With the exception of four subgroups categorized by type of occupation, each of the population segments experienced the same style of teaching in the satisfying course as did the total population. The population segments also agreed with the total population in the teaching style found in dissatisfying courses. For these segments, the "consultative" style was prevalent in satisfying courses and the "teacher dominated:benevolent" style generally was found in the dissatisfying courses. Thus, the differences observed between "S" and "D" courses by the total population remain when the population is stratified according to selected variables.

The four population segments which did not agree with the total population included respondents in farming, bench work and structural occupations and by retired individuals. For each of these groups, their most dissatisfying course
was taught by the "consultative" style. It is important to note the limited number of cases in each of these subgroups:

<table>
<thead>
<tr>
<th></th>
<th>&quot;S&quot; Course</th>
<th>&quot;D&quot; Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farming, fishing, forestry</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Bench Work</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Structural</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Retired</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

These small samples were not considered to be representative responses for these segments of the population.
<table>
<thead>
<tr>
<th>Hypothesis Number</th>
<th>Variable Number</th>
<th>Population Segment</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>N</th>
<th>df</th>
<th>t Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.01 1 1</td>
<td></td>
<td>Class Standing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a</td>
<td></td>
<td>Undergraduate</td>
<td>5.378</td>
<td>3.390</td>
<td>1.028</td>
<td>1.071</td>
<td>138</td>
</tr>
<tr>
<td>b</td>
<td></td>
<td>Graduate</td>
<td>5.718</td>
<td>3.657</td>
<td>0.889</td>
<td>1.073</td>
<td>69</td>
</tr>
<tr>
<td>c</td>
<td></td>
<td>Non-degree</td>
<td>5.301</td>
<td>3.660</td>
<td>1.292</td>
<td>0.873</td>
<td>25</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a</td>
<td></td>
<td>17-20</td>
<td>5.390</td>
<td>3.380</td>
<td>0.878</td>
<td>1.294</td>
<td>11</td>
</tr>
<tr>
<td>b</td>
<td></td>
<td>21-30</td>
<td>5.491</td>
<td>3.471</td>
<td>1.066</td>
<td>1.081</td>
<td>171</td>
</tr>
<tr>
<td>c</td>
<td></td>
<td>31-40</td>
<td>5.447</td>
<td>3.618</td>
<td>0.986</td>
<td>1.005</td>
<td>45</td>
</tr>
<tr>
<td>d</td>
<td></td>
<td>41-60</td>
<td>5.700</td>
<td>2.898</td>
<td>0.760</td>
<td>0.787</td>
<td>10</td>
</tr>
<tr>
<td>3.03 3</td>
<td></td>
<td>Marital Status</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a</td>
<td></td>
<td>Married</td>
<td>5.457</td>
<td>3.519</td>
<td>1.018</td>
<td>1.013</td>
<td>174</td>
</tr>
<tr>
<td>b</td>
<td></td>
<td>Single</td>
<td>5.495</td>
<td>3.389</td>
<td>1.155</td>
<td>1.212</td>
<td>50</td>
</tr>
<tr>
<td>c</td>
<td></td>
<td>Div., sep., widowed</td>
<td>5.876</td>
<td>3.435</td>
<td>0.563</td>
<td>0.980</td>
<td>10</td>
</tr>
<tr>
<td>3.04 4</td>
<td></td>
<td>Highest Level</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a</td>
<td></td>
<td>Eighth or Tess</td>
<td>0.0</td>
<td>3.882</td>
<td>0.0</td>
<td>0.666</td>
<td>0</td>
</tr>
<tr>
<td>b</td>
<td></td>
<td>Less than H.S. diplo.</td>
<td>4.980</td>
<td>3.382</td>
<td>1.825</td>
<td>0.734</td>
<td>3</td>
</tr>
<tr>
<td>c</td>
<td></td>
<td>H.S. diploma</td>
<td>5.133</td>
<td>3.606</td>
<td>1.006</td>
<td>1.002</td>
<td>52</td>
</tr>
<tr>
<td>d</td>
<td></td>
<td>0-2 yrs. college</td>
<td>5.500</td>
<td>3.383</td>
<td>0.967</td>
<td>1.068</td>
<td>83</td>
</tr>
<tr>
<td>e</td>
<td></td>
<td>Associate degree</td>
<td>5.176</td>
<td>3.521</td>
<td>1.206</td>
<td>0.816</td>
<td>4</td>
</tr>
<tr>
<td>f</td>
<td></td>
<td>Less than bach. deg.</td>
<td>5.779</td>
<td>3.262</td>
<td>1.188</td>
<td>1.066</td>
<td>20</td>
</tr>
<tr>
<td>g</td>
<td></td>
<td>Bachelor degree</td>
<td>5.647</td>
<td>3.546</td>
<td>1.065</td>
<td>1.025</td>
<td>30</td>
</tr>
<tr>
<td>h</td>
<td></td>
<td>Less than Masters</td>
<td>5.721</td>
<td>3.728</td>
<td>0.979</td>
<td>1.126</td>
<td>40</td>
</tr>
<tr>
<td>i</td>
<td></td>
<td>Masters degree</td>
<td>0.0</td>
<td>4.078</td>
<td>0.0</td>
<td>0.580</td>
<td>0</td>
</tr>
<tr>
<td>j</td>
<td></td>
<td>Less than Ph.D.</td>
<td>5.235</td>
<td>3.882</td>
<td>0.0</td>
<td>0.666</td>
<td>1</td>
</tr>
<tr>
<td>k</td>
<td></td>
<td>Ph.D., etc.</td>
<td>0.0</td>
<td>3.882</td>
<td>0.0</td>
<td>0.666</td>
<td>0</td>
</tr>
<tr>
<td>l</td>
<td></td>
<td>Post doctoral</td>
<td>4.882</td>
<td>3.588</td>
<td>0.0</td>
<td>0.694</td>
<td>1</td>
</tr>
<tr>
<td>3.05 5</td>
<td></td>
<td>Occupational Status</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a</td>
<td></td>
<td>Employed full time</td>
<td>5.505</td>
<td>3.575</td>
<td>1.060</td>
<td>1.029</td>
<td>158</td>
</tr>
<tr>
<td>b</td>
<td></td>
<td>Employed part time</td>
<td>5.261</td>
<td>3.229</td>
<td>1.353</td>
<td>1.066</td>
<td>16</td>
</tr>
<tr>
<td>c</td>
<td></td>
<td>Not employed</td>
<td>5.505</td>
<td>3.346</td>
<td>0.862</td>
<td>1.105</td>
<td>62</td>
</tr>
<tr>
<td>Hypothesis Number</td>
<td>Population Segment&lt;sup&gt;a&lt;/sup&gt;</td>
<td>Type of Occupation</td>
<td>Mean</td>
<td>Std. Dev.</td>
<td>N</td>
<td>df</td>
<td>t Ratio&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>-------------------</td>
<td>---------------------------------</td>
<td>-------------------</td>
<td>------</td>
<td>----------</td>
<td>---</td>
<td>----</td>
<td>-------------------</td>
</tr>
<tr>
<td>3.06</td>
<td>Professional</td>
<td></td>
<td>5.722</td>
<td>3.559</td>
<td>1.004</td>
<td>1.120</td>
<td>76</td>
</tr>
<tr>
<td></td>
<td>Managerial</td>
<td></td>
<td>5.601</td>
<td>3.724</td>
<td>1.300</td>
<td>0.988</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>Technical</td>
<td></td>
<td>5.292</td>
<td>3.665</td>
<td>1.056</td>
<td>1.076</td>
<td>47</td>
</tr>
<tr>
<td></td>
<td>Clerical</td>
<td></td>
<td>5.311</td>
<td>3.655</td>
<td>1.115</td>
<td>1.245</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>Sales</td>
<td></td>
<td>5.059</td>
<td>4.206</td>
<td>1.971</td>
<td>1.279</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Farming, etc.</td>
<td></td>
<td>6.029</td>
<td>4.706</td>
<td>1.456</td>
<td>1.830</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Processing</td>
<td></td>
<td>5.574</td>
<td>4.271</td>
<td>1.064</td>
<td>1.085</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Machine trades</td>
<td></td>
<td>5.941</td>
<td>3.627</td>
<td>0.966</td>
<td>1.242</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Bench work</td>
<td></td>
<td>6.029</td>
<td>4.706</td>
<td>1.456</td>
<td>1.830</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Structural</td>
<td></td>
<td>6.118</td>
<td>4.706</td>
<td>1.041</td>
<td>1.830</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Housewife</td>
<td></td>
<td>5.417</td>
<td>3.601</td>
<td>0.765</td>
<td>1.043</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>Retired</td>
<td></td>
<td>6.029</td>
<td>4.706</td>
<td>1.456</td>
<td>1.830</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td></td>
<td>5.239</td>
<td>3.786</td>
<td>1.226</td>
<td>1.088</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Student</td>
<td></td>
<td>5.663</td>
<td>3.137</td>
<td>1.002</td>
<td>1.201</td>
<td>29</td>
</tr>
<tr>
<td>3.07</td>
<td>Years Since Last College Course</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0-1</td>
<td></td>
<td>5.562</td>
<td>3.501</td>
<td>0.969</td>
<td>1.113</td>
<td>117</td>
</tr>
<tr>
<td></td>
<td>2-3</td>
<td></td>
<td>5.193</td>
<td>3.504</td>
<td>1.497</td>
<td>0.953</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>4-5</td>
<td></td>
<td>5.429</td>
<td>3.333</td>
<td>0.999</td>
<td>0.936</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>6-10</td>
<td></td>
<td>5.034</td>
<td>3.718</td>
<td>0.644</td>
<td>0.728</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>Over 10</td>
<td></td>
<td>5.042</td>
<td>3.635</td>
<td>1.199</td>
<td>0.647</td>
<td>18</td>
</tr>
<tr>
<td>3.08</td>
<td>Yrs. Since Last Non-Credit Course</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0-1</td>
<td></td>
<td>5.674</td>
<td>3.632</td>
<td>0.946</td>
<td>1.162</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>2-3</td>
<td></td>
<td>5.223</td>
<td>3.697</td>
<td>1.250</td>
<td>0.992</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>4-5</td>
<td></td>
<td>5.735</td>
<td>3.185</td>
<td>0.788</td>
<td>0.949</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>6-10</td>
<td></td>
<td>5.209</td>
<td>4.098</td>
<td>0.748</td>
<td>1.109</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Over 10</td>
<td></td>
<td>5.784</td>
<td>3.809</td>
<td>0.941</td>
<td>0.973</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>None taken</td>
<td></td>
<td>5.460</td>
<td>3.393</td>
<td>1.054</td>
<td>1.033</td>
<td>155</td>
</tr>
<tr>
<td>Hypothesis</td>
<td>Index of Variable Number</td>
<td>Population Segment&lt;sup&gt;a&lt;/sup&gt;</td>
<td>Mean</td>
<td>Std. Dev.</td>
<td>N</td>
<td>df</td>
<td>t Ratio&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>------------</td>
<td>-------------------------</td>
<td>-------------------------------</td>
<td>------</td>
<td>-----------</td>
<td>---</td>
<td>----</td>
<td>-----------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>S</td>
<td>D</td>
<td>S</td>
<td>D</td>
<td>S</td>
</tr>
<tr>
<td>3.09</td>
<td>9</td>
<td>Yrs. Previous Experience</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a</td>
<td>0-1</td>
<td>5.329</td>
<td>3.531</td>
<td>0.967</td>
<td>1.156</td>
<td>111</td>
</tr>
<tr>
<td></td>
<td>b</td>
<td>2-3</td>
<td>5.553</td>
<td>3.528</td>
<td>0.958</td>
<td>0.918</td>
<td>58</td>
</tr>
<tr>
<td></td>
<td>c</td>
<td>4-5</td>
<td>5.734</td>
<td>3.197</td>
<td>1.131</td>
<td>0.984</td>
<td>36</td>
</tr>
<tr>
<td></td>
<td>d</td>
<td>6-10</td>
<td>5.720</td>
<td>3.696</td>
<td>1.211</td>
<td>0.593</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>e</td>
<td>Over 10</td>
<td>5.396</td>
<td>3.539</td>
<td>1.186</td>
<td>0.864</td>
<td>19</td>
</tr>
<tr>
<td>3.10</td>
<td>10</td>
<td>Number of Credit Courses Taken</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a</td>
<td>0-1</td>
<td>5.523</td>
<td>3.570</td>
<td>1.128</td>
<td>1.120</td>
<td>72</td>
</tr>
<tr>
<td></td>
<td>b</td>
<td>2-4</td>
<td>5.357</td>
<td>3.436</td>
<td>1.102</td>
<td>0.967</td>
<td>65</td>
</tr>
<tr>
<td></td>
<td>c</td>
<td>5-8</td>
<td>5.615</td>
<td>3.487</td>
<td>0.957</td>
<td>1.055</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td>d</td>
<td>9-13</td>
<td>5.699</td>
<td>3.348</td>
<td>0.975</td>
<td>0.989</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td>e</td>
<td>14 and over</td>
<td>5.769</td>
<td>3.308</td>
<td>1.091</td>
<td>1.066</td>
<td>74</td>
</tr>
<tr>
<td>3.11</td>
<td>11</td>
<td>Admission Status</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a</td>
<td>Full-time</td>
<td>5.497</td>
<td>3.018</td>
<td>1.094</td>
<td>1.128</td>
<td>51</td>
</tr>
<tr>
<td></td>
<td>b</td>
<td>Part-time; degree</td>
<td>5.522</td>
<td>3.603</td>
<td>0.977</td>
<td>1.020</td>
<td>161</td>
</tr>
<tr>
<td></td>
<td>c</td>
<td>Part-time; non-degree</td>
<td>5.148</td>
<td>3.922</td>
<td>1.226</td>
<td>0.803</td>
<td>23</td>
</tr>
<tr>
<td>II</td>
<td></td>
<td>Sex</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a</td>
<td>Male</td>
<td>5.369</td>
<td>3.456</td>
<td>1.136</td>
<td>1.065</td>
<td>126</td>
</tr>
<tr>
<td></td>
<td>b</td>
<td>Female</td>
<td>5.618</td>
<td>3.522</td>
<td>0.876</td>
<td>1.071</td>
<td>112</td>
</tr>
</tbody>
</table>

<sup>a</sup>See Index of Variables, Appendix C for a full description of each population segment.

<sup>b</sup>p < .01 unless otherwise indicated.
Population Segment Identified by Index of Variable Number, Appendix C

Teacher Dominated Teacher Consul-

Teacher Dominated tative Particip-

Auth. Benevolent Group

I 1 a Undergraduate
   b Graduate
   c Non-Degree

I 2 a 17-20
   b 21-30
   c 31-40
   d 41-60

I 3 a Married
   b Single
   c Divorced, Sep., or Wid.

I 4 a Eighth or under
   b Less than H.S. diploma
   c H.S. diploma
   d 0-2 yrs. col. w/o assoc. degree
   e Assoc. degree or 2-yr. certificate
   f 3-4 yrs. college
   g Bachelor degree
   h Less than Masters
   i Masters degree
   j Less than Ph.D.
   k Ph.D., etc.
   l Post doctoral

I 5 a Employed full time
   b Employed part time
   c Not employed

I 6 a Professional
   b Managerial
   c Technical
   d Clerical
   e Sales
   f Farming, etc.

Figure 6. Teaching Styles Used in Satisfying and Dissatisfying Courses as Identified by Each Population Segment
<table>
<thead>
<tr>
<th>Processing</th>
<th>Machine trades</th>
<th>Bench work</th>
<th>Structural</th>
<th>Housewife</th>
<th>Retired</th>
<th>Other</th>
<th>Student</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-1 year</td>
<td>2-3 years</td>
<td>4-5 years</td>
<td>6-10 years</td>
<td>Over 10 years</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| 0-1 year   | 2-3 years     | 4-5 years  | 6-10 years | Over 10 years |

| 0-1 year   | 2-3 years     | 4-5 years  | 6-10 years | Over 10 years |

<table>
<thead>
<tr>
<th>0-1 credit courses taken</th>
<th>2-4 credit courses taken</th>
<th>5-8 credit courses taken</th>
<th>9-13 credit courses taken</th>
</tr>
</thead>
<tbody>
<tr>
<td>14 and over credit courses taken</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Full-time admission status | Part-time, seeking degree |

Figure 6 (Continued)
II

- a Male
- b Female

Teacher Consultative Dominated Dominated Participative Group
Auth. Benevolent

--- Dissatisfying
--- Satisfying
Analysis of Selected Factors and Teacher Behaviors Which May Be Related to Satisfaction and Dissatisfaction

In addition to the seventeen Characteristics of Teaching Style, other factors and teacher behaviors were described by respondents to answer Questions 5 and 6 posed in the problem statement (Chapter I).

5. To what degree are selected teacher behaviors, which are not characteristic of a teaching style, used in the most satisfying courses and in the most dissatisfying courses?

6. To what degree are selected factors present in the most satisfying and in the most dissatisfying courses?

Question 5 refers to six items descriptive of teacher behaviors which are not characteristic of a teaching style. These items are identified in Section III of the Index of Variables as Items 4-9. The "selected factors" mentioned in Question 6 were chosen for their possible relationship to student satisfaction with college credit courses. As these are assorted items, they are simply classified as "factors" for this study. In the Index of Variables, these factors are listed in Section III as Items 1-3, 10-15.

The analysis of these teacher behaviors and other selected factors involved the determination of the percent

---

10 See Appendix C, Section III, p. 133.

11 Ibid., p. 132.
of the total population identifying a particular factor or teacher behavior as related to the most satisfying and the most dissatisfying courses.

In Appendix D, tables are given to present the data for these factors and teacher behaviors by the satisfying and the dissatisfying course. To illustrate the findings a bar graph is included following each table. With detailed answers to Questions 5 and 6 given in these tables, this discussion is limited to the general results and often their possible implications. Discussion of each factor follows its order of listing in the Index of Variables, Section III.

Main purpose of the course. To determine the types of courses identified as most satisfying and most dissatisfying, each respondent was asked to specify the main purpose of each of the two courses he had selected. Table 8 and Figure 7 show the results. It is interesting that students perceived most courses—both satisfying and dissatisfying courses—as designed primarily for the student to acquire information. Courses to apply knowledge and develop skills were selected as satisfying and dissatisfying by less than 25% of the population. This seems to indicate that an emphasis on acquisition of information does not adversely affect the students' feelings toward the courses.

12 See Appendix D, p. 137.
Student's main motivation for taking the course. The most apparent factors shown here are that 43% of the students took the "S" course to learn whereas only 17% of the students took the "D" course to learn. In the "D" courses 67% of the students were enrolled only because the course was required for a degree. As a heavy concentration of students (42%) took the "S" course mainly because it was required for a degree, it seems that satisfaction was possible regardless of the students' desire to learn, but dissatisfaction was more prevalent in "required" courses. The students' reasons for enrolling in "S" and "D" courses are shown in Table 9 and Figure 8.\textsuperscript{13}

Most significant factor motivating students to learn. Table 10 and Figure 9\textsuperscript{14} show the main motivating factors students felt during courses "S" and "D". In "S" courses, the most significant motivation for learning felt during the course was the instructor's generation of student interest with a "desire to learn" running a far-behind second. This substantiates the idea that the instructor is indeed a key factor in developing satisfaction. (It was not determined whether or not the instructor was the main source of dissatisfaction.)

\textsuperscript{13} Ibid., p. 138.
\textsuperscript{14} Ibid., pp. 139, 140.
The grade requirement motivated 31% of the "D" students, while 37% of those students in "D" courses never did develop an interest in learning. There were no students in satisfying courses who did not develop this interest.

Instructor's ability to utilize resources. It is interesting to note in Table 11 that 85% of the students in the "S" course felt the instructor was above average or an expert in utilizing available resources such as his own knowledge, the students, outside resource persons and informational materials. In the "D" course, however, only 13% were above the average in this area and 58% were below average or poor in their use of these resources. Figure 10 illustrates a reverse relationship between "S" and "D" courses. This finding could mean that the effective use of these resources is positively correlated to satisfaction or it may indicate that satisfied students tend to overrate their instructors.

Level of achievement expected of students. Instructors whose students felt satisfied with the course were concerned that the student learned. While the level of achievement expected was "average" or "high" in 73% of the "S" courses, only 12% of the instructors pushed for "top" achievement. Over half of the instructors in "D" courses expected average or high achievement, but 33% seemed to feel no concern about the amount students learned. Table 12 and Figure 11 show
these findings.\textsuperscript{15}

\textbf{Extent of training given in new educational techniques.} One of the more interesting contrasts between the instructor's behavior in the "S" and the "D" courses is tabulated in Table 13 and depicted in Figure 12.\textsuperscript{16} Most instructors in the "S" course made sure the students were familiar with any new educational techniques to be used in the course, whereas the faculty in "D" courses tended to assume that students were familiar with the techniques.

If the techniques used in "D" courses were more familiar to the students than those used in "S" courses, this finding would be biased. Further study would be required to determine the familiarity of students with the techniques used.

\textbf{Instructor's attitude toward attendance.} In 58\% of the satisfying courses the instructor encouraged attendance, but in one fourth of the "S" courses attendance was not even discussed. In "D" courses, a third of the instructors did not discuss attendance, but only in 37\% of the "D" courses was it encouraged. The lack of pressure in either satisfying or dissatisfying courses is somewhat of a surprise. Of most importance, however, is the finding that

\textsuperscript{15}\textit{Ibid.}, p. 142.

\textsuperscript{16}\textit{Ibid.}, p. 143.
the encouragement of attendance seemed to be a significant factor in the satisfying courses. Table 14 and Figure 13 show these results in detail.\footnote{Ibid., pp. 144, 145.}

Emphasis instructor placed on achieving final grade. Table 15 and Figure 14\footnote{Ibid., p. 146.} show no major difference in the amount of stress the instructor gave throughout the course to achieving a grade for the "S" and "D" courses. However, while instructors in about half of both "S" and "D" courses placed no emphasis on grades, the students in those courses did understand that low grades would be given if they did not meet course standards. Perhaps the patterns shown in Table 15 are more closely aligned to a general policy in grading existing in universities than to a correlation with the students' feelings.

Degree of logical sequence used in presenting course content. The responses to this factor are significant for adult educators. Of those courses which were most satisfying to students, 70% were conducted with a logical presentation of content for the entire course and for each class session. Of the less organized "S" courses, more were conducted randomly during the class session with logical presentation of material for the entire course; fewer were presented with no overall organization with logical order during the class
session.

While most instructors in satisfying courses used an organized approach to content presentation, the findings for "D" courses were somewhat puzzling. One third of the "D" courses were presented in a totally organized fashion, but another third were presented with no organization, either for the total course or for each session. These findings, shown in Table 16 and Figure 15,¹⁹ seem to indicate that the lack or presence of order in course presentation does not effect dissatisfaction, but that a course otherwise satisfying would be enhanced and satisfaction increased further by "logical course and class session" arrangement of the course content.

Student's perception of the accuracy of the course grade. A fascinating and unexpected finding is shown in Table 17 and Figure 16.²⁰ For all the dissatisfying courses, more than half the students felt they had received a grade which did accurately measure their achievement of course objectives. It is not known whether this group received high grades and other factors caused their dissatisfaction with the course, or whether they recognized they did not meet course objectives and this lack of achievement was the source, or a partial source, of their dissatisfaction.

¹⁹ Ibid., p. 147.
²⁰ Ibid., p. 148.
The fact that most students received an accurate grade in the "S" course was not unexpected.

Voluntary or non-voluntary basis for enrolling in the course. Table 18 and Figure 17 show that 61% of the "D" courses and 69% of the "S" courses were taken on a volunteer basis.\footnote{Ibid., p. 149.} This similarity seems to indicate that this factor may not be related to student attitudes toward college credit courses.

Source of tuition payment. A majority of students in both the "S" and "D" courses paid their own tuition. There was no evidence that the student who paid for his own education would work for greater satisfaction or would be more critical of a course. Table 19 and Figure 18 show the responses to this factor.\footnote{Ibid., p. 150.}

Number of students in the class. The size of the class was not an evident factor in either "S" or "D" courses. This lack of any difference between "S" and "D" class sizes would be a significant finding if it could be definitely shown that dissatisfaction is not a result of increased class size or that satisfaction is not decreased with an increase in student enrollment and not increased by reducing enrollment. The findings are given in Table 20 and
Figure 19.\textsuperscript{23}

Number of class sessions missed. Due to inadequate instruction in the questionnaire, some students incorrectly coded their responses. Thus the data for this factor were invalid.

Student's perception of instructor's academic competence. This final factor, tabulated in Table 21 and illustrated in Figure 20,\textsuperscript{24} shows interesting contrasts in the students' perception of the instructors of the "S" courses and the instructors of "D" courses. Of all the instructors of satisfying courses, none was rated less than average in his academic competence, but 31\% of the "D" course instructors were rated below average. In satisfying courses, 89\% of the instructors were above the average in academic competence, whereas only 33\% of the instructors in dissatisfying courses were rated above average or expert in this area.

The expertise attributed to "S" course instructors seems to indicate that either satisfaction was positively correlated with the academically qualified instructor, the satisfied student was overly impressed due to this feeling, or the competent teacher often appeared to be better qualified academically as a result of his expert teaching

\textsuperscript{23}Ibid., pp. 151, 152.

\textsuperscript{24}Ibid., p. 153.
skills.

Figure 20 shows a more normal curve for the number of instructors in "D" courses with the various academic competency ratings. This seems to indicate that this quality in an instructor has no correlation with student feelings of dissatisfaction.
CHAPTER V

CONCLUSIONS, OBSERVATIONS, RECOMMENDATIONS AND SUMMARY

Conclusions

Six questions were posed in the problem statement. Each required information based on adult students' description of teacher behaviors observed in college credit courses which the students specified as being the most satisfying and the most dissatisfying they had experienced. Two of the questions required formulation of null hypotheses to guide the research. The other four were answered by simple tabulations and percentage calculations which did not require the statement of hypotheses.

Question 1. What teaching styles were employed in the courses which students consider most satisfying?

This question was examined by the total population's collective response to all of the seventeen Characteristics of Teaching Style and by their response to each one of these Characteristics of Teaching Style. Of the four basic

---

1The total population consisted of all adults attending the Columbus Center of Indiana University-Purdue University at Indianapolis who had completed two or more college credit courses as adult students.


78
teaching styles, the Consultative style was used by instructors in the courses which the total population identified as being more satisfying than any others they had taken.

When each of the Characteristics of Teaching Style was examined separately, ten of the seventeen teacher behaviors used in the satisfying courses were characteristic of the same teaching style identified by the collective response to all seventeen Characteristics—the Consultative style. These behaviors are listed here, identified by the Characteristics of Teaching Style which they describe.

1. The instructor seriously considered student recommendations concerning techniques to be used to facilitate learning, but the final choice was made by the instructor. (Characteristic 3)

2. The instructor dominated the course activities; while there was considerable student participation, it generally involved instructor to student interaction. (Characteristic 5)

3. There was an extensive amount of instructor to student and student to instructor communication, with limited communication flow between students. (Characteristic 6)

4. The instructor viewed the student with understanding, but considered him as a subordinate. (Characteristic 8)

5. The instructor apparently wanted to respond to student reactions, but was often insensitive to them. (Characteristic 9)

3Ibid., p. 109.

4See Appendix A, p. 109.
6. Outside of class the instructor was helpful to students, but maintained a definite distance between himself and the students. (Characteristic 11)

7. The instructor demonstrated quite a bit of confidence and trust in the student. (Characteristic 12) ✓

8. The student had quite a bit of confidence and trust in the instructor. (Characteristic 13)

9. The instructor showed quite a bit of knowledge and understanding of student problems. (Characteristic 14)

10. Students competed for grades, but occasionally gave help to each other. (Characteristic 17)

For five of the Characteristics of Teaching Style, students in satisfying courses experienced teacher behaviors which were classed as "Teacher Dominated: Benevolent" on the Teaching Styles Chart. These behaviors are given below.

1. Students were asked for their recommendations concerning course objectives, but the instructor guided them to state those objectives which he had predetermined. (Characteristic 1)

2. Students were asked to help determine the course content, but were guided by the instructor to recommend the content which he had predetermined. (Characteristic 2)

3. Students were asked to help select the sequence of presenting or discussing course content, but the instructor guided them to recommend the sequence which he had predetermined. (Characteristic 3)

4. The instructor established the criteria for determining the course grade; however, the student was given a limited chance to influence the choice of grade. (Characteristic 7)

5. There was some cooperative teamwork among students. (Characteristic 15)
Either the students had never been involved in decision-making concerning Characteristics 1, 2, 3 and 7, or they did not feel that such involvement was desirable. As the presence or absence of cooperative teamwork among students is encouraged or inhibited by the instructor's behavior, student teamwork is considered an item characteristic of teaching style. Apparently students in satisfying courses generally worked independently of other students. Even though these behaviors are characteristic of the Teacher Dominated:Benevolent style, they were significantly different from the behaviors observed in the dissatisfying courses.

Students in satisfying courses found teacher behaviors of the "Participative Group" style for only two of the Characteristics of Teaching Style.

1. The instructor was friendly with the students during the class period, developing a relationship between instructor and student similar to that of two colleagues. (Characteristic 10)

2. For a good performance, the student received supportive encouragement and various forms of reward from the instructor. (Characteristic 16)

In summary, teacher behaviors representative of three teaching styles were used in satisfying courses: Teacher Dominated:Benevolent, Consultative and Participative Group. Of these, characteristics of the Consultative style of teaching were most prevalent in satisfying college credit courses.
Question 2. What teaching styles were employed in the courses considered most dissatisfying?

The composite mean response to all seventeen Characteristics of Teaching Style showed that the teaching style identified most often in courses which were dissatisfying to adult students was "Teacher Dominated: Benevolent."

Examination of each Characteristic of Teaching Style showed that teacher behaviors most used in dissatisfying courses were also classed as "Teacher Dominated: Benevolent." These behaviors are specified here, identified by their respective Characteristic of Teaching Style.

1. The instructor dominated the course, verbally seeking student participation, but shutting off participation by not recognizing the students, contradicting many of their statements and by discouraging student to student interaction. (Characteristic 5)

2. Communication was primarily from instructor to student, with some from student to instructor. (Characteristic 6)

3. The instructor viewed the student as a person, but as one who should keep his distance. (Characteristic 8)

4. The instructor responded only verbally to student reactions. There was no real attempt to change his pattern of behavior or his presentation to adapt to student feeling. (Characteristic 9)

5. The instructor showed some confidence and trust in the student, but it was of a condescending nature. (Characteristic 12)
6. The student felt some confidence and trust in the instructor, but it was of a subservient nature. (Characteristic 13)

7. The instructor showed some knowledge and understanding of student problems. (Characteristic 14)

8. There was some cooperative teamwork among students. (Characteristic 15)

In dissatisfying courses, four teacher behaviors definitive of Characteristics of Teaching Style were classed within the "Consultative" style.

1. The instructor was helpful to students during the class, but he maintained a definite distance between himself and the students. (Characteristic 10)

2. Outside of class the instructor was helpful to students, but maintained a definite distance between himself and the students. (Characteristic 11)

3. For good performance, each student received encouragement from the instructor based somewhat on fear, but mainly on reward. (Characteristic 16)

4. Students competed for grades, but occasionally gave help to each other. (Characteristic 17)

Teacher behaviors representing five of the seventeen Characteristics of Teaching Style were classed as "Teacher Dominated: Authoritative" by students for their most dissatisfying courses.

1. The course objectives were determined solely by the instructor. (Characteristic 1)

2. The course content was selected solely by the instructor. (Characteristic 2)

3. The sequence of presenting or discussing course content was selected solely by the instructor. (Characteristic 3)

4. The techniques used to aid learning were determined solely by the instructor. (Characteristic 4)
5. The instructor set the criteria for establishing the course grade and determined that grade without input from students. (Characteristic 7)

The results of Question 2 show that teacher behaviors characteristic of three basic teaching styles were used in dissatisfying courses: "Teacher Dominated: Authoritative," "Teacher Dominated: Benevolent" and "Consultative." The "Teacher Dominated: Benevolent" style was identified by the adult students as employed most often by instructors in those dissatisfying courses.

Some similarities should be noted between the teaching styles used in the most satisfying courses and those used in the most dissatisfying courses. These behaviors were used in both satisfying and dissatisfying courses:

1. The instructor was helpful to students outside of class, but he maintained a definite distance between himself and the students. (Characteristic 11)

2. There was some cooperative teamwork among students. (Characteristic 15)

3. Students competed for grades, but occasionally gave help to each other. (Characteristic 17)

Question 3. For the total population, were the teaching styles used in the most satisfying courses significantly different from those used in the most dissatisfying courses?

All of the null hypotheses used as a basis for answering this question were rejected. This indicates

---

5See Figure 4, p. 49.
that, with only one chance in a hundred that these findings would have occurred by chance, the teaching style employed in the students' most satisfying courses was different from the teaching style used in their most dissatisfying courses. This difference was evident, not only for the composite responses to all seventeen Characteristics of Teaching Style,\(^6\) but was found for each of those Characteristics of Teaching Style.\(^7\)

The difference between styles used in satisfying and dissatisfying courses varied among the Characteristics of Teaching Style. Even though scattered at random in the questionnaire, certain types of teaching style characteristics clustered together when they were ranked by t ratios.\(^8\) Those Characteristics for which respondents indicated the greatest difference between teacher behaviors involved the relationship between instructor and student and the direction of communication flow. These are listed here in rank order by the difference between means of satisfying and dissatisfying courses.

1. Instructor's knowledge and understanding of student problems
2. Degree of confidence and trust the student has in the instructor

\(^6\)See Table 3, p. 43.
\(^7\)See Table 4, p. 48.
\(^8\)See Table 6, p. 52, and Figure 5, p. 53.
3. Degree of confidence and trust the instructor has in the student

4. Direction of communication flow

5. Kind of encouragement for good performance each student receives from the instructor

6. Instructor's relationship with students during class

7. Instructor's view of the student as perceived by the student

8. Degree to which instructor responds to student reactions

The teacher behaviors descriptive of three Characteristics related to student involvement in decisions were clustered in this ranking by t ratios. There was progressively less difference between the means of the satisfying and the dissatisfying courses for each of these items.

9. Degree of domination by the instructor

10. Degree of student and/or instructor involvement in determining the techniques used to aid learning

11. Degree of student and/or instructor involvement in determining course content

Three isolated Characteristics came next in this rank order.

12. Amount of cooperative teamwork among students

13. Instructor's attitude toward students outside of class

14. Kind of encouragement for good performance each student received from other students
The last items in this rank order of Characteristics of Teaching Style are teacher behaviors related to the degree of student involvement in decisions.

15. Degree of student and/or instructor involvement in determining course objectives

16. Determination of criteria for establishing course grade, or determination that no grade was to be issued

17. Degree of student and/or instructor involvement in determining the sequence of presenting or discussing content

It is important to note that while the difference between teacher behaviors used in satisfying and in dissatisfying courses progressively lessened as indicated by the ranked Characteristics of Teaching Styles, there was a significant difference between the observed behaviors in each case.⁹

Question 4. For selected segments of the population, was there a significant difference in the teaching style identified with the most satisfying course and the teaching style identified with the most dissatisfying course?

This question was answered by examining the composite mean response of each population segment¹⁰ to all seventeen Characteristics of Teaching Style for the satisfying and the dissatisfying courses. All of the null hypotheses

---

⁹See Table 6, p. 52.

¹⁰See Table 7, p. 62.
used with this question were rejected except for those cases in which the number of respondents was less than ten. Therefore, it was assumed that the few respondents in segments where the hypothesis was accepted were not representative of the population.

As the various segments of the population did observe a definite difference between the teaching style employed in their most satisfying and the style used in their most dissatisfying courses, it is apparently not very important to consider the demographic characteristics of students when designing teacher behaviors to achieve satisfying or dissatisfying feelings. Further confirmation of this position is obtained from the fact that the Consultative teaching style was found in the most satisfying courses for each of the population segments and the Teacher Dominated: Benevolent style was observed in students' most dissatisfying courses by each population segment.\textsuperscript{11} The only exceptions were those segments of the population represented by less than ten persons.

Question 5. Of the selected teacher behaviors which were not characteristic of a teaching style, which were used in the most satisfying courses and which were employed in the most dissatisfying courses?

\textsuperscript{11}See Figure 6, p. 65.
These teacher behaviors were prevalent in the most satisfying courses:

1. The instructor exhibited above average or expert ability in the use of resources such as his own knowledge, students, outside resource persons or informational materials. (See Table 11 and Figure 10)  

2. The instructor expected that the students have average or high achievement. (See Table 12 and Figure 11)  

3. The instructor made sure every student was familiar with new educational techniques to be used during the course. (See Table 13 and Figure 10)  

4. The instructor encouraged class attendance, but changed the course grade only if absences were excessive. (See Table 14 and Figure 13)  

5. The instructor placed no stress on grades, but the students recognized that low grades were possible. (See Table 15 and Figure 14)  

6. The instructor organized (or worked with students to organize) the content for the entire course and for each class session in a logical manner. (See Table 16 and Figure 15)  

The following teacher behaviors were found most often in courses identified by the adult students as being most dissatisfying:

1. The instructor's ability to utilize resources such as his own knowledge, students, outside resource persons or informational materials was generally ranked as average, below average or poor. (See Table 11 and Figure 10)  

12 Tables and Figures indicated with these items are found in Appendix D, pp. 141-147.
2. There was confusing evidence about the instructor's concern, or lack of it, for the student's academic achievement. A third of the instructors showed no concern about the student's success or failure, but fifty percent of the instructors expected average or high achievement. (See Table 12 and Figure 11)

3. The instructor assumed students were familiar with new educational techniques to be used in the course, and gave no training in the use of these techniques. (See Table 13 and Figure 12)

4. The instructor encouraged attendance, without excessive correlation between absences and grades, or he did not discuss attendance. (See Table 14 and Figure 13)

5. The instructor placed no stress on grades, but students recognized low grades were possible. This behavior was also most prevalent in satisfying courses. (See Table 15 and Figure 14)

6. Logical presentation and random presentation of the content of the entire course and for each class session were observed to a similar degree in dissatisfying courses. (See Table 16 and Figure 15)

Question 6. To what degree were selected factors present in the most satisfying and the most dissatisfying courses?

Certain factors were selected for their possible relationship to student satisfaction with college credit courses. As these items did not fit any particular category, they were classified and referred to as "factors" for this study.

The most prevalent factors present in the satisfying courses are given here if they differed from the factors

\[13\text{See Index of Variables, Appendix C, Section III, p. 132.}\]
most often found in the dissatisfying courses. (Those which were also found in dissatisfying courses are listed later.) Tables and Figures which support these conclusions are identified with each factor and given in Appendix D.

1. The students' main motivation to take the course was either their desire to learn or the fact that it was required to receive their degree. (See Table 9 and Figure 8)

2. Interest in the course generated by the instructor was the most significant factor which motivated the student to learn during the course. The second most important factor was the students' desire to learn. (See Table 10 and Figure 9)

3. The students felt the grade they received for the course accurately reflected the degree of their achievement of course objectives. (See Table 17 and Figure 16)

4. The instructor's academic competence was rated as above average or expert. (See Table 21 and Figure 20)

Factors given below were used in a substantial number of dissatisfying courses, but were not the most prevalent factors in satisfying courses.

1. The main motivation to enroll in the course was the fact the course was required to receive his degree. (See Table 9 and Figure 8)

2. During the course a substantial number of respondents never did develop an interest in learning and most others were motivated to learn to obtain a grade as required for graduation. (See Table 10 and Figure 9)

3. Over half of the students felt the grade they received accurately reflected the degree to which they achieved course objectives. (See Table 17 and Figure 16)
4. There was no obvious difference in the class size of satisfying and dissatisfying courses. (See Table 20 and Figure 19)

From the findings, additional conclusions were formulated which are not related to the questions just discussed. More than half of the total population was exposed to each of the four basic teaching styles and over seventy percent had experienced three of these styles: Teacher Dominated; Benevolent, Consultative and Participative Group. On this basis it was concluded that the population had been sufficiently exposed to different teacher behaviors to adequately judge the merits of each style.

One fourth of the respondents had never taken either a "dissatisfying" or a "very dissatisfying" course and yet only two percent had never experienced a satisfying college credit course. This may indicate that colleges are doing a better than average job in pleasing their adult constituents. This supports a Carnegie Commission sponsored survey which showed that 71% of the undergraduate students were satisfied with their undergraduate education.

14 See Table 2, p. 38.
15 See Table 1, p. 37.
Observations

The results of this study should be translated into practical terms to be of value to the practitioner of adult education. While this may be more effectively accomplished by the reader, some initial observations are made here which project beyond the strict objectivity of the other portions of this report. This interpretation of the research findings assumes that student satisfaction is desirable and suggests guidelines for designing and facilitating college credit courses to develop feelings of satisfaction in adult students.

It is important for the adult educator to note that this research is not based upon objective responses of a trained observer or upon the subjective responses of the instructor. Consequently, the educator should be constantly cognizant of the students' viewpoints when designing learning experiences if student satisfaction is to be achieved and dissatisfaction avoided.

Throughout the learning process, the instructor should recognize that his behaviors are correlated with student feelings. His design of the course, the degree of student involvement which he permits and the relationship he develops with the students play key roles in the satisfaction or dissatisfaction felt by adult students.
The findings provide data related to course design which should be considered by the adult educator. The learning experience needs to be organized in a logical manner. This organization should be evident to the students for the entire course and during each class session. If the students have no input into the course design, particularly after the course is in progress, the course will tend to be dissatisfying. However, they can be satisfied if their opinion is sought, even though the instructor may guide the group to decisions which he has predetermined. It is the opinion of this researcher that students have generally been limited in the degree of influence on decisions effecting the course, and that further involvement of students in the decision-making process will increase student satisfaction.

Of no major influence on student satisfaction or dissatisfaction are the class size and the degree of emphasis which the instructor places throughout the course on achieving the final course grade, although there was a slight tendency to not emphasize grades in courses which were satisfying to students. When designing a college credit course for adult students, it is not necessary to consider their demographic background.

The greatest difference between satisfying and dissatisfying courses was evident in the relationship
between the instructor and his students. Essential elements of the relationship, required for student satisfaction, include a real understanding of individual student problems and a mutual confidence and trust between the instructor and the students. Students also need to feel that the instructor expects them to achieve course objectives and is actively supporting their effort to learn. This research also indicates that the instructor should encourage class attendance, indicating through this his concern for their achievement. Adults seem to respond best when they sense a rapport with the instructor which is similar to that of professional colleagues.

Cooperative teamwork should be developed among students, with the instructor serving as coordinator of the team efforts. Similarly, the instructor and all students need to actively participate in a multi-directional flow of communication, not dominated by the instructor, but perhaps directed by him or his influence. To achieve this involvement of students in active learning activities, adults are often exposed to unfamiliar methods. Instructors may assume that students will begin learning when involved in well-designed learning experiences regardless of their previous exposures to these methods or techniques. This research shows that students are dissatisfied with such teaching. Satisfaction requires that students be taught
to use new teaching methods prior to concentrating on learning course content.

Finally, the importance of the instructor is amplified by the finding that interest in learning generated by the instructor during the course was the key motivating factor for the students. Even those who enroll in a course to meet some requirement, not really caring about learning, can be motivated and satisfied by proper course design, carefully selected teacher behaviors and supportive teacher attitudes.

Recommendations for Further Study

While completing this research, several voids in documented knowledge were identified.

1. Is there any correlation between student achievement of course objectives and feelings of satisfaction and/or dissatisfaction?

2. Does the student's own tendency toward being an authoritarian or a group oriented person have an affect on the style of teaching which satisfies or dissatisfies him?

3. To what degree do teacher behaviors cause student satisfaction and/or dissatisfaction?

4. Assuming that the instructor does have considerable influence on student satisfaction and dissatisfaction, how would student feelings change with the substitution of
mechanized teaching or other types of individual study for teacher-directed activities?

5. Would a high degree of learning relevant to student needs or desires supercede poor instruction in affecting student satisfaction?

6. Do the teacher and the student agree on teaching styles which satisfy?

Additional research directly related to this study is suggested to strengthen its findings and expand its scope:

1. Adapt and administer the questionnaire to college age groups and compare the findings with the responses of adults found by this study.

2. Administer the questionnaire to adults, asking them to indicate which teaching behaviors should be used in satisfying courses.

Summary

The purpose of this study was to determine the styles of teaching prevalent in college credit courses adult students considered satisfying and in those courses they considered dissatisfying. It was also to discover whether there was a distinction between the teaching styles used in satisfying courses and in dissatisfying courses.

The research population was drawn from students attending the Columbus Center of Indiana University-Purdue
University at Indianapolis the fall semester of 1971, who had completed two or more college credit courses as an adult student. The entire population was used in the study and the questionnaire administered during scheduled classes to obtain a 100% return.

Students were asked to identify two college credit courses: the one most satisfying course and the one most dissatisfying course taken as an adult. Participants, responding through a questionnaire, specified teacher behaviors employed in each course and indicated the presence of other selected factors which may have affected student feelings. The questionnaire also gathered demographic data based on the date the student enrolled in the respective courses.

A Teaching Styles Chart composed of a matrix of teacher behaviors was developed to define the ingredients of four basic teaching styles: Teacher Dominated: Authoritative, Teacher Dominated:Benevolent, Consultative and Participative Group.\(^\text{17}\)

The review of literature was focused on styles of teaching and student satisfaction. Several classifications of teaching style were used, from a simple contrast between two terms to those with numerous variables used to define a teaching style. A number of studies examined the

\(^{17}\text{See Appendix A., p. 109.}\)
correlation between teaching styles and academic achievement, but there was a paucity of research which dealt with student satisfaction or the correlation of teacher behaviors with student satisfaction or dissatisfaction.

Analysis of the data identified teacher behaviors and basic teaching styles which had occurred in the students' most satisfying and in their most dissatisfying courses. Responses by the total population and by each segment of the population were plotted on a continuum of teaching styles. This continuum represented the continuous flow of teaching styles from teacher domination in which courses are conducted in an authoritative manner to the participative style which involves both students and the instructor in the decision-making process. The responses for satisfying and dissatisfying courses were plotted on seventeen of these continuums, each representing a characteristic of teaching style.18

The t test between means was used to test the significance of the difference between the satisfying and the dissatisfying courses.

The prevalence of other teacher behaviors which were not characteristic of a teaching style and of other selected factors related to college credit courses were determined

---

18 Ibid., p. 109.
by frequency count and percentage calculations of the total population responding to each item.

The findings show that there was a significant difference between the teaching styles used in courses which were satisfying to adult students and those styles used in courses which were viewed as dissatisfying. Unexpectedly, when ranked according to the degree of difference between satisfying and dissatisfying courses, similar characteristics of teaching styles formed identifiable clusters. The most significant difference occurred with the group of characteristics related to teacher-student relationships and the direction of communication flow. Of some less significance, were differences found in characteristics dealing with the degree of recognized teacher domination in the classroom and the students' involvement in decisions concerning the use of instructional techniques and course content. Less difference existed between the satisfying and the dissatisfying mean scores of three characteristics which specified peer relationships and the instructor's attitude toward students outside of class. The final grouping of similar characteristics of teaching style dealt with the degree of student and/or instructor involvement in determining course objectives, grading criteria and the sequence for presenting course content. While there was
less difference between the teacher behaviors descriptive of these characteristics found in satisfying courses and those observed in dissatisfying courses, the difference was significant.

A third finding was also of interest. The continuum of teaching styles has the teacher dominated styles to the left of the continuum and the participative styles at the right end. For each Characteristic of Teaching Style, the teacher behaviors used in satisfying courses was to the right of the teacher behaviors used in dissatisfying courses when plotted on this teaching styles continuum.

The study indicated that all segments of the population observed the same basic style of teaching in both the satisfying and the dissatisfying courses: Teacher Dominated; Benevolent behaviors were used in dissatisfying courses and Consultative behaviors were employed in the most satisfying courses.

The evidence seems to indicate that the instructor's behaviors, both those which are characteristic of teaching style and those which are not, may influence feelings of satisfaction and dissatisfaction in adult students. It was also shown that the students' main motivation to take

---

19 Ibid., p. 109.

20 Ibid., p. 109.
the course, his source of motivation during the course, the perceived accuracy of grade received, and the instructor's academic competence varied between the satisfying and the dissatisfying courses. There seemed to be no difference in the satisfying and dissatisfying courses, however, between the main purpose of the course, the voluntary or non-voluntary basis for taking the course, the source of tuition payment and the class size.

This study only described the teacher behaviors which adult students observed in satisfying and dissatisfying college credit courses. Further study is required to determine the actual effect of teacher behaviors on those feelings and to find whether any correlation exists between achievement and feelings of satisfaction and/or dissatisfaction.
BIBLIOGRAPHY
BIBLIOGRAPHY


Solomon, Daniel and Miller, Harry L., Exploration in Teaching Styles, Center for the Study of Liberal Education for Adults, Syracuse, 1951, 45 pp.

Southern, Albert M., Attitudes Found Among Students in University Courses on Adult Education When Given Increased Opportunities for Self-Direction, Unpublished dissertation, The Ohio State University, Columbus, 1971, 135 pp.


APPENDIX
## Appendix A
### Teaching Styles Chart

<table>
<thead>
<tr>
<th>Characteristics of Teaching Styles</th>
<th>Teacher Dominated: Authoritative</th>
<th>Teacher Dominated: Benevolent</th>
<th>Consultative</th>
<th>Participative Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Degree of student and/or instructor involvement in determining course objectives</td>
<td>Objectives are determined solely by the instructor</td>
<td>Students are asked, but are guided to state objectives predetermined by the instructor</td>
<td>Student objectives are seriously considered, but final decisions are made by the instructor</td>
<td>Course objectives are determined by group decision involving instructor and students</td>
</tr>
<tr>
<td>2. Degree of student and/or instructor involvement in determining course content</td>
<td>Content is selected solely by the instructor</td>
<td>Students are asked, but are guided to identify content predetermined by the instructor</td>
<td>Student recommendations are seriously considered, but the final decision is made by instructor</td>
<td>Course content is determined by group decision involving instructor and students</td>
</tr>
<tr>
<td>3. Degree of student and/or instructor involvement in determining the sequence of presenting or discussing content</td>
<td>Sequence is selected solely by the instructor</td>
<td>Students are asked, but are guided to recommend the sequence predetermined by the instructor</td>
<td>Student recommendations are seriously considered, but the final decision is made by instructor</td>
<td>Sequence is determined by group decision involving instructor and students</td>
</tr>
<tr>
<td>4. Degree of student and/or instructor involvement in determining the techniques used to aid learning</td>
<td>Techniques are determined solely by the instructor</td>
<td>Students are asked, but are guided to recommend the techniques predetermined by the instructor</td>
<td>Student recommendations are seriously considered, but final decision is made by instructor</td>
<td>Techniques are determined by group decision involving instructor and students</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Characteristics of Teaching Styles</th>
<th>Teacher Dominated: Authoritative</th>
<th>Teacher Dominated: Benevolent</th>
<th>Consultative</th>
<th>Participative Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. Degree of domination by instructor</td>
<td>Completely dominated by instructor</td>
<td>Teacher dominated: instructor verbally seeks student participation, but shuts it off by not recognizing it, contradicting many statements and by discouraging student to student interaction</td>
<td>Teacher dominated: considerable student participation, but generally instructor to student interaction</td>
<td>Students and instructor are involved in group decisions and group problem solving</td>
</tr>
<tr>
<td>6. Direction of communication flow</td>
<td>One way: from instructor to student</td>
<td>Limited two way: primarily instructor to student. Some student to instructor</td>
<td>Limited multi-directional: extensive instructor to student, student to instructor, limited student to student</td>
<td>Full multi-directional: instructor to student; student to instructor; student to student</td>
</tr>
<tr>
<td>7. Determination of criteria for establishing course grade, or determination that no grade was to be issued</td>
<td>Instructor sets criteria and determines grade</td>
<td>Instructor sets criteria, student is given limited chance to influence choice of grade</td>
<td>Students were asked for suggestions for grading criteria, instructor determines criteria and the course grade</td>
<td>Students and instructor through group decision set the objectives. Each student and the instructor cooperatively determined student's grade</td>
</tr>
<tr>
<td>8. Instructor's view of the student as perceived by the student</td>
<td>As an object or a number</td>
<td>As a person, but one who should keep his distance</td>
<td>With understanding, but as a subordinate</td>
<td>As an associate, with the instructor retaining a role similar to &quot;activity coordinator&quot;</td>
</tr>
<tr>
<td>Characteristics of Teaching Styles</td>
<td>Teacher Dominated: Authoritative</td>
<td>Teacher Dominated: Benevolent</td>
<td>Consultative</td>
<td>Participative Group</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>---------------------------------</td>
<td>------------------------------</td>
<td>--------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>9. Degree to which instructor responds to student reactions</td>
<td>None; he is not aware of any student feeling</td>
<td>Some, but verbally only. There is no real attempt to change his pattern of behavior or presentation to adapt to student feeling</td>
<td>Apparently wants to respond, but is often insensitive; therefore does not respond</td>
<td>Is aware of student reaction; through group interaction adapts readily when boredom, lack of understanding or feelings of anger or distrust exist</td>
</tr>
<tr>
<td>10. Instructor's relationship with students during class</td>
<td>Aloof; not communicative</td>
<td>Cold, but communicative</td>
<td>Helpful, but maintains a definite distance between instructor and student</td>
<td>Friendly; relation is that of a colleague</td>
</tr>
<tr>
<td>11. Instructor's attitude toward students outside of class</td>
<td>Aloof; not communicative</td>
<td>Cold, but communicative</td>
<td>Helpful but maintains a definite distance between instructor and student</td>
<td>Friendly; relation is that of a colleague</td>
</tr>
<tr>
<td>12. Degree of confidence and trust the instructor has in the student</td>
<td>Very little</td>
<td>Some, but of a condescending nature</td>
<td>Quite a bit</td>
<td>Much</td>
</tr>
<tr>
<td>13. Degree of confidence and trust the student has in the instructor</td>
<td>Very little</td>
<td>Some, but of a subservient nature</td>
<td>Quite a bit</td>
<td>Much</td>
</tr>
<tr>
<td>Characteristics of Teaching Styles</td>
<td>Teacher Dominated: Authoritative</td>
<td>Teacher Dominated: Benevolent</td>
<td>Consultative</td>
<td>Participative Group</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>---------------------------------</td>
<td>-------------------------------</td>
<td>--------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>14. Instructor's knowledge and understanding of student problems</td>
<td>Very little</td>
<td>Some</td>
<td>Quite a bit</td>
<td>Very well and encourages students to maintain academic quality in spite of their problems; makes strong effort to help each student</td>
</tr>
<tr>
<td>15. Amount of cooperative teamwork among students</td>
<td>Very little</td>
<td>Some</td>
<td>Quite a bit</td>
<td>Extensive</td>
</tr>
<tr>
<td>16. Kind of encouragement for good performance each student receives from instructor</td>
<td>Based on fear of punishment</td>
<td>Based partly on fear of punishment and partly on reward</td>
<td>Based somewhat on punishment and much on reward</td>
<td>Based on reward and supportive encouragement</td>
</tr>
<tr>
<td>17. Kind of encouragement for good performance each student receives from other students</td>
<td>Each hopes others will do poorly</td>
<td>Most students are concerned only about their own success</td>
<td>Students compete for grades, but give occasional help to each other</td>
<td>Students encourage and aid each other to succeed</td>
</tr>
</tbody>
</table>
APPENDIX B

QUESTIONNAIRE

Introduction

As a student, you have varying feelings about the college credit classes you have attended. You may have felt very satisfied, very frustrated or disgusted, or you may have felt more neutral (neither satisfied nor dissatisfied) about a particular course. This study will attempt to determine the styles of teaching or classroom management which tend to develop these feelings in you.

☐ If you participated in this study in another class this semester, check here. Do not continue, but remain in your seat. You may read other material or review your class notes. PLEASE DO NOT TALK until all questionnaires have been collected.

October 18, 1971
Section I

Please read this entire section before filling in the blanks.

Consider all college credit courses you have taken as an adult prior to this semester. In order to classify as an adult at the time you took those courses, you would have registered for each of those courses while you fit in one or more of the following categories. Check the one or more categories which applied to you when you registered for those courses.

☐ 1. You had taken a one year (or more) break in your formal high school or college education and you were 21 years or older when you registered for those courses.

☐ 2. You had, at sometime, taken a one year (or more) break in your formal high school or college education, you were married and you were holding a full time job when you registered for those courses. (Any age)

☐ 3. You were married and 21 years or older when you registered for those courses.

If you have not completed two or more courses for college credit while classified in one or more of the three (3) categories indicated above, check here. ☐ Do not continue, but remain in your seat. You may read other material or review your class notes. PLEASE DO NOT TALK until all questionnaires have been collected.

Throughout the questionnaire, the classification adult will appear repeatedly. Be sure you refer to the definition of adult as given in the item(s) you checked above.
Of all those college credit courses you have taken as an adult, you are asked to select two courses: the one course which was most satisfying to you, and the one which was most dissatisfying. In the appropriate blanks below print the name of these courses.

1. What one college credit course, taken as an adult, was more satisfying to you than any others? (Abbreviate so the subject can be identified, but fits within the tick marks. Use 1 blank between each word.)

________________________

(This course will be referred to as "S")

2. What one college credit course, taken as an adult, was more dissatisfying to you than any others?

________________________

(This course will be referred to as "D")

Before proceeding, be certain that each of these courses was:

1. Not a course you are taking this term.
2. A college credit course.
3. Taken during the period you have been classified as an adult, as indicated above.
4. The one class was more satisfying, and the other class more dissatisfying, to you than any other college credit course you have taken as an adult.
Section II

Instructions: All questions in Section II require two responses. One response concerns the one college credit course you indicated as being the most satisfying (S) to you as an adult student. The second response should refer to that course you selected as being the most dissatisfying (D) you have taken.

You will be asked to recall as much as you can about each course. Try to keep them separate in your thinking and give the best and most honest answers possible.

Place the number which corresponds to the most accurate response in the appropriate box. Use the left box marked "S" for that course which was the most satisfying to you. Use the right box marked "D" for that course which was most dissatisfaction. Do not leave any boxes blank.

Example:

S      D

[2][4] During what term were you enrolled in that course?

1. Summer
2. Fall
3. Winter
4. Spring

** ** ** ** ** **

STOP: Do not proceed until instructed to do so. If any part has not been clear to you, ask for clarification now.
1. What was the main purpose for each of those courses?
   1. To acquire information
   2. To acquire a skill
   3. To apply knowledge to new situations
   4. To develop specific attitudes

2. What degree of satisfaction or dissatisfaction did you feel as a result of each course?
   1. Very satisfied
   2. Satisfied
   3. Neither satisfied nor dissatisfied
   4. Dissatisfied
   5. Very dissatisfied

3. What was your main motivation to take that course?
   1. To have something to do
   2. Desire to learn
   3. Pressure from friends or associates
   4. Need to learn course content to maintain job or to qualify for a promotion
   5. It was required for a degree

4. During the course, what was the most significant factor in motivating you to learn?
   1. Pressure from instructor
   2. Need of grade to have course tuition paid by company or agency
   3. Need of grade to meet college requirements
   4. Competition with one or more of your peers
   5. Interest generated by instructor
   6. Interest generated by other members of the course
   7. Desire to learn
   8. You never did develop an interest in learning during that course
5. How would you rate the instructor's ability to utilize resources such as his own knowledge, students, outside resource persons and informational material?

1. Expert (used the resources appropriate to each situation)
2. Above average
3. Average
4. Below average
5. Poor (may have used one source to extensive degree, but failed to utilize others which would have benefited the class)

6. What level of academic achievement do you feel the instructor expected from the student?

1. There was no concern about the student's success or failure
2. Expected minimum achievement
3. Expected average achievement
4. Expected high achievement
5. Expected top achievement

7. To what extent were students given training in educational techniques which may have been new to some or all of the group (buzz groups, participation in discussion, et cetera)?

1. Made sure everyone was competent in any technique used or no new technique was used
2. Made sure all students were familiar with the procedures
3. Generally covered the procedure for new techniques
4. Sometimes briefly discussed a new technique
5. Usually assumed students were familiar with the technique and with its procedure

8. What was the instructor's attitude toward attendance?

1. Any absence affected grade if not due to emergency
2. Over two absences definitely affected grade
3. Attendance was encouraged, but grade was not affected except by excessive absences
4. Attendance was encouraged, but absences did not effect grade
5. Attendance was not discussed
9. How much emphasis did the instructor place on achieving the final grade for the course from the beginning of the course?

1. None - Used Pass/Fail, Satisfactory/Unsatisfactory
   A grade only
2. Grades would be limited to A, B or C
3. No stress on grades, but students recognized low grades were possible
4. Quite a bit
5. Very much

10. How was the course content presented or discussed, daily and as a whole?

1. Total course was presented in a logical sequence; each session was presented in a logical sequence
2. Total course was presented in a logical sequence; each session's content was presented in random fashion
3. Total course was presented randomly; the content for each session was presented in a logical sequence
4. The content for both the course as a whole and each class session was presented randomly

PROCEED IMMEDIATELY TO SECTION III
SECTION XII

Instructions: As in Section II, all questions in Section III require two responses. One response concerns the one college credit course you indicated as being the most satisfying (S) to you as an adult student. The second response should refer to that course you selected as being the most dissatisfying (D) you have taken.

You will be asked to recall as much as you can about each class. Try to keep them separate in your thinking and give the best and most honest answers possible.

On the lines below each item, place an (S) at the point which you feel best describes that most satisfying course. Treat each item as a continuous variable from the extreme at one end to the extreme of the other end.

In addition, place a (D) at the point which you feel best describes that most dissatisfying course. Place the (S) and (D) in the spaces rather than on a tick mark.

EXAMPLE:

<table>
<thead>
<tr>
<th>How fair was that instructor?</th>
<th>Very Fair</th>
<th>S</th>
<th>Fair</th>
<th>D</th>
<th>Unfair</th>
<th>Very Unfair</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>4</td>
<td></td>
<td>3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

11. To what extent did students and/or instructor determine the sequence of presenting or discussing the course content?

- Sequence was selected solely by the instructor
- Students were asked to help determine sequence, but were guided to identify content which had been pre-determined by the instructor
- Student recommendations were seriously considered, but the final decision was made by the instructor
- Sequence was determined by group decision involving instructor and student

12. What was the instructor's attitude toward the students outside of class?

- Aloof, not communicative
- Cold, but communicative
- Helpful, but maintained a definite distance between instructor and student
- Friendly, relation was that of a colleague

13. To what extent did students and/or instructor determine techniques used to facilitate learning?

Techniques were determined by group decisions involving instructor and students

Student recommendations were seriously considered, but the final decision was made by the instructor

Students were asked to help determine techniques which had been pre-determined by the instructor

Techniques were determined solely by the instructor

14. How did the instructor view you as a student?

As an associate, with the instructor retaining a role similar to "activity coordinator"

With understanding, but as a subordinate

As a person, but one who should keep his distance

As an object or a number

15. What kind of encouragement for good performance did each student receive from other students?

Each hoped others would do poorly

Most students were concerned only about their own success

Students compete for grades, but give occasional help to each other

Students encourage and aid each other to succeed

16. How would you describe the class sessions?

Completely dominated by the teacher

Teacher dominated: instructor verbally sought student participation, but shut it off by not recognizing it, contradicting many statements and by discouraging student to student interaction

Teacher dominated: considerable student participation, but generally instructor-student interaction

Students and instructor are involved in group decisions and group problem solving
<table>
<thead>
<tr>
<th>Question</th>
<th>Very little</th>
<th>Some</th>
<th>Quite a bit</th>
<th>Extensive</th>
</tr>
</thead>
<tbody>
<tr>
<td>17. How much cooperative teamwork occurred among students?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18. How much confidence and trust do you feel the instructor had in the students?</td>
<td>Much</td>
<td>Quite a bit</td>
<td>Some, but of a condescending nature</td>
<td>Very little</td>
</tr>
<tr>
<td>19. How was the grading criteria determined and course grade established? If no grade was issued, how was this decision made?</td>
<td>Instructor set criteria and determined grade</td>
<td>Instructor set criteria, student was given limited chance to influence choice of grade</td>
<td>Students were asked for suggestions for grading criteria, instructor determined criteria and course grade</td>
<td>Students and instructor, through group decisions, set the objectives. Each student and the instructor cooperatively determined student's grade</td>
</tr>
<tr>
<td>20. How well did the instructor know and understand the problems faced by students?</td>
<td>Very well and encouraged students to maintain academic quality in spite of their problems; made strong effort to help each student</td>
<td>Quite a bit</td>
<td>Some</td>
<td>Very little</td>
</tr>
<tr>
<td>Question</td>
<td>Full multi-directional: instructor to student, student to instructor, student to student</td>
<td>Limited multi-directional: extensive instructor to student, student to instructor, limited student to student</td>
<td>Limited two way: some student to instructor</td>
<td>One way: from instructor to student</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
<td>-----------------------------------------</td>
<td>-------------------------------------</td>
</tr>
<tr>
<td>21. How would you describe the communication processes?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22. What kind of encouragement for good performance did each student receive from the instructor?</td>
<td>Based on reward and supportive encouragement</td>
<td>Based somewhat on threat of failure or embarrassment and much on reward</td>
<td>Based partly on threat of failure or embarrassment and partly on reward</td>
<td>Threat of failure or embarrassment</td>
</tr>
<tr>
<td>23. To what extent did students and/or instructor determine the content of the course?</td>
<td>Course content was determined by group decision involving instructor and students</td>
<td>Student recommendations were seriously considered, but the final decision was made by the instructor</td>
<td>Students were asked to help determine course content, but were guided to identify content which had been pre-determined by the instructor</td>
<td>Course content was determined solely by the instructor</td>
</tr>
<tr>
<td>24. To what extent did the instructor respond to student reactions?</td>
<td>None, he was not aware of any student feeling</td>
<td>Some, but verbally only. There was no attempt to change his pattern of behavior or presentation to adapt to student feeling</td>
<td>Seemed to want to respond, but was often insensitive, and therefore did not respond</td>
<td>Was aware of student reaction through group interaction, adapted readily when bored, lack of understanding, or feelings of anger or distrust existed</td>
</tr>
</tbody>
</table>
25. Compare the instructor's relationship with students during class.  
Friendly; relation was that of a colleague  
Helpful, but maintained a definite distance between instructor and student  
Cold, but communicative  
Aloof, not communicative

26. To what extent did students and/or instructor become involved in determining course objectives?  
Course objectives were determined solely by the instructor  
Students were asked to help determine course objectives, but were guided to state course objectives as predetermined by the instructor  
Student objectives were seriously considered, but final decision was made by the instructor  
Course objectives were determined by group decision involving instructor and students

27. How much confidence and trust did the students have in the instructor?  
Very little  
Some, but of a subservient nature  
Quite a bit  
Much

PROCEED IMMEDIATELY TO SECTION IV
SECTION IV

Instructions: All questions in Section IV refer to your most satisfying and most dissatisfying courses, or to that period of time when you were enrolled in those courses. As in Section II and III, each question requires two responses.

Place the number which corresponds to the most accurate response in the appropriate box. In some instances you will be asked to supply a numeral (such as your age). Place the numeral in the boxes provided for both courses.

Remember: Each question refers to two courses, the most satisfying (S) and the most dissatisfying (D); therefore, you should make two responses to each question.

28. What was your class standing when enrolling in that course?
   1. Undergraduate (accepted or not accepted, but working toward a degree)
   2. Graduate (accepted or not accepted, but working toward a degree)
   3. You were not working toward a degree

29. What was your age when you enrolled in that course?

30. What was your marital status?
   1. Married
   2. Single
   3. Divorced, separated or widowed

31. What was the highest grade of formal education attained prior to enrolling in that course?
   1. Eighth grade or under
   2. Over eighth grade but less than high school diploma
   3. High school diploma
   4. 0-2 years of college without associate degree
   5. Associate degree or two-year certificate
   6. 3-4 years of college but no degree
   7. Bachelor's degree
   8. Graduate work but no Master's degree
   9. Master's degree
   10. Graduate work beyond Master's: no degree higher than Master's
   11. Ph.D., Ed.D., etc.
   12. Free: Doctoral
32. What was your occupational status while taking that course?
   1. Employed full time
   2. Employed part time
   3. Not employed

33. What was your occupation when taking each course? Select the most appropriate category.
   01. Professional (incl. education, engineer, lawyer, physician)
   02. Managerial
   03. Technical
   04. Clerical
   05. Sales
   06. Farming, fishing, forestry
   07. Processing
   08. Machine trades
   09. Bench work
   10. Structural
   11. Housewife
   12. Retired
   13. Other
   14. Student

34. Prior to attending that course, how long had it been since you had taken a college credit course?
   1. 0-1 year
   2. 2-3 years
   3. 4-5 years
   4. 6-10 years
   5. Over 10 years

35. Prior to attending that course, how long had it been since you had taken a structured course on a non-credit basis?
   1. 0-1 year
   2. 2-3 years
   3. 4-5 years
   4. 6-10 years
   5. Over 10 years
   6. You had never taken a non-credit course
36. Prior to attending that course, how much experience of any kind did you have which helped you relate to the content of that course?

1. 0-1 year
2. 2-3 years
3. 4-9 years
4. 6-10 years
5. Over 10 years

37. At the time you enrolled in that course, how many courses had you taken, as an adult, for college credit?

38. Do you feel the grade you received in that course accurately indicated your achievement of the course objectives as you saw them?

1. Yes
2. No

39. Was the course taken on a voluntary or non-voluntary basis?

1. Voluntary
2. Non-voluntary (A company or agency required you to attend for some reason, such as working on a degree to maintain a teaching certificate.)

40. Did a company or agency pay the tuition for that class?

1. Yes
2. No
3. Part of it
4. Yes, but only with a passing grade

41. What was your school status?

1. Full-time student seeking degree
2. Part-time student seeking degree
3. Part-time student not seeking degree
42. Approximately how many students were in that class?

43. How many class sessions of that course did you miss for any reason?

1. 0
2. 1
3. 2
4. 3-5
5. Over 5

44. How would you rate the academic competence of the instructor of that class?

1. Expert
2. Above average
3. Average
4. Below average
5. Poor
SECTION V

Instructions: Questions in Section V DO NOT refer to those satisfying and dissatisfying courses. Fill in the box with the numeral which corresponds to the most accurate response (item 45) or check the appropriate boxes (item 46).

☐ 45. Sex
   1. Male
   2. Female

☐ 46. Check each type of teacher classroom behavior you have encountered. (Check one or more of these items)
   1. Completely dominated by instructor: one way communications from instructor to student; decisions made solely by the instructor.
   2. Teacher dominated with student interaction discouraged; limited two way communications with some student to instructor communication; student decisions guided by instructor to agree with his pre-determined ideas.
   3. Teacher dominated with considerable student interaction; limited multi-directional communication but extensive instructor to student communication; student input seriously considered with final decision by instructor.
   4. Students and instructors involved in group decisions; full multi-directional communication; decisions made by the group involving instructor and students.
   5. Completely student dominated; limited multi-directional communication with extensive student to student communication; decisions made solely by students.

***

PLEASE REMAIN SEATED AND DO NOT TALK UNTIL ALL QUESTIONNAIRES HAVE BEEN COMPLETED

THANK YOU FOR TAKING TIME TO COMPLETE THIS QUESTIONNAIRE!
APPENDIX C
Index of Variables

<table>
<thead>
<tr>
<th>Questionnaire</th>
<th>Item</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item 13</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

I. Population segments: demographic data when enrolled in that course

1. Class standing

   a. Undergraduate (accepted or not accepted, but working toward a degree)
   b. Graduate (accepted or not accepted, but working toward a degree)
   c. Not working toward a degree

2. Age

   a. 17-20
   b. 21-30
   c. 31-40
   d. 41-60

3. Marital status

   a. Married
   b. Single
   c. Divorced, separated or widowed

4. Highest grade of formal education

   a. Eighth grade or under
   b. Over eighth grade but less than high school diploma
   c. High school diploma
   d. 0-2 years of college without associate degree
   e. Associate degree or two-year certificate
   f. 3-4 years of college but no degree
   g. Bachelor's degree
   h. Graduate work but no Master's degree
   i. Master's degree
   j. Graduate work beyond Master's degree
   k. Ph.D., Ed.D., etc.
   l. Post Doctoral
5. Occupational status .................................. 32 14
   a. Employed full time
   b. Employed part time
   c. Not employed

6. Type of occupation ................................. 33 14
   a. Professional
   b. Managerial
   c. Technical
   d. Clerical
   e. Sales
   f. Farming, fishing, forestry
   g. Processing
   h. Machine trades
   i. Bench work
   j. Structural
   k. Housewife
   l. Retired
   m. Other
   n. Student

7. Length of time since last college course .......... 34 14
   a. 0-1 year
   b. 2-3 years
   c. 4-5 years
   d. 6-10 years
   e. Over 10 years

8. Length of time since last non-credit structured course .......... 35 14
   a. 0-1 year
   b. 2-3 years
   c. 4-5 years
   d. 6-10 years
   e. Over 10 years
   f. No non-credit course taken

9. Previous experience related to the content of that course .......... 36 15
   a. 0-1 year
   b. 2-3 years
   c. 4-5 years
   d. 6-10 years
   e. Over 10 years
10. Number of college credit courses taken
   a. 0-1
   b. 2-4
   c. 5-8
   d. 9-13
   e. 14 and over

11. School admission status
   a. Full-time student seeking degree
   b. Part-time student seeking degree
   c. Part-time student not seeking degree

II. Population segment: demographic data not related to that course
   Sex
   1. Male
   2. Female

III. Factors and teacher behaviors related to that course which may have affected the student's feeling
   1. Main purpose of the course, as perceived by the student
      a. To acquire information
      b. To acquire a skill
      c. To apply knowledge
      d. To develop specific attitudes

   2. Student's main motivation for taking the course
      a. To have something to do
      b. Desire to learn
      c. Pressure from friends
      d. Need to learn to maintain job
      e. Required for a degree
3. Most significant factor motivating student to learn . . . . . . . . . . 4  5
   a. Pressure from instructor
   b. Need of grade to have tuition paid
   c. Need of grade to meet college requirements
   d. Competition with peers
   e. Interest generated by instructor
   f. Interest generated by members of course
   g. Desire to learn
   h. No interest was developed in learning

4. Student's rating of the instructor's ability to utilize resources . . . . . . . 5  6
   a. Expert
   b. Above average
   c. Average
   d. Below average
   e. Poor

5. Student's perception of the level of achievement instructor expected of the students . . . . . . . . . . 6  6
   a. No concern about student's success or failure
   b. Expected minimum achievement
   c. Expected average achievement
   d. Expected high achievement
   e. Expected top achievement

6. Extent students were given training in educational techniques . . . . . . . 7  6
   a. Made sure all were competent in any technique used
   b. Made sure all were familiar with any technique used
   c. Generally covered the procedure for new techniques
   d. Sometimes briefly discussed a new technique
   e. Usually assumed familiarity with new techniques
7. Instructor's attitude toward attendance.

   a. Any absence affected grade if not due to emergency
   b. Over two absences definitely affected grade
   c. Grade not affected except by excessive absences
   d. Attendance encouraged, but absences did not affect grade
   e. Attendance was not discussed

8. Emphasis instructor placed on achieving final grade from the beginning of the course.

   a. None - Used Pass/Fail, etc.
   b. Grades limited to A, B or C
   c. No stress on grades, but low grades were possible
   d. Quite a bit
   e. Very much

9. Degree of logical sequence used in presenting course content.

   a. Course presented logically; sessions presented logically
   b. Course presented logically; sessions presented randomly
   c. Course presented randomly; sessions presented logically
   d. Content for course and sessions presented randomly

10. Student's perception of the accuracy of the course grade in indicating his achievement of objectives.

    a. Grade reflected achievement
    b. Grade did not reflect achievement
11. **Voluntary or non-voluntary basis for taking the course** .... 39  15
   a. Voluntary
   b. Non-voluntary

12. **Source of tuition payment** .... 40  15
   a. Company or agency
   b. Student
   c. Partly by company or agency
   d. Company or agency; if received passing grade

13. **Number of students in the class** .... 42  16
   a. 1
   b. 2-4
   c. 5-7
   d. 8-12
   e. 13-17
   f. 18-22
   g. 23-27
   h. 28-32
   i. 33-37
   j. 38-42
   k. 43-47
   l. 48-52
   m. 53 and over

14. **Number of class sessions missed** .... 43  16
   a. 0
   b. 1
   c. 2
   d. 3-5
   e. Over 5

15. **Student's perception of instructor's academic competence** .... 44  16
   a. Expert
   b. Above average
   c. Average
   d. Below average
   e. Poor
IV. Degree of satisfaction or dissatisfaction with that class .............. 2 5
   a. Very satisfied
   b. Satisfied
   c. Neither satisfied nor dissatisfied
   d. Dissatisfied
   e. Very dissatisfied

V. Types of Teacher classroom behaviors encountered by the student ........ 46 17
   a. Completely dominated by instructor
   b. Teacher dominated with student interaction discouraged
   c. Teacher dominated with considerable student interaction
   d. Students and instructors involved in group decisions
   e. Completely student dominated

Note: Factors III 3, 5, 6, 7, 8 and 9 are descriptive of teacher behaviors which are not characteristic of a teaching style.
APPENDIX D

Tables and Figures Depicting Frequency and Percent of the Total Population's Responses to Selected Factors and Teacher Behaviors Which May Be Related to Satisfaction and Dissatisfaction

Table 8. Frequency and Percent of Total Population Responding by the Main Purpose of Courses "S" and "D"

<table>
<thead>
<tr>
<th>Main Purpose*</th>
<th>Satisfying Course</th>
<th>Dissatisfying Course</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>Acquire information</td>
<td>104</td>
<td>40.94</td>
</tr>
<tr>
<td>Acquire skill</td>
<td>50</td>
<td>19.69</td>
</tr>
<tr>
<td>Apply knowledge</td>
<td>54</td>
<td>21.26</td>
</tr>
<tr>
<td>Develop attitudes</td>
<td>41</td>
<td>16.14</td>
</tr>
<tr>
<td>No response</td>
<td>5</td>
<td>1.97</td>
</tr>
<tr>
<td>N = 254</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Index of Variables, III 1, Appendix C

Acquire information

Acquire skill

Apply knowledge

Develop attitudes

Figure 7. Percent of Total Population Responding by the Main Purpose of Courses "S" and "D"
### Table 9. Frequency and Percent of Total Population Responding by Student's Main Motivation to Take Courses "S" and "D"

<table>
<thead>
<tr>
<th>Main Motivation*</th>
<th>Satisfying Course</th>
<th>Dissatisfying Course</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>Something to do</td>
<td>4</td>
<td>1.57</td>
</tr>
<tr>
<td>Desire to learn</td>
<td>108</td>
<td>42.52</td>
</tr>
<tr>
<td>Peer pressure</td>
<td>1</td>
<td>.39</td>
</tr>
<tr>
<td>To maintain job or for promotion</td>
<td>30</td>
<td>11.81</td>
</tr>
<tr>
<td>Required for a degree</td>
<td>107</td>
<td>42.13</td>
</tr>
<tr>
<td>No response</td>
<td>4</td>
<td>1.57</td>
</tr>
<tr>
<td>N = 254</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Index of Variables, III 2, Appendix C

---

#### Figure 8. Percent of Total Population Responding by Student's Main Motivation to Take Courses "S" and "D"
<table>
<thead>
<tr>
<th>Motivation Factor*</th>
<th>Satisfying Course</th>
<th>Dissatisfying Course</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>Pressure from</td>
<td></td>
<td></td>
</tr>
<tr>
<td>instructor</td>
<td>3</td>
<td>1.18</td>
</tr>
<tr>
<td>Grade for tuition</td>
<td></td>
<td></td>
</tr>
<tr>
<td>rebate</td>
<td>7</td>
<td>2.76</td>
</tr>
<tr>
<td>Grade for college</td>
<td></td>
<td></td>
</tr>
<tr>
<td>requirements</td>
<td>16</td>
<td>6.30</td>
</tr>
<tr>
<td>Peer competition</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>13</td>
<td>5.12</td>
</tr>
<tr>
<td>Interest generated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>by instructor</td>
<td>134</td>
<td>52.76</td>
</tr>
<tr>
<td>Interest generated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>by class members</td>
<td>10</td>
<td>3.94</td>
</tr>
<tr>
<td>Desire to learn</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>66</td>
<td>25.98</td>
</tr>
<tr>
<td>Interest in learning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>never developed</td>
<td>0</td>
<td>0.00</td>
</tr>
<tr>
<td>No response</td>
<td>5</td>
<td>1.97</td>
</tr>
</tbody>
</table>

*Index of Variables, III 3, Appendix C
Pressure from instructor

Grade for tuition rebate

Grade for college requirements

Peer competition

Interest generated by instructor

Interest generated by class members

Desire to learn

Interest in learning never developed

Figure 9. Percent of Total Population Responding by the Most Significant Motivation Factor Felt During Courses "S" and "D"
TABLE 11. FREQUENCY AND PERCENT OF TOTAL POPULATION RESPONDING BY INSTRUCTOR'S ABILITY TO UTILIZE RESOURCES (OWN KNOWLEDGE, STUDENTS, OUTSIDE RESOURCE PERSONS, INFORMATIONAL MATERIALS)

<table>
<thead>
<tr>
<th>Instructor's Ability*</th>
<th>Satisfying Course</th>
<th>Dissatisfying Course</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>Expert</td>
<td>108</td>
<td>42.52</td>
</tr>
<tr>
<td>Above average</td>
<td>107</td>
<td>42.13</td>
</tr>
<tr>
<td>Average</td>
<td>29</td>
<td>11.42</td>
</tr>
<tr>
<td>Below average</td>
<td>2</td>
<td>0.79</td>
</tr>
<tr>
<td>Poor</td>
<td>2</td>
<td>0.79</td>
</tr>
<tr>
<td>No response</td>
<td>6</td>
<td>2.36</td>
</tr>
<tr>
<td>N = 254</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Index of Variables, III 4, Appendix C

Figure 10. Percent of Total Population Responding by Instructor's Ability to Utilize Resources (Own Knowledge, Students, Outside Resource Persons, Informational Materials)
### TABLE 12. FREQUENCY AND PERCENT OF TOTAL POPULATION RESPONDING BY THE LEVEL OF ACADEMIC ACHIEVEMENT INSTRUCTOR EXPECTED FROM STUDENTS

<table>
<thead>
<tr>
<th>Academic Achievement Expected*</th>
<th>Satisfying Course</th>
<th>Dissatisfying Course</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>No concern about success or failure</td>
<td>28</td>
<td>11.02</td>
</tr>
<tr>
<td>Minimum achievement</td>
<td>4</td>
<td>1.57</td>
</tr>
<tr>
<td>Average achievement</td>
<td>84</td>
<td>33.07</td>
</tr>
<tr>
<td>High achievement</td>
<td>101</td>
<td>39.76</td>
</tr>
<tr>
<td>Top achievement</td>
<td>30</td>
<td>11.81</td>
</tr>
<tr>
<td>No response</td>
<td>7</td>
<td>2.76</td>
</tr>
<tr>
<td>N = 254</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Index of Variables, III 5, Appendix C

![Bar chart]

**Figure 11. Percent of Total Population Responding by the Level of Academic Achievement Instructor Expected From Students**
### Table 13. Frequency and Percent of Total Population Responding by Extent of Training Given in New Educational Techniques

<table>
<thead>
<tr>
<th>Extent of Training*</th>
<th>Satisfying Course</th>
<th>Dissatisfying Course</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>Made sure everyone</td>
<td>41</td>
<td>16.14</td>
</tr>
<tr>
<td>was competent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Made sure everyone</td>
<td>139</td>
<td>54.72</td>
</tr>
<tr>
<td>was familiar</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Generally discussed</td>
<td>31</td>
<td>12.20</td>
</tr>
<tr>
<td>techniques</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sometimes discussed</td>
<td>12</td>
<td>4.72</td>
</tr>
<tr>
<td>techniques</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assumed familiarity</td>
<td>24</td>
<td>9.45</td>
</tr>
<tr>
<td>with techniques</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No response</td>
<td>7</td>
<td>2.76</td>
</tr>
<tr>
<td>N = 254</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Index of Variables, III 6, Appendix C

---

**Figure 12.** Percent of Total Population Responding by Extent of Training in New Educational Techniques
### Table 14. Frequency and Percent of Total Population Responding by Instructor's Attitude Toward Attendance

<table>
<thead>
<tr>
<th>Attitude*</th>
<th>Satisfying Course</th>
<th>Dissatisfying Course</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>Any absence affected grade</td>
<td>22</td>
<td>8.66</td>
</tr>
<tr>
<td>Over two absences affected grade</td>
<td>20</td>
<td>7.87</td>
</tr>
<tr>
<td>Attendance encouraged; grade affected only by excessive absences</td>
<td>103</td>
<td>40.55</td>
</tr>
<tr>
<td>Attendance encouraged: absences did not affect grade</td>
<td>44</td>
<td>17.32</td>
</tr>
<tr>
<td>Attendance not discussed</td>
<td>60</td>
<td>23.62</td>
</tr>
<tr>
<td>No response</td>
<td>5</td>
<td>1.97</td>
</tr>
</tbody>
</table>

*Index of Variables, III 7, Appendix C
Any absence affected grade
Over two absences affected grade
Attendance encouraged: grade affected only by excessive absences
Attendance encouraged: absences did not affect grade
Attendance not discussed

Figure 13. Percent of Total Population Responding by Instructor's Attitude Toward Attendance


<table>
<thead>
<tr>
<th>Emphasis on Grade*</th>
<th>Satisfying Course</th>
<th>Dissatisfying Course</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>None</td>
<td>18</td>
<td>7.09</td>
</tr>
<tr>
<td>Grades limited to A, B or C</td>
<td>49</td>
<td>19.29</td>
</tr>
<tr>
<td>No stress on grades, but students recognized low grades were possible</td>
<td>132</td>
<td>51.97</td>
</tr>
<tr>
<td>Quite a bit</td>
<td>31</td>
<td>12.20</td>
</tr>
<tr>
<td>Very much</td>
<td>18</td>
<td>7.09</td>
</tr>
<tr>
<td>No response</td>
<td>6</td>
<td>2.36</td>
</tr>
<tr>
<td>N = 254</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Index of Variables, III 8, Appendix C

Figure 14. Percent of Total Population Responding by Degree of Emphasis Instructor Placed on Achieving the Final Grade from the Beginning of the Course
TABLE 16. FREQUENCY AND PERCENT OF TOTAL POPULATION RESPONDING BY LOGICAL OR RANDOM PRESENTATION OF CONTENT FOR THE TOTAL COURSE AND FOR EACH CLASS SESSION

<table>
<thead>
<tr>
<th>Method of Presentation*</th>
<th>Satisfying Course</th>
<th>Dissatisfying Course</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>Course - logical;</td>
<td>176</td>
<td>69.29</td>
</tr>
<tr>
<td>session - logical</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Course - logical;</td>
<td>39</td>
<td>15.35</td>
</tr>
<tr>
<td>session - random</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Course - random;</td>
<td>23</td>
<td>9.06</td>
</tr>
<tr>
<td>session - logical</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Course - random;</td>
<td>11</td>
<td>4.33</td>
</tr>
<tr>
<td>session - random</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No response</td>
<td>5</td>
<td>1.97</td>
</tr>
<tr>
<td>N = 254</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Index of Variables, III.9, Appendix C

Figure 15. Percent of Total Population Responding by Logical or Random Presentation of Content For the Total Course and For Each Class Session
TABLE 17. FREQUENCY AND PERCENT OF TOTAL POPULATION RESPONDING BY ACCURACY OF COURSE GRADE TO INDICATE ACHIEVEMENT OF COURSE OBJECTIVES

<table>
<thead>
<tr>
<th>Accuracy of Grade*</th>
<th>Satisfying Course</th>
<th>Dissatisfying Course</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>Grade reflected achievement</td>
<td>235</td>
<td>92.52</td>
</tr>
<tr>
<td>Grade did not reflect achievement</td>
<td>13</td>
<td>5.12</td>
</tr>
<tr>
<td>No response</td>
<td>6</td>
<td>2.36</td>
</tr>
<tr>
<td>N = 254</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Index of Variables, III 10, Appendix C

![Bar chart]

Figure 16. Percent of Total Population Responding by Accuracy of Course Grade to Indicate Achievement of Course Objectives
TABLE 18. FREQUENCY AND PERCENT OF TOTAL POPULATION RESPONDING BY VOLUNTARY OR NON-VOLUNTARY BASIS FOR ENROLLING IN COURSES "S" AND "D"

<table>
<thead>
<tr>
<th>Voluntary Course*</th>
<th>Satisfying Course</th>
<th>Dissatisfying Course</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>Voluntary</td>
<td>174</td>
<td>68.50</td>
</tr>
<tr>
<td>Non-voluntary</td>
<td>74</td>
<td>29.13</td>
</tr>
<tr>
<td>No response</td>
<td>6</td>
<td>2.36</td>
</tr>
<tr>
<td>N = 254</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Index of Variables, III 11, Appendix C

Figure 17. Percent of Total Population Responding by Voluntary or Non-voluntary Basis for Enrolling in Course "S" and "D"


**TABLE 19. FREQUENCY AND PERCENT OF TOTAL POPULATION RESPONDING BY SOURCE OF TUITION**

<table>
<thead>
<tr>
<th>Source*</th>
<th>Satisfying Course</th>
<th>Dissatisfying Course</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>Company or agency</td>
<td>55</td>
<td>21.65</td>
</tr>
<tr>
<td>Student</td>
<td>147</td>
<td>57.87</td>
</tr>
<tr>
<td>Partly by company or agency</td>
<td>8</td>
<td>3.15</td>
</tr>
<tr>
<td>Company or agency; if received passing grade</td>
<td>38</td>
<td>14.96</td>
</tr>
<tr>
<td>No response</td>
<td>6</td>
<td>2.36</td>
</tr>
<tr>
<td>N = 254</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Index of Variables, III 12, Appendix C

---

Figure 18. Percent of Total Population Responding by Source of Tuition
TABLE 20. FREQUENCY AND PERCENT OF TOTAL POPULATION RESPONDING BY THE NUMBER OF STUDENTS IN "S" AND "D" COURSES

<table>
<thead>
<tr>
<th>Number of Students*</th>
<th>Satisfying Course</th>
<th>Dissatisfying Course</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>1</td>
<td>0</td>
<td>0.00</td>
</tr>
<tr>
<td>2-4</td>
<td>0</td>
<td>0.00</td>
</tr>
<tr>
<td>5-7</td>
<td>2</td>
<td>0.78</td>
</tr>
<tr>
<td>8-12</td>
<td>18</td>
<td>7.08</td>
</tr>
<tr>
<td>13-17</td>
<td>28</td>
<td>11.02</td>
</tr>
<tr>
<td>18-22</td>
<td>49</td>
<td>19.29</td>
</tr>
<tr>
<td>23-27</td>
<td>39</td>
<td>15.34</td>
</tr>
<tr>
<td>28-32</td>
<td>48</td>
<td>18.89</td>
</tr>
<tr>
<td>33-37</td>
<td>16</td>
<td>6.30</td>
</tr>
<tr>
<td>38-42</td>
<td>23</td>
<td>9.05</td>
</tr>
<tr>
<td>43-47</td>
<td>1</td>
<td>0.39</td>
</tr>
<tr>
<td>48-52</td>
<td>11</td>
<td>4.33</td>
</tr>
<tr>
<td>53 and over</td>
<td>12</td>
<td>4.71</td>
</tr>
<tr>
<td>No response</td>
<td>7</td>
<td>2.76</td>
</tr>
<tr>
<td><strong>N = 254</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Index of Variables, III 13, Appendix C
Figure 19. Percent of Total Population Responding by the Number of Students in "S" and "D" Courses
TABLE 21. FREQUENCY AND PERCENT OF TOTAL POPULATION RESPONDING BY ACADEMIC COMPETENCE OF INSTRUCTOR

<table>
<thead>
<tr>
<th>Academic Competence*</th>
<th>Satisfying Course</th>
<th>Dissatisfying Course</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>Expert</td>
<td>118</td>
<td>46.46</td>
</tr>
<tr>
<td>Above average</td>
<td>108</td>
<td>42.52</td>
</tr>
<tr>
<td>Average</td>
<td>22</td>
<td>8.66</td>
</tr>
<tr>
<td>Below average</td>
<td>0</td>
<td>0.00</td>
</tr>
<tr>
<td>Poor</td>
<td>0</td>
<td>0.00</td>
</tr>
<tr>
<td>No response</td>
<td>6</td>
<td>2.36</td>
</tr>
</tbody>
</table>

N = 254

*Index of Variables, III 15, Appendix C

Figure 20. Percent of Total Population Responding by Academic Competence of Instructor
APPENDIX E

860 Mokulua Drive
Kailua, Hawaii 96734
May 8, 1972

Dr. Emerson Gilbert
2211 Timbercrest
Columbus, Indiana 47201

Dear Dr. Gilbert:

Your material arrived promptly.

McGraw-Hill will want to know how many copies of your questionnaire you used. They prefer to give permission to reproduce a specified number. If you will tell me what that number is, I shall see that you receive the permission. I shall ask them also to grant permission to reproduce the adapted questionnaire in your dissertation and in publications reporting your research.

In your dissertation and in subsequent publications, you should have the following at the bottom of the first page of the questionnaire:


Concerning reliability and validity: the best estimate of reliability can be obtained from correlating the sum of the scores of the even-numbered items with those of the odd-numbered items. It is possible also to compute an estimated reliability from the correlations of each item in the questionnaire with all of the other items. The reliability will be affected, of course, by how homogeneous or varied the responses were to your questionnaire by your respondents. Based on the reliability of the original form in THE HUMAN ORGANIZATION, I would expect that you would find that the reliability of your questionnaire based on the split-half method is in the range of 0.85 to 0.90.

So far as validity is concerned, I believe that you will have to rely on content validity, i.e., the content of the items describe the variable being measured. In your questionnaire, this, of course is Teaching Style.
The original questionnaire in Appendix II of THE HUMAN ORGANIZATION has been found to correlate highly with organizational performance and with member motivation.

Correlation coefficients in the range of +0.5 to +0.8 usually are found. If your questionnaire taps the same variables of superior-subordinate, leader-member relationship as the original questionnaire (and it seems to do so), you should find that it displays correlations of corresponding magnitudes.

I am looking forward with great interest to receiving and reading your dissertation. Your findings will make an important and valuable contribution to education and educational administration.

I shall be at my Michigan address from May 28 until about October 15th.

Sincerely yours,

Rensis Likert

Rensis Likert