THE IMPACT OF THE CAREER PLANNING AND DECISION MAKING COURSE ON SELECTED ASPECTS OF CAREER PLANNING BEHAVIOR

by

Vivian N. Williamson

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APPROVED:

Johnnie H. Miles, Chairperson

Clifton D. Bryant

Dennis E. Hinkle

Houston C. Conley

Dean L. Hummel

Carl O. McDaniels

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Blacksburg, Virginia
Dedicated to

my family

whose love and support for me

is endless

for which I am richly blessed

and deeply appreciative
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# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEDICATION</td>
<td>ii</td>
</tr>
<tr>
<td>ACKNOWLEDGEMENTS</td>
<td>iii</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>viii</td>
</tr>
<tr>
<td>LIST OF FIGURES</td>
<td>x</td>
</tr>
<tr>
<td><strong>Chapter</strong></td>
<td></td>
</tr>
<tr>
<td>1. INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>STATEMENT OF THE PROBLEM</td>
<td>7</td>
</tr>
<tr>
<td>RESEARCH HYPOTHESES</td>
<td>7</td>
</tr>
<tr>
<td>NEED FOR THE RESEARCH</td>
<td>8</td>
</tr>
<tr>
<td>DEFINITION OF TERMS</td>
<td>9</td>
</tr>
<tr>
<td>LIMITATIONS OF THE STUDY</td>
<td>10</td>
</tr>
<tr>
<td>ORGANIZATION OF THE STUDY</td>
<td>11</td>
</tr>
<tr>
<td>2. REVIEW OF LITERATURE</td>
<td>12</td>
</tr>
<tr>
<td>THEORIES OF CAREER DEVELOPMENT</td>
<td>12</td>
</tr>
<tr>
<td>CAREER DEVELOPMENT THEORY RELATED TO CURRENT STUDY</td>
<td>14</td>
</tr>
<tr>
<td>DESCRIPTION OF CAREER EDUCATION PRACTICES IN HIGHER EDUCATION</td>
<td>16</td>
</tr>
<tr>
<td>Courses Leading to Credit</td>
<td>19</td>
</tr>
<tr>
<td>Courses Not Leading to Credit</td>
<td>25</td>
</tr>
<tr>
<td>Intensive Experience</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>----------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Chapter</td>
<td>Page</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>PUBLISHED CAREER DEVELOPMENT PROGRAMS</td>
<td>30</td>
</tr>
<tr>
<td>Path</td>
<td>30</td>
</tr>
<tr>
<td>What Color is Your Parachute</td>
<td>31</td>
</tr>
<tr>
<td>Life/Career Development System</td>
<td>32</td>
</tr>
<tr>
<td>RESEARCH ON PUBLISHED CAREER DEVELOPMENT COURSES FOR USE IN HIGHER EDUCATION SETTINGS</td>
<td>34</td>
</tr>
<tr>
<td>SUMMARY</td>
<td>39</td>
</tr>
<tr>
<td>3. METHODOLOGY</td>
<td>41</td>
</tr>
<tr>
<td>POPULATION AND SAMPLE</td>
<td>41</td>
</tr>
<tr>
<td>OVERVIEW OF THE INDEPENDENT VARIABLE: CAREER PLANNING AND DECISION-MAKING</td>
<td>43</td>
</tr>
<tr>
<td>PROCEDURE FOR DATA COLLECTION AND STUDY DESIGN</td>
<td>47</td>
</tr>
<tr>
<td>INSTRUMENTATION</td>
<td>48</td>
</tr>
<tr>
<td>Harren Assessment of Career Decision Making Form C (ACDM)</td>
<td>48</td>
</tr>
<tr>
<td>Rotter's Internal-External Scale (I-E Scale)</td>
<td>56</td>
</tr>
<tr>
<td>End-of-Unit Evaluation</td>
<td>59</td>
</tr>
<tr>
<td>Interview Schedule</td>
<td>60</td>
</tr>
<tr>
<td>PROCEDURES FOR DATA ANALYSIS</td>
<td>60</td>
</tr>
<tr>
<td>4. PRESENTATION OF RESULTS</td>
<td>62</td>
</tr>
<tr>
<td>STATISTICAL ANALYSIS OF DATA</td>
<td>64</td>
</tr>
<tr>
<td>Demographic Data</td>
<td>64</td>
</tr>
<tr>
<td>Pre-Treatment Decisional Status</td>
<td>64</td>
</tr>
<tr>
<td>RESULTS PERTAINING TO HYPOTHESES</td>
<td>73</td>
</tr>
<tr>
<td>END-OF-UNIT EVALUATIONS AND STRUCTURED INTERVIEWS</td>
<td>86</td>
</tr>
<tr>
<td>Chapter</td>
<td>Page</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>End-of-Unit Evaluations</td>
<td>86</td>
</tr>
<tr>
<td>SUMMARY</td>
<td>99</td>
</tr>
<tr>
<td>5. SUMMARY, CONCLUSIONS, RECOMMENDATIONS, AND IMPLICATIONS</td>
<td>102</td>
</tr>
<tr>
<td>SUMMARY</td>
<td>104</td>
</tr>
<tr>
<td>CONCLUSIONS</td>
<td>106</td>
</tr>
<tr>
<td>RECOMMENDATIONS</td>
<td>108</td>
</tr>
<tr>
<td>IMPLICATIONS</td>
<td>109</td>
</tr>
<tr>
<td>BIBLIOGRAPHY</td>
<td>112</td>
</tr>
<tr>
<td>APPENDICES</td>
<td>119</td>
</tr>
<tr>
<td>A. Letter to Students</td>
<td>120</td>
</tr>
<tr>
<td>B. Flyer Announcing Course</td>
<td>122</td>
</tr>
<tr>
<td>C. Form for Demographic Data</td>
<td>124</td>
</tr>
<tr>
<td>D. Unit Evaluation Form</td>
<td>127</td>
</tr>
<tr>
<td>E. Interview Schedule</td>
<td>137</td>
</tr>
<tr>
<td>F. Assessment of Career Decision Making</td>
<td>172</td>
</tr>
<tr>
<td>G. Rotter Internal-External Scale</td>
<td>181</td>
</tr>
<tr>
<td>VITA</td>
<td>186</td>
</tr>
<tr>
<td>ABSTRACT</td>
<td></td>
</tr>
</tbody>
</table>
LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Students' Responses to Item 1: How satisfied are you at this college?</td>
<td>66</td>
</tr>
<tr>
<td>2. Students' Responses to Item 2: Have you made a choice of major?</td>
<td>67</td>
</tr>
<tr>
<td>3. Students' Responses to Item 4: How certain are you of your choice of major?</td>
<td>69</td>
</tr>
<tr>
<td>4. Students' Responses to Item 5: How satisfied are you with your choice of major?</td>
<td>70</td>
</tr>
<tr>
<td>5. Students' Responses to Item 7: How certain are you with your choice of occupation?</td>
<td>71</td>
</tr>
<tr>
<td>6. Students' Responses to Item 8: How satisfied are you with your choice of occupation?</td>
<td>72</td>
</tr>
<tr>
<td>7. Pretest Scores on the Rotter I-E Scale</td>
<td>74</td>
</tr>
<tr>
<td>8. Pretest, Posttest, and Adjusted Posttest Mean Scores on Decision Making Style - Rational Subscale of the ACDM</td>
<td>76</td>
</tr>
<tr>
<td>9. Pretest, Posttest, and Adjusted Posttest Mean Scores on Decision Making Style - Intuitive Subscale of the ACDM</td>
<td>77</td>
</tr>
<tr>
<td>10. Pretest, Posttest, and Adjusted Posttest Mean Scores on Decision Making Style - Dependent Subscale of the ACDM</td>
<td>78</td>
</tr>
<tr>
<td>11. Pretest, Posttest, and Adjusted Posttest Mean Scores on Decision Making Style - College Subscale of the ACDM</td>
<td>80</td>
</tr>
<tr>
<td>12. Pretest, Posttest, and Adjusted Posttest Mean Scores on Decision Making Style - Major Subscale of the ACDM</td>
<td>82</td>
</tr>
<tr>
<td>Table</td>
<td>Page</td>
</tr>
<tr>
<td>-------</td>
<td>------</td>
</tr>
<tr>
<td>13. Pretest, Posttest, and Adjusted Posttest Mean Scores on Decision Making Style - Occupation Subscale of the ACDM</td>
<td>85</td>
</tr>
<tr>
<td>14. Percentages of Responses Per Item to End-of-Unit Evaluations - Unit I</td>
<td>87</td>
</tr>
<tr>
<td>15. Percentages of Responses Per Item to End-of-Unit Evaluations - Unit II</td>
<td>88</td>
</tr>
<tr>
<td>16. Percentages of Responses Per Item to End-of-Unit Evaluations - Unit III</td>
<td>89</td>
</tr>
<tr>
<td>17. Percentages of Responses Per Item to End-of-Unit Evaluations - Unit IV</td>
<td>90</td>
</tr>
<tr>
<td>18. Percentages of Responses Per Item to End-of-Unit Evaluations - Unit V</td>
<td>91</td>
</tr>
<tr>
<td>19. Percentages of Responses Per Item to End-of-Unit Evaluations - Unit VI</td>
<td>92</td>
</tr>
<tr>
<td>Figure</td>
<td>Description</td>
</tr>
<tr>
<td>--------</td>
<td>-----------------------------------------------------------</td>
</tr>
<tr>
<td>1</td>
<td>Tasks Covered by Some U.S. Career Education Courses</td>
</tr>
<tr>
<td>2</td>
<td>Design of Study</td>
</tr>
</tbody>
</table>
In recent years, there have been numerous studies which have indicated the need for students to receive assistance in developing their career plans and acquiring decision-making skills. Likewise, studies have indicated that career development activities need to be incorporated in school offerings. One such study, A Nationwide Study of Student Development, was completed in 1973 by Prediger, Roth, and Noeth (1974). Questionnaires were completed by eighth-, ninth-, and eleventh-grade students. They responded to questions about their career development and indicated their current guidance needs. A few of the findings are listed below:

1. Seventy-three percent of the eighth-grade students and 78 percent of the eleventh-grade students stated they needed help with their career plans.

2. Eighty-five percent of the eleventh-grade students stated career planning must begin before the final year in high school.

3. Only 12 percent of the eighth-grade students and 13 percent of the eleventh-grade students believed they received "a lot" of help from school personnel; yet 31 percent of the eighth-grade students and 43 percent of the eleventh-grade students felt they could see a counselor whenever they wanted to do so.
The researchers arrived at four important conclusions: (1) the majority of the eleventh-grade students have low or minimum level of involvement in career planning activities, (2) students appear to have limited exploratory occupational experiences, (3) male and female interest patterns appear to reflect traditional patterns related to sex roles, and (4) lack of knowledge and considerable misinformation about the world of work were revealed in the survey. Prediger, Roth, and Noeth (1974) identified a substantial need in our educational offerings with the statement:

If we were speaking of physical development rather than career development, we would describe American youth as hungry, undernourished, and physically retarded. . . . While efforts to facilitate student career development should not proceed haphazardly, it would appear from the results of this study that current attempts to implement new approaches to career guidance and career education are justified (p. 103).

This study indicated that while students seemed to feel that they were able to see their counselors, they still felt a need for career development activities. Similar needs were revealed in a study of college-level students. Astin (1977) began a longitudinal study in 1966 to assess the impact of college on students. Over the years, sample institutions expanded from 240 to 300 colleges and data on over 200,000 students were accumulated. This study revealed that a substantial number of students frequently change their career plans subsequent to their freshman year in college as indicated by changes in their majors (the 1972 follow up indicated that 59 percent of the 1,966 entering students changed majors). This study further revealed that students
who effected changes in majors or career plans usually switched to related fields. Yet, such choices were extremely difficult for students because of the changing nature of work and the increased sophistication of industrial technology.

Students' needs for assistance in choosing majors and developing career plans have been widely recognized by guidance professionals, who for a long period of time, have been interested in engaging in activities to fulfill this need. Their concern over the problem has resulted in activities such as the expansion of guidance personnel in school and college settings, the establishment of career resource centers, and the inclusion of career planning courses in curricular offerings. Additionally, some studies have been conducted to determine what is being done at the college level to assist students with the tasks of choosing majors and developing career plans.

The first such study was conducted in 1920 by the Bureau of Vocational Guidance of Harvard University and the United States Bureau of Education to determine what colleges and universities were doing for the vocational guidance of their students (Maverick, 1926). In response to the question: Is there a regular class at your institution for the study of occupations, the College of the Pacific responded that they had offered, since 1917, an elective course entitled Vocational Opportunities for Women, for which academic credit was given. It was the first known college-level course of its type.

A review of the more recent literature revealed three significant studies which have been conducted by guidance personnel to
determine the extent to which post-secondary institutions had curricular offerings designed to assist students with their career plans. Calvert, Carter, and Murphy (1964) surveyed all two- and four-year colleges and universities (1,850), with 1,023 (55.3 percent) responding, to determine how many offered credit courses in occupational adjustment. The respondents indicated that 70 (6.8 percent) offered occupational adjustment courses.

This study identified four types of occupational adjustment course offerings: (1) personal vocational selection or career planning (offered by 22 institutions); (2) introduction to the world of work (offered by 13 institutions); (3) job-seeking techniques (offered by 16 institutions); and (4) adjustment to careers (offered by 19 institutions). The study concluded that these course offerings seemed to have been volunteered by individual instructors, rather than existing as a permanent part of the curriculum. Thus, when a particular instructor left, the course often disappeared. The authors also concluded that those schools in which the courses were most needed, such as liberal arts colleges, were least likely to offer them.

Devlin (1974) forwarded questionnaires to 1,521 placement offices listed in the 1972-73 edition of the Dictionary of College Placement Offices. Seven hundred and fifty-six usable questionnaires were returned. Seventy-eight institutions (approximately 10 percent) indicated that they offered a course in career development. An additional 15 percent, or 123 institutions, indicated they were planning to offer such a course. Devlin concluded that while the number of colleges
offering career development courses was increasing, there was great diversity among the courses as instructors were usually on their own in designing them. Devlin further indicated that the most popular design for a college-level course in career development was one which attempted "to assist the student to gain insight and understanding into the relationship between self and the world of work."

Perhaps the most comprehensive study was conducted by Commission VI (Career Planning and Placement) of the American College Personnel Association in 1975 (Haney and Howland, 1978). This research consisted of an initial survey of 2,400 four- and two-year colleges, and a follow-up to selected institutions. It was revealed that 353 institutions offered courses for credit, while 563 colleges did not. The follow-up survey was forwarded to those colleges that offered the course for credit. Of the courses offered for credit, about 33 percent were for one credit and approximately 20 percent were for either two or three credits. Although in many instances the target populations consisted of freshmen and sophomores, a large number of colleges permitted all undergraduates to take the course.

Most of the courses were taught by counselors (166) or placement personnel (73), and only a few by faculty (58). Where formal papers or textbooks were used, they were supplemented by other material in 80 percent of the cases. The textbooks used most frequently were: (1) Bolles, Richard N., What Color is Your Parachute; (2) Figler, Howard E., Path; and (3) Chapman, Edward, Career Search.
The importance of sharing information on the existence of and content of career courses is reflected in summary statements by Haney and Howland (1978):

Implicit in this study was that career courses for credit were and are important. Not that workshops and non-credit courses are unimportant, but in the system of higher education, value and respect are given to those courses which have academic credit. This is a reality. It is another way to raise the awareness of faculty, students, parents, and alumni to the elements involved in a responsible choice of one's life-style and direction, and that responsible choice is possible. One need not be trapped by past or future (p. 77).

... The time has come for an in-depth look at the contents of courses already developed. How can these courses be improved, made more relevant, and expanded for those who can benefit from them as students, instructors, or supporters? How can more data be gathered on their effectiveness?

Some new courses will continue to be developed and much can be learned from those already in existence. Sharing is essential to insure quality for clients and to cope with the failure syndrome some students experience after a series of destructive choices based on insufficient self and environmental data. The time has come to use current data and that available in the future to better serve us all in this joint endeavor called learning and living (p. 78).

Similarly, the importance of such structured programs was cited by Hoppock (1976) as he inferred from research:

Up to the present time most of what has been done in counseling and guidance has been done because it seemed like a good idea. Only in rare instances has anyone attempted to find out whether or not the anticipated ultimate results were in fact achieved ... (p. 283).

Courses in occupations measurably increased the subsequent job satisfaction and earning power of the students who went to work. Courses in occupations reduced unemployment among both graduates and dropouts (p. 284).

It can be concluded, then, that students perceived a need for assistance in developing their career plans and that educational communities were responding to these needs through curricular offerings.
In addition to the career planning courses designed at educational institutions, several courses have been produced and marketed commercially. To date, however, no extensive evaluation of such courses or materials has been done. But, such evaluations are needed to assist university and school personnel with the selection of materials to be used in their career development offerings. This study is an attempt to satisfy a portion of this need by investigating a recently published course, *Career Planning and Decision-Making* (1979), a one-semester offering for college freshmen and sophomores.

**STATEMENT OF THE PROBLEM**

The major purpose of the study was to determine if the recently published course, *Career Planning and Decision-Making*, was effective for assisting freshman and sophomore students in choosing or examining their choice of a major and enhancing their career decision-making behavior in a college setting. A secondary purpose of the study was to obtain evaluative data on the published course from the students' perspective.

**RESEARCH HYPOTHESES**

The research hypotheses which were tested are listed below in the null form:

1. There is no difference between the internal-external orientation of the students who completed the course, *Career Planning and Decision-Making*, as measured by Rotter's Internal-External Scale, and those students who did not complete the course.
2. There is no difference between the decision-making style of students who completed the course, *Career Planning and Decision-Making*, as measured by Harren's Assessment of Career Decision Making, and those students who did not complete the course.

3. There is no difference between the stability of choice to attend college by the students who completed the course, *Career Planning and Decision-Making*, as measured by Harren's Assessment of Career Decision-Making, and those students who did not complete the course.

4. There is no difference between the stability of choice of major of the students who completed the course, *Career Planning and Decision-Making*, as measured by Harren's Assessment of Career Decision Making, and those students who did not complete the course.

5. There is no difference between the stability of choice of planned occupation of the students who completed the course, *Career Planning and Decision-Making*, as measured by Harren's Assessment of Career Decision Making, and those students who did not complete the course.

NEED FOR THE RESEARCH

The need for career development courses in educational settings was documented in the introduction. Since 1971, there has been a steady growth in the number of published materials to be used in such courses. While schools and institutions of higher learning are interested in providing sound educational experiences for their students, economic
conditions have forced them to practice financial restraint. Thus, systematic evaluation procedures need to be observed prior to purchasing career development teaching materials.

DEFINITION OF TERMS

**Career.** Career is the totality of a person's work activities extending throughout a person's lifetime. In the course of a lifetime, a person engages in many work activities, paid and unpaid. These activities may involve the home and family, education and occupations, and civic and community service (Appalachia Educational Laboratory, 1979).

**Career Development.** Career development is defined as a process whereby individuals develop realistic goals for professional and personal life-style futures, thereby building strategies for movement towards these goals, through the investigation of appropriate and available options open to the individual based on personal needs and direction-orientation and the dynamics of surrounding social and economic environments (Haney and Howland, 1978).

**Career Education.** Career education is the total effort of public education and the community aimed at helping individuals to become familiar with the values of a work-oriented society, to integrate these values into their personal value systems, and to implement these values into their lives in such a way that work becomes possible, meaningful, and satisfying to each individual (Hoyt, Evans, Macking, and Mangum, 1974).

**Career Exploration.** Career exploration involves using what you know about yourself to explore the world of work and to use your increased
knowledge of the world of work to learn more about yourself (Appalachia Educational Laboratory, 1979).

**Career Plan.** Career plan is the way a person accounts for the sequence, time, and resources needed to reach a goal (Appalachia Educational Laboratory, 1979).

**Career Theme.** Career theme reflects the types of activities a person chooses to do plus the values and goals these activities portray. It is the overriding principle that gives structure and meaning to work and the sequence of work activities. This principle is made up of the person's values or patterns of values and when projected into the future constitutes the basis for the person's career goals. A career theme expresses one's purpose and serves as a guide for both interpreting experience and anticipating future experience (Appalachia Educational Laboratory, 1979).

**Decision Making.** Decision making is a psychological process in which one organizes information, deliberates among alternatives, and makes a commitment to a course of action (Harren, 1979).

**Pre-Education Major.** Freshmen and sophomores enrolled at Virginia Polytechnic Institute and State University who had indicated a desire to become education majors.

**Self Exploration.** Self exploration involves examining your experience to determine your preference and establish the personal relevance of the world of work (Appalachia Educational Laboratory, 1979).

**LIMITATIONS OF THE STUDY**

The following limitations of the present study were recognized:
1. The control group and experimental group data were investigated in terms of group effects, thus findings related to individual growth patterns were not reported in the study.

2. The course was made available only to pre-education majors; all but two subjects in the experimental group were students in the College of Education at Virginia Polytechnic Institute and State University.

ORGANIZATION OF THE STUDY

Chapter 1 contains the introduction, the statement of the problem, the research hypotheses, the need for the research, the definition of terms, the limitations of the study, and the organization of the study. Chapter 2 contains a review of the literature related to the theoretical framework for the course, Career Planning and Decision-Making; an overview of career development activities at the college level; a review of published career programs designed for use in higher education; and summaries of research studies in which published career programs were used in college-level course offerings. Chapter 3 contains a description of the course, a presentation of research methodology, a description of the subjects, a discussion of the instruments used to measure the treatment variable, and procedures for collecting and analyzing the data. Chapter 4 contains the presentation of the results of the study. Chapter 5 contains a summary and discussion of the findings and recommendations for further research.
Chapter 2

REVIEW OF LITERATURE

An understanding of career development theories has always been a prerequisite to planning and implementing effective guidance programs. Tiedeman and O'Hara's theory provided the framework upon which the Career Planning and Decision-Making course was developed. One of the evaluation measures used in this study utilized this same theoretical framework. Relevant career development theories will be highlighted. A detailed review of Tiedeman and O'Hara's theory, an overview of career education activities in post-secondary settings, and a review of published career programs designed for use in higher education settings are included. The final section of the chapter presents data pertaining to available research studies of recently published college-level career development courses.

THEORIES OF CAREER DEVELOPMENT

Four major approaches to career development theory have been identified by Osipow (1973): (1) trait factor theories, (2) sociological theories, (3) developmental theories, and (4) personality theories. The trait factor theory, the oldest approach to career development theory, was grounded in the belief that people differ in their traits and jobs differ in their requirements. Therefore, it was assumed
that problems of vocational choice could be solved by identifying an individual's traits and matching these to appropriate occupations. This theory became a catalyst for the vocational testing movement (Osipow, 1973).

The sociological theory adheres to the view that external events over which individuals have no control determine their educational and vocational decisions. Miller and Form (1951) state that career patterns are determined by social background, native ability, historical circumstances, and acquired personality traits. Therefore, individuals need to develop skills and techniques to assist them in coping with their environment.

The developmental theory is often called the self-concept theory. Two major developmental theorists are Ginzberg and Super. Ginzberg (1951) argued that occupational choice was not a single decision, but was a developmental process that occurs over a period of several years and was divided into three periods: Fantasy, Tentative, and Realistic. Ginzberg concluded that vocational choice was an irreversible process characterized by a series of compromises individuals make between their wishes and their possibilities (Osipow, 1973). Super proposed that attempts to implement self-concepts provided the basis for occupational choice. Because a person's self-concept becomes more stable as the person matures, Super concluded that vocational behavior was a function of the individual's stage in life development. In this connection, Super


(1957 and 1973) identified five life stages: Growth Stage, Exploration Stage, Establishment Stage, Maintenance Stage, and Decline Stage.

The personality theory of career development proposed that workers select their jobs because they saw the potential for the satisfaction of their needs. Roe, Holland, and Tiedeman are major supporters of this approach. Roe (1956 and 1957) maintained that genetic influences which control interests and abilities, early child experiences with parents or significant adults, and hierarchy of needs as identified by Maslow exert considerable influence over vocational choices. Holland (1973) theorized that career choices are expressions of the individual's personality. From this theory, he developed six occupational environments which correspond with personality types: Realistic, Intellectual, Social, Conventional, Enterprising, and Artistic.

CAREER DEVELOPMENT THEORY RELATED TO CURRENT STUDY

Tiedeman's (1961) theory of vocational choice and its subsequent elaboration by Tiedeman and O'Hara (1963) provided the framework for the development of the course, Career Planning and Decision-Making, which was investigated in this study. Tiedeman viewed vocational development as a process of self development occurring over time and within the context of several decisions. These decisions, which reflect a compromise between self and society, may be divided into two aspects, anticipation and implementation. Anticipation is divided into four stages; implementation is divided into three stages.
The four stages of anticipation are:

1. **Exploration**, which is a stage in which individuals consider alternatives or possible goals. A person probably reflects at least upon his aspiration, opportunity both now and in the future, interest, capability, distasteful requirements that still could be tolerated, and societal context for himself and his dependents (Tiedeman, 1961).

2. **Crystallization**, which is characterized as stabilization of thought. The cost of the several goals can be considered in relation to the return from each and the value of the alternatives can be assessed (Tiedeman and O'Hara, 1963).

3. **Choice**, which is achieved when individuals commit themselves to a goal.

4. **Clarification**, which occurs during the waiting period in which the anticipated event unfolds. Doubt experienced in the waiting period causes individuals to further clarify their anticipated positions (Tiedeman and O'Hara, 1963).

The three stages of implementation are:

1. **Induction**, which involves reality testing. This stage is characterized by both a general defense of self and a giving up of an aspect of self to group purpose when the social system finds the person acceptable (Tiedeman and O'Hara, 1963). This stage ends when a person becomes aware of being accepted by the group (Harren, undated).

2. **Reformation**, which finds individuals immersed in the relevant group but they maintain a strong sense of self and they actively enjoin the group to do better (Tiedeman and O'Hara, 1963). As time
passes and persons feel more secure in their position, they begin to assert themselves in an effort to change their environment (Dansart, 1974). This stage may result in a modification of the group's values, goals, and purposes.

3. Integration, which finds the older members of the group reacting against the new member's force for change, which causes individuals to compromise or modify their intentions. This results in a greater objectivity towards self and towards the group's purposes. A synthesis is achieved which both the individual and the group strive to maintain through collaborative activity. The individual is satisfied, at least temporarily, and one has an image of self as successful, while the group also considers one successful (Harren, undated).

Individuals are always in one (but not only one) of these seven stages in their career development; they may be in overlapping stages. For example, a college freshman, planning to be a dentist, may be in the induction stage with regard to choice of dental school, but may be in the exploration stage regarding a place to practice dentistry. The seven-stage process is presumed to be ordinarily progressive, but the possibility of regression and recycling is recognized (Harren, undated).

DESCRIPTION OF CAREER EDUCATION PRACTICES IN HIGHER EDUCATION

A study was completed by Watts (1977) to determine "careers education" practices in higher education. He observed that "careers education programmes consist of planning experiences designed to
facilitate the development respectively of: (a) opportunity awareness, (2) self-awareness, (c) decision learning, and (d) transition learning" (p. 169). These four components were referred to as tasks of career education.

Opportunity awareness not only included activities that would help students understand the world of work and their options therein, but also the rewards, satisfaction, and means of entry related to the various options. Self-awareness helped students to understand their uniqueness by examination of their strengths and limitations as related to their "qualifications, abilities, aptitudes, practical skills, personal qualities, and physical strengths" (p. 170). Decision learning helped students to learn how decisions are made. Transition learning helped "students to gain the awareness skills they need to cope with the transitions consequent upon their leaving undergraduate status" (p. 171).

A review of the literature led Watts to conclude that career development programs being offered in institutions of higher learning could be divided into three groups: (1) courses for which college credit is given, (2) courses for which college credit is not given; and (3) courses designed as intensive workshops (Watts, 1977). Figure 1 analyzed these career development programs according to the career education tasks they embrace. Watts acknowledged the emergence of published career development programs designed for use in college settings. The most frequently used published programs were identified by Haney and


<table>
<thead>
<tr>
<th>1. COURSES LEADING TO CREDIT</th>
<th>Self Awareness</th>
<th>Opportunity Awareness</th>
<th>Decision Learning</th>
<th>Transition Learning</th>
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<tr>
<td>Adams (1974)</td>
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<td>McGuire (1971/72)</td>
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<td>Parker et al. (1974)</td>
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<td>Powell (1971/72)</td>
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<td>Ramsey (1973)</td>
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<td>Webb (1973)</td>
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<tr>
<td>Wollman et al. (1975)</td>
<td>✓</td>
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</table>

2. COURSES NOT LEADING TO CREDIT

| Dye (1975)                             | ✓              | ✓/                    |                   | ✓/                  |
| Hazel (1976)                           | ✓              | ✓/                    |                   | ✓                   |
| Sang and Hoffman (1973)                | ✓/             | ✓                     |                   | ✓                   |

3. INTENSIVE EXPERIENCE

| Birney et al. (1970/71)                | ✓/             | ✓                     |                   | ✓                   |
| Gelwick (1974)                         | ✓/             | ✓                     |                   | ✓                   |
| Harman and Dutt (1974)                 | ✓              | ✓/                    |                   | ✓                   |
| Mencke and Cochran (1974)              | ✓/             | ✓/                    |                   | ✓                   |
| Sanz and Hoffman (1973)                | ✓/             | ✓                     |                   | ✓                   |
| Weissman and Krebs (1976)              | ✓              | ✓                     |                   | ✓                   |

Note: ✓/ indicates that significantly greater coverage is given to this task than to the other(s) covered by the programme (A. G. Watts).

Figure 1

Tasks Covered by Some U.S. Career Education Courses
Howland (1978). The sections which follow present a summary of selected course offerings which were identified from a review of the literature.

Courses Leading to Credit

A study was conducted by Adams (1974), Everett Community College, Everett, Washington, to test the effects of counseling provided for community college students. The study provided for a control group and three treatment groups. Group I was the control group. Students in Group II were given an opportunity to review offerings before declaring a major and were assigned to a counselor for advisement purposes; students in Group III participated in a pre-admission conference with a counselor in order to plan first quarter courses and the counselor remained the adviser as long as was mutually agreeable; and students in Group IV followed the same procedure as those in Group III but they were also required to attend a one quarter group guidance class.

The results revealed that students in Group IV obtained significantly higher grade point averages at the end of the year than did students in the other groups and they reported significantly more positive attitudes toward college than students in the other groups. The findings also reflected a trend in favor of Group IV as related to satisfaction with their field of study, certainty about completing their program, and appropriateness of educational/vocational choices. No difference was revealed among the groups as related to their level of interest in college studies. Adams (1974) cited three important implications for his study: (1) students could be better served if counseling services were
made available to a larger number of students, (2) gains as demonstrated in his study could help justify the existence of community colleges both to their communities and to their state legislatures, and (3) inclusion of administrative personnel in the evaluation process helps to assure their support of such efforts.

The career development courses for which college credit was given at two institutions was described in an article by Wollman, Johnson, and Bottoms (1975). The General College at the University of Minnesota in Minneapolis provided a two-credit hour Career Planning Seminar for fourteen occupationally undecided students. In the seminar, emphasis was placed on a five-step decision-making process. Findings based on a pretest-posttest questionnaire, students indicated: (1) increased knowledge of career resources on campus; (2) increased ability to gather and analyze occupational information; (3) increased confidence in their ability to analyze their compatibility with occupations; and (4) nine of the fourteen students reported an increase in the number of occupations they would consider. The authors did not indicate whether this course became a permanent addition to the offerings at the college.

The Metropolitan Community College, Minneapolis, offered a series of three elective career development courses: (1) Career and Personal Assessment; (2) Women in the 70's, a four-credit hour course; and (3) Occupational Skills Development, a two-credit hour course (Wollman, Johnson, and Bottoms, 1975). The Career and Personal Assessment course encompassed three units. In Unit I, students were exposed to self examination experiences. In Unit II, students developed an understanding
of the world of work; and Unit III involved career planning activities that permitted students to develop personal strategies to obtain entry level positions in their chosen fields. Upon completion of this course, students could enroll in one or both of the other two career development courses.

The Women in the 70's course focused on the world of work from the feminist point of view. Topics covered in this course included: "the position of women in the work force, the social mythology of the inferiority of women, how to file discrimination charges, and socialization to develop individual differences rather than to reinforce rigid sex roles" (p. 678). The third course in the series, Occupational Skills Development, was designed to help students "sell themselves" to potential employers. The topics included: "resume writing, interview survival techniques, letters of application and acceptance, labor market trends, and types of placement agencies" (p. 678). While evaluative data on these courses were not available, the collection of such information was in the planning stage.

Swails and Hess (1977) discussed a course, Human Development 498, Implementation of Career Plans, which is offered to juniors and seniors for credit by the Career Development and Placement Center at Pennsylvania State University. This course is a modular flexible one which was designed to allow students to "by-pass content areas in which they felt at least a minimal degree of proficiency" (p. 59). Seven modules comprised the course and students contracted for completion of the modules of their choice.
Topics covered in the modules were: (1) using resources to identify potential employers, (2) contacting potential employers, (3) job interviewing skills, (4) making the transition from school to work, (5) training in being more assertive, (6) selecting from alternatives, and (7) knowing what to do if you can't find desired employment.

In addition to using audiovisual materials, students were required to brainstorm, role play, react to case studies, react to job seeking behaviors, and complete a variety of pencil and paper activities. At the end of the course, students were asked to complete an in-depth, fifty-four item questionnaire for evaluation purposes. All of the items were rated excellent or good by the participants.

A three-credit hour course, which is offered at Indiana-Purdue Universities, Fort Wayne, was described by Barkhaus and Bolyard (1977). The course, which utilized an instructor-developed workbook, was designed to help students make career choices that were compatible with their interests, values, and abilities. In addition to completing activities in the workbook, the Strong-Campbell Interest Inventory and Holland's Self-Directed Search were administered and interpreted. Following the testing activity, students identified three occupations to explore further by interviewing persons performing that type of work. Small group sessions which provided reinforcement and feedback was an integral part of the course.

At the conclusion of the class, students made tentative choices. From pretest and posttest data, as measured by an instructor-developed Career Awareness Inventory, significant gains were observed.
At Indiana University, a required course for senior business majors, which attempted to integrate four aspects of career planning (advising, counseling, teaching, and placement) was described by Powell (1971-72). Students from other colleges at Indiana University were permitted to enroll in the course which was offered during the fall semester each year. It included such topics as establishing long-range goals, exploring aptitudes and attitudes, investigating the job market, and interviewing techniques. Individual students were required to participate in a twenty-minute interview with a placement counselor and each was required to write a paper in which their career plans were presented.

McGuire (1971-72) described an elective two-quarter hour credit course which is offered at Augustana College, Rock Island, Illinois. The course was divided into three phases. The first phase involved experiences designed to promote self-understanding through the administration and interpretation of interest inventories (Kuder Occupational Interest Survey and Strong Vocational Interest Blank) and a personality test (Omnibus Personality Inventory). The second phase permitted students to examine the world of work through a review of occupational literature, field trips to places of employment, and interviews with persons employed in the field in which the student displayed an interest. The third phase involved participation in projects designed to integrate information acquired about self and the world of work. Examples of projects completed by students included: working with high school students, with the permission of guidance counselors, to help them with career choices; evaluating occupational materials maintained by the
college library; and producing a career information radio series for the campus radio station. A textbook, Career Development for the College Student (Dunphy, 1970), was required reading for the course and any student who was interested was allowed to enroll.

Parker, et al., (1974) described an introductory education course which was offered to assist students at Washington State University, Bozeman, Washington, in developing their career plans. The semester-long course was divided into two segments, a vocational exploration block and an orientation to teaching block. The class met once a week, and each session began with a lecture followed by a quiz on the previous week's work. Following these activities, the students participated in small group work and discussions.

Topics covered in the class included basic concepts of career development, occupational decision-making, occupational information, and self-exploration. The results of opinion surveys revealed that the students found the course "helpful in assessing their interests, values, abilities and needs in relation to occupations and that it facilitated career decision making" (p. 172).

Under the auspices of the School of Education, California State University, San Diego, Ramsey (1973) of the Career Planning and Placement Office, offered a three-credit hour course to undergraduate women enrolled at that institution. The course was developed from a sociological approach as the students were exposed to "the forces and circumstances that shaped their lives in addition to an exploration of
self-concept components of interests, talents, strengths and weaknesses" (p. 37). Student evaluations indicated that the course had been a positive experience for them.

Courses Not Leading to Credit

Hazel (1976) reported on the efforts of the Department of Student Personnel at Queens College of the City University of New York to provide a series of workshops to assist students, especially liberal arts majors, in entering the job market. The course content as described in two student newspapers:

... examining individual interests, abilities, and values; gathering information about occupations; exploring alternate life styles; discussing nonconventional occupations; and looking into the special problems of women and minorities (p. 437).

Over one hundred students responded to the notice in the student newspapers and were divided into six groups. The groups met for one hour on a weekly basis for eight weeks and more than 50 percent of the members completed the workshop. The workshop was repeated during the second semester and 75 percent of the students remained in the course until the end of the semester. Student reaction to the course was positive and a proposal to offer a one-credit course was approved by the administration.

Pilot programs, the Underclass Orientation Session and the Senior Orientation Session offered at Allegheny College, Meadville, Pennsylvania, were described by Forney and Adams (1977). The Underclass Orientation Session was available for freshmen, sophomores, and juniors. It included activities which permitted students to examine both internal (values,
interests, and abilities) and external (careers, employers, and educational institutions) aspects of career planning. The Senior Orientation Session was for seniors and the students received a brief overview of career decision-making and participated in activities such as identifying and pursuing employment and graduate school options, writing resumes, and interviewing techniques. All of the participants in these sessions rated the experience as helpful and indicated that they would recommend the course to others.

Healy (1974) described a procedure whereby group career counseling was conducted by eight graduate students who were enrolled in the University of Los Angeles counselor education program. The student counselors completed a fifty-hour training program prior to conducting the sessions at two junior colleges, Santa Monica College and Rio Hondo College. The topics covered in these sessions allowed their clients to: "(a) identify their career goals and assets; (b) examine alternatives in terms of those attributes; (c) select an appropriate one; (d) plan to obtain training and entry; (e) begin execution of their plan" (p. 34).

Super's Career Development Inventory was used to gather pretest and posttest data. The clients who completed the course at Santa Monica tended "to feel more certain about their career plans, to know more about their intended occupations, and to have given greater thought to their career plans" (p. 37). At Rio Hondo College, the data suggested that the clients "who completed counseling increased their certainty about their career goals, the specificity of their planning, and their information . . ." (p. 38).
Intensive Experience

Gelwick (1974) described a project conducted at Stephens College, a four-year liberal college for women in Columbia, Missouri. The purpose of the project was to train faculty advisors to incorporate life-long career guidance in their academic advising. Seven faculty advisors, seven doctoral interns, and fifty-four students participated in a three-stage training program.

In stage one, the faculty and interns were given short, selected readings on theory and research; and they were "given information dealing with the job market and women, graduate school opportunities, discriminations experienced by women from childhood to adulthood, and life styles" (p. 215). In stage two, the faculty participated in a one-evening intensive career exploration group. They were asked to role play themselves when they were college students so that they could relate self-understanding to career planning by retracing their own career development. In stage three, each faculty member served as co-leader with the doctoral students and they ran a day-long career exploration group for the fifty-four students who were divided into small groups. The faculty and students, for the most part, gave positive feedback about the experience. The faculty suggested the adoption of a similar model for training all faculty advisors. The trainers reported that it was difficult for students "to generalize from the experiences of making decisions about college selection to making decisions about careers" (p. 217).

Weissman and Krebs (1976), of California State University, Sacramento, used Lippitt and Schindler-Rainman's organizational
development model, Image Potentiality, to develop a decision-making model for career exploration. Image Potentiality "emphasized the effective use of human resources by creating personal awareness, openness, and potential for change within organizational structures" (p. 517). A crucial component of the model was the brainstorming session, which facilitated creative solutions to problem situations. The success that Weissman and Krebs experienced when using the Image Potential model in other counseling situations, such as marriage counseling, led them to develop and field test their program Imaging Potentials for Career Explorations (IPCE).

The IPCE process involved experiencing career decision-making in a group setting which usually consisted of one three-hour session. The purpose of the group session was to provide a supportive environment for members "to share goals, fantasies, and action plans with others, to focus on personal strengths, and to explore ways to reduce weaknesses" (p. 518). Following this session, students may join one or two other groups, one for personal growth and the other to obtain job-seeking skills. The workshop concluded with the development of an action plan to implement participants' decisions. In their evaluation of the workshop experience, students reported that "the process forced them to organize their thoughts and to consider alternatives that were entirely new for them" (p. 518).

A summary of a career counseling workshop which was held at the University of Kentucky was presented by Harman and Dutt (1974). Forty-two of the entering freshmen, who had listed their majors as "undecided,"
accepted invitations to participate in a one-day workshop. Prior to the workshop, the students were asked to complete the Strong Vocational Interest Blank and the Holland Self-Directed Search. Five activities were included in the workshop: (1) test interpretation, (2) a faculty panel to explain curriculum demands and career opportunities in their fields, (3) a student panel which discussed the vocational decision-making process and general orientation to university life, (4) small group sessions designed to help students get acquainted and to further discuss the topics covered, and (5) a summary session. All of the sessions were rated valuable by the participants but the student panel received the highest rating.

The use of pre-professionals (graduate students beginning a master's program in counseling or student personnel work) in providing career guidance to freshmen and sophomores at the University of Wisconsin-Madison was described by Dye (1975). The pre-professionals completed four, ninety-minute sessions in which career development theory and group dynamics were covered. The freshmen and sophomores participated in the following activities: (1) examining values, (2) reviewing decision-making tasks, (3) exploring occupational literature, and (4) interviewing persons employed in occupations which interested them. The evaluations revealed that the participants displayed mixed reactions to the sessions. While some students felt the sessions were helpful, others believed that they were not provided with sufficient specific information to allow them to make career decisions.
A pilot career group counseling program was made available to students at Louisiana State University, Baton Rouge (Keuhn, 1974). The program provided for three group sessions. Participants completed the Strong Vocational Interest Blank and a Personality and Environment Chart. From the results of these instruments, each student chose three occupations to explore. These activities were followed by individual appointments with counselors. While students indicated the group sessions were helpful, they also indicated that the experience was too short.

PUBLISHED CAREER DEVELOPMENT PROGRAMS

The results of ACPA's survey, as reported by Haney and Howland (1978), revealed the textbooks most frequently used in career development courses offered by two-year and four-year institutions. A description of two of the three most frequently used textbooks (Path and What Color is Your Parachute) follows. Also, a description of the Life Career Development System is included as representatives from most of Virginia's community colleges received training on the use of this program.

Path

The Path Program was developed by Howard E. Figler (1975) and it consists of twenty exercises, ten of which are identified as the Core Program. The program was designed to assist liberal arts students in developing career objectives. While the workbook is designed as a self-instructional text, Figler suggested that more effective use of the program could be accomplished in group settings in which appropriately
trained counselors or faculty members serve as leaders. It was recommended that each session last no more than two and a half hours. If the number of sessions were limited, Figler suggested that the Core Program be explored in depth, supplemented by selected activities from the workbook.

The Path Program emphasized self-assessment and the translation of these assessments into individual occupational significance. External dimensions of career choice, such as, the job market, were minimized. The activities included such topics as attitudes toward work, factors to consider in choosing graduate programs, values clarification, review of present and past vocational and leisure activities, achievements and failures, self-evaluation of abilities, choosing trial occupations, and job search strategies. The appendix lists directories for various occupational areas which may serve as contacts for entry level positions for liberal arts majors.

What Color is Your Parachute

What Color is Your Parachute, developed by Richard N. Bolles (1976), is a self-help manual designed to teach job search skills to job seekers and/or job changers. It begins by pointing out the frustrations many persons experience when they utilize traditional job search procedures such as sending out resumes, utilizing private employment agencies, and using the United States Employment Service.

In order to be successful in locating employment, Bolles stated that: (1) one must decide what he/she wants to do; (2) decide where one wants to do it; and (3) research the organization of interest and
contact the individual within the organization who has the power to hire. To help with the decision phase, exercises are included for self-assessment of skills. To assist individuals in deciding where they want to live information is included on topics such as understanding the job market, focusing on a geographical area, and identifying an organization's problems. Also included are factors to be considered when making contacts with organizations and during the initial interview with prospective employers.

An additional feature of this textbook is the inclusion of research notes on various occupational fields as well as the fields of self employment. Numerous references were cited so that the reader could acquire additional information on various topics discussed in the book. If more individualized assistance is needed, the concluding feature of the book gives a directory of organizations and agencies that can provide such services.

**Life/Career Development System**

The Life/Career Development System was developed by Walz and Benjamin (1975), and it was designed for use with high school and college students as well as adults. The program consists of nine modules and, to complete it, at least fifty-five, 50-minute sessions are required. However, the program can be modified and used for short, intensive workshops or as a one or two semester course. It is suggested that users may desire to customize the program to meet local needs.
The following is a summary of the activities included in the nine modules which comprise the system:

1. Exploring Self - self assessment activities are provided to explore interests, strengths, personalities, needs, and life style preferences; this self-knowledge is related to career options.

2. Determining Values - the identification of personal values and the examination of the importance of these values in career planning is explored.

3. Setting Goals - activities are provided to contract for short-range goals, to examine barriers to achievement of goals, and to explore the necessity for establishing long-range goals in connection with career planning.

4. Expanding Options - provides opportunities for participants to become aware of emerging work roles and changing work values, to examine the social consequences of their occupational choice, and to explore alternatives in planning their careers.

5. Overcoming Barriers - a variety of techniques are introduced, such as role playing, simulated interviews, and case studies, to help participants identify barriers and to explore ways of coping with them.

6. Using Information - in order to help participants learn the importance of information and ways of using it effectively, activities are provided for locating, evaluating, and using information in developing career plans.

7. Working Effectively - team activities such as debates, group discussions, and games are utilized to help participants examine factors
which contribute to increased effectiveness and efficiency; these factors include strategies for becoming effective listeners, improving work and study habits, and understanding the importance of effective job performance.

8. Enhancing Relationships - provides activities to help develop skills in establishing and maintaining meaningful relationships with others.

9. Creating Futures - participants are helped to acquire skills so that thinking and behaving futuristically become part of their normal way of responding to the present.

Users of the system receive training in special workshops. A communication network has been established whereby they share experiences in connection with the utilization of the system.

RESEARCH ON PUBLISHED CAREER DEVELOPMENT COURSES FOR USE IN HIGHER EDUCATION SETTINGS

Published career development courses for use in higher education are emerging rapidly. However, research in this area is quite limited. This section contains a summary of studies that examined the effects of four published career development programs designed for use in college settings.

Winquist (1975) conducted a study to determine if the program, "This Isn't Quite What I Had in Mind." A Career Planning Program for College Students, was helpful in facilitating the career development of community college students. According to Winquist, the program focused
on five specific areas of career planning: (1) self-understanding; (2) understanding the world of work; (3) understanding of the interrelationship between work and lifestyle; (4) a system for making decisions; and (5) a system for implementing decisions.

The study was conducted at Lane Community College, Eugene, Oregon; any student who was interested was allowed to participate. From this group of interested students, a control group and three treatment groups were established. All treatment groups were exposed to the career planning program but different methods of instruction were employed. Group 1 students completed the material by independent study; Group 2 students completed the material by independent study and engaged in discussion with another person for a minimum of two and one-half hours; Group 3 students completed and discussed the material in small group sessions. A pretest, posttest procedure was used to determine changes in six areas. Crites' Career Maturity Index was used to measure changes in self-appraisal and vocational maturity. Questions included on an interview schedule were used to measure the areas of information seeking behavior, understanding of the relationship between lifestyle and work, clarity of purpose for attending college, and self-evaluation of future plans. The findings revealed: (1) no significant treatment effects on self-appraisal, vocational maturity, or understanding of the interrelationship between lifestyle and (2) significant treatment effects in the areas of information seeking behavior, clarity of purpose for attending college, and self-evaluation of future plans. A weakness in the study was the high
attrition rate among the control group--forty-nine students were pretested but only thirty-nine were posttested.

Forester (1977) conducted a study to describe and evaluate a life planning training program Self-Empowerment. The self-empowerment approach proposed that it was possible to teach skills and concepts that are useful in life for pursuing goals and coping with unpleasant events. Further, mastery of these skills and concepts enables individuals to be responsible for what happens to them rather than being controlled by external phenomena. The dimensions of self-empowerment were described as: awareness, purpose, concepts, skills, and information. Awareness referred to self-understanding; purpose referred not only to meaning in one's life but also daily goals; concepts referred to clarification statements regarding the negotiation of one's environment; skills referred to behaviors related to the concepts; and information referred to the acquisition of data needed to make decisions.

Following an announcement of the availability of a self-empowerment seminar at the University of Oregon, twenty-five students enrolled in the course. The seminar consisted of fifteen hours of training divided into four sessions. Three instruments were used, on a pretest-posttest basis, to measure student reactions to the course--Rotter's Internal-External Scale and Crumbaugh and Maholick's Purpose-in-Life Test, and a post treatment structured interview which was conducted at the conclusion of the seminar. The findings revealed no significant differences in the Purpose-in-Life mean scores; however, significant
differences were observed in the Internal-External Scale scores. A review of the responses to questions contained on the interview schedule revealed that the majority of the students found the seminar useful and helpful. The lack of a control group represents a major weakness of the study.

A basic psychology class, Human Resources, is required of all students at Wayne County Community College, Detroit, Michigan. Kaufman (1978) used four sections of these classes in a study to determine if there would be a difference in goal-setting skills of students who did and those who did not complete the goal-setting module contained in the Life Career Development System (Walz and Benjamin, 1975). A pretest, posttest experimental design was used and forty-seven students were included in the sample--twenty-five in the experimental group and twenty-two in the control group. Three instruments were used as pretest-posttest measures; (1) two case studies, on which students had to answer questions to indicate their ability to determine why the goal oriented person was a higher achiever; (2) Goals or Non Goals, an instrument which consisted of ten statements which were intended to measure the students' abilities to identify specificity, achievability, measurability, and meaningfulness in goals; and (3) Analysis of Goals, an instrument designed to measure the students' mastery of concepts and skills presented in the module. An analysis of the data revealed a significant difference in all the means for these instruments. A fourth instrument, administered on a posttest basis, requested each student to
set and analyze one personal goal. All of the students were able to complete this exercise in a satisfactory manner.

Buchanan (1978) evaluated two methods of teaching a ten-week program of decision-making skills to freshmen, who were Developmental Year Students at the University of Pennsylvania. Developmental Year students were those who desired to attend the University but were "otherwise inadmissible because of poor academic achievement. . . . The two criteria for admission to the program were economic and educational disadvantage" (p. 26).

One hundred and four students were stratified by sex and randomly assigned to one of four treatment groups. Students in Group I were exposed to a structured program, Decisions and Outcomes (Gelatt, Varenhorst, Carey, and Miller, 1975); Group II were exposed to Decisions and Outcomes plus peer social modeling (observed decision-making behavior of peers); Group III participated in a placebo treatment consisting of interpersonal skills development; and Group IV was the control group.

Four units comprise Decisions and Outcomes. Unit I contained an introduction to the program; Unit II related values and the decision-making process; Unit III concerned the collection, evaluation, and utilization of information; and Unit IV helped the user to develop decision-making strategies to arrive at a plan of action.

Pretest and posttest data were obtained from all groups from two instruments, Crites' Career Maturity Inventory and the Tennessee Self Concept Scale. A third instrument, developed by the authors of
Decisions and Outcomes, was administered to Groups I and II. This instrument was designed to help students evaluate their decision-making skills before starting, and upon completion of the program. An analysis of the data revealed that neither of the teaching methods made significant differences in facilitating the students' career maturity and decision-making skills nor were significant differences observed in self-concept levels.

SUMMARY

Following a review of major career development theories, this chapter examined career development activities in higher education settings. These activities were described as falling into one of three categories: (1) courses leading to college credit, (2) courses not leading to college credit, and (3) intensive experiences.

A review of the literature indicated that the inclusion of career development courses in post-secondary settings has been a growing phenomenon during this decade. Also, it appeared that persons employed in Career Counseling and Placement Centers frequently provided the impetus for the inclusion of such courses in the curriculum. Consequently, many of the descriptions of career development activities appeared in literature which was designed primarily for placement personnel rather than that which was primarily for guidance and counseling audiences.

While there was a growing number of published career development programs designed for use in higher education settings, the review of the
literature revealed that research in this area is limited. Yet professionals realized, as suggested by the literature review, a need for the availability of such data. No attempt has been made to research the published program which was examined in this study.
Chapter 3

METHODOLOGY

This chapter includes a discussion of several topics relevant to this research effort. These include: a definition of the population and sample; an overview of the independent variable, the course Career Planning and Decision-Making (1979); a discussion of the instrumentation, the Assessment of Career Decision Making (Harren, 1978) and the Rotter Internal-External Scale (Rotter, 1966); procedures for data collection and study design; methods of analysis; and the research hypothesis.

POPULATION AND SAMPLE

The need for career development activities at Virginia Polytechnic Institute and State University (VPI&SU) was indicated by students who participated in the pre-graduation interview (Pre-Graduation Interview Report, 1977-78, 1978). Of the 4,457 students who responded in the interview schedule, 39 percent (1,296 students) indicated that they had changed their majors and 26 percent (863 students) indicated they would change their majors if they had it to do all over again.

In an effort to respond to the career development needs of students enrolled at VPI&SU, the Counseling Center has instituted numerous activities. While no formal course was offered, the following
activities were included in their services to students: coordinating the career development work of career advisors within each department; conducting workshops on choosing a major; and participating in a university-wide, career guidance week.

Founded in 1872, VPI&SU, a land grant, four-year institution, is located in Blacksburg, Virginia. The University consists of eight colleges: Agriculture and Life Sciences, Architecture and Urban Studies, Arts and Sciences, Business, Education, Engineering, Home Economics, and Veterinary Medicine. The enrollment at the time of the investigation was approximately 19,000. More than seventy-five undergraduate fields of study were offered. Additionally, there were available sixty-four fields of study leading to a Master's degree and forty-eight fields leading to the Doctorate.

Virginia Polytechnic Institute and State University was chosen in 1978 by Appalachia Educational Laboratory as one of the field test sites for the college-level career development program, Career Planning and Decision-Making. In the past, at many institutions of higher education, education has been a popular major for many students. However, the shrinking job market for such graduates has resulted in more careful admissions procedures by VPI&SU and other institutions. Likewise, students are re-evaluating their decision to enter the teaching profession. Thus, the primary reason for choosing this population was related to the selection needs of the institutions as well as the choice of major needs of the students. For some students, who were not totally committed to a major in education, this course could provide an avenue for exploring alternative majors.
The research population consisted of freshmen, sophomores, and transfer students who had expressed an interest in becoming education majors and who were enrolled in the 1978 fall quarter at VPI&SU. During a meeting scheduled by the Teacher Education Office of the College of Education, at which time the course was described, forty-nine students volunteered to participate. From that group, twenty-five students were selected at random for enrollment in the course. However, due to scheduling conflicts, only twenty-one students actually enrolled in the class. For the control group, twenty-one students were randomly selected from the remainder of the students who volunteered for the course, making the total sample forty-two in number.

OVERVIEW OF THE INDEPENDENT VARIABLE: CAREER PLANNING AND DECISION-MAKING

The course, Career Planning and Decision-Making, was developed by Appalachia Educational Laboratory (AEL) which was one of several regional laboratories established by the Office of Education in 1966. A major purpose of these laboratories was to meet the research and development needs of educational systems within its region. Upon establishment of the National Institute of Education, the administration of these laboratories was transferred to that agency.

As a result of a request from the Office of Education during a site visit in 1971, the Career Guidance Division of AEL began to develop a structured career development program for use in elementary, junior high, and senior high schools. Reduced funding, during the 1973 fiscal
year, limited the scope of development to a secondary school component. These efforts resulted in the development of the career decision-making program which consists of a one-semester course and a Career Information System. In 1978, following extensive field testing at forty sites in sixteen states, more than fifty products were published and disseminated by McKnight Company, Bloomington, Illinois. The products have proven popular, with brisk sales in the continental United States and in the overseas schools of the Department of Defense.

Because of the positive feedback generated from the field-test phase, the National Institute of Education requested Appalachia Educational Laboratory to focus its attention on the development of a college level component. Its efforts resulted in the development of the program, Career Planning and Decision-Making, which this study attempted to evaluate. The program has been subjected to pilot testing at three sites: (1) a two-year community college, (2) a four-year liberal arts college, and (3) a state university. It was field tested during the 1978-79 academic year at several sites.

In the instructor's guide (AEL, unpublished), the following general objectives define student competencies. Upon their completion of the course, students will learn to:

1. Apply the concept of "career" styles of decision-making in examining their own experiences.
2. Establish occupational preference in culturally relevant terms by integrating knowledge of self and work.
3. Identify tentative career goals by learning to project personal values into the future.
4. Develop a detailed career plan based upon their goals, knowledge of college options and personal criteria related to their values (p. 91).
5. Demonstrate the ability to decide and act with respect to the steps of their career plan.
6. Understand the importance of planning and deciding as an ongoing process and the means of controlling and shaping careers.

The six units which comprise the course provided for student integration of external (world of work) and internal (self exploration) factors in order to choose or examine their college major. The following unit descriptions are included in the instructor's guide:

**Unit I Career Development** introduced the concepts of career, career theme, and decision-making. Students examined the meaning of work and career, identified their decision-making styles, and learned to use a decision-making strategy.

**Unit II Career Exploration** allowed students to build a Personal Profile based on knowledge of self (values, interests, and aptitudes) and knowledge of the world of work (work activities, work situations, and other worker traits). They learned the process of locating occupational information and how to evaluate it for accuracy, competence, bias and stereotyping and were introduced to the Career Information System. The process of exploring self and the world of work resulted in the development of a Personal Profile and the completion of other charts and forms at the end of this unit provided students with a detailed set of concepts and language in which to describe their own work values and preferences.

**Unit III Career Goals** helped students clarify their short-term, intermediate, and long-term goals. This process was facilitated by
using the concept of career theme as the basis for projecting values into the future and establishing career goals.

Unit IV Career Planning allowed students to explore options based on a knowledge of the credentials and competencies required for various occupations. With this knowledge, students are able to establish tentative career plans and to identify possible courses of action.

Unit V Career Action led students into a decision involving the selection of a college major or an examination of their commitment to a previously selected major. This provided an opportunity for students to act upon their career plans and to gain new experience—knowledge and value.

Unit VI Career Progress helped students to understand planning and deciding as continuous processes in which all elements are concurrent. This equipped students to manage the variables involved in planning and controlling their careers.

Ten filmstrips were integral parts of the course and were used to introduce units or activities within the units. There was one filmstrip for use with Units 1, 3, 4, 5, and 6; and there were five filmstrips for use with Unit 2.

Career Planning and Decision-Making was developed to be offered at the freshman or sophomore college level as a three-quarter hour or two-semester hour course. At VPI&SU, the course was offered for three quarter hours; students were required to participate in thirty contact hours of classwork.
PROCEDURE FOR DATA COLLECTION AND STUDY DESIGN

The names and addresses of pre-education majors were obtained from the Teacher Education Office, College of Education. A letter was then mailed to the pre-education majors informing them of the availability of the course and inviting them to enroll (Appendix A). A flyer developed to provide additional information was distributed to potential enrollees prior to a test administration meeting scheduled by the College of Education (Appendix B), in November, 1978.

The Rotter Internal-External Scale (I-E Scale) was administered to all pre-education majors by the Teacher Education Office, College of Education during the fall of 1978 as a part of the testing program for pre-education majors. These scores, which were released to the researcher, constituted a portion of the pretest data for this study. Pretest data on the Harren Assessment of Career Decision Making (ACDM) were collected during the first class session. At this session, demographic data on the students and their level of decidedness were also collected. The pretest data, demographic data, and level of decidedness were collected from the control group during the first week of scheduled classes. The form used to collect basic demographic data and level of decidedness on students (Appendix C) was devised by Harren. Student evaluation of each unit was collected upon completion of that unit in the classroom setting; the forms used for this purpose were included as Appendix D. The ACDM posttest data for the experimental group were collected during the last class session. For the control group, these
data were collected during the last week of scheduled classes.

During the last week of scheduled classes, a structured inter-
view with each participant in the experimental group was conducted by
the researcher. A copy of the interview schedule was included as
Appendix E.

Pretests and posttests were collected from each participant.
To control for sources of internal invalidity, a True Experimental
Design (Figure 2), using pretest-posttest control groups as described
by Campbell and Stanley (1968), constituted the design of the study.
Control of the sources of invalidity permitted a valid test of whether
the observed evidence suggested that the treatment caused a difference
in the observed results.

INSTRUMENTATION

The four instruments used in this study were: the Harren
Assessment of Career Decision Making (Appendix F), the Rotter Internal-
External Scale (Appendix G), end-of-unit evaluations (Appendix D), and
a structured interview (Appendix E).

Harren Assessment of Career Decision
Making Form C (ACDM)

Use. The ACDM was chosen for this study because, as in the
course Career Planning and Decision Making, Tiedeman's theory of
vocational choice was used as the framework for its development. The
instrument was used to measure the decision-making styles and levels
<table>
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<th>Career Planning and Decision-Making Course</th>
<th>Posttest</th>
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<td>0</td>
<td>X</td>
<td>0</td>
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<tr>
<td>Control</td>
<td>21</td>
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Note: Experimental Observation = 0; Experimental Treatment = X.

Figure 2
Design of Study
of career decision-making of all students included in the study. Scores on the ACDM constituted the dependent variable in this research. The ACDM was administered during the pretesting and posttesting periods of the Winter Quarter of 1979.

Description. The instrument consisted of four major sections:

Part I, Decision Making Style (DMS) contained thirty items which identified three relatively independent decision-making styles which Harren classified as Rational (DMS-R), Intuitive (DMS-I), and Dependent (DMS-D). Rational persons examine external and internal dimensions to arrive at decisions systematically and logically, intuitive persons rely on what feels right inside when they make decisions, and dependent persons tend to rely on others when they make decisions. A proportion or percentage score was computed to ascertain the students' degree of reliance on each style relative to the other two. The student is inclined to rely on that decision making style which reflects the higher percentage.

Part II, Decision Making Task-College (DMT-C) contained thirty items and was designed to measure progress in making and implementing the decision to go to college. The three stages of the implementation period (Induction, Reformation, and Integration) in Tiedeman and O'Hara's decision-making model were measured in the scale. The overall level of decision making was reflected by a total score (DMT-C), a weighted score which represented progress through the three stages.

Part III, Decision Making Task-Major (DMT-M) contained forty items; it measured progress in selecting a college major. The four stages of the
anticipation period (Exploration, Crystallization, Choice, and Clarification) in Tiedeman and O'Hara's decision-making model were measured in this scale. The overall level of decision making was reflected by a total score (DMT-M) which was a weighted score representing progress through the four stages.

Part IV, Decision Making Task-Occupation (DMT-O) contained forty items and measured progress in selecting an occupation for pursuit upon leaving college. The four stages of the anticipation period (Exploration, Crystallization, Choice, and Clarification) in Tiedeman and O'Hara's decision-making model were measured in this scale. The overall level of decision making was reflected by a total score (DMT-O), which was a weighted score representing progress through the four stages.

Development. The ACDM represented an extension of an earlier instrument, Vocational Decision Making Checklist (VDC), developed by Harren (1964, 1966). The instrument, which was designed to test the Tiedeman and O'Hara vocational decision-making paradigm (Tiedeman, 1961; Tiedeman and O'Hara, 1963), was originally a Q-sort design. The VDC was:

... constructed to represent four stages--Exploration, Crystallization, Choice, and Clarification--and two decision making tasks--Major and Occupation. Each stage was represented by 14 items, 7 of which referred to major and 7 to occupation for a total of 56 items (Harren, 1976, p. 1).

Because subjects had difficulty using the Q-sort design, Harren modified the instrument to a simple checklist and a weighted scoring procedure was designed.

In the ACDM-A, the first extension of VDC, a new item pool of 64 items (16 for each of the four stages--8 referring to Major and 8 to
Occupation) was developed. In addition, the instrument was extended to assess the implementation period in Tiedeman and O'Hara's model, which included three stages (Induction, Reformation, and Integration). Ten items for each of the implementation stages were developed. Finally, the instrument was revised to incorporate an assessment of decision-making style. Three styles (Planning, Intuitive, and Dependent) were identified and eight items were developed for each style.

A revised ACDM resulted in the development of Forms B and C. In its present form (Form C), the instrument contains 140 items and the three decision making styles are identified as Rational, Intuitive, and Dependent.

**Relevancy.** Numerous studies have used the ACDM or the earlier version, Vocational Decision-Making Checklist (VDC), to evaluate the effectiveness of career counseling or instructional intervention. Berman, et al. (1977) used the VDC in a pretest, posttest experimental design to determine whether supportive learning environments, characterized by opportunities to share concerns, improving interpersonal relationships and goal setting, would exert greater influence over women's vocational decision-making attitudes than would the traditional one-to-one or group therapeutic counseling. Students were required to complete four projects: (1) an academic skill project, (2) a career exploration project, (3) a campus community or women's resource project, and (4) a personal class journal. An analysis of the data suggested that the course had a positive effect on the students' vocational
development as those in the experimental group moved significantly
toward the choice stage in major and occupation, while those in the con-
trol group did not.

Cochran, et al. (1977) used the VDC "to investigate the impact
of the System of Interactive Guidance and Information (SIGI) on the
choice-making processes of college students" (p. 308). From a group of
volunteers, members for an experimental and a control group were randomly
selected. The treatment consisted of a three-hour interaction with SIGI.
The results revealed no significant changes in choice of occupation but
significant changes were observed in choice of major.

Smith and Evans (1973) used the VDC "to investigate the extent
to which an experimental program in vocational guidance, developed to
assist undergraduate university students, facilitated these students' voca-
tional development" (p. 202). A control group and two treatment
groups were established from students who reported to the Counseling
Center of Southern Illinois University to seek assistance with vocational
or educational concerns. One treatment group participated in the experi-
mental guidance program while the other received individual counseling
from the Counseling Center. Students in the experimental guidance pro-
gram completed a five-week program in which the following topics were
covered: (1) decision-making; (2) values; (3) interests; (4) behavioral
traits (habits, attitudes, maturity, and emotional stability); and (4)
social influences. The individual counseling treatment consisted of
standardized test administration and interpretation and provided student
access to occupational information materials. An analysis of the results
suggested the experimental guidance program was more effective in increasing vocational development than either the individual counseling or control treatment; individual counseling was more effective than the control treatment.

Tillar (1978) used the DMT-O subscale of the ACDM to determine whether "a program of career exploration could improve the level of decidedness of college freshmen with regard to career choice" (p. 93). A control group and three experimental groups were established and the treatments consisted of: (1) an orientation to decision-making theory and completion of the Hall Occupational Orientation Inventory, (2) interviews with alumni of Roanoke College, and (3) a combination of treatments 1 and 2. Each group consisted of forty students who had been randomly selected and assigned. An analysis of the data suggested that there was greater movement toward the choice stage by each of the treatment groups but that the movement was greater among those students who participated in the combination treatment.

Reliability and Validity. The current version of the ACDM was released in September of 1978, and there are no technical data available regarding its reliability and validity. However, efforts to collect such information are underway.

Six major American universities (University of Georgia, Bowling Green State University, University of Nebraska, University of Montana, Memphis State University, and Ohio State University) participated in a study to determine the reliability and validity of an earlier version
of the ACDM. The sample consisted of 285 students. A test re-test procedure was used. The reliability coefficients were reported by Harren (1976): for Part I, .57 for Planning (Planning is now identified as Rational on the revised form), .15 for Intuitive, and .55 for Dependent; for Part II, .26 for Induction, .47 for Reformation, and .69 for Integration; for Part III, .82 for Exploration, .60 for Crystallization, .87 for Choice, and .51 for Clarification; for Part IV, .78 for Exploration, .63 for Crystallization, .82 for Choice, and .50 for Clarification.

In a subsequent study by Harren, et al. (1978), in which the 1978 version of the ACDM was used, an independent sample of seventy-three students completed two subscales (DMS and DMT-M) of the ACDM twice over a two-week period. This yielded a reliability coefficient of .84 on the DMT-M subscale. For the three decision-making style scales, the reliability coefficients were: Rational = .85, Intuitive = .76, and Dependent = .85. A factor analysis of the data by Harren (1976) offered construct validity evidence and added support to the Tiedeman paradigm of decision making and to the ACDM as a measure reflecting this theory.

Scoring. Choices for each item in the ACDM used an "Agree" or "Disagree" format. Only the items marked "Agree" are tabulated to determine the raw score. The student responses can either be recorded on the test itself or they can be recorded on separate answer sheets. In this study, the student responses were recorded on separate answer sheets devised by Harren and the scores were computed by the researcher. On
Part I, a proportion or percentage score was computed to ascertain the students' degree of reliance on each style relative to the other two. The student was inclined to rely on that decision making style which reflects the higher percentage. The sub-scales for Parts II, III, and IV represent sequential stages in the decision-making process. The sub-scale which contains the student's highest raw score represents the stage the student was in at the time of taking the ACDM. A total score for each sub-scale for Part II (DMT-C), Part III (DMT-M), and Part IV (DMT-O) is a weighted score which represents progress through the stages.

**Rotter's Internal-External Scale (I-E Scale)**

**Use.** The I-E Scale was used to measure the internal-external orientation of the students in this study. These scores were used as the covariate to determine whether the students' internal-external orientations would affect the posttest scores derived from the ACDM. The instrument was administered by the College of Education during the Fall Quarter, 1978.

**Description.** The instrument, consisting of twenty-nine items, was a forced-choice test which incorporated six filler items to shield the purpose of the test. A copy of the instrument is attached as Appendix G.

**Development.** Phares was the first to attempt to measure individual differences in beliefs in external controls as a psychological variable (Rotter, 1966). Phares' original Likert-type scale contained
twenty-six items, thirteen of which were stated as internal attitudes. James, in a revision of the Phares test, retained the Likert-type scale but added filler items. A further revision by Liverant, Rotter, and Seeman resulted in a one-hundred item, forced-choice questionnaire. This questionnaire was reduced to a sixty-item instrument through item analysis and factor analysis. Further analysis produced the final version, a twenty-nine-item forced-choice test which incorporated six filler items.

Relevancy. It was estimated by Rotter (1975) that more than six hundred studies dealing with some aspects of internal versus external control of reinforcement had been published. Studies which related internal-external orientation to career development included those by Arreola (1978), Forester (1977), and Roark (1978).

Arreola (1978) used the I-E Scale as an independent variable "to determine whether internally and externally controlled users of vocational counseling treatments feel that they benefit from self-administered or traditional treatments" (p. 22). The study examined two groups of volunteers, internal and external undecided students, who had utilized the Office of Undeclared Majors at Florida State University. One group used Holland's Self-Directed Search, a self-administered instrument, while the other group used Holland's Vocational Preference Inventory, a monitored (scored and interpreted by a counselor) instrument. An analysis of the results suggested that the locus of control construct was not related to the perceived benefit of students using self-administered and traditional vocational counseling treatments.
Forester (1977) used the I-E Scale to determine whether, after they had completed a life planning workshop, a change would be exhibited in the participants' belief in self-determination. The subjects in the study were thirty students who had volunteered for a fifteen-hour Self-Empowerment seminar at the University of Oregon. An analysis of the posttest results suggested that the participants believed less in luck or fate.

Roark (1978) used the I-E Scale to determine the relationship between perception of change in finding jobs and locus of control. The stratified random sample consisted of fifty-one persons employed full time by human resource agencies in the Fourth Planning District of Virginia. Roark concluded that "finding a job was a combination of perceived chance happening and actions taken by individuals" (p. 85).

Reliability, Validity, and Norms. While Rotter (1966) reported that the I-E Scale had been administered to other groups, detailed data offered in this discussion were based on the results from over two hundred male and two hundred female Ohio State University elementary psychology students. An internal consistency analysis (Kuder-Richardson) yielded a correlation of .70 for males and the same for females. Test-retest reliability coefficients were computed for two subgroups of the population. After one month, the reliability coefficients for males was .60 (N = 30), for females was .83 (N = 30), and combined was .72 (N = 60). After two months, the reliability coefficients for males was .49 (N = 63), for females .61 (N = 54), and combined .55 (N = 117).
Rotter (1966) states that part of the decrease after the two-month period is due to deficiencies in administration, group versus individual. Several factor analyses reported by Rotter (1966) supported the assumption of unidimensionality of the I-E Scale. Numerous other studies gave evidence of its construct validity.

Over a three-year period, a total of 1,180 students were tested at the Ohio State University. The mean score for males was 8.15, with a standard deviation of 3.88 (N = 575); the mean score for females was 8.42 with a standard deviation of 4.06 (N = 605).

Scoring. A key was used to score the respondents' ratings of each statement on the I-E Scale. The range of possible scores was zero to twenty-three. The high score represented an external orientation, while low scores reflected internal orientation.

End-of-Unit Evaluation

Use. Upon completion of each unit, students in the experimental group were asked to evaluate that unit in terms of whether the unit was compatible with the unit concept. The form (Appendix D) for the evaluation of each unit was developed by the researcher but was an adaptation of the evaluation form developed by Forrester (1977). A preliminary form of the end-of-unit evaluation was examined for clarity and comprehensiveness by members of the researcher's committee and five undergraduate students enrolled at VPISU.
**Interview Schedule**

Use. During the last week of class, students in the experimental group participated in individual interviews with the researcher. Interviews were approximately one-half hour in length and were taped; one student objected to taping.

The structured interview generated answers to some questions where the answers were not available from other sources. The interview format was designed to elicit responses from students on questions such as: "did the course facilitate your process of choosing a major?"; "was the course beneficial in helping you to establish life goals?"; "was the course beneficial in helping you understand the career development process?"; and "would you recommend the course to others?" The interview schedule was developed by the researcher but was an adaptation of a form developed by Appalachia Educational Laboratory.

**PROCEDURES FOR DATA ANALYSIS**

A one-way analysis of variance was completed to determine any significant differences between the experimental and control groups on the pretest scores for each of the subscales of the ACDM and the I-E Scale scores. If the differences in the mean scores between the two groups could not be attributed to sampling error, the null hypotheses were rejected at the .05 level of significance. An analysis of covariance (Kerlinger, 1973), using the pretest ACDM and I-E Scale scores as covariates, was used to examine the differences between
the treatment and control groups for each of the posttest subscale
scores of the ACDM. The SPSS (Statistical Package for the Social
Sciences) computer program was utilized to process data for this
investigation. The non-statistical aspects of the study included a
discussion of the end-of-unit evaluations and the structured interview.
Chapter 4

PRESENTATION OF RESULTS

The major purpose of this investigation was to explore the impact of the course Career Planning and Decision-Making on the decision-making style and the career decision-making process related to choosing a college, a major, and a future occupation. An experimental group and control group were randomly selected from among pre-education majors at VPI & SU who had volunteered for the course. This course was the independent variable in this study and was offered during the Winter Quarter, 1979. A True Experimental Design, using pretest and posttest control groups, constituted the design for the study. A secondary purpose of this investigation was to obtain the students' evaluation of the course.

With the exception of two students in the experimental group, all of the students in the investigation were freshman or sophomore pre-education majors at VPI & SU. The two exceptions were Business and Arts and Sciences majors who joined the class at the second meeting. These students had learned of the class from friends and had added it to their schedules without the knowledge of the researcher. As they were freshmen and had volunteered for the course, they were allowed to remain. Ary, et al. (1972) stated: "If self-selection occurs--experimental Ss volunteer for exposure to the X treatment--and there is no comparable group of volunteers to serve as a control group, the possibility of a
selection-maturation interaction exists" (p. 259). As all students included in this study were volunteers, this source of bias was eliminated.

All the students in this investigation completed the Harren Assessment of Career Decision Making (ACDM). Pretest and posttest ACDM scores were obtained for the treatment (N = 21) and control (N = 21). Invalid scores were identified for three subjects in the treatment group and one subject in the control group, and these scores were withdrawn. This reduced the number of students to eighteen and twenty for the treatment group and control group, respectively.

Demographic data pertaining to sex, age, and year in college were obtained for all students. Also, pre-treatment perceptions of the students' certainty and satisfaction with college, majors, and future occupations were obtained.

The Rotter Internal-External Scale (I-E Scale) was used as a covariate to determine if students displaying differences in internal-external orientation would respond differently to the course. The I-E Scale scores were obtained from the College of Education. The instrument had been administered during the preceding quarter (Fall Quarter, 1978). The instrument was administered the day following the second class meeting to the two students who joined the class late.

Upon completion of each unit in the course, an end-of-unit evaluation was obtained from each student in the treatment group. The final collection procedure consisted of a post-treatment, structured interview with each member of the treatment group.
The researcher, who had worked as an intern with the Career Guidance Division, Appalachia Educational Laboratory, was the instructor for the course. Her experience and familiarity with the materials used in this course, may have injected a degree of bias in this study.

STATISTICAL ANALYSIS OF DATA

Demographic Data

While forty-two students were included in the study, for the reasons previously stated, data for only thirty-eight students were reported in the statistical portion of this section. Though the population was almost evenly divided between males and females, the sample consisted of nine (23.7 percent) males and twenty-nine (76.3 percent) females. The predominantly female sample can probably be explained by the fact that more females than males were present at the initial meeting when the course was explained to prospective students. The ages of the students ranged from eighteen to twenty-eight, but the majority were eighteen (52.6 percent) or nineteen (34.2 percent) years old. Thirty-three (86.8 percent) were freshmen, while five (13.2 percent) were sophomores.

Pre-Treatment Decisional Status

A form was completed by the students to indicate their certainty and satisfaction ratings with regard to college, major, and future occupation (see Appendix C). The form contained nine-point scales with the midpoint being five; values above five represent certainty and satisfaction, while values below five represent uncertainty and dissatisfaction (Harren, 1976). If students responded "no" to item 2, they were
instructed to leave the remainder blank. However, one student responded "yes" and "no" to item 2. Thus, Table 5 indicated ten students had not decided on a major, Tables 5–9 showed nine students did not respond to questions 4, 5, 7, and 8. Question 3 asked students to list their majors. All of the students were pre-education majors, elementary or secondary levels, except two. One of the two was an Arts and Sciences major and the other a Business major. In question 6, the students were asked to indicate their tentative choice of occupation. Most of the students listed tentative choices in education, primarily teaching. The two non-education majors indicated uncertainty as to occupation. None of the students responded to item 9.

Tables 1–6 contained the distribution of responses to the following questions:

Question 1: How satisfied are you with this college? One (5.6 percent) student in the experimental group and two (10 percent) students in the control group were dissatisfied with college. Sixteen (88.9 percent) students in the experimental group and eighteen (90 percent) students in the control group were satisfied with their college experience (Table 1).

Question 2: Have you decided on a choice of major? Sixteen (88.9 percent) students in the experimental group and twelve (60 percent) students in the control group responded in the affirmative to this question. Negative responses were recorded by two (11 percent) students in the experimental group and eight (40 percent) students in the control group (Table 2).

Question 4: How certain are you of this choice? (Major) Five (27.8 percent) students in the experimental group reported they were not
Table 1

Students' Responses to Item 1: How satisfied are you at this college?

<table>
<thead>
<tr>
<th></th>
<th>Dissatisfied</th>
<th>Satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0 1 2 3 4 5 6 7 8 9</td>
<td></td>
</tr>
<tr>
<td><strong>Experimental</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0 0 0 1 0 1 4 3 2 7</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>0 0 0 5.6 0 5.6 22.2 16.7 11.1 38.9</td>
<td></td>
</tr>
<tr>
<td><strong>Control</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0 0 0 0 0 2 0 0 0 6</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>0 0 0 0 10.0 0 0 30.0 15.0 45.0</td>
<td></td>
</tr>
<tr>
<td><strong>Total Responses</strong></td>
<td>0 0 0 1 2 1 4 9 5 16</td>
<td>38</td>
</tr>
<tr>
<td><strong>Percentages</strong></td>
<td>0 0 0 2.6 5.3 2.6 10.5 23.7 13.2 42.1</td>
<td>100</td>
</tr>
</tbody>
</table>
Table 2

Students' Responses to Item 2: Have you made a choice of major?

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>18</td>
</tr>
<tr>
<td><strong>Experimental</strong></td>
<td>16</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>88.9</td>
<td>11.1</td>
<td></td>
</tr>
<tr>
<td><strong>Control</strong></td>
<td>12</td>
<td>8</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>60.0</td>
<td>40.0</td>
<td></td>
</tr>
<tr>
<td><strong>Total Responses</strong></td>
<td>28</td>
<td>10</td>
<td>38</td>
</tr>
<tr>
<td><strong>Percentages</strong></td>
<td>73.7</td>
<td>26.3</td>
<td>100</td>
</tr>
</tbody>
</table>
certain of this choice. None of the students in the control group indicated uncertainty. Nine (50.1 percent) students in the experimental group and twelve (60 percent) students in the control group reported they were certain of their choice of major. Three (16.7 percent) students in the experimental group responded at the midpoint (Table 3).

Question 5: How satisfied are you with this choice? (Major)
Five (27.8 percent) students in the experimental group were dissatisfied with their major. None of the students in the control group indicated such dissatisfaction. Ten (55.6 percent) students in the experimental group and twelve (60 percent) students in the control group indicated they were satisfied with their major. Two (11.1 percent) students in the experimental group responded at the midpoint (Table 4).

Question 7: How certain are you of this choice? (Occupation)
Five (27.8 percent) students in the experimental group indicated they were not certain of their choice of occupations. None of the students in the control group indicated uncertainty. Eight (44.5 percent) students in the experimental group said they were certain of their choice of occupations. Four (22.2 percent) students in the experimental group and two (10 percent) students in the control group responded at the midpoint (Table 5).

Question 8: How satisfied are you with this choice? (Occupation)
Four (23.3 percent) students in the experimental group indicated dissatisfaction with their choice of occupations. None of the students in the control group indicated dissatisfaction. Ten (50 percent) students in the control group were satisfied with their choices (Table 6).
Table 3

Students' Responses to Item 4: How certain are you of your choice of major?

<table>
<thead>
<tr>
<th></th>
<th>Less Certain</th>
<th>More Certain</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0 1 2 3 4 5 6 7 8 9</td>
<td></td>
</tr>
<tr>
<td><strong>Experimental</strong></td>
<td>1 2 2 0 1 3 1 7 0 1</td>
<td>18 5.6 11.1 11.1 0 5.6 16.7 5.6 38.9 5.6</td>
</tr>
<tr>
<td><strong>Control</strong></td>
<td>8 0 0 0 0 0 3 0 6 3</td>
<td>20 40.0 0 0 0 0 15.0 0 30.0 15.0</td>
</tr>
<tr>
<td><strong>Total Responses</strong></td>
<td>9 2 2 0 1 3 4 7 6 4</td>
<td>38 23.7 5.4 5.3 0 2.6 7.9 10.5 18.4 15.8 10.5</td>
</tr>
<tr>
<td><strong>Percentages</strong></td>
<td></td>
<td>100</td>
</tr>
</tbody>
</table>
Table 4

Students' Responses to Item 5: How satisfied are you with your choice of major?

<table>
<thead>
<tr>
<th></th>
<th>Dissatisfied</th>
<th>Satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0 1 2 3 4 5 6 7 8 9</td>
<td></td>
</tr>
<tr>
<td>Experimental</td>
<td>1 0 1 2 2 2 5 1 2</td>
<td>18 70</td>
</tr>
<tr>
<td>Control</td>
<td>8 0 0 0 0 0 0 0 0 4</td>
<td>20</td>
</tr>
</tbody>
</table>

Total Responses 9 0 1 2 2 2 2 9 5 6 38
Percentages 23.7 0 2.6 5.3 5.3 5.3 5.3 23.7 13.2 15.8 100
Table 5

Students' Responses to Item 7: How certain are you with your choice of occupation?

<table>
<thead>
<tr>
<th></th>
<th>Less Certain</th>
<th></th>
<th>More Certain</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>---------</td>
<td>------</td>
<td>------</td>
<td>------</td>
</tr>
<tr>
<td>111 Experimental</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>5.6</td>
<td>11.1</td>
<td>5.6</td>
</tr>
<tr>
<td>111 Control</td>
<td>8</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>40.0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>111 Total Responses</td>
<td>9</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>23.7</td>
<td>5.3</td>
<td>2.6</td>
</tr>
</tbody>
</table>

Percentages 100
Table 6

Students' Responses to Item 8: How satisfied are you with your choice of occupation?

<table>
<thead>
<tr>
<th></th>
<th>Dissatisfied</th>
<th>Satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0 1 2 3 4 5 6 7 8 9</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 0 2 1 3 2 4 2 2</td>
<td>18 72</td>
</tr>
<tr>
<td></td>
<td>5.6 5.6 11.1 5.6 16.7 11.1 22.2 11.1 11.1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Experimental</td>
<td></td>
</tr>
<tr>
<td></td>
<td>8 0 0 0 0 2 0 1 6 3</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>40.0 0 0 0 0 10.0 0 5.0 30.0 15.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td></td>
</tr>
<tr>
<td>Total Responses</td>
<td>9 0 2 1 1 5 2 5 8 5</td>
<td>38</td>
</tr>
<tr>
<td>Percentages</td>
<td>23.7 0 5.3 2.6 2.6 13.2 5.3 13.2 21.1 13.2</td>
<td>100</td>
</tr>
</tbody>
</table>
On Questions 4, 5, 7, and 8, the responses of students in the control group tended to be concentrated at the high end of the scale. At the same time, there was a larger number of students in this group who indicated they had not chosen a major (two students in the experimental group, but eight students in the control group). Thus, a larger number of students in the control group did not answer Questions 3-8. This could have occurred because members of the control group were aware of the fact that they were not included in the treatment group when the questionnaire was administered.

RESULTS PERTAINING TO HYPOTHESES

This section presents the results for each of the five hypotheses. The answers to questions on the structured interview which are related to the hypotheses are discussed in this chapter also. Thirty-eight students provided data for the pretests and posttest while forty-two students provided data for the structured interviews for reasons previous explained.

**Hypothesis 1.** There is no difference in the internal-external orientation of the students who completed the course, *Career Planning and Decision-Making*, as measured by Rotter's Internal-External Scale and those who did not complete the course. Table 7 summarized the analysis of variance for the I-E Scale data for the first hypothesis. On the I-E Scale, there was no significant difference at the .05 level of significance between those students who participated in the course and those who did not. This indicated that the two groups possessed similar internal-external orientations at the beginning of the treatment. Thus, the null form of Hypothesis 1 was not rejected.
Table 7

Pretest Scores on the Rotter I-E Scale

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>E</td>
<td>18</td>
<td>10.6111</td>
<td>3.9129</td>
</tr>
<tr>
<td>C</td>
<td>20</td>
<td>10.1500</td>
<td>3.2650</td>
</tr>
</tbody>
</table>

ANOVA F Ratio = .157, df = 1, 36, p > .05
Hypothesis 2. There is no difference between the decision-making style of students who completed the course, Career Planning and Decision-Making, and those students who did not complete the course. Tables 8-10 summarized the analysis of variance and analysis of covariance for the data pertaining to the decision-making style (Rational, Intuitive, or Dependent) for the students. On the pretest, there were no significant differences at the .05 level on any of the three decision-making styles. This indicated, as did the I-E Scale scores, similarity between the two groups prior to the treatment. In the analysis of covariance on the posttest, there was no significant difference on the DMS-Dependent at the .05 level. However, there were significant differences on the DMS-Rational ($F = 13.652, p < .001$) and DMS-Intuitive ($F = 15.157, p < .001$).

The experimental group showed a mean change score, in a positive direction, on the DMS-Rational subscale while the control group showed a negative change. For the experimental group, mean scores changed in a negative direction for the two subscales, DMS-Intuitive and DMS-Dependent. For the control group, a small positive change and a negative change were recorded for DMS-Intuitive and DMS-Dependent, respectively. These results tend to reinforce the assumption that the course had influenced the students' decision-making style in a positive manner. This was revealed by the tendency of students in the experimental group to move from the lower level decision-making styles, Dependent and Intuitive, to the higher level style, Rational. Thus, the null form of Hypothesis 2 was rejected.

Item number 14 of the Interview Schedule (Appendix E) was related to Hypothesis 2. It stated:
### Table 8

Pretest, Posttest, and Adjusted Posttest Mean Scores on Decision Making Style - Rational Subscale of the ACDM

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>Mean Pre</th>
<th>SD</th>
<th>Mean Post</th>
<th>SD</th>
<th>Gain</th>
<th>Adjusted Post Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>E</td>
<td>18</td>
<td>41.8333</td>
<td>19.8946</td>
<td>62.1110</td>
<td>19.2259</td>
<td>20.2778</td>
<td>63.62</td>
</tr>
<tr>
<td>C</td>
<td>20</td>
<td>47.2500</td>
<td>16.2703</td>
<td>46.6500</td>
<td>16.4773</td>
<td>- .6000</td>
<td>45.28</td>
</tr>
</tbody>
</table>

ANOVA F Ratio on Pretest = .851, df = 1, 36, p > .05
ANOVA F Ratio on Posttest with Pretest and Rotter I-E Scale Scores as Covariates = 13.652, df = 1, 34, p < .001
Table 9  
Pretest, Posttest, and Adjusted Posttest Mean Scores on Decision Making Style - Intuitive Subscale of the ACDM

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>Pre Mean</th>
<th>SD</th>
<th>Post Mean</th>
<th>SD</th>
<th>Gain</th>
<th>Adjusted Post Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>20</td>
<td>30.6500</td>
<td>13.3151</td>
<td>32.0000</td>
<td>16.8117</td>
<td>1.3500</td>
<td>33.04</td>
</tr>
</tbody>
</table>

ANOVA F Ratio on Pretest = .421, df = 1, 36, p > .05  
ANCOVA F Ratio on Posttest with Pretest and Rotter I-E Scale Scores as Covariates = 15.157, df = 1, 34, p < .001
Table 10

Pretest, Posttest, and Adjusted Posttest Mean Scores on Decision Making Style - Dependent Subscale of the ACDM

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>Pre</th>
<th>SD</th>
<th>Post</th>
<th>SD</th>
<th>Gain</th>
<th>Adjusted Post</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>20</td>
<td>22.1000</td>
<td>11.7827</td>
<td>10.9221</td>
<td>10.9221</td>
<td>-11.1779</td>
<td>20.82</td>
</tr>
</tbody>
</table>

ANOVA F Ratio on Pretest = .289, df = 1, 36, p > .05
ANOVA F Ratio on Posttest with Pretest and Rotter I-E Scale Scores as Covariates = .274, df = 1, 34, p > .05
14. How has your decision-making style changed since enrolling in this course?

   Probe:  
   a. Do you think you are a more effective decision maker since enrolling in this course?  ___Yes ___No
   b. Can you tell me a little more about that?

Nineteen of the twenty-one students in the experimental group indicated that their decision-making style had changed and twenty stated they were more effective decision makers. The following represent typical responses to this question:

   I sit back more and evaluate the decision before I jump into it. I evaluate the consequences and how it is going to affect me.

   I learned to evaluate things more; not to make hasty decisions and not to rely on friends cause they don't know your values.

   I think about it. I'm thinking about my budget--I was writing checks like crazy. Now, I think about what I'm spending money for--is it really worth it.

_Hypothesis 3. There is no difference between the stability of choice to attend college by the students who completed the course, **Career Planning and Decision-Making**, as measured by Harren's Assessment of Career Decision Making, and those students who did not complete the course. Table 11 summarizes the analysis of variance and the analysis of covariance for the data pertaining to the students' decision to attend college. On neither the pretest nor the posttest were there significant differences on the DMT-C subscale at the .05 level. The pretest scores indicated similarity between the two groups prior to the treatments, as did the I-E Scale and the pretest DMS subscale scores. There were slight gains in the mean scores for both the treatment group (+.0556) and the control group (+.5006). These gains indicated that there was little change in
Table 11
Pretest, Posttest, and Adjusted Posttest Mean Scores on Decision Making Style - College Subscale of the ACDM

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>Pre</th>
<th></th>
<th>Post</th>
<th></th>
<th>Gain</th>
<th></th>
<th>Adjusted Post</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
<td></td>
<td>SD</td>
<td>Mean</td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>18</td>
<td>21.2222</td>
<td>2.4146</td>
<td>21.2778</td>
<td>2.7398</td>
<td>.0556</td>
<td></td>
<td>21.15</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>20</td>
<td>20.8000</td>
<td>2.9128</td>
<td>21.3000</td>
<td>2.5976</td>
<td>.5000</td>
<td></td>
<td>21.42</td>
<td></td>
</tr>
</tbody>
</table>

ANOVA F Ratio on Pretest = .234, df = 1, 36, p > .05
ANOVA F Ratio on Posttest with Pretest and Rotter I-E Scale Scores as Covariates = .153, df = 1, 34, p > .05
the decisional status to attend college by either the experimental or the control group and that the change was essentially the same for both groups. Thus, the null form of Hypothesis 3 was not rejected.

**Hypothesis 4.** There is no difference between the stability of choice of major of the students who completed the course, *Career Planning and Decision-Making*, as measured by Harren's Assessment of Career Decision Making, and those students who did not complete the course. Table 12 summarized the analysis of variance and the analysis of covariance for the data pertaining to the students' decision to attend college. Neither on the pretest nor on the posttest were there significant differences on the DMT-M at the .05 level. Again, the pretest scores indicated similarity between the two groups prior to treatments as did the I-E Scale and the previously discussed pretest ACDM scores. However, there was a gain in the mean score for the experimental group (+2.11) and there was a decline for the control group (-.1500). These changes indicated that there was little change in the decisional status about a major for either the treatment or the control group. This finding was surprising as one of the major purposes of the course was to assist students in choosing a college major or to establish firmer commitments to a major already chosen. Thus, the null form of Hypothesis 4 was not rejected.

Items number 2 and 3 of the interview schedule were related to Hypothesis 4. They stated:

2. Have you changed your major since enrolling in the course, *Career Planning and Decision-Making*? ___Yes ___No

3. Do you feel more committed to your major since completing the course, *Career Planning and Decision-Making*?
<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>Pre Mean</th>
<th>SD</th>
<th>Post Mean</th>
<th>SD</th>
<th>Gain</th>
<th>Adjusted</th>
<th>Post Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>E</td>
<td>18</td>
<td>24.3889</td>
<td>3.4494</td>
<td>26.5000</td>
<td>2.2295</td>
<td>2.1110</td>
<td>27.00</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>20</td>
<td>25.9500</td>
<td>3.5015</td>
<td>25.8000</td>
<td>4.0341</td>
<td>-0.1500</td>
<td>25.35</td>
<td></td>
</tr>
</tbody>
</table>

ANOVA F Ratio on Pretest = 1.910, df = 1, 36, p > .05
ANOVA F Ratio on Posttest with Pretest and Rotter I-E Scale Scores as Covariates = 2.919, df = 1, 34, p > .05
Probe: a. What factors did you consider in establishing your commitment to your major?
b. What experiences in the course made you feel more committed to your major?
c. At what point in the course was this commitment made?

In response to item 2, one student responded "yes," nineteen students responded "no," and one student responded "yes and no." Two students indicated they planned to change their majors while three students stated they were giving it serious thought.

Regarding their commitment to their majors, as reflected in item 3 of the interview schedule, ten students responded "yes" they were more committed, six said "no" they were not more committed to their major, and one student indicated "more confused." In response to Probe a, most students indicated a deeper understanding of their values and interests were factors which established their commitments to their majors. However, one student indicated a significant other (father in education) and another indicated a volunteer experience (Sunday school teacher) helped to establish their commitments. In response to Probe b, students mentioned numerous aspects of the course which assisted in establishing their commitments to their majors.

**Hypothesis 5.** There is no difference between the stability of choice of planned occupation of the students who completed the course, Career Planning and Decision-Making, as measured by Harren's Assessment of Career Decision Making, and those students who did not complete the
course. Table 13 summarized the analysis of variance and the analysis of covariance for the data pertaining to the students' decisions regarding planned occupations. On the pretest, there were no significant differences at the .05 level. The pretest scores indicated similarity between the two groups prior to treatment, as did the I-E Scale and previously-discussed ACDM pretest scores. On the posttest there was a significant difference ($F = 5.805, p<.02$). These changes indicated that the students in the experimental group moved up the scale toward the stage of choice of occupation, while the movement of those in the control group was minimal. Thus, the null form of Hypothesis 5 was rejected.

Item 5 of the interview schedule was related to Hypothesis 5. It stated:

5. Are you closer to selecting an occupation than before you enrolled in the course, Career Planning and Decision-Making? ___Yes ___No

Probe: a. Had you thought about an occupation before you enrolled in the course?
   b. Did the course make you consider a different occupation?

In response to item 5, eighteen students responded "yes," one responded "no," one responded "not really," and one responded "yes and no." Eighteen students responded "yes," one responded "no," and two responded "sort of" to the probe asking if they had thought about an occupation before enrolling in the course. The majority of the students stated that the course made them think about different occupations (twenty responded "yes"; one responded "no").
Table 13

Pretest, Posttest, and Adjusted Posttest Mean Scores on Decision Making Style - Occupation Subscale of the ACDM

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>Pre Mean</th>
<th>SD</th>
<th>Post Mean</th>
<th>SD</th>
<th>Gain Mean</th>
<th>Adjusted Post Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>20</td>
<td>25.6500</td>
<td>3.6889</td>
<td>25.8500</td>
<td>3.9640</td>
<td>.2000</td>
<td>25.31</td>
</tr>
</tbody>
</table>

ANOVA F Ratio on Pretest = .638, df = 1, 36, p > .05
ANCOVA F Ratio on Posttest with Pretest and Rotter I-E Scale Scores as Covariates = 5.805, df = 1, 34, p < .02
END-OF-UNIT EVALUATIONS AND STRUCTURED INTERVIEWS

The end-of-unit evaluations and the interview schedules were the sources of data generated to address the secondary purpose of the study. This secondary purpose was to determine students' evaluation of the course, Career Planning and Decision-Making. A discussion of the data from these instruments is included in this section.

End-of-Unit Evaluations

Tables 13-19 presented the data pertaining to the end-of-unit evaluations. Each item on the form was rated as to its perceived success in the course.

Filmstrips. The filmstrips for Units 1, 2, 3, and 6 were rated "every helpful" or "somewhat helpful" by the majority of the students (Unit 1, 80.95 percent; Unit 2, 80.95 percent; Unit 3, 71.43 percent; and Unit 6, 76.19 percent). For Unit 4, the majority (57.14 percent) of the students could not recall the filmstrip; for Unit 5, the majority (61.91 percent) of the students were neutral or could not recall.

Lecture Presentations. For all Units, the majority of the students rated the lecture presentations "very helpful" or "somewhat helpful" (Unit 1, 100 percent; Unit 2, 95.24 percent; Unit 3, 80.96 percent; Unit 4, 80.95 percent; Unit 5, 80.95 percent; and Unit 6, 71.43 percent).

Instructor Contact. For all Units, the majority of the students rated the instructor contact as "very helpful" or "somewhat helpful" (Unit 1, 100 percent, Unit 2, 95.24 percent; Unit 3, 90.48 percent; Unit 4, 85.72 percent; Unit 5, 85.72 percent; and Unit 6, 95.24 percent).

Reading Text, Career Planning and Decision-Making. For all the
<table>
<thead>
<tr>
<th>Item</th>
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<th>Somewhat Helpful 2</th>
<th>Neutral 3</th>
<th>Not Very Helpful 4</th>
<th>Hinder/Disturbing 5</th>
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Table 14
Percentages of Responses Per Item to End-of-Unit Evaluations - Unit I
Table 15

Percentages of Responses Per Item to End-of-Unit Evaluations - Unit II

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Note: Percentages may not sum to 100 due to rounding.
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Table 18

Percentages of Responses Per Item to End-of-Unit Evaluations - Unit V
Table 19
Percentages of Responses Per Item to End-of-Unit Evaluations - Unit VI

<table>
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<th>Hinder/ Disturbing</th>
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<tr>
<td>and Decision-Making</td>
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<td>4.76</td>
<td>9.52</td>
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Units, the majority of the students rated reading the text as "very helpful" or "somewhat helpful" (Unit 1, 100 percent; Unit 2, 95.24 percent; Unit 3, 95.24 percent; Unit 4, 85.71 percent; Unit 5, 71.43 percent; and Unit 6, 66.28 percent).

Supplementary Reading. For Units 1-4, the majority of the students rated the supplementary readings as "very helpful" or "somewhat helpful" (Unit 1, 76.19 percent; Unit 2, 57.15 percent; Unit 3, 52.38 percent; and Unit 4, 52.38 percent). The majority of the students were "neutral" toward or "could not recall" the supplementary readings for Units 5 and 6 (Unit 5, 71.43 percent; Unit 6, 90.48 percent).

Support Group Discussions. For all Units, the majority of the students rated the supplementary reading as "very helpful" or "somewhat helpful" (Unit 1, 100 percent; Unit 2, 90.47 percent; Unit 3, 90.47 percent; Unit 4, 71.43 percent; Unit 5, 80.96 percent; and Unit 6, 71.43 percent).

In-Class Writing Assignments. For Units 1-4, the majority of the students rated the in-class writing assignments as "very helpful" or "somewhat helpful" (Unit 1, 95.24 percent; Unit 2, 80.95 percent; Unit 3, 57.13 percent; and Unit 4, 85.71 percent). The majority of the students rated "somewhat helpful" or "neutral" for Units 5 and 6 (Unit 5, 71.43 percent; Unit 6, 80.95 percent).

Out-of-Class Work Assignments. For Units 1-4, the majority of the students rated this area as "very helpful" or "somewhat helpful" (Unit 1, 95.24 percent; Unit 2, 95.24 percent; Unit 3, 90.47 percent; and Unit 4, 61.91 percent). An almost majority (ten students or 47.62 percent) gave the same ratings for Units 5 and 6.
The end-of-unit evaluations revealed that the majority of the students gave positive ratings to each component in each unit of the course. However, there was an increase in the number of "Hinder/ Disturbing" and "Can't Recall" ratings for Units 4, 5, and 6. This may be explained, in part, by the students' perception of repetition in some of the activities contained in these units.

Structured Interviews. A complete transcript of the interviews is attached as Appendix E. The following summary of the structured interview is presented.

Question 1. With the exception of two students who were Business and Arts and Sciences majors, all of the students included in the study were pre-education majors.

Question 4. Only one student indicated that her knowledge about majors available at VPI&SU had not expanded from knowledge acquired in the course. The following materials and/or experiences were mentioned as being most helpful: Guide to Majors at Virginia Tech (1977), a publication of the Counseling Center; introductory visit to the Counseling Center; and the follow-up visits to the Career Resource Center which is a part of the Counseling Center.

Question 6. With the exception of one student, all of the students gave adequate definitions and adequate examples of values.

Question 7. Most of the students could submit adequate definitions and examples of aptitudes. The remainder of the students submitted partial recall statements.
Question 8. Most of the students could submit adequate definitions and examples of interests. The remainder of the students submitted partial recall answers.

Question 9. All students indicated that the Personal Profile enhanced their self-understanding. Several reported that writing the required data made it easier for them to see the whole aspect of their personality.

Question 10. Thirteen students mentioned the Worker Trait Group Guide (1978) as being most helpful to them in learning about qualifications for employment. Six students indicated the Career Information System files were most helpful in this area. Others mentioned the Counseling Center's resources as being most helpful.

Question 11. The following resources were listed as being helpful in learning about future job openings: The Career Information System files, the Worker Trait Group Guide, the College-Major Occupation Guide (1979), visit by a guest lecturer, the Occupational Outlook Handbook (1978), and the resources of the Counseling Center. Only one student stated that he did not know.

Question 12. Eleven students mentioned the Career Information System files were more helpful in learning about salaries and benefits of occupations than were other resources consulted. The Worker Trait Group Guide and the Counseling Center's resources were also mentioned. Two students indicated they did not look up this information and four students could not recall which resource was most helpful.
Question 13. The majority of the students were able to submit the three dimensions of a decision situation. The remainder of the students submitted partial recall statements.

Question 15. The majority of the students indicated they would still be in a state of confusion about their career plans if they had not enrolled in the course.

Question 16. The majority of the students indicated that they had developed career plans as a result of completing the course. These plans included choices such as taking exploratory courses in planned majors, retaining present majors, and transferring to other schools. Only two students were indefinite about their career plans.

Question 17. The majority of the students mentioned that some portion of the textbook was the most helpful aid to them in the development of their career plans. Most of the students felt Unit 2 was especially helpful.

Question 18. Some students could not identify a least helpful aspect of the course. A few students rated Unit 4 or 5 as being redundant; these views were consistent with the results obtained from the end-of-unit evaluations for Units 4 and 5, as many students were neutral about these units. However, the interviews revealed that all students had positive feelings about the course.

Question 19. The majority of the students felt the course was not difficult. Several students indicated that the self-examination aspect of the course was the most difficult experience. Four students expressed difficulty with the directions in the textbook.
Question 20. All of the students indicated they were extremely pleased with the course.

Question 21. All but two of the students indicated they enrolled in the course because they were unsure about their major and/or future occupation. Two students indicated that, initially, the three credit hours on a Pass/Fail basis attracted them; but, they were surprised by the other benefits they received from the course.

Question 22. In addition to enhanced self-understanding, the students felt they had acquired a sense of direction for their lives.

Question 23. Because they felt most students need help in choosing a major and developing career plans, all of the students recommended that the course be included as a permanent offering at VPI&SU. Thirteen of the students felt the course should be offered at the freshman level while eight students felt it could be effective at either the freshman or sophomore level.

The value of the structured interview approach in studies such as this cannot be overemphasized. The interview schedule used in this study contained twenty-three items and required approximately one-half hour to administer. The questions, plus the probes included for selected items, yielded valuable data which could not be obtained from the assessment instrument (ACDM). These data included students' pre-treatment decisional status with regard to their choice of major, students' mastery of concepts and skills presented in the course, students' activities in gathering data to effect their career decisions, and students' reactions to the course content.
Several responses to items on the interview schedule deserve special attention.

1. In examining the world of work, the students were required to visit and use occupational materials in the Counseling Center's Career Resource Center. The students indicated that these visits and the examination of occupational files and other materials were beneficial activities for them. They also indicated that, without the course, they would not have been aware of the wealth of materials contained in the Career Resource Center.

2. When gathering information about the world of work, students indicated that either materials developed by AEL or the files which were established according to the filing system developed by AEL were the most useful references for them. These observations indicate that these students perceived the materials and the occupational filing system developed by AEL to be more effective than others they consulted to expand their knowledge about the world of work.

3. The written summaries of self and the world of work that was provided by the completion of the Personal Profile was a key feature of the course. The value of this exercise was vividly summarized by one student who stated that the Personal Profile had helped her by "Putting everything on paper so that I could look at it objectively."

4. All of the students gave complete or partial answers to the question which required them to give the three dimensions of a decision situation. All but one indicated they were more reflective decision
makers as a result of completing the course. From the students' responses, it can be inferred that many were applying the decision-making skills acquired in the course to everyday problems with which they were confronted.

5. Most of the students indicated that they enrolled in the course because they were unsure about their majors. However upon completion of the course, most students had made decisions about their majors and felt they had acquired a sense of direction for their college plans and subsequent careers. Some students indicated that, should they desire to change their plans, the course had made them aware of resources to consult in order to make satisfying changes.

6. Finally, it should be noted that the kind of information that was forthcoming was extremely valuable because it revealed personal feelings about the growth process and about the course. Students really opened up and shared information that could not be obtained by the usual paper and pencil assessment procedure. The ACDM was unable to generate the kind of subjective, but still important, information which the interview provided.

SUMMARY

Chapter 4 has presented the statistical and descriptive analyses of the data. Analysis of variance and analysis of covariance were the statistical procedures used.
Hypothesis 1 investigated the internal-external orientation between groups on the pretest Rotter I-E Scale Scores by use of an analysis of covariance. The $F$ value was not significant; therefore, the null form of Hypothesis 1 was retained.

Hypothesis 2 examined the differences in pretest and posttest ACDM scores relative to decision making styles by use of an analysis of variance. No significant differences were observed on the pretest. Significant $F$ values were obtained on the posttests for DMS-R and DMS-I, but no significant $F$ value was obtained for DMS-D. Thus, the null form of Hypothesis 2 was rejected.

Hypothesis 3 examined the differences in pretest and posttest ACDM scores relative to choosing a college by use of an analysis of variance. No significant differences were observed on the pretest. No significant $F$ value was obtained on the posttest; therefore, the null form of Hypothesis 3 was retained.

Hypothesis 4 examined the difference in the pretest and posttest ACDM scores relative to choosing a major by use of an analysis of variance. No significant differences were observed on the pretest. No significant $F$ value was obtained on the posttest; therefore, the null form of Hypothesis 4 was retained.

Hypothesis 5 examined the difference in pretest and posttest ACDM scores relative to choosing a future occupation by use of an analysis of variance. No significant differences were observed on the pretest. Significant $F$ value was obtained on the posttest; therefore, the null form of Hypothesis 5 was rejected.
The end-of-unit evaluation and the structured interviews examined students' evaluation of and their reaction to the course, Career Planning and Decision-Making. The majority of the students responded to the course in a positive manner.
Chapter 5

SUMMARY, CONCLUSIONS, RECOMMENDATIONS, AND IMPLICATIONS

The purpose of this study was to investigate the extent to which the recently published course, Career Planning and Decision-Making, was effective in enhancing the levels of career decision-making by freshmen and sophomores as measured by the Harren Assessment of Decision Making. A secondary purpose of the study was to obtain student evaluations of the course. The study also investigated differences in internal-external orientations between students in the experimental and control groups as measured by the Rotter Internal-External Scale.

The population consisted of freshmen, sophomores, and transfer students who had expressed an interest in becoming education majors and were enrolled in the Fall Quarter at VPI&SU. Forty-nine of these students volunteered to enroll in the course, Career Planning and Decision-Making, which was offered Winter Quarter, 1979. From that group, twenty-five students were selected at random for enrollment in the course. However, because of schedule conflicts, only twenty-one students enrolled in the course; these comprised the experimental group. Two of the students in this group were non-education majors who added the class to their schedules upon the recommendation of
friends. For the control group, twenty-one students were selected at random from the remainder of the students who had volunteered for the course.

Several instruments were used to collect the data. They were:

Rotter's Internal-External Scale. The College of Education administered the Rotter Internal-External Scale during the Fall Quarter, 1978. From their records, the I-E Scale scores were obtained for the participants in this study. The researcher administered the I-E Scale to the two students who were non-educational majors.

Harren's Assessment of Career Decision Making. During the first week of the quarter, all participants were administered the Harren Assessment of Career Decision Making. During the last week of the quarter, posttesting consisted of re-administration of the ACDM.

End-of-Unit Evaluations. End-of-unit evaluations were completed by students in the experimental group upon completion of each unit in the textbook.

Structured Interview. During the last week of the quarter, a structured interview was completed with each of the students in the experimental group.

A one-way analysis of variance was used to determine differences between the pretests and posttests of the two groups at the .05 level of significance. An analysis of covariance was used to examine differences between the experimental and control groups based on the internal versus external orientation of the group members.
SUMMARY

In testing for null Hypothesis 1, no significant difference was found between the two groups on internal-external orientation as measured by the Rotter I-E Scale. Therefore, the hypothesis was not rejected.

For null Hypothesis 2, the hypothesis of no difference between the two groups in decision-making style as measured by the ACDM was rejected. There were no significant differences on the pretests for all subscales nor was there a significant difference on the posttest DMS-D. For the DMS-R, there was a significant difference between the adjusted posttest means for the two groups with the experimental group having the higher mean. This reflects a positive change from pretest to posttest for the experimental group, while the control group stayed essentially the same. On the DMS-I, the control group had a significantly greater adjusted posttest mean. The data indicate that the control group had only a very slight change from pretest to posttest, but the experimental group had a moderate decrease. These results suggest that the groups were highly similar at the beginning of the course and indicate the treatment may have contributed to the expression of higher level of decision-making styles of the experimental group as opposed to the minimal movement to a higher level of those in the control group.

The results for null Hypothesis 3 revealed no significant difference between the two groups on the stability of choice to attend college, as measured by the ACDM, on neither the pretests nor the posttests. Therefore, the null hypothesis was not rejected. The non-significance on the pretest tended to indicate equality of the two groups. This non-significant difference could be related to the fact that these
students may have been already committed to their choice to attend college. The examination of career options, which was required in the course, could have revealed to the students that college training was not necessary for entry-level positions in their planned occupations. However, all of the students remained committed to their decisions to attend college.

The findings for null Hypothesis 4 revealed no significant difference between the two groups on choice of major, as measured by the ACDM, on neither the pretests nor the posttests. Therefore, the null hypothesis was not rejected. The non-significance on the pretest tended to indicate the equality of the two groups. Though a non-significant difference was found between the two groups on choice of major, there was some movement toward choice by the experimental group, while a slight decline was observed for the control group. These findings suggest that either the treatment was ineffective or the instrument used may have provided inadequate measurement.

For null Hypothesis 5, the hypothesis of no difference between the two groups on choice of occupation was rejected. While there was no significant difference on the pretest, there was a significant difference on the posttest ($p < .02$). These results suggest that the groups were highly similar at the beginning of the course and indicate that the treatment may have contributed to the movement toward the choice stage by the experimental group, as opposed to the minimal movement of those in the control group.

The end-of-unit evaluation gave the students the opportunity to evaluate each unit in terms of whether the unit was compatible with
the unit concept. The majority of the students rated most aspects of the course "very helpful" or "somewhat helpful." However, for some units, the students' ratings varied from "neutral" to "can't recall." For the filmstrip aspect of the course, the majority of the students responded "can't recall" for Unit 4 and the majority responded "neutral" and "can't recall" for Unit 5. The majority of the students were "neutral" toward the Supplementary Readings for Units 5 and 6. Likewise, the majority of the students were "neutral" towards the In-Class-Writing Assignments for Units 5 and 6.

The structured interviews permitted answers from the students to questions that were not available from other sources. The responses indicated that the students had mastered the basic concepts provided by the course. They reported positive changes in their decision making styles and most stated they had developed career plans with which they felt comfortable. All students recommended the course as a permanent offering at VPI&SU at the freshman or sophomore level.

CONCLUSIONS

The following conclusions can be drawn based upon the findings of the study:

1. There is sufficient evidence to conclude that the two groups of students included in this study were similar in terms of internal-external orientation, decision-making styles, and levels of career decision-making regarding their choices to attend college, majors, and planned occupations.
2. There is evidence to indicate that those students who completed the course, Career Planning and Decision-Making, as opposed to those who did not, tended to shift to higher levels of decision-making styles. Thus, the construct labeled decision-making contains concepts and skills which are teachable and learnable by use of a structured, curriculum-based program.

3. There is evidence to suggest that students in neither group significantly increased their career decision levels with respect to the choice to attend college. Speculation: Either the ACDM did not adequately measure this construct or the students were reconsidering their choice to attend college or to attend this particular college.

4. There is evidence to suggest that students in neither group significantly increased their career decision levels with respect to their choice of major. Speculation: Either the ACDM did not adequately measure this construct or the students were reconsidering their choice of major. Based on responses received in the structured interview, it appeared that several students were reconsidering their choice of major.

5. There is sufficient evidence to conclude that those students who completed the course, Career Planning and Decision-Making, as opposed to those who did not, tended to increase their career decision levels with respect to choice of future occupations.

6. From the evidence, it can be inferred that the course contained concepts and skills which were useful and effective in the areas of career planning and decision-making.
7. There is sufficient evidence to conclude that the course, Career Planning and Decision-Making, caused sufficient significant changes in the students completing so that it may be considered an effective procedure for use in a career development program for students in a college setting.

RECOMMENDATIONS

In view of the results of this investigation, the following recommendations are presented:

1. Similar studies should be conducted with other populations enrolled in colleges whose missions and purposes are different from those of VPI&SU to determine if similar findings occur upon completion of the course, Career Planning and Decision-Making. These additional populations should include students who are not education majors.

2. Similar studies should be conducted using other instruments in a pretest/posttest design and the results should be compared with those obtained from the ACDM. Additionally, if data on decision to attend college and choice of major are crucial, other assessment procedures, such as the structured interview, should be utilized.

3. Similar studies should be conducted which compare the results of multiple treatments, such as a structured course, a workshop or seminar experience, and traditional counseling techniques.

4. A follow up of students in the course could be conducted on a one-year, three-year, and four-year time frame to determine the accuracy of the students' career decisions with respect to college majors.
and planned occupations. The one-year and three-year follow ups would yield information relative to the stability of choice of major and the four-year follow up would indicate whether, upon graduation, students' entry-level positions were congruent with their major.

5. The evidence suggests that the course, Career Planning and Decision-Making, could become a valuable permanent offering in college settings. The course could be useful not only to freshmen and sophomores, but to any student perceiving a need for assistance in career planning and decision-making. Institutions may wish to compare the format and content of this course with what is presently being used in their course.

IMPLICATIONS

Career development courses using published, tested materials provide an economical, effective method of introducing a career development course in a four-year college setting. The findings of this study suggest two important implications for those offerings:

1. Career Planning and Decision-Making could be used to implement a career planning program. Modified instruments should be used to test inconclusive findings related to stability of choice to attend college and the decision-making task of choosing a major. A post-treatment administration of a pre-treatment decisional status form or the analysis of data acquired from a structured interview could reveal student-perceived information in these areas.

2. It would be beneficial to students as well as College Counseling Centers if such a course were taught by counselors assigned to
Counseling Centers. This study revealed that many students, prior to enrolling in the course, had not visited the Counseling Center and were not aware of the wealth of materials contained in the Career Resource Center. Because of their training and their familiarity with materials contained in the Counseling Center, counselors assigned to that office should assume leadership not only in teaching but in incorporating such a course in regularly scheduled offerings at colleges and universities. Additionally, the literature reviewed in this study revealed that structured course offerings appear to be more effective than short-term intensive experiences. The literature further suggested that personnel assigned to placement centers frequently provide the leadership in instituting structured career-planning courses, while counselors tend to provide short-term intensive experiences. Since the literature, as well as this study, suggested that career development activities are observable and measurable, it appears that counselors can improve their accountability and creditability if they assume the lead in coordinating career development services to students in higher education settings.

Additional implications involve the development of the published program, *Career Planning and Decision-Making*, pre-service, in-service, and counselor education programs. In the revision which will follow the field test phase, Appalachia Educational Laboratory should carefully examine the sections of *Career Planning and Decision-Making* which provided experiences related to choosing a college major. The results of this study which showed no significant difference in this area appeared to support this observation.
The findings of this study tend to suggest that students included in this sample perceived a need for assistance in their career planning. Since most of the students were recent high school graduates, it appears that assistance in this area was not adequately provided in secondary schools. So that career education activities can be more thoroughly integrated in public school offerings, colleges and universities should assure that experiences are provided for prospective teachers and counselors which would prepare them for teaching these tasks and skills. For those teachers and counselors who are employed in school settings, appropriate in-service should be available on a continuing basis.


Harren, V. A. Assessment of Career Decision Making (ACDM)--Counselor/Instructor Guide. Carbondale, IL: Southern Illinois University, Department of Psychology, undated.


APPENDIX A

Letter to Students
October 24, 1978

Dear Student:

I am a doctoral student at VPI & SU and I am working as an intern for Appalachia Educational Laboratory (AEL). AEL has developed a new course, Career Planning and Decision-Making, and during my summer experience with AEL, I worked on the final stages of development of this course. The course is designed for freshman and sophomore students who desire assistance in choosing a major or who want to examine their commitment to a major already chosen.

You are probably wondering if such a course would be helpful to you. Based on last year's pre-graduation interviews with education majors, approximately 29% stated they had changed their major while attending VPI & SU and approximately 25% stated they would have changed their major if they had a chance to do it all over again. Therefore, it is my belief that such a course could prove meaningful and beneficial to students currently enrolled at VPI & SU.

I have been working with Dr. Thomas Sherman, Curriculum and Instruction Division, and we will make this course available during the Winter Quarter if a sufficient number of students express an interest. I shall be attending the meetings which are being planned for you on November 8 and 9, 1978, to give you additional information about this course.

I feel certain that you will find this course to be exciting and rewarding. I am looking forward to meeting you.

Sincerely,

VIVIAN N. WILLIAMSON

VWM/bwr
APPENDIX B

Flyer Announcing Course
ARE YOU UNDECIDED ABOUT A MAJOR?
ARE YOU THINKING ABOUT CHANGING YOUR MAJOR?

Consider taking an experimental course offered during winter quarter:
Career Planning and Decision-Making

In this course you will:

1. EXPLORE SELF - identify your interests, values, and goals.

2. EXPLORE WORLD OF WORK - examine career options, learn of job outlook, and identify your occupational preference.

3. BUILD A PERSONAL PROFILE - integrate knowledge of self and the world of work to make a personally meaningful career choice.

FREE TEXTBOOKS PROVIDED

Especially Recommended for Prospective Education Majors
Open to: Freshmen or Sophomores only!

Register for:

COURSE TITLE: EDCT 4980 - Career Planning and Decision-Making
INDEX NUMBER: To Be Announced
DAY AND TIME: To Be Announced
QUARTER HOURS: Three (3)

For Further Information Contact:

1. Dr. Thomas Sherman
   Room 107, War Memorial Gym - 961-5920

2. Vivian N. Williamson
   Room 236, University City Office Building
   (Located behind the Marriot)
   961-5138
APPENDIX C

Form for Demographic Data
Name ______________________ Sex _____ Age _____
(please print)

Local Phone Number ____________

Local Address ______________________________________
(street)

__________________________ (city) ___________________ (state)

College Class (circle one)  Freshman  Sophomore
Junior  Senior

Other (explain) ____________________________

1. How satisfied are you at this college? (Circle a number on the scale below.)

   1  2  3  4  5  6  7  8  9
   Dissatisfied  Satisfied

2. Have you made a choice of major? Yes   No (If yes, continue; if no, leave rest blank.)

3. What is your tentative choice of major? ___________

4. How certain are you of this choice? (Circle a number on the scale below.)

   1  2  3  4  5  6  7  8  9
   Uncertain  Certain

5. How satisfied are you with this choice?

   1  2  3  4  5  6  7  8  9
   Dissatisfied  Satisfied

6. What is your tentative choice of occupation? _______

7. How certain are you of your choice?

   1  2  3  4  5  6  7  8  9
   Uncertain  Certain

8. How satisfied are you with this choice? (Circle a number on the scale below.)

   1  2  3  4  5  6  7  8  9
   Dissatisfied  Satisfied
9. If you have not selected a major, describe the barriers that are preventing you from making that choice.
APPENDIX D

Unit Evaluation Form
UNIT EVALUATION

Please consider the unit concept in completing the attached form. Indicate if the activities contained in this unit were compatible with the concept listed below.

Unit I

Concept 1 - Career and Career Themes

In the course of a lifetime, a person engages in many work activities, paid or unpaid. These activities may involve the home and family, education and occupations, and civic and community services. The total of a person's work activities constitutes a person's career. The types of activities a person chooses to do plus the values and goals these activities reflect, portray one's career theme.

Concept 2 - Decision-Making

The act of deciding requires that we have the freedom to consider, evaluate, and select a course of action. This freedom is gained through understanding. By understanding each decision situation we become more capable of action based upon reasoned commitment. Thus, understanding the decision situation, means that we need to know ourselves in relation to the situation: our values and goals. Also, we need to know ourselves in relation to the situation: our
values and goals. Also, we need to know the milieu (social and physical environment) in relation to the situation so that we can identify possible action. Choice of action based upon such understanding enables us to act responsibly and gives us greater control over the direction of our lives.

Decision-making is an ongoing process. We rarely make separate choices. The decisions we make often grow out of previous decision, and lead to future decisions. The values and goals upon which we base our decisions may develop and change as we change through our interaction with the world around us.
UNIT EVALUATION

Please consider the unit concept in completing the attached form. Indicate if the activities contained in this unit were compatible with the concept listed below.

Unit II
Unit Concept

The body of knowledge describing work processes, products, and worker characteristics comprises information about the world of work. By exploring this body of knowledge from the worker's perspective, you can clarify your interests and values in relation to work and identify your occupational preferences.
UNIT EVALUATION

Please consider the unit concept in completing the attached form. Indicate if the activities contained in this unit were compatible with the concept listed below.

Unit III

Unit Concept - Career Goals

Goals are descriptions of what a person intends to accomplish and become. By examining your current values you can identify your short-term, intermediate, and longer range goals. This can be done by projecting your values into the future and visualizing who you would like to become. This process helps you formulate and refine your goals and estimate the time and sequence in which to accomplish them. Your goals, once defined and positioned in time, give direction and purpose to your current activities and help you plan your future activities. Thus, knowing your goals gives you greater control and helps you move from where you are to where you would like to be.
UNIT EVALUATION

Please consider the unit concept in completing the attached form. Indicate if the activities contained in this unit were compatible with the concept listed below.

Unit IV

Concept 1 - Career Planning in College

A major vehicle for achieving your career goal is your present college experience. A thorough and deliberate planning of your college studies is essential in helping you reach your Career Goal. Your college degree--your credentials--will not be sufficient in securing a job. Employers will also consider the competencies--the skills and specific knowledge--you will have acquired through your college work. The following activities can help you identify the college majors and programs of studies which can most effectively prepare you for the occupations which interest you. Thus, you can acquire the competencies needed to secure employment in these occupations. By planning your college studies in this manner, you are more likely to reach your Career Goal.

Concept 2 - Developing A Career Plan

Which of the career options you have explored in the preceding activities can best help you reach your
Career Goal? The selection of the most desirable option should be based on your values. You can formulate your values into precise and clear statements to evaluate each of your career options. The option that will emerge as the most desirable from this evaluation is the framework upon which you can develop your career plan. Your career plan should outline, in chronological order, the course of actions you anticipate to take in order to reach your Career Goal.
UNIT EVALUATION

Please consider the unit concept in completing the attached form. Indicate if the activities contained in this unit were compatible with the concept listed below.

Unit V
Unit Concept - Career Decision-Making and Acting
To help your career plan become a reality, you need to decide what action to take with respect to the first step outlined in your plan. This decision does not commit you to your entire plan for the next four years. Rather, you are only committed to the course of action decided upon with respect to the first step of your plan. As you implement your decision, you achieve self-integration in relation to this first step and to your milieu. Additional knowledge about yourself and the milieu will result from the action taken. This additional knowledge will help you clarify your values, reassess your criteria, and identify new courses of action available to you. Subsequent decisions based on the knowledge gained from previous actions taken, will, therefore, help you continuously refine your career plan at a more specific level. This process will increase the likelihood of reaching your Career Goal which will also become progressively more refined.
UNIT EVALUATION

Please consider the unit concept in completing the attached form. Indicate if the activities contained in this unit were compatible with the concept listed below.

Unit VI

Unit Concept - The Planning and Deciding Cycle

Formulating goals, searching and generating options to reach them, establishing criteria for assessing these options, and deciding on a course of action are not separate events. All these elements of the planning and deciding process occur concurrently, interact, affect, and help form and develop one another in an ongoing, continuous way. Each action you take is the implementation of a choice which generates new knowledge and value. This new experience gives you additional information about your options, criteria, and goals, and helps you develop them further. The following diagram illustrates the concurrent, continuous, and repetitive interaction of the elements of planning and deciding.
UNIT EVALUATION

How helpful do you think the following components were in this unit of the course? Enter one check in the column you feel appropriate for each of the components listed below.

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APPENDIX E

Interview Schedule
INTERVIEW SCHEDULE

Social Security Number __________________

1. What is your major? _________________

2. Have you changed your major since enrolling in the course, Career Planning and Decision-Making? ___Yes ___No

SKIP to #4 if answer to #2 is YES.

3. Do you feel more committed to your major since completing the course, Career Planning and Decision-Making? ___Yes ___No

Probe: a. What factors did you consider in establishing your commitment to your major?

b. What experiences in the course made you feel more committed to your major?

c. At what point in the course was this commitment made?

4. How has your knowledge about majors available at VPI&SU changed since you enrolled in the course, Career Planning and Decision-Making?
5. Are you closer to selecting an occupation than before you enrolled in the course, Career Planning and Decision-Making?  ___Yes  ___No

Probe:  a. Had you thought about an occupation before enrolling in the course?

b. Did the course make you consider a different occupation?

6. Do you know what the term "values" means?  ___Yes  ___No

Probe:  Can you give me two or more examples of values?

7. Do you know what the term "aptitudes" means?  ___Yes  ___No

Probe:  Can you give me two or more examples of aptitudes?

8. Do you know what the term "interests" means?  ___Yes  ___No

Probe:  Can you give me two or more examples of interests?
9. How did your Personal Profile help you in establishing your career plan?

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

10. Which resource helped you the most in learning about qualifications for employment in occupations that interest you?

__________________________________________________________________________

__________________________________________________________________________

Probe: How did it help you?

__________________________________________________________________________

__________________________________________________________________________

11. Which resource helped you the most in learning about future job openings in occupations that interest you?

__________________________________________________________________________

__________________________________________________________________________

Probe: How did it help you?

__________________________________________________________________________

__________________________________________________________________________

12. Which resource helped you the most in learning about the salary and benefits of occupations that interest you?

__________________________________________________________________________

__________________________________________________________________________

Probe: How did it help you?

__________________________________________________________________________

__________________________________________________________________________
13. Can you give me the three dimensions of a decision situation?


14. How has your decision-making style changed since enrolling in this course?


Probe:  a. Do you think you are a more effective decision maker since enrolling in this course?  Yes  No

b. Can you tell me a little more about that?


15. In terms of career planning, describe where you would be if you had not enrolled in this course?


16. In terms of your career plan, how would you describe your status now?


17. What aspect of the course was most helpful to you in developing your career plan?


18. What aspect of the course was least helpful to you in developing your career plan?

________________________________________________________________________

________________________________________________________________________

19. What was the most difficult aspect of the course?

________________________________________________________________________

________________________________________________________________________

20. On a scale of 1 (Dissatisfied) to 5 (Extremely Pleased), how satisfied were you with the help you received from the course?

Dissatisfied
1 2 3 4 5
Extremely Pleased

21. Why did you enroll in this course?

________________________________________________________________________

________________________________________________________________________

22. What is a summary statement of what you received from the course?

________________________________________________________________________

________________________________________________________________________

23. Would you recommend this course be a permanent offering at VPI&SU?  
____Yes  ____No

Probe:  a. Why?  
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

b. Should the course be offered at the:  ____Freshman;  ____Sophomore;  ____Junior; or  ____Senior level?

________________________________________________________________________
________________________________________________________________________

__c. Why?  
________________________________________________________________________
________________________________________________________________________
RESPONSES TO INTERVIEW SCHEDULE

1. What is your major?
   
   Elementary Education=12; General Arts and Sciences=1; General Business=1; Industrial Arts=1; Physical Education=3; Psychology=1; Recreation=1; Secondary Education (Social Studies)=1.

2. Have you changed your major since enrolling in the course, Career Planning and Decision-Making?  
   
   Yes and No=1
   
   But I am seriously considering a change to Business. In Spring quarter, I will enroll in a business class; if I like it, I will change. There are more opportunities in Business.
   
   Planning to do so—Business
   
   Not yet
   
   Thinking about a double major—Ag Engineering or Ag Education
   
   Yes and No—It’s not definite yet—not a big change but it is a slight change—I think I’m going to go into physical therapy, and that’s still in education because I may teach it.
   
   But I am going to change to Marketing.

SKIP TO #4, IF ANSWER TO #2 IS YES.

3. Do you feel more committed to your major since completing the course, Career Planning and Decision-Making?
   
   Yes; No; More confused (Skipped to Item 4=4)
   
   I feel like I understand it more. I have decided to take courses in another major before changing.
   
   It has helped me realize that going into Special Education is what I really want to do.
   
   I’m going to change it—maybe to Business.
   
   Actually feel more confused—may go into Special Education.
   
   I have decided to change my major to Elementary Education.

Probe: a. What factors did you consider in establishing your commitment to your major?

   All my life, I’ve wanted to be a coach, and I just knew that whatever I did had to be involved with sports somehow.
   
   I want to go to graduate school, and I need a major with an education background; plus if I can’t go to graduate school, I have something I can do. Otherwise, I would have majored in Psychology.
   
   My values, which are: I want to be outdoors, and I want to have an active job. I thought about whether I’d be happy with any other situation—I decided I would not.
   
   I decided what I want to do in Elementary Education. I was going to go into Counseling, but you told me that I had to have years in teaching. I was going to go into Psychology, but I didn’t change.
Talked with my father. The Worker Trait Group Guide helped a lot. I looked under social service and compared it to education. My father is in education.

I wanted a field to be involved with people cause I like working with people. When I talked to my Guidance Counselor, I decided a career in education would be good.

I really enjoy History courses. I would like to relate that to people in helping them learn history in a teaching capacity.

Working in the workbook—you evaluated what you wanted to do and found out which career would be best for you. It ended up that Elementary Education would be the right major.

My values, interests, and things I was not aware of before taking this course.

Values—course made me more positive about what I want to do.

Last year, I taught Sunday School, and I liked it a lot. Mother always encouraged us to have a career. I like working with children.

Probe: b. What experiences in the course made you feel more committed to your major?

I just started taking a few courses in the major this year—it showed me there was a lot more than just throwing the ball to students.

Unit 2—all the tests we did pointed to that kind of field. I felt more confident than before because I did not know if I had chosen the right one or not.

I guess exploring other alternatives to my major. It was kind of the lesser of evils kind of thing.

When we investigated the jobs, and when we looked at our values, and when we established a career goal.

The Guide to Majors at Virginia Tech really helped a lot.

The parts when we looked through the Worker Trait Group Guide, and we looked at the kinds of things we would be doing to formulate our career goals.

Some of the decisions we had to make—choosing what courses we had to take kind of boosted the area I wanted to take. The Career Plan helped me to lay out plans for next year and the years after.

Evaluating my needs and what I wanted to do and what I was capable of doing.

The group discussions, talking among the others.

Examining values and doing research in the Counseling Center.

The decision stuff at the beginning made me think about myself. Also the aptitude stuff. The Worker Trait Group Guide helped also.

Probe: c. At what point in the course was this commitment made?

Probably after the second unit, when we found out all our values and all that, and finished our Personal Profile.

I had it all along—it was just a matter of strengthening the commitment.
Towards the end.

When I was looking in the Guide to College Majors at Virginia Tech.

Near the end—I had been considering changing my major.

About half way through—at the end of Unit 2. When we started figuring out what suited us best; that was when I really became firm.

About one-half or one-fourth of the way through. The further we got in the course, the stronger you felt about your major or career decision.

I don't really know, about the middle or probably in Chapter 2.

At the end of Unit 2.

After we did Unit 2 and completed the Personal Profile.

4. How has your knowledge about majors available at VPI & SU changed since you enrolled in the course, Career Planning and Decision-Making?

I think I know more majors, and I know what occupations you can get into in certain majors. It is a lot more widespread than I thought it was.

I didn't have any knowledge before—now, I know where to go if I have any questions. I don't feel in the dark anymore.

The book that you gave us helped a lot. I looked at opportunities for each major I was interested in. I just feel like I'm a little more sure of myself as far as my major is concerned.

I would really be lost up here in the area of finding out about majors if I had not taken the class because I would not have had access to the Counseling Center. I went to the Counseling Center and listened to some tapes on marketing and things in business; also P.E.; also the folders, it has really helped a lot.

Made me more aware of more majors within the College of Education and the psychology majors.

I know what a lot more of there are. I did not know they had so many.

I didn't know anything about the Counseling Center. Now I know I can go there and get a lot of information about majors.

I know more about the majors here.

I know more about them since I went through the Career Resource Center.

I know a greater number of majors that they offer that I didn't know they had before.

I know a lot more about them now.

Well, I really did not know a lot about them. When I looked through the Guide to Virginia Tech Majors, I found out what's expected of me in education.

Increased my knowledge a whole lot.

Learned that they don't have what I want, really—probably will switch schools—probably will get background courses here and then have 12 months of practical learning that I have to go to a specialized school for. I think VCU—I'm not real sure yet; I have written them, and I am waiting for information to come back. I think UVA has a program, but I don't think I can handle that—the way they cut down Virginia Tech.
I know I can branch out—the first two years are kind of general. But that makes it easier later on.

I was not aware of precisely what was here, but I knew it was a pretty wide assortment. I was surprised looking through that book.

I didn't realize that there were that many majors available and the course made me look at more majors to see if I wanted to change majors or stay in education but go into a different aspect of it.

I did not know that they had so many majors, and I did not know that they did not have Special Ed.—in the brochure they said they did.

I haven't really changed that much.

The Guide to Majors at Virginia Tech made me realize that there were a lot at Tech.

I found out what was required of me with different majors—and through what majors I could get what jobs.

5. Are you closer to selecting an occupation than before you enrolled in the course, Career Planning and Decision-Making?

   Yes; 1 No; 1 Not Really; 1 Yes and No

More committed to the occupation I had decided on.

I went hunting and talked to the President of a printing company, a month ago, he said if I had a business major from VPI, I could be hired as a salesman.

A little bit closer.

Just seeing the wider range really helps out.

Not really closer, just definitely decided. I had already picked my major.

I knew what I wanted to do if I went into Recreation—I just was not sure I would go into that.

Probe: a. Had you thought about an occupation before enrolling in the course?

   Yes; 1 No; 2 Sort of

Yes—100 percent P.E.—now I don't know. I tried out for the football team and got turned off. I've gotten turned off by athletics. Money is a factor, not enough money in P.E. to get by.

Yes, but I could not decide what I wanted to do.

Sort of—trying to be a flight attendant for a couple of years to travel—pay as a flight attendant is pretty good.

Yes, I know definitely what I want to do but when I came in I knew that I wanted to teach, and that was all I wanted to do. So, I have changed my mind, but I'm not definitely going into physical therapy—it's pretty positive, but I'm waiting for the information to come back. But, I am closer to that decision now.

I sort of formed one a little bit, but not as specific as before I examined them all—but I had a general idea.

No, not really at all. I didn't know what I wanted to do.
Probe: b. Did the course make you consider a different occupation?

No. It just gave me more options under my interests.

Yes, but I remained with the one I had chosen.

Yes. I was thinking of animal training cause I've always been in love with horses. I figure that's more of a recreational pastime.

Yes.

Yes, Counseling and being an administrator.

Yes, different Business occupations.

Yes, totally. I was in Special Education, now I want Psychology. Special Ed. doesn't offer enough money.

Yes, Theater Arts Teacher.

Yes, case worker, child welfare, anthropology, teacher of the emotionally disturbed, deaf, or culturally disadvantaged.

Yes, Business as a major.

Yes, thinking of going into Personnel work after work as a flight attendant.

Yes.

Yes, Ag. Engineering or Ag. Education.

Oh yes, physical therapy. I had never thought about it before—it never entered my mind.

In a sense, if I could not get into an occupation at the level I wanted (teaching history at the secondary level), I could change to maybe the college level or elementary.

Yes, along a different line, but still in Business.

Yes, but I decided to stay with my first choice.

Yes, Special Education.

Yes, considered becoming an extension agent or a camp counselor.

Made me more aware that there were others—if I didn't like one I could choose another—like counseling.

Yes, a few.

6. Do you know what the term "values" mean? 21  Yes; 0  No

What is important to you.

What is important to you.

It's your goals and things that are important to you.

Things that are of the highest importance to me. The whole area of careers seemed vague to me before I took this class. I knew I wouldn't always be happy with what I was doing. This class brought that out. If I can have a job that will meet all of my values, then I'll be happy.

What I feel is important to me.

What you believe in.
What's important to you.

What is most important to you; what you want to get out of your career; what you value the most.

What is important to a person.

Something that you uphold.

What is important to you—your priorities.

Those things that are important to me.

Things that are important to you.

What you want to do in life; what's important to you; what will help you to get ahead; it helps you to reach career goals; it helps in the decision-making process.

Something that you have that will help you better understand and relate to people that you work with. Things you know you can do that you have already done.

What's important to you and what you believe in.

Something that you hold as having meaning to yourself and most of which are influenced by other people—parents and peers, and they change.

What is important to you.

Your interests in people, places, and things—what is important to you.

The things that are important to you.

Those things which are important to you and the type of life you want to lead and the characteristics you want to include in your career or lifetime.

Probe: Can you give me two or more examples of values?

Family and peers.

Family and high income.

My wanting to have an active job; my needing to be physically fit.

Money, being happy at what I'm doing.

Some people may help other people in their job; some people may feel their sole responsibility is to take care of a family; some people may value money.

Religion, what it has taught; getting an education.

One of mine would be helping people. Also, achieving a lot instead of merely being on a job and staying is one place on a job.

Social service; helping people, working with people, recognition and achievement.

Honesty and integrity.

Variety in a job. High income.

Value money and environment when considering a job whether you value having a family with kids, etc.; value a career vs. a family.
I like to work with people, and I like an adequate income.
Your job—occupations, the things you do; money, requirements.
To work in a specific area like rural or urban communities; work situations; pay—how much you want to be paid.
Hobbies and things like that.
What situation you work in. The type of work you do, whether you are helping people or if you're helping a company of some kind.
This may not be very concrete, but if you are raised in a more wealthy family, your values will be to attain a goal on a higher level. And then you have moral values—covers a broad area, for example, pre-marital sex. A variety of work settings; do not like office work; value individuality; creativity.
Working with people; independence.
Working with people; getting along with people I work with.
To be independent in your work; income—the amount of money you make.

7. Do you know what the term "aptitudes" mean?  21  Yes;  0  No

I think it means what you can do; what your abilities are.

What you are capable of doing.
Your capacity to do things well.
The ability you have to do a certain job.
What you can learn to do.
What I am able to do.

What you are good at—may be good in some skills and not so good in other skills.

Your abilities.

What a person is good at—how well they do it.

Ability to learn to do something.

What you are able to do, for example, aptitude for English and writing more than math or science.

Things that you are able to learn how to do.

Increased knowledge about certain things.

What you are capable of doing—what situation you are able to handle.

Things that you can do—through your knowledge you have learned to do.
That's what you are capable of doing.
Things that you as a person are capable of doing and want to do.

How much skill you have in a related area.
Your skills or abilities.
Your skills or abilities.
The stuff you are good at.
To what degree you can accomplish certain skills.
Probe: Can you give me two or more examples of aptitudes?
Your knowledge; physical skills.
Verbal and math.
I'm good in English; my aptitude in math is bad.
Athletics and music.
To deal with people, thus be able to be a counselor; I may not be
able to teach math, but I may be able to learn to teach math.
An aptitude for working with children; I have an aptitude for
English classes, I do not have an aptitude for math.
Verbal and hand dexterity.
Clerical, working with your hands; verbal, knowledge of words
and terms.
Finger dexterity; motor or mechanical.
Clerical and verbal.
Areas of languages and sciences.
Typing and shorthand and advanced math.
Don't know.
General aptitudes; manual dexterity; mechanical aptitude (indus-
trial and things like that).
I guess the ability to make decisions; your ability to sort
things you want to do and how they relate. Figure out alterna-
tives.
A certain level of math courses. Your comprehension of any area.
What you are capable of achieving not what you have already done,
but what you have the capacity to do.
Mathematics—a person being more qualified (I would avoid mathe-
matics because my aptitude is not very high); physical aptitude.
Skill with hands, sing, dance, artwork, write, type.
Mathematical ability; verbal ability.
Math and verbal.
Reading; applications in science or math.

8. Do you know what the term "interests" mean? 20 Yes; 1 No
Whatever you are interested in; whatever you like to do.
What you like to do.
What I like my activities to be.
A certain area in which you are interested—career interests.
Probably the aptitudes that I can do. I am concerned with the issue; interested.

Something I like to do, keeps my attention.

What you like to do.

What you want to do.

Something that appeals to someone.

Something that you like.

What you are interested in, sports or dancing more than collecting stamps.

Things I like doing.

Things that interest you.

Yeah—but how do I explain it—I can say interest, but that's redundant. Things that you like to do.

Things you really want to do in life—a strong interest in something.

Something in a job sense; something that you want to get out of a job; something that means something to you.

What your interests are.

Those things which you have strong feelings for.

Things you want in your life.

I would not be able to give a definite definition.

Things you like to do.

Those things that you like to do and are interested in doing—recreational and skill-wise.

Probe: Can you give me two or more examples of interests?

Sports; reading.

Sports and cooking.

Running; horseback riding.

Physical education and business.

Interested in how people deal with their lives; interested in the welfare of children growing up now.

I like bicycle riding; I like working in business and knowing where your money goes.

Athletics and creative work.

Working with children; interest in the theater and performing arts.

Psychology and sociology.

Hobbies and people.

Dancing, playing tennis, light theater.

Music and drama.

Your job, things that you do and enjoy doing.
Working with children; having responsibility; involvement in your work.

How you plan your leisure time activities. Things you like to do out of the job setting.

Working with mechanics or parts of a machine; or if you are interested in working with figures or data sheets or that sort of thing.

It kind of reflects my major interest in children; interest in helping people.

Drawing, craft work, mountain climbing, gardening.

Music, photography, working with the handicapped.

Jogging and reading.

Playing racquet-ball, working with children.

9. How did your Personal Profile help you in establishing your career plan?

It made me know what my interests were—made me think that everything about me pointed right towards being a coach.

It just made me see myself all at one time—an organized picture of myself.

I could look at everything collected together and see a broader idea of what I really was instead of just bits and pieces.

For me, I have to have something written down. I could see what I was edging away from and what I was interested in.

I examined the things I wanted to do plus the things I felt I should do and put them together.

It made me pretty much face up to the courses I like and dislike—same thing with my values and interests. It made me think about them.

Told me what I was really good in. I could pick out what I really liked and from there I could decide.

It helped me to realize what my values were and what I wanted most out of my career and helped me to see if I would be willing to give up any for the other and to see if I wanted to make any changes. It helped me in setting down my career goals.

It helped a little, but so many of the things overlapped that I could not really draw a line between what I would be good at—there were so many of the same things in each.

It gave me a better view of myself.

Putting everything on paper so that I could look at it objectively. Look at types of working conditions I had not thought of before. Helped me to look at what kind of work I would like to do.

It helped me to get a hold on definite things I like and dislike and things I was looking for in a career.

Helped me think about other majors and their requirements, their environments.
It helped me to better understand what I really wanted to do—there is a
difference between what I thought I wanted to do and what I really wanted
to do. It told me what I'm capable of doing, what I wanted to do in all
areas of work; which jobs better fits my needs and goals. I had a better
idea of what it is that I want.

It specified more my interests, things I like to do. I knew basically
what I wanted to do, but the Profile brought out things I would like to
have in a job also.

It pointed out one of two things—like I had been considering switching
majors altogether to either anthropology or business; something where
there might be counseling. It pointed out to me what was important to me.

It showed me my interests, my aptitudes, and it gave me an overall view
of myself and what my particular needs were.

Enabled me to evaluate different interests, aware of aptitudes and
occupational options.

Made me realize what I wanted to do in my work and what I wanted to avoid—
main thing what I did not want to do.

It helped me because I had it right there.

It gave me a definite outline—reinforced things that I like and don't
like to do and what's available to me in the way of things that I want
to include in my career.

10. Which resource helped you the most in learning about the qualifications
for employment in occupations that interest you?

The Worker Trait Group Guide.
The Worker Trait Group Guide.
The Worker Trait Group Guide.
CIS Files.
CIS Files and the Counseling Center files.
CIS File.
Worker Trait Group Guide. It told everything about certain areas.
Worker Trait Group Guide.
The Worker Trait Group Guide.
The Worker Trait Group Guide.
The Worker Trait Group Guide.
CIS File.
Counseling Center files.

CECIL—it was so easy. It really didn't require any work on my part and
working with the computer was fun and it just printed out everything I
wanted to know about the given work; and the occupational files in the
CIS.

The Worker Trait Group Guide.
The Worker Trait Group Guide.

CIS File.

Worker Trait Guide.

CIS File.

The Worker Trait Group Guide—I used that most often, and it was easy to read.

Worker Trait Group Guide.

Probe: How did it help you?

Because it showed all the other options under my field and related fields.

Well, it gave me what I needed—a summary of everything; the requirements and what I should be interested in—it gave me an overall view.

It had it listed right there—everything you needed to know was right there: what kind of education and training you needed and what your interests needed to be.

You could read the folders in whatever you were interested in—just reading, you could take things in.

I read pamphlets, and they told qualifications plus they also gave related occupations.

It made me see in certain majors what kind of jobs you could get and if you were doing the job what would the requirements be and the benefits.

Told what you had to take in college; how many years of study; dealing with people, objects, and other areas.

It helped me see what general requirements were, working conditions, how much schooling I would need for a particular job, and a general idea of jobs available.

By looking at the clues, worker requirements, work performed, and work activities, I was able to get a better idea of what the qualifications were.

It gave a basic outline of what you had to do to get the job and your duties.

Gave me a lot of information—told about all the questions you would ask in this stage.

They gave a description of the types of work, how much it would take from me, what would have to be done to satisfy the requirements of a major.

When I looked for Industrial Arts, I saw the importance of jobs and openings in the field—I lacked a lot of information, they did not have that much.

They let me know what work requirements were involved; they gave me work situations, salary, and they told what educational background you needed.

It set out a general outline of how to plan activities, what kind of work was involved, and educational qualifications.
Just the fact that the information was there and I could look it up and read it. I did not have to go to 20 different sources to find it.

It gave me a complete overview of the particular areas and allowed me to look at all aspects of the particular fields.

Generalizations—skills needed, requirements, settings, and opportunities.

Read the briefs—they had folders that gave what training you had to have. I read two or three of these.

Some little things I had not thought about such as work situations, physical requirements, and specifics on what you had to do.

It outlined specifically what was required—college education—what things you had to specialize in, things you had to be interested in doing and aptitudes of things you should be able to do at work at the job.

11. Which resource helped you the most in learning about future job openings in occupations that interested you?

Dr. Lewis’s lecture—she talked about how employment would look up.

CIS File.

Occupational Outlook Handbook.

The tapes in the Counseling Center.

CIS Files and the Counseling Center files.

CIS File.

The CIS File and pamphlets in the Career Resource Center.

The CIS Files.

A Guide to College Majors at Virginia Tech.

Can’t remember.

Worker Trait Group Guide and CECIL.

College Major Occupation Index.

Worker Trait Group Guide.

Counseling Center files (Holland System); pamphlets in the Counseling Center; A Guide to College Majors at Virginia Tech; and the lecture by Dr. Mary Ann Lewis.

CIS File.

The Guide to College Majors at Virginia Tech.

The Guide to College Majors.

Vertical files of the CIS System.

Worker Trait Group Guide.


The Worker Trait Group Guide.
Probe: How did it help you?

She talked of the need for more teachers in future years.

Told me about job opportunities—it gave me more specific information.

It presented you with facts instead of someone just guessing. It just told you—that was kind of neat.

They gave me ideas about how hard the curriculum is—for example, in business, I hear that it is hard going, and I wanted to see what they were talking about.

Told me where you would have to go to get jobs. They helped me in deciding.

Told me which had the best career outlook and which jobs there would be more of and less of.

Pamphlets gave future outlooks for jobs also told you how much money you could make.

They described each job as did the Worker Trait Group Guide.

By telling you what the occupational outlook would be like by the time you graduated.

Told what you need to know—if field was overcrowded—that’s important to know, I don’t want to be unemployed.

It gave me a lot of other occupations I could look into if I didn’t feel that education was what I wanted.

Gave specific jobs, specifications, requirements, and working conditions—it gave the main, important things about certain jobs.

I was always told that in education there were not going to be openings in the future. I always thought that I was going to have to wait a year and a half to get a job as an elementary teacher, and I found out there are not many openings now, but in the future when I graduate, there should be. So they told me that, and then by looking at areas that were open and met all my values I could decide from that—you know cause I don’t want to get out of college and not have a job, although I was willing to wait. But by looking at what was open, it helped me in my decision-making process.

When I read it, it showed outlines of worker requirements. Also, Mr. Sherman showed us a slide in orientation.

It said at the end of each unit what the outlook for jobs were and how the students had done in obtaining jobs in each area.

Underneath each major, it presented the job outlook.

Folders told you about job openings—over-supply and under-supply information given.

The list at the end of each chapter—they listed some things (occupations) I had never considered before—I have never even thought of them.

It included employment outlook.

It gave outlook for jobs in the future.
12. Which resource helped you the most in learning about the salary and benefits of occupations that interest you?

I don't remember the resource, but I remember the figure given: $8,000 or $9,000.

I never looked this up.

I can't recall.

CIS Files and Worker Trait Group Guide.

The files and the Worker Trait Group Guide.

CIS File.

I did not look up information on salaries.

Everything—the Worker Trait Group Guide, the CIS vertical files which contained pamphlets—it gave future earnings and how much salaries were raised in the last couple of years, and the DOT.

Worker Trait Group Guide.

CIS File.

CIS Files and the Guide to College Majors.

Vertical files—CIS System.

The CIS File.

I don't remember looking that up. I know I'm going to be poor. I'm looking for a rich husband already.

The Worker Trait Group Guide.

Probe: How did it help you?

Gave raw figures and I could relate that to my values.

Told me what to expect for salary, but since salary was not a high value, it didn't help me all that much.

Told me how much you would make and the benefits you would get.

Told you also about working conditions and how you could move up in that field to make more money.

Showed how much each job paid—also helped me to see if there was any chance for advancement.

It gave you a basic place of where you would start and how much your salary would increase.
Told everything I needed to know.

It gave me a definite account of how much I could expect to make if I was to go into a certain field.

I thought at first that I was willing, because education was what I really wanted, that I didn't care how much it paid. Now, I think I am just beginning to realize since I have been in college just how much money I do spend and how the cost of living really is. And then when I read and was looking through the files, and I saw the salary a teacher was paid, I thought, oh, my goodness, I would never be able to live off of it. So I decided to look for something else in the same field so I went to the DOT, and I found something else that was closely related—my major objective is to work with children—so I found something that was the same as that but it paid more—so that's what really caused me to look into physical therapy.

Did not find too much about salaries, but other benefits were listed.

I could look it up and read it—it was there.

Each presented the starting salaries and the salaries that could be reached as you went further in the particular company or field.

Learn how much you make in various occupations.

Reading the folders.

It gave starting salaries and what level your qualifications would prepare you for.

13. Can you give me the three dimensions of a decision situation?

What would be best for you; what would be best for people involved in your situation; check the information; and end up with your decision.

Look at your values and your milieu and then decide.

Your inner feelings—internal dimension; the external dimension—your milieu; men make your decision.

Relating your milieu to what you want; seeing it as what you need; opportunities for fulfilling your aspirations and choosing one of the opportunities.

Put it in with your values, your milieu, and your career goals.

Values, interests, and aptitudes.

Alternatives: choosing the decision; acting on the decision.

List alternative; review each one to see which would benefit me the most; review the situation and come up with the answer.

Examine your values, the milieu, and your goals.

Planning, research, and making the decision.

Look at things objectively—weigh both sides and write them on paper. Look at your past and things important to you; do what is consistent for you; look at the future and see how it will benefit you; try to learn as much as I can—try not to decide too spontaneously.

Is it right for me; will it aid others; look for bad aspects of it.
Find out about the job; talk to other people about it; working conditions.

Get to know your values, your interests; you have to know your options—examine your milieu, how the environment affects what you are doing; then make your decision.

Plan all possible steps; take long and short-range goals; see how they fit in with your other plans.

Relationship of self to the situation; relationship of self to the milieu; then the decision.

Defining the problem; evaluating the problem and solutions; making a decision.

List possibilities, list choices, evaluate as to how each one corresponds with your values.

You examine the internal forces; you examine the external forces; and come to a decision.

External dimension, internal dimension, look for alternatives and take action.

Evaluate the decision to make; decide on a course of action; take that course of action.

14. How has your decision-making style changed since enrolling in this course?

I found that using alternatives and checking them off like we did in the book helped me. I think more about it now, look at the alternatives. Before, I made decisions based on what felt right at the moment.

It is more organized.

I have gotten a little better. I used to follow my inner feelings; now, I'm taking a more logical view of things rather than jumping in.

In the area of looking at careers—yes. I have a wider area of things I can look at; like all the things in the Counseling Center.

I look at my values aspect first instead of just what I think right away. I also consider my goals to make sure it's within that.

Yes and no. Major decisions, I think about it a bit more; minor decisions—I still don't like to make them. I still hate making decisions.

Instead of jumping right in, I think about the benefits and what the bad points will be: look up information instead of jumping into a decision.

I am not as flighty. I take stuff more seriously; I sit down and weigh it out; I look at the outcome. I take more time, too.

I think I am a little bit more systematic about it.

I do more research than I did before.

Yes, it has changed a lot.

Before I went by internal instincts, I did not look for facts—if it felt good for me, I'd do it. Now, I ask questions, talk to people and find out all I can before I decide what I want to do.

It showed me how to research my occupation. Once I think about another job, I do research on it and find out the working conditions and how much money you would be making. Every time I make a decision, I talk to people about it, but now I depend more on myself—I do book work now.
Started out as "X," I think a cross between and "X" and a "Y"—now I have changed to an "A"—the reasonable adventurer.

I think I take more time in making decisions. The course helped me to do this.

Honestly, it really hasn't very much.

Rather than go straight to somebody else to help me make a decision, I am more apt to try and make it on my own first.

I learned to evaluate things more; not to make hasty decisions and not to rely on friends cause they don't know your values.

I give it a little more thought now. Before I followed my feelings, but now I examine the situation a little more closely.

I think more about it. I'm thinking about my budget—I was writing checks like crazy. Now, I think about what I'm spending money for—is it really worth it.

Not really.

Probe: a. Do you think you are a more effective decision maker since enrolling in this course? Yes: 10 No: 1 Not Sure

Probe: b. Can you tell me a little more about that?

Because now I look at all the alternatives.

Before, I just made a decision.

Well, I sit down and make myself look at all the possibilities and look at them objectively, and see how it will affect me later and how it relates to my values. I just make better decisions that way.

I just feel more confident about my decisions since they are based more on facts than on feelings.

In the area of careers, yes—but overall I would say yes for me, but you would have to get some other people's opinion—people like Amy.

Because I'm now definitely considering what I will do later making sure it's going to help me out and not be a hindrance.

I think about it: I don't jump into it as much. I used to jump into it head first and think about it later.

Instead of relying on emotions, I look up the information; look at bad and good points and make decisions more slowly than I did before.

I take more time weighing out the decision.

I'm probably more objective. I really evaluate each thing instead of depending on my values.

I do more research, and I know basically what to look for now.

I look at things more objectively and in a more mature way; I put more thought into things. I consider things I never thought about before. I can make decisions now.

Now when I make a decision, I'll stick to it cause I know what I'm looking for when I make a decision.

I found our ways of not relying on other people but finding out information on my own.
I was tempted before to ride on my intuition—I never really looked into the pros and cons—I didn’t research, and now I have learned that if I really want to make an effective decision, one that’s better for myself, then I have to consider more than what I think I want to do because there are a lot of things I don’t know that I think I really do.

Before, I just looked at the most important aspect, now I look at all aspects. I think about what’s best for me, rather than what other people think about it.

I think I stick to old habits.

Because my decisions are a reflection of what I want rather than what other people want for me.

I rely more on myself now than other people.

I think it out a little better—I’m not so hasty about decisions—don’t tend to do things that I seem to regret later.

I’m not as compulsive. I used to think when I wrote a check—I’d say, I’ll worry about it tomorrow.

I sit back more and evaluate the decision before I jump into it. I evaluate the consequences and how it is going to affect me.

15. In terms of career planning, describe where you would be if you had not enrolled in this course?

I don’t think I would be any different, but I don’t think I would be sure. I think it just helped me more in backing up my decision.

Probably still a little hazy about whether or not I was making the right decision.

I’d probably still be pondering my major.

I would still be a dumb jock—still be blind by not seeing what P.E. had to offer and knowing that that’s not all I want. Course made me ask why I came to college.

I’d probably be transferring to George Mason majoring in Psychology, and then when I got out I would have realized that I may have been better off to have majored in Elementary Education and taught for a year.

Where I was before—I had no idea what I wanted to do. I would not know whether to change my major or not.

I would still be in the College of Education just keeping on until I had to make up my mind—just procrastinating.

Back at some starting point, kind of floating undecided and thinking: I have time; I don’t have to decide right now; I don’t have to think about it right now—which was definitely a mistake.

I might have changed my major to Psychology.

Still would be in Elementary Education but not completely satisfied.

Probably still in Elementary Education, and I’d still be pretty lost; I don’t think I would have known about the Counseling Center.

Nowhere, I’d still be trying to decide. I’d be so confused.

Probably still just taking regular classes but not really sure about my goal.
I would still be an Elementary Education major and probably would not be totally satisfied when I got out of school, or I would have realized at the end of my junior year that teachers don't make much money and would have had to go back to school—but I really just want to go to school for four years, I will probably think different when it's all over.

I would not know where to turn if I couldn't get my social studies teaching certificate.

On my way to dropping out next quarter.

I would probably be considering different majors, after two or three quarters, in my particular field.

I would still probably be just considering Elementary Ed., and I would not know all the different options I had.

I'd be confused. I would not be sure what I wanted to do. I'd probably just go on with the courses, but I would not be committed to them.

I think I would not be as sure of myself as I am now. I have thought a lot about why I want to teach—it's not just like playing with kids.

Probably would not have come to a complete decision to switch to Elementary Education. From the course, I can see that it offers me more than I thought it was going to.

16. In terms of your career plan, how would you describe your status now?

Right about where it's supposed to be except for my grades. My grades are not where they are supposed to be, but that's all a part of my adjusting to college.

I'm just at the beginning of my career plan, but it is all laid out, tentatively, I could still change it.

My major is decided, and I know that I'm looking for a particular job in P.E. which is not going to be school teaching.

One step I have taken: I will be taking a business class. And that's one step toward my career goal—I am just thinking.

I have developed my career plan to the point of teaching for a year or so and of getting a job. And, for the next six years, it is definite.

I have decided to take classes in other majors so I can decide if I like it before I change. I don't want to change four or five times.

I know that I'm going to enter some field of Psychology, but I'm not sure just which one yet.

I am sort of on my way to taking the steps to where I want to go. I'm planning to transfer. I am more definite in my career plans. I can honestly say now that I want to teach Special Ed. which I could not do before.

I'm just a lot more sure about it. I'm still thinking about it, but I am almost sure that I'll stick to Elementary Education.

Planning on changing my major (to Business) and minoring in Elementary Education.

I know where I'm going at least for now. I've made a plan for now. I'm on the right track—I feel like college is benefiting me more. I have a goal in mind.
It is pretty scary. I know what kind of courses, how many courses I will be taking. I definitely know which road I'm taking now.

At first, I had planned to major in Industrial Arts, but after doing a little research, I found there were other occupations open to me. I'm thinking about trying those.

Everything is set now—I had to draw up a completely new plan from what I had in the beginning of the workbook. They are basically the same, but the whole idea behind it is different. So I have more or less a new plan.

It is more defined and more specific. I have a lot of alternatives. Some that I like more and some that I could do if I could not get the other.

It's a long way to go, but at least I know where I'm going.

After finding out more about my career and career interests, I have definitely decided on a career.

Sort of indecisive—between Elementary Ed. and Special Ed.—don't know which one. I know I want to work with children.

I pretty much know what I want to do now.

Just at the beginning, but I'm more definite now. I realize right now I'm just taking basic requirements, and I have a lot more steps to take.

I plan to finish college and be an Elementary Education teacher, take some courses while I'm teaching and be a counselor later on. You gave me that idea.

17. What aspect of the course was most helpful to you in developing your career plan?

The Personal Profile.

Probably all those tests in Unit 2.

Again, I think it was looking at the alternatives.

A number of things—it helped me to see that P.E. was not what I wanted. We went to the Counseling Center, and I could see what I had in front of me. I listened to the tapes and read the folders, and it gave me a better idea than not knowing anything.

Looking into the different occupations made me sure of the one I wanted.

Finding out my aptitudes and my interests.

The workbook.

All the activities in the workbook dealing with values and goals, and the activities on the Personal Profile. Writing it down really made you think about it.

Reading the Worker Trait Group Guide was most helpful. The workbook was helpful also.

Doing the homework to get a better view of myself.

I can't pick one—the main thing it gave me a chance to think about it—gave me one hour and fifteen minutes twice a week to think about it; I would not have had that opportunity otherwise.

The part where we used the Worker Trait Group Guide, the College Major Occupation Index, and the resources in the Career Resource Center.

The part on the values checklist.
Completing the workbook, and I think the group discussions were really good because you could see where someone else was headed—realized that it is possible to know what you want to do. The Workbook is very well put together, and if there was someone in your group who knew just where they were going, it helped to reinforce better for you that it is possible to know exactly what you want to do. But the Workbook more or less the way it was put together just lays everything right out for you, and if you do all the exercises in it— I mean it is very well put together.

Just seeing what our attitudes were and how to fit in decision—your decision-making process. I really enjoyed the films—they were on a personal basis and showed us how to fit those in very well.

I would think at the end where we laid out our career plan; where it said research and then make your career plan. I did that; I could have procrastinated forever.

Probably researching the different careers available.

Doing the Personal Profile.

Seeing what else was available.

Talking with people in groups was good. I was interested in seeing how other people made decisions. It always helps when you write things down.

Working on the Personal Profile and the charts. They really outlined what I like and what I don't like and what's available.

18. What aspect of the course was least helpful to you in developing your career plan?

The last chapter—it really didn't seem to do anything. All that stuff after Unit 2: after I knew it, all the rest of stuff was just redundant.

I think some of the book's exercises tended to be a little trivial at times—it was repetitious, sometimes you did the same thing two or three times as in Unit 4.

I can't think of one.

Emphasis sometimes on the salaries—actually everything was helpful—just the part not in my value system for example salary or the amount of training it took to get there.

I guess the films strips did not help me a whole lot.

All of the books were helpful. I can't think of anything. I only saw a couple of the films strips because I was not there.

I don't know. Can't think of anything.

The films strips were not too helpful. After a while, it got repetitious in the workbook.

The films strips.

I can't think of anything—it was all pretty helpful.

In the beginning—I was unsure of everything, and I didn't know what I wanted. When they asked for a career theme, I really was guessing.

In the very beginning when I was studying the words.
There wasn't anything. Everything was coherent, and everything fell together. If I had to pick the least effective thing, I would pick the readings from the library. They fell into the course, but one chapter out of a book is not enough to understand what's going on or unless you read the first chapter.

I was not too enthused about Unit VI. All the other units had taken care of the things we did there.

I guess the process of decision-making cause I did not change mine as far as that goes.

I can't think of anything that was least helpful as most of the things in the course were helpful.

They all were pretty helpful.

All of it was pretty helpful. I wouldn't know what to say about that.

Library assignments did not really help. I can't think of anything that was not really beneficial.

It was all helpful.

19. What was the most difficult aspect of the course?

I would say probably the part about looking up all the things about your occupation—going to the right places.

I did not find anything difficult.

I think probably writing your career outline.

Carrying 18 hours and being bogged down with work; therefore trying to keep up was difficult.

Deciding which values were really mine.

Admitting to myself my faults and my dislikes.

Trying to make decisions—you had to do it, you could not put it off any longer, you had to really think about it.

Getting to class on time. I did not think any of it was difficult. Kind of hard to sit down and consider yourself—what it is you want; it's a lot harder than you think.

Reading and following directions in the workbook.

Understanding the directions in the book.

The part now (reference to the interview)—I'm having trouble with that.

At the end when I was asked to write out a career plan.

Understanding the directions in some parts of the written assignments in the workbook.

I can't think of anything really—maybe the decision-making process.

That real long one, Unit 2—those charts and things were kind of rough sometimes; it was a challenge.

None of it was really hard.

Getting to class. There was not anything really hard about the class. It was just making yourself put enough time and effort to the workbook and the readings.
I guess examining everything—especially Unit 2 and the out of class assignments.

Finishing Unit 2 on time—so many things you could look into in the Career Center.

When you had to state your career goal and sum it all up. When you really had to get definite. Toward the end you had to decide more.

I didn't think any of it was difficult. It was just sometimes hard to get the work done because of all the work piled up on me right now.

20. On a scale of 1 (Dissatisfied) to 5 (Extremely Pleased), how satisfied were you with the help you received from the course?

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21. Why did you enroll in this course?

At first, I needed three credit hours. I didn't think I would get out of the course what I did.

Because I was not sure of my major.

Because I was so unsure about my major, and I thought it would give me a sense of direction.

Initially for the three hours credit on a P/F basis. Later, it got my interest.

Because I did not know if I wanted to stay in Elementary Education.

To find out if I should change my major.

Because I was totally unsure about my major and had no idea what my career would be.

For the simple reason that I was undecided about my career, and I thought it would give me a better outlook on just where I stood.

Because I didn't know what I wanted to do.

So I could decide if I should stay in the major I have right now.

Because I needed help.

Because I was unsure of my major and I thought I needed help in making my decision.

When I first started I thought I was sure about a major but I found out there were other things that interested me.

Because I wanted to make sure that education was what I really wanted—to find out more about it cause I know on my own I wouldn't. I didn't even know about the Career Center until I took the course, and I think a lot of students don't know about it. So I was kind of advised by the faculty and it sounded like a really effective thing to do.

I wanted to further my career plan. I wanted to find a wider scope of job occupations I could go into if later on I did not want to go into teaching, but I still wanted to help in an advisory capacity, I suppose.

Because Maria came back all excited about it. And, we were both excited about it cause it was going to change our lives.
To reassure me of my major that I had selected.

I was not totally sure about Elementary Ed, and I liked the presentation you gave at that meeting.

Just seemed like a good opportunity. I was not sure about what I wanted to do—I thought it might help me.

I thought it would help me. My roommate has made her third switch this year, and everyone around was indecisive.

So I could get some direction of where I wanted to go. And, what would happen to me if I didn't get into my education career. And, what kind of opportunities would be available to me in Education. And, I also felt I needed to decide on something soon.

22. What is a summary statement of what you received from the course?

I think it made me feel more than I knew this was what I wanted to do rather than what I thought I wanted to do. If things don't work out, I know where to go and what to look for in related occupations.

I became more commited to my major and learned how to be a better decision maker.

I gained knowledge and information concerning job opportunities, and it allowed me to explore myself and find out what I really wanted to do.

It has given me a reason for coming to college. I know now that you just don't come to college, you've got to have a plan.

Made me more aware of myself, what I was going to do and how I was going to go about doing it.

I learned a lot about myself, pointed out my values and interests; made me look at myself a lot more and decide what I wanted to do.

Most of all, it helped me to decide better, and it helped me to figure out what my career was going to be.

It helped me decide definitely on a career because of the new way I learned to make decisions, and it helped me put my values and goals in a new prospective and that to achieve those goals in Special Education were best for me. I just hope Radford will accept me.

I know a lot more about what occupations I can enter. Broadened my interests, and I have a lot more general ideas about what a lot of occupations require.

I received the opportunity to understand my goals better and make a decision about my career.

It gave me a chance to think about and consider the opportunities I had. A chance to look at myself and compare it with majors and jobs—because I want to do the best I can and get in the right job—decide what job would go best with what I want and what I'm like.

In taking this course, I have learned how to make better decisions that would benefit me in choosing a major and in choosing an occupation.

Helpful in some ways but then again needs some improvements. It helps you to begin thinking about an occupation other than the one you decided on. The directions in some parts in the workbook need to be clear. The charts need to be pretty close together to the assignment.

A definite career outlook. I learned exactly what I needed to know about my future.
It helped me make my decisions more concrete. I don't second guess as much as I did; I know more specifically where I am headed after graduation and what courses will get me to graduation. I know better what my career plan is and I know how to make better decisions.

I gained direction for my college career to take—just an idea of what to work for.

I received a better knowledge of myself and what I wanted to become.

I learned more about myself and my interests and what occupations correspond to that.

I learned more about myself and what my interests and values are, and I found out a little more about the field I want to go into.

More direction and more definite in my goals. I know more about actions I have to take—know more about my career. I'm not as unsure as I was in the beginning of the year.

That decision-making stuff helped me a lot.

I received information about the career I am most interested in and information about myself concerning what I want to do. Realization that my career is not just a job but incorporates other things I enjoy doing besides just work.

23. Would you recommend this course be a permanent offering at VPI & SU?
   21 Yes; 0 No

Probe: a. Why?
   Because it looks like you need the course. It's not hard, but it does require a lot of time.

   I thought the course was helpful especially for people who don't have any idea of what major they want to go into.

   If it can help other students like it did me, I think it can be beneficial.

   Strongly recommend it. It gives you—no way anybody can make themselves come over to the Counseling Center—some people might can do it, but I have to have someone standing over my head before I do something.

   So people can make sure of their major before they spend a lot of time and money going to school. Make sure their majors are right for them. Can learn more about themselves even if they have a major.

   Cause there are an awful lot of people who don't know whether to change their major. They keep changing and just loose more and more credits.

   Cause it helps. A lot of people go to college with no idea about what their major is going to be and it really helped me.

   Because the majority of Freshmen or Sophomores are really unsure and undecided about what they want to do. This course will help them get a better perspective on things and learn more about majors and things offered here. Maybe they would find out that they should transfer too which is a pretty big step.

   I think it can help a lot of people, and it's something a lot of people need.
To give other people the opportunity to make a career decision.

Because I know a lot of people who don't know what they want to major in. They really don't know what they're doing in college, some students would rather be working in a bank or somewhere else making money like their friends and classmates.

I think a lot of Freshmen when they come to college don't really know what they want to do. This course will help them make up their minds a little sooner.

Many Freshmen could use it because they haven't decided on a major, and they waste their time on classes they don't need. The class could at least head them in the right direction for something they would like to do for the rest of their lives.

I think a lot of students need it. My roommate has changed her major three times this year and actually gone through the process of changing, and she has no idea what she is headed for, she doesn't know what she wants to do, and I think it's a waste of her parent's money to send her here if she really does not know what she wants to do. She is just running around taking electives, but she really is not getting anywhere. I think everyone should take the course even if they know what they want to do. In fact, I think they ought to have it in high school especially for juniors and seniors.

It helps you realize more about yourself, not only in the field of occupations and work, but here at Tech—like that Guide to College Majors, the benefits are so numerous. You can make better decisions while you are here that affect you here at Tech and it helps immensely.

Because there are a lot of Freshmen who come up here either because their parents made them or because they ran out of options, but there are very few who know exactly what they are doing up here or where they are headed.

To help students iron out any problems they have selecting their particular major and to reinforce one that they may already have. Through the course they might find that their interests really lie elsewhere.

Because I think it's really good for people who don't know what they want to do.

Because I think there are a lot of kids around here who are not sure about what they want to do, and I think this will help them. I know a lot of my friends are not sure about what they want to do.

To help more kids decide: seems like so many people are switching: also it makes people more aware of the Counseling Center. But it should be offered at a better time. Some of those cold nights, it was hard to talk myself into going to class. It was good when I started to meet people—I didn't have to walk by myself.

Because there are a lot of people here who don't have any direction of what they want to do. They may have a faint idea, but this course could set them on a straight path.

Prober: Should the course be offered at this: __Freshman; __Sophomore; __Junior; or __Senior level?

2 2 2 2

1 2 2 2

Freshman; __ Freshman or Sophomore
Probe: Why?

Because that's when you have got to make your decision. If you wait to later on, then you are in trouble.

Because that's when you need to look at what you want to do with a major that way you can get started early.

Because by the time you are a Sophomore, Junior, or Senior, you are too set in your major to make a big jump. It's better if you find out early.

So they can get exposed early and if they are on the wrong track, they can put it in the road. You can waste a lot of money changing majors in the junior year.

Because at that time you really should know what your major is so that you can get the proper credits and advice and you won't be so biased.

Better to have your major by the time you are a Sophomore—I don't care what they tell you, you start losing too many credits.

By the time you get to be a Senior or Junior, it will be too late—mainly should be offered to Freshmen.

Because you are just starting out and like I said before, you need a little push and guidance in helping you decide.

I think when you are starting out, you are unsure about many things. Most students, by the time they are Juniors or Seniors, their minds are pretty well made up.

Because they are more likely to be confused at this time.

Freshmen are kind of lost, and college is such a change from high school. It is easier if you know what you have in mind. The course threw out other opportunities.

Because that's when you should be making up your mind as to what you want to do and you can execute it in your Sophomore, Junior, and Senior year instead of waiting and finding out that you have to change your major.

Because by the time you are a Junior or Senior, you should have some idea of the occupation you like. A Freshman or Sophomore could decide now and not take a lot of classes they don't need.

Because they need to know about their career as soon as possible before they waste too much time.

Because I can see where it could help at possibly all levels, except the Senior level. But, at the Freshman level you can change more readily maybe than at the Sophomore or Junior level. At the Freshman level, you can get a better jump on things.

Freshmen mainly, but open to others. Because by the time they are Sophomores, Juniors, and Seniors, they know where they are going and if they don't they ought to do something.

Because it is important to pick a major as soon as possible so you can take the required courses and have time for electives.

When you are a Freshman you really don't know; you are very confused most of the time; by the time you are a Junior or Senior you are committed to a major.
The sooner the better. No sense in taking all those courses and finding out that's not what you want to do.

By the time you are a Junior or Senior, most people have decided. Freshmen and Sophomores are the ones who are undecided and they are switching back and forth. Because these are the years you have to decide what your major is going to be.
APPENDIX F

Assessment of Career Decision Making
ASSESSMENT OF CAREER DECISION MAKING

by

Vincent A. Harren, Ph.D.

PART I: HOW I MAKE DECISIONS

The first section of this questionnaire is designed to find out how you go about making important decisions in your life. Some of these decisions, for example, might be: to go to college or not; to decide on a career; or to take job X vs. Y. We believe that regardless of what the decision is about, each person has his or her own unique way of going about making decisions. We also believe that there is no one best way for everybody, and that you have probably learned to rely on a way which works best for you, based on your past experiences.

Before filling out this section, think about how you have made these important decisions in the past, or about how you are handling decisions with which you are currently confronted. Try to get a picture of how you typically or characteristically make decisions. Then go ahead and respond to the statements below in terms of how you feel. Remember, we don't think there is a single best way for everybody, so there are no "right" or "wrong" answers.

On your answer sheet, circle "A" if you Agree with the statement, or "D" if you Disagree with it. For a statement to be true of you, it doesn't always have to be the case, but more often than not. If you really can't make up your mind, then leave the item blank, but try not to leave more than a few of them blank, or the scores from the questionnaire will not be valid.

1. I am very systematic when I go about making an important decision.

2. I often make a decision which is right for me without knowing why I made the decision.

3. When I make a decision it is important to me what my friends think about it.

4. I rarely make an important decision without gathering all the information I can find.

5. Even on important decisions I make up my mind pretty quickly.

1978, Vincent A. Harren

USED WITH PERMISSION AEL FIELD TEST
6. I like to have someone to steer me in the right direction when I am faced with an important decision.

7. When I make a decision I consider its consequences in relation to decisions I will have to make later on.

8. When I make a decision I just trust my inner feelings and reactions.

9. I really have a hard time making important decisions without help.

10. When I need to make a decision I take my time and think it through carefully.

11. I often decide on something without checking it out and getting the facts.

12. I often make decisions based on what other people think, rather than on what I would really like to do.

13. When an important decision is coming up, I look far enough ahead so I'll have enough time to plan and think it through before I have to act.

14. I don't really think about the decision; it's in the back of my mind for a while, then suddenly it will hit me and I know what I will do.

15. I rarely make a decision without talking to a close friend first.

16. I double-check my information sources to be sure that I have the right facts before deciding.

17. In coming to a decision about something I usually use my imagination or fantasies to see how I would feel if I did it.

18. I put off making many decisions because thinking about them makes me uneasy.

19. Before I do anything important, I have a carefully worked out plan.

20. I don't have to have a rational reason for most decisions I make.

21. I seem to need a lot of encouragement and support from others when I make a decision.

22. I don't make decisions hastily because I want to be sure I make the right decision.

23. I make decisions pretty creatively, following my own inner instincts.
24. There's not much sense in making a decision that is going to make me unpopular.

25. Often I see each of my decisions as stages in my progress toward a definite goal.

26. I usually make my decisions based on how things are for me right now rather than how they'll be in the future.

27. I don't have much confidence in my ability to make good decisions, so I usually rely on other's opinions.

28. I like to learn as much as I can about the possible consequences of a decision before I make it.

29. A decision is right for me if it is emotionally satisfying.

30. I usually don't have a lot of confidence in my decisions unless my friends give me support on them.

PART II: HOW I FEEL ABOUT BEING IN COLLEGE

For the rest of this questionnaire, all of the statements refer to your present feelings. Mark the statement "Agree" only if you feel this way right now. You may have felt this way in the past, or you could conceivably feel this way in the future, but if you aren't concerned about this right now, or if this is not relevant to you right now, mark it "Disagree."

31. I don't know what the instructors in my courses expect.

32. People are starting to listen to some of my ideas around here.

33. I believe I've been pretty successful in adjusting to college.

34. I'm trying to find out what the people I live with want of me.

35. I've been talking some of my friends back home into going to college.

36. People here seem to respect me and value my ideas.

37. I'm just beginning to feel a part of things around here.

38. Some of my instructors seem open to suggestions for improving their course.

39. I feel like we are all helping each other to accomplish our goals.
40. It's hard to know how to act at this school.

41. I'm trying to get other students involved in things, instead of just sitting around.

42. This college seems to be meeting my expectations and needs pretty well.

43. I don't feel that I really belong here yet.

44. I often talk to my instructors outside of class.

45. The encouragement and support I've gotten has helped me to try harder to do well.

46. Most of the students here seem to have attitudes and values like mine.

47. I'm not afraid to speak up in class when I don't agree with the instructor.

48. I've been getting a lot of positive feedback from my instructors.

49. I've had to change in some ways in order to get along with people here.

50. I like to hang around on campus during my free hours.

51. Some of my instructors have helped me to get a more objective picture of myself.

52. I wonder if further education is worthwhile for me.

53. I'm learning to be more assertive to get what I want.

54. I'm pretty satisfied with the way things are working out for me here.

55. Some of the instructors here are pretty hard to satisfy.

56. I really enjoy getting involved in group projects with other students.

57. I feel a sense of working together or team effort here.

58. I've been asking other students how they like it here.

59. I've been telling my friends at other colleges what a great place this is.

60. Some of the advanced students have helped me become more realistic.
PART III: WHAT I WANT TO STUDY

61. I have a wide range of course interests.

62. If I choose the wrong major, it could slow me down in getting through college.

63. I'm pretty certain about my choice of major.

64. I like most of the teachers and students in my major.

65. I need to take a lot of different courses to see what I like.

66. I need to consider my interests in choosing a major.

67. It would take a lot to make me change my mind about my major.

68. I realize my major limits the kinds of future goals I can set for myself.

69. I don't know how to go about choosing a major.

70. My past experiences in school should help me decide on a major.

71. There just isn't anything else that I'd rather major in.

72. Some of the advanced courses in my major look pretty hard.

73. The more I think about a major, the more confused I get.

74. I've changed my mind about my major because of some of the courses I've taken.

75. It's a relief to have decided on my major.

76. I wonder how I will fit in with other students in my major.

77. I need to decide on a major.

78. I know what major I want, but I don't know what I could do with it after I graduate.

79. I enjoy telling people what I'm majoring in.

80. Most of my friends are either in my major or a closely related one.

81. I haven't definitely decided against any major.
82. I don't know if I'm capable enough for the majors I'm considering.
83. I've decided what I will major in.
84. My interests and attitudes are like most of the students in my major.
85. I wish I knew what I wanted to study.
86. I need to choose my courses more wisely than I have in the past.
87. My major gives me a sense of purpose and direction.
88. When people know what your major is, they expect you to act in a certain way.
89. I don't know what courses to take next semester.
90. I see some disadvantages to the major I am considering.
91. I get pretty wrapped up in discussions about things in my major.
92. I need several electives that can't be in my major.
93. There are just so many different kinds of courses I would like to take.
94. There are a number of majors which I have decided against.
95. I'm looking forward to getting into the advanced courses in my major.
96. I need to see an advisor in my major to plan the rest of my program.
97. I've looked into several programs, but I don't know what I'm really looking for.
98. I need a program that is broad and flexible.
99. I really get involved in courses in my major.
100. Since choosing a major, my personality seems to be changing.

**PART IV: WHERE I AM HEADING AFTER COLLEGE**

101. Almost any career seems appealing to me.
102. What I used to think I wanted to become doesn't seem practical anymore.
103. I think I'll be happy with the career I have chosen.
104. I wonder what kind of job I'll be able to get in my field.
105. My plans for the future are too indefinite.
106. I'm trying to decide between two or three possible careers.
107. I'm pretty certain about the occupation I will enter.
108. My attitudes and outlook are becoming more like the people I know in my field.
109. I want to know what field of work I'm best suited for.
110. There are several careers which I have already decided against.
111. I'm a lot happier now that my future career is clear to me.
112. The occupation I have chosen will affect the kinds of friends I will have in the future.
113. I don't know what I really want out of life.
114. I've become more realistic in my thinking about possible courses.
115. I won't let anything get in the way to my reaching my goal.
116. I don't have enough experience for a job in my field.
117. I need information about occupations.
118. I've changed my mind about what I wanted to become, now that I've learned more about the field.
119. The more I learn about things in my field, the more involved I become.
120. I need to find out what jobs are available in my field.
121. I'm interested in too many fields.
122. I'm more certain of the fields I don't want than what I do want.
123. I've decided on the field I am going into.
124. I hope the people in my field will accept me.
125. I need to decide on an occupation.
126. I know what's important to me, but I don't know what kind of career would meet most of my needs.

127. The career I have chosen fits in with my personality.

128. I need to start thinking about job interviews.

129. It's hard to know what to look for in a career.

130. I need to know more about the training required for some of the occupations I am considering.

131. I feel I can overcome any obstacles in the way of my goal.

132. I will probably have to move away from here to get a job in my field.

133. I can't decide on a career because my interests keep changing.

134. I don't know if I have the right kind of personality for the work I'm considering.

135. It's unlikely that I will change my mind about my career plans.

136. The people in my field have certain expectations of me.

137. I don't know how to go about deciding on a career.

138. There are not many job opportunities in the field that I really like.

139. I'm looking forward to getting out of school and getting started in my career.

140. I think I'm ready to choose a specialty within my chosen field.
APPENDIX G

Rotter Internal-External Scale
INSTRUCTIONS FOR I-E SCALE

General Directions:

Mark your answers on the answer sheet provided. Do not write on the questionnaire. Use a No. 2 pencil and blacken the circles corresponding to the answers you wish to give.

In the space marked ID NUMBER, put your student ID number.

In the space marked TEST FORM, indicate the College in which you are presently enrolled, as follows:

A. College of Education
B. College of Home Economics
C. College of Arts and Sciences
D. Special Student
E. Other

In the space marked SEAT No., enter the following code:

004

In the space marked GROUP NO., indicate the time in your academic career that you are taking this test according to the following scheme:

1. Freshman, Fall Quarter
2. Sophomore, Winter Quarter
3. Junior, Spring Quarter
4. Senior, Spring Quarter
5. New Transfer Student

This is a questionnaire to find out the way in which certain important events in our society affect different people. Each item consists of a pair of alternatives lettered a or b. Please select the one statement of each pair (and only one) which you more strongly believe to be the case as far as you're concerned. Be sure to select the one you actually believe to be more true rather than the one you think you should choose or the one you would like to be true. This is a measure of personal belief; obviously there are no right or wrong answers.

Please answer these items carefully but do not spend too much time on any one item. Be sure to find an answer for every choice. Find the number of the item on the answer sheet and black-in the space under the number 1 or 2 which you choose as the statement more true.
In some instances you may discover that you believe both statements or neither one. In such cases, be sure to select the one you more strongly believe to be the case as far as you're concerned. Also try to respond to each item independently when making your choice, do not be influenced by your previous choices.

1. a. Children get into trouble because their parents punish them too much.  
   b. The trouble with most children nowadays is that their parents are too easy with them.

2. a. Many of the unhappy things in people's lives are partly due to bad luck.  
   b. People's misfortunes result from the mistakes they make.

3. a. One of the major reasons why we have wars is because people don't take enough interest in politics.  
   b. There will always be wars, no matter how hard people try to prevent them.

4. a. In the long run people get the respect they deserve in this world.  
   b. Unfortunately, an individual's worth often passes unrecognized no matter how hard he tries.

5. a. The idea that teachers are unfair to students is nonsense.  
   b. Most students don't realize the extent to which their grades are influenced by accidental happenings.

6. a. Without the right breaks one cannot be an effective leader.  
   b. Capable people who fail to become leaders have not taken advantage of their opportunities.

7. a. No matter how hard you try some people just don't like you.  
   b. People who can't get others to like them don't understand how to get along with others.

8. a. Heredity plays the major role in determining one's personality.  
   b. It is one's experiences in life which determine what they're like.

9. a. I have often found that what is going to happen will happen.  
   b. Trusting to fate has never turned out as well for me as making a decision to take a definite course of action.

10. a. In the case of the well prepared student there is rarely if ever such a thing as an unfair test.  
    b. Many times exam questions tend to be so unrelated to course work that studying is really useless.
11. a. Becoming a success is a matter of hard work, luck has little or nothing to do with it.
   b. Getting a good job depends mainly on being in the right place at the right time.

12. a. The average citizen can have an influence in government decisions.
   b. This world is run by the few people in power and there is not much the little guy can do about it.

13. a. When I make plans, I am almost certain that I can make them work.
   b. It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune anyhow.

14. a. There are certain people who are just no good.
   b. There is some good in everybody.

15. a. In my case getting what I want has little or nothing to do with luck.
   b. Many times we might just as well decide what to do by flipping a coin.

16. a. Who gets to be the boss often depends on who was lucky enough to be in the right place first.
   b. Getting people to do the right thing depends upon ability, luck has little or nothing to do with it.

17. a. As far as world affairs are concerned, most of us are the victims of forces we can neither understand, nor control.
   b. By taking an active part in political and social affairs the people can control world events.

18. a. Most people don't realize the extent to which their lives are controlled by accidental happenings.
   b. There really is no such thing as 'luck.'

19. a. One should always be willing to admit mistakes.
   b. It is usually best to cover up one's mistakes.

20. a. It is hard to know whether or not a person really likes you.
   b. How many friends you have depends upon how nice a person you are.

21. a. In the long run the bad things that happen to us are balanced by the good ones.
   b. Most misfortunes are the result of lack of ability, ignorance, laziness, or all three.
22. a. With enough effort we can wipe out political corruption.
b. It is difficult for people to have much control over the things politicians do in office.

23. a. Sometimes I can't understand how teachers arrive at the grades they give.
b. There is a direct connection between how hard I study and the grades I get.

24. a. A good leader expects people to decide for themselves what they should do.
b. A good leader makes it clear to everybody what their jobs are.

25. a. Many times I feel that I have little influence over the things that happen to me.
b. It is impossible for me to believe that chance or luck plays an important role in my life.

26. a. People are lonely because they don't try to be friendly.
b. There's not much use in trying too hard to please people, if they like you, they like you.

27. a. There is too much emphasis on athletics in high school.
b. Team sports are an excellent way to build character.

28. a. What happens to me is my own doing.
b. Sometimes I feel that I don't have enough control over the direction my life is taking.

29. a. Most of the time I can't understand why politicians behave the way they do.
b. In the long run the people are responsible for bad government on a national as well as on a local level.
VITA

Vivian Norwood Williamson is a native of Durham, North Carolina, and she received her elementary and secondary education in that city. In 1949, she was awarded the A. B. degree, with a major in History and a minor in Education, from North Carolina Central University, formerly known as North Carolina College at Durham. She was awarded a Master of Science degree in Guidance and Counseling from Virginia State College, Petersburg, Virginia, in 1972.

Upon graduation from college, Mrs. Williamson was employed by the federal government in Washington, D.C. In 1965, she resigned her position as Chief, Office Services Branch, Administrative and Management Division, Office of the Provost Marshal General, Department of the Army, and moved to Petersburg, Virginia.

Mrs. Williamson was employed by Petersburg Public Schools as a teacher and subsequently as a counselor. Following a one-year experience as a counselor in the College Counseling Center at Virginia State College, she was named Director of that Center. Her prior experience has included the positions of Upward Bound Counselor and academic advisor to students in the Department of General Studies at Virginia Commonwealth University at Richmond, Virginia.

In 1974, Mrs. Williamson was appointed Assistant Supervisor of Guidance in the State Department of Education at Richmond, Virginia.
While matriculating at Virginia Polytechnic Institute and State University, she was employed as a graduate assistant in Career Counseling and Student Personnel Program Area, and she completed an internship with Appalachia Education Laboratory, Charleston, West Virginia. She resumed employment with the State Department of Education in July, 1979, and she was recently named coordinator of Virginia's Career Education Program.

Vivian N. Williamson
THE IMPACT OF THE CAREER PLANNING AND DECISION MAKING COURSE ON SELECTED ASPECTS OF CAREER PLANNING BEHAVIOR

by

Vivian Norwood Williamson

(ABSTRACT)

The present study was concerned with career education practices in higher education settings. The major purpose of this study was to determine if the recently published course, Career Planning and Decision-Making (979), which was developed by Appalachia Educational Laboratory, was effective in assisting freshman and sophomore students in choosing or examining their choice of a major and enhancing their career decision-making behavior. A secondary purpose of the study was to obtain evaluative data on this published course. The Harren Assessment of Career Decision-Making, the Rotter Internal-External Scale, and a personal interview, using a structured interview schedule, were used to gather data. The significance of the difference between the groups on the I-E Scale and pretest was determined by analysis of variance using the .05 level of significance. The difference between the groups following the treatment were determined by analysis of covariance with the I-E and pretest as covariates.

Career Planning and Decision-Making was taught during the Winter Quarter, 1979, at a large comprehensive university in Virginia. The population consisted of freshman, sophomore, and transfer students who
were enrolled as pre-education majors. From the students who volunteered for the course a random assignment was made to either the control group (N = 21) or the experimental group (N = 21).

An analysis of the data revealed: (1) no difference at the .05 level on the ACDM pretest or the Rotter I-E Scale scores; (2) no difference at the .05 level on either the career decision to attend college or the choice of a major; but (3) significant differences (p < .001) in decision-making styles and choice of occupation. The structured interview revealed that the students perceived themselves as being more effective decision makers and as having made progress in choosing a major and an occupation as a result of the course. All indicated they were very pleased with the course and all recommended that the course be incorporated as a permanent offering, preferably at the freshman or sophomore level. It was concluded that the course, Career Planning and Decision-Making, was effective for teaching career planning and decision-making skills to students in college settings.