To the Graduate Council:

I am submitting herewith a dissertation written by Barbara Lane Fox entitled "Evaluation of the Effectiveness of Teaching a Process of Career Decision Making to College and Post-College Females." I recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Education, with a major in Educational Psychology and Guidance.

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EVALUATION OF THE EFFECTIVENESS OF TEACHING A PROCESS OF CAREER DECISION MAKING TO COLLEGE AND POST-COLLEGE FEMALES

A Dissertation

Presented for the

Doctor of Education

Degree

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Barbara Lane Fox

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ABSTRACT

The purpose of this investigation was to evaluate the effectiveness of teaching a process of career decision making to two groups of females, college and post-college. Comparisons of the experimental and control group data were made to determine whether or not the treatment, consisting of exercises in How to Decide: A Guide for Women, 1975, had differential effects on the experimental groups. Subjects were 44 female volunteers, 18 in the college student experimental group, 14 in the post-college experimental group, and 12 in the control group.

A Semantic Differential was administered to all participants as a pre- and posttest measure of attitude toward two concepts, decision making and risk taking. The Inventory of Feminine Values (Steinmann, Levi, & Fox, 1964) was administered as a pre- and posttest measure of self and ideal images with regard to active or passive orientation. The Decision Making Inventory was designed for this research endeavor to measure goal setting, alternatives generating, risk taking, and assertiveness. The DMI was administered as a pre- and posttest measure of four aspects of the How to Decide program. The Leadership and Self-Development Scale (Britton and Elmore, 1976), administered pre- and posttest to the experimental groups only, was utilized to measure leadership and liberal feminist attitudes. Analyses of covariance were performed on posttest data from the above inventories, with pretest scores serving as covariates. Two-tailed *t* tests for correlated samples

were used to test overall pre- and posttest differences within the three groups.

Ten analyses of covariance yielded five significant treatment differences, i.e., the decision-making concept of the Semantic Differential, the Self-Image and Ideal Woman scales of the Inventory of Feminine Values, and the alternatives generating and goal setting scales of the Decision-Making Inventory. Twenty-nine two-tailed *t* analyses of the pre-post changes produced seven significant differences, six of which were consistent with the analyses of covariance findings. A significant *t* ($p < .05$) was obtained by the post-college group on the risk-taking concept of the Semantic Differential.

The major conclusions of the study were: 1) female participants changed in a positive direction on variables measuring attitude toward decision making and risk taking, ability to generate alternatives and specifically state goals, and activeness; and 2) the treatment had differential effects on the experimental subjects. A recommendation is made that *How to Decide* and potentially similar programs appear to be an effective means of teaching career decision making and should be offered to interested individuals in both college and community settings.

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CHAPTER I

THE NATURE AND PURPOSE OF THE INVESTIGATION

Introduction

During recent years emphasis on vocational choice as a developmental process which can be incorporated into an individual's educational experiences has contributed to programs and guides which teach career decision-making strategies. Also the Women's Movement has contributed to an acceleration of efforts to develop educational policies and programs to accommodate the specific needs of females in overcoming pressures to follow specific careers or adopt specific roles (Burr, 1974). Thus, many programs related to these two issues have been published and are being utilized in a variety of settings, although evidence of their effectiveness has not been demonstrated.

Miller and Benjamin (1975) have described a selected group of six career guidance strategies that offer possible broad career guidance outcomes and have indicated a need to evaluate the effectiveness of these strategies. They have referenced six programs related to the decision-making strategy and have identified several programs related to each of five other career guidance strategies. However, little empirical research has been conducted to support the claims that these programs are helping individuals develop planning and decision-making skills for use in career and life choices. Thus, this research project is an attempt to determine whether or not the decision-making process can be taught by

utilizing packaged programs. How to Decide: A Guide for Women was selected because of its uniqueness as the only program dealing exclusively with females and because it has had little opportunity for public exposure since it was published in 1975. The career choice is used as a prototype of all other choices since it is a relatively visible process which individuals feel free to discuss. The focus of this research has been to evaluate How to Decide to determine its effectiveness in teaching college and post-college females a decision-making process which will help them direct and control their lives (Scholz, Prince, & Miller, 1975). The guide identifies the following objectives:

1. To help women focus on what is important to them and examine their values and attitudes.
2. To teach women how to evaluate and use information in making decisions.
3. To reduce uncertainty about making choices and anxiety associated with decision making.
4. To provide women with some techniques by which they can identify and explore new alternatives.
5. To encourage women to take action and use assertiveness.
6. To help women find greater freedom in their lives, maintain greater control over what they do and plan to do, and make their lives more constructive and satisfying.

Utilizing operational criteria of the above objectives as dependent variables and the exercises in How to Decide as the treatment, this

research was designed to empirically evaluate the effectiveness of teaching one of the decision-making programs.

Statement of the Problem

How to Decide and other decision-making guides are being utilized in a variety of settings to teach a process of career and life decision making to students and adults. However, available data concerning the worth of these guides and programs is equivocal. Therefore, the problem of the present research was to determine the effectiveness of teaching one of the decision-making guides to college and post-college females. More specifically, the purpose of this research was to assess the effects, with regard to certain measures of the decision-making process, of teaching the exercises in How to Decide to two volunteer groups of women and to compare pre- and posttest data from the two experimental groups to pre- and posttest data from a female volunteer control group.

Hypotheses

From the problem the following hypotheses, stated in their null form, were derived:

Hypothesis I

The three groups of females would not differ significantly on attitude toward the concept of decision making as measured by a Semantic Differential (Appendix A).

Hypothesis II

The three groups of females would not differ significantly on two measures of risk taking:

(A) Attitude toward the concept of risk taking as measured by a Semantic Differential (Appendix A).

(B) Self report of riskiness and cautiousness as measured on an eight-point scale (Appendix E).

Hypothesis III

The three groups of females would not differ significantly on activeness or passiveness as measured by responses on the scales of the Inventory of Feminine Values: (Steinmann, Levi, & Fox, 1964)

(A) Self Image (Appendix B)

(B) Ideal Woman (Appendix C)

(C) Male Ideal Woman (Appendix D)

Hypothesis IV

The three groups of females would not differ significantly on the ability to generate possible alternatives or options (i.e. those with probable outcomes) as measured by an inventory, the Decision-Making Inventory, designed by the investigator for this research, rated by three independent raters, and administered pre- and post-treatment (See Appendix E).

Hypothesis V

The three groups of females would not differ significantly on the ability to specifically state goals and objectives as measured by an

inventory, the Decision-Making Inventory, designed for this research by the investigator, rated by three independent raters, and administered pre- and post-treatment (See Appendix E).

Hypothesis VI

The three groups of females would not differ significantly on assertiveness as measured by an inventory, the Decision-Making Inventory, designed by the investigator for this research, rated by three independent raters, and administered pre- and post-treatment (Appendix E).

Hypothesis VII

The two experimental groups of females would not differ significantly on attitude toward leadership as measured by the Leadership and Self-Development Scale (Britton & Elmore, 1976) (Appendix F).

Definition of Terms

Decision Making. A process which utilizes values, alternatives, risks, and action to arrive at a choice. Attitude toward decision making is measured by a Semantic Differential composed of evaluative scales only.

Goal Setting. The ability to specifically state an aim or objective which can be achieved; measured by an inventory designed by the investigator for this research and rated by three independent raters.

Alternatives generating. The ability to state a number of viable options or possible choices; measured by an inventory designed by the investigator for this research and rated by three independent raters.

Risk taking. An amount of certainty or uncertainty; measured by

a) a Semantic Differential composed of evaluative scales only and

b) self-report of riskiness or cautiousness.

Assertiveness. The willingness to stand up for rights and to take action on a decision; measured by an inventory designed by the investigator and rated by three raters.

Activeness/Passiveness. Activeness is the amount of self-achieving, extra-family orientation measured by positive scores on the three scales of the Inventory of Feminine Values (Steinmann, Levi, & Fox, 1964); and passiveness is the amount of domestic, intra-family orientation measured by negative scores on the three scales of the Inventory of Feminine Values.

Significance Of The Problem

The following comments are illustrative of the significance of the present research.

1. The research should provide insight into the effectiveness of teaching the decision-making process to college and post-college females. Such information would provide a firmer base upon which to make decisions regarding the utilization of How to Decide and similar decision-making programs in college and community settings.

2. The research presents one of the most empirical and controlled investigations of teaching the decision-making process. The present study has attempted to lay the foundation for future experimental research on the decision-making paradigm.

3. If changes occur in the females as a result of participation in

the treatment, support would be gained for the utilization of decision-making programs.

Assumptions and Limitations

A major assumption of this study was that the college and post-college females would fully participate in the treatment conditions to which they volunteered. Both experimental groups were given identical treatments in order to determine the effectiveness of teaching the guide to two groups of college-educated females.

The following limitations were imposed upon this study:

1. Because of the time involvement of the participants, it was necessary to utilize female volunteers rather than a random selection of females. Consequently, a measure of female representativeness and generalizability was initially lost. However, utilizing the analysis of covariance design helped to control for initial differences. Also, from background information on the subjects, the investigator determined that the females represented a widerange of educational and job experiences.

2. A principle limitation of this study was that post measures were only collected at the end of the four week treatment period, although follow-up data for the post-college group will be collected in the future. It is possible, therefore, that any experimental changes that were detected in the treatment were of short duration and attributable to a "novelty" effect. It is also possible that changes might have occurred but were not detectable until beyond the post data collection period.

3. Another limitation of the study was that the investigator also acted as the group leader and, therefore, knew what results were assumed.

However, because it is obvious from the guide what the goals of the program are, the investigator did not consider her biases to hamper the study. It was not possible to find a qualified leader who would expend the time necessary to teach two groups.

5. The limited number of contact hours (14) necessitated skipping some of the exercises. Thus, although the investigator felt that the duration of treatment was realistic, a longer duration might be a factor to consider in future research which evaluates the effectiveness of teaching the decision-making process and might indicate that any findings of this study are conservative estimates.

CHAPTER II

REVIEW OF LITERATURE AND RESEARCH

Basic Theoretical Concepts of Decision Making

In modern society the making of decisions has become a very important aspect of an individual's life. The rate at which social change occurs has accelerated, presenting each individual with more decision points and more alternative courses of action at each decision point (Tyler & Sundberg, 1964). This accelerating pace of social change means that few choices can ever be final. Because of repeated technological advances, the average person can expect to work at as many as six different occupations during a lifetime and to move fairly frequently. Each geographical relocation calls for choices about housing, neighborhoods, and schools, as well as jobs. Young people, therefore, need to learn how to choose, not just to make a choice.

Vocational choice as a process of development involving successive stages rather than a single event became an influential idea after World War II and is credited to two researchers and their associates who were conducting separate research studies at Columbia University. Although Ginzberg and his associates formulated the theory that occupational choice is a process spanning several years and not a single point-in-time event, Super and his associates popularized the concept with the Career Pattern Study begun in 1951-52 to determine how vocational maturity, the key concept in vocational development theory, could best be assessed (Leland, 1969).

Ginzberg, Ginsburg, Axelrad, and Herma (1951) stated that occupational decisions could be analyzed in terms of three periods: (1) a fantasy period when individuals think of what they wish to be as adults; (2) a tentative period when individuals recognize the problem of deciding on future occupations; and (3) a realistic period in which individuals recognize that a compromise between what they want and the opportunities which are available must be worked out. From their earlier psychological emphasis, Ginzberg and Herma (1964) moved to a series of studies, the Conservation of Human Resources Project, which focused on the impact of societal and economic changes. Additionally, the attempted to conceptualize a schema which would define more clearly the process whereby individuals with certain interests, capacities, and values seek to shape their careers.

Super's (1961) longitudinal study of vocational choice and adjustment, the Career Pattern Study, concentrated on three major dimensions: (1) career prediction; (2) the nature of vocational exploration; and (3) comparability of vocational maturity measures at different stages of development. Super conceptualized occupational choice as a process of implementing the self-concept. His work has been directed toward measuring dimensions of the self-concept and testing the validity of his theoretical model (Leland, 1969).

Roe (1956) began with empirical descriptions and comparisons of occupational groups and attempted to classify occupations by the personality variables which distinguish them and to trace final adult choices from original home atmosphere and parental attitudes. However, in one of the studies (Roe and Siegelman, 1964) designed to explore her

theory that determinants of choice are reflected in personality variables and parent-child relationships, no significant relationships between vocational choice and field of study in college and the measures of parent-child relations were found.

Attempting to arrive at some better prediction and understanding of an individual's career pattern and work history, Tiedeman (1961) focused his attention on the process of decision making in vocational development. He stated that vocational development analysis is oriented by each of several decisions with regard to life which individuals make as they mature. Tiedeman's computerized information system was developed to improve career decision making of everyone who makes vocational choices (Leland, 1969).

Another contributor to vocational theory was Holland (1959, 1964) who viewed vocational choice as a function of personality and promoted the idea that occupational preferences are an index of environmental congruence with personal orientations. Tyler (1959) studied the importance of sex role differentiation and preferences in elementary school grades on vocational patterns as a means of portraying individuality. She focused on and emphasized how the individual is choosing (choice patterns) rather than what is being chosen. Tyler and Sundberg (1964) organized their research efforts on three basic concepts: (1) perception of possibilities; (2) choice patterns; and (3) values. They compared Dutch and American adolescents and found that American adolescents instead of becoming more unique than their Dutch counterparts tended to become more peer oriented or more sensitive to what was considered to be the right course of action or the right way to think.

Since the early 1960's decision theory has attracted interest as potentially useful in viewing vocational and occupational behavior. Much of the work on decision and game theory was until then in the field of economics and mathematics (Gelatt, 1962). Girshick (1954) had suggested the advantage of a decision-making frame of reference for solving problems which he stated could not be solved unless clearly defined goals and consequences of the decision were recognized. Chernoff and Moses (1959) recognized the usefulness of inductive sciences to everyday life situations, and Bross (1953) designed a model in which the process of deciding required: (1) a predictive system (assessing the possible alternative actions, outcomes, and probabilities); (2) a value system (weighing the desirability associated with the outcomes); and (3) a decision criterion (to integrate and select an appropriate action). Gelatt (1962) expanded this idea into a conceptual frame of reference using sequences involving collecting data, prediction, probability, and evaluation and including consideration of values, utility, and risks, and incorporating these components into a process called "sequential decision making."

Brayfield and Crites (1964) summarized the three possible contributions of decision theory to career decision making: (1) to provide a motivational model for occupational behavior; (2) to suggest important organismic variables—e.g., risk-taking and some derivative of the utility of variability; and (3) to suggest methods for the scaling of preferences.

The Decision-Making Process with College Students

As early as 1941, Pace, from descriptive studies of college alumni designed to describe their life situations and to search out the effects of education on their present lives, suggested that there was "dramatic evidence that many college students do not know what they want to do, and that many more reach decisions accidentally and haphazardly" (page 95). In a study of psychological development of students at Berkeley and Stanford, Korn (1968) found that (1) significant numbers of college students make a shift in career direction between the first year of college and the year following college graduation, and (2) many students appeared to move into career choices without adequate evaluation of either personal potential or career alternatives. Korn concluded that student choices were not as much the result of wise planning as the impact of social forces on their lives.

> In a way it is inevitable that large numbers of our students will not have had adequate opportunity to examine their career plans critically, because nowhere are they encouraged to do so. (p. 416)

Stanford (1957) underscored the anxiety of college senior women facing decisions about marriage and occupation prior to leaving college. In a study at Wesleyan, Beardslee and O'Dowd (1960) reported that college students expressed concern with their own development and place in the future, but they lacked knowledge about occupational activites, skills, and responsibilities.

Dissatisfaction with the Current Status of Occupational Research

The major theorists of occupational choice literature have shared the view that vocational behavior is a function of personality, development, and social background, have appeared to be united in underscoring the complexity of occupational decision making, and have voiced dissatisfaction with the current status of occupational research (Leland, 1969). Leland sums up their dissatisfaction with the following statements:

> It is understandable that complex behavior problems, such as occupational decision-making, reveal themselves through fragmentary, diffuse and tentative research reports. Some researchers do not appear to recognize this complexity and at times their research suggests a tendency toward over-simplification. Others immersed in the complexity cannot seem to reorient their endeavors or redesign their research to attack problems which are truly researchable. Moreover, while research understanding and scientific exploration require time and patience, there is an immediate need in our society and economy for action, experimental programs, and usuable theory. (P. 162, 163)

There are few cases in which data analyses have provided testable hypotheses to future research and to develop an understanding either of (1) why individuals make particular choices, or (2) how those choices might be influenced in the individual's behalf. After ten years of intensive study on individuals and their occupational choices, what is known is detached from the myriad of pressures which people face as they seek employment and involvement with an occupation (Leland, 1969).

Empirical Research on the Decision Making Process

Empirical research on career decision-making guides and programs is practically nil. Thus, although assumptions have been made that the decision-making process can be learned and is a developmental process, little evidence has been given that these are realistic assumptions. Evans and Cody (1969) evaluated the decision-making strategy in their study with sixty eighth-grade students (30 males and 30 females) who were equally divided into three treatments representing varying degrees of experimenter direction in assisting students in decision making. The purpose was to find out if the decision-making process learned in a counseling-like setting could transfer to similar and other real-life situations. Results showed that the mean score obtained by members of the guided treatment was significantly greater, statistically, than the mean score for the nonguided or the control groups; and no statistically significant difference existed between the mean scores obtained by members of the nonguided and control groups. The following generalizations were made:

1. It appears that a process for decision making can be taught in a counseling-like situation.
2. Directed learning of such a process appears to be more effective than non-directed practice in learning a particular strategy for decision making.
3. Directed learning of such a process appears to facilitate more extensive use of the considerations inherent in the process, in transfer situations, then non-directed practice in learning a particular strategy for decision making. (p. 431)

One criticism of the study is that no specific program is outlined in order to replicate the study. The researcher's five steps in the decision-making process are not identified.

A number of career guidance strategies, decision-making programs, and career planning guides have been developed in recent years. The achievement motivation training materials (Alschuler, 1969; Carlson, 1972; Kopita, 1973; McClelland, 1968) attempt to increase motivation to achieve in order to help individuals feel more positive about themselves and develop effective goal-setting behaviors. The assessment techniques (American College Testing Program, 1972; Harsh, 1974; Prediger, 1973; Psychological Corporation, 1973; Science Research Associates, 1968) are designed to measure specific individual characteristics and to provide information appropriate for use in career planning. Career resource or learning centers (Alameda County School Department, 1972; Hansen, 1971; Loheyde, 1972; O'Neill, 1972) include comprehensive information systems for storage and retrieval of information and career guidance experiences to help individuals use resources effectively. The career development curriculum (Adkins, 1970; Benson, 1972; Birk and Tanney, 1973; Cunha, 1972; Vetter & Sethney, 1972) can be used efficiently for implementing career guidance. Decision-making training (Arutunian, 1973; Friel, 1972; Gelatt, 1968; MacKenzie & Manuel, 1971; Scholz, Prince, & Miller, 1975; Smith, 1973) emphasizes the teaching of decision making through the use of either the computer or the curriculum. The decision-making programs stress the exploration and clarification of personal values, the study of the decision-making process, and the use of data about self and environment. Thus, programs are being implemented throughout the United States with little emphasis being placed on evaluation.

College Board began a five-year plan for guidance services in decision-making following a report by Dillenbeck in 1969:

> Services are needed to help individuals learn and practice rational processes for making educational plans and decisions, integrating self-understanding and information about educational opportunities. There is abundant evidence...that many individuals make educational plans and decisions without taking adequately into account their knowledge of either self or educational opportunities. Simply ensuring that students have such self-knowledge and information will not, of itself, insure an improvement in the quality of their educational plans. It is necessary also to help them acquire mastery of the processes of planning and deciding. (Gelatt, Varenhorst, & Carey, 1972, p. vii)

Deciding, Decisions and Outcomes, and How to Decide: A Guide for Women represent three components of the decision-making program. Miller, Program Services Officer of the College Board Decision-Making Program, has written that "research in the decision-making area is desparately needed" (1976).

The New Labor Market and Its Implications For College Women

College educated women, in choosing careers, are now confronted with a new and different kind of labor market from that which existed in the past. Parrish (1974) has identified eight characteristics which have important implications for college females. First, the teaching outlook is changing. Until recently, about half of all college females have been employed in teaching; but it will not be possible for teaching to absorb this number in the future. Second, replacing teaching as a career choice for college women is not going to be easy because there are few alternative occupations that provide the unique features of teaching which make it conducive to a marriage-career-family combination. Third, making the right career choice is much more important for college women today than in the past because today virtually 100 percent of female

graduates work at some time (Parrish, 1974). A special analysis of the 1960 Census of Population indicated that 96 percent of college women were in the labor force at some point after college (Schwartz, 1965). Fourth, women are facing tougher competition from men because men have been obtaining more years of college training than women and because the federal equal rights legislation and administration are having an impact not only with women entering jobs formerly restricted to men, but with men entering occupations formerly dominated by women. Fifth, college women will face much more competition from other women in the future. It is projected that by 1990 as few as 19 percent of working women will have less than a high school diploma and 36 percent will have had some college training (United States Department of Labor, 1974). Sixth, college women from now on will face a plus and minus market with wide variations in supply and demand relationships. It is estimated that 47,000 history graduates will be seeking 800 jobs, whereas, in accounting, the annual supply averages 21,000 with openings numbering 33,000 (United States Department of Labor, 1971). Seventh, the rate of change in the occupational structure is likely to accelerate in the future. Old traditional jobs may decline rapidly, while new jobs may emerge rapidly. Eighth, the task of destroying occupational stereotypes about women's careers held by students, parents, counselors, and professors is a very large and difficult one. A women's interest in two of the most promising areas, the biological and physical sciences and engineering, remains extremely low although women graduating in these areas have had their choice of jobs.

That talented women are beginning to make more commitments to long term, high level careers other than teaching is shown by recent trends in

professional training. In 1972 the percentage of women enrolled in Law was 12 percent, in Medicine was 13 percent, in Pharmacy was 25 percent, and in Veterninary Medicine was 14 percent (Parrish, 1974). The need to meet the new challenge of preparing women to make accurate, realistic, and rewarding career decisions is urgent. There is real danger that colleges and universities could graduate a rising number of disappointed, disillusioned, unhappy, talented women, not because rewarding career opportunites for them will not exist, but because they are not prepared to make the decisions to pursue them or are unaware of their existence (Parrish, 1974).

Traditional Female Career Expectations And Self-Concepts

Research on female sex-roles and stereotypes is extensive, and this section will encompass only pertinent literature related to the decision-making paradigm. Although traditional ideas on women's roles have been altered in recent years, many cultural myths still exist that appear to have a limiting effect on the female who is being reared in the American culture. Studies indicate that females tend to develop self-concepts, achievement motivation, and aspirations in keeping with role expectations rather than in keeping with their abilities (Cope, 1970). Cross (1971) states that women and minority groups share the problem of diminished self-confidence and that women have been encouraged to think about elementary school teaching rather than college teaching, about typing rather than business management, and about becoming nurses rather than doctors. Although the women's liberation movement has been trying to

change these traditional career expectations, constant reminders of secondary status have resulted in self-concepts that are in accord with cultural expectations and that are difficult to change.

Heiss (1970) has written that mythology is a major way of limiting women in academics through such messages as: "scholarship negates feminity," "certain fields are not suitable for women," or "women are ruled by emotion and men by reason, hence only males are equipped for life in the academy." Similarly, Cohen (1971) has said that the belief that any woman in the United States can, if she wishes, plan, seek out, be trained for, and maintain a career of her choice is fallacious because through admissions and counseling, women are pressured into making certain types of decisions.

Considering all the forces at play in shaping the female college student's perceptions, it is not surprising that many female students have diminished expections of their ability. Studies have shown that women students express less confidence and a lack of definiteness and realism about expectations for adult roles than males (Dickerson, 1974). Females exhibit greater passivity and show lower self estimates than males in the classroom and tend toward underevaluations of their abilities. According to Heist (1963) women learn to think of themselves as less adequate and less important than males. The traditional cultural role outlined for the female has not emphasized strong academic-vocational aspirations.

Apler (1974) in her study of achievement motivation in college women and review of the female achievement motivation literature concludes that

a shortcoming of previous work has been a too rigid adherence, especially in the early studies, to the male model of achievement motivation. In American culture, men are not only expected to achieve, they are also expected to want to do so, whereas women have neither been expected to achieve, nor to want to achieve. It appears that both generalizations may be too broad and that a reversal of attitudes may be taking place with men now less interested in being achievers and women more willing to recognize that achievement may be female appropriate as well as male appropriate.

Schlossberg (1972) discusses the problem of the decision-making process in relation to women. Women's vocational decisions are limited by the restricted areas in which they dream. Research shows that children stereotype occupations by sex (Schlossberg & Goodman, 1972), and this in turn restricts their horizons to certain fields with girls being nurses, teachers, and cooks. Women have been limited in their decision-making possibilities because of societal limitations on their dreaming and because of the difficulties in implementing dreams that include an achievement component. Thus, one of the purposes of the decision-making model is to expand a woman's horizons toward the goal of developing human beings who are free to act in ways that are appropriate to their interests and their values—not their sex.

The Inventory of Feminine Values has been utilized in over 15 years of productive male-female role research with several studies having been conducted. In one study by Steinmann and Fox (1966), the confusion that a woman encounters is suggested in their data in which men are saying to women, "Yes, you are very bright and with this brightness you should do

something," but at the point when the women stir themselves and do "something," the men add "but you can't do that because of the kids." The woman then says to herself, "What does this man want me to do?" (p. 276). In another study (Steinmann, Levi, & Fox, 1964), the data delineate a group of college women who see their own role as equally balanced between active and passive elements, who have an ideal woman somewhat more self-assertive and active, but who think that men want a woman who is extremely passive and who places family responsibilities above her own development and who seeks her satisfaction in her wifely role rather than in her own personal and professional development.

Many authors and professionals are writing prolifically about college females, the importance of decision making, and the necessity for career planning. However, although much is being written, little is being done toward statistically evaluating the decision-making process perhaps due to the complexity of the process itself. One study of career decision making in progress at the American Institutes for Research is attempting a synthesis of theoretical statements and empirical studies in order to gain an understanding of the many influences in the career decision-making process (Mitchell, 1975). Another study (Kroll, Dinklage, Lee, Morley, & Wilson, 1970) underlined the many skills that individuals need in order to move through the various phases of career development. However, these studies do not evaluate decision making as a learned process.

Britton and Elmore (1976) attempt to measure the decision-making process as it relates to leadership in their study utilizing the Leadership and Self-Development Scale with 25 items measuring

assertiveness, risk taking, self-concept, setting goals, decision making, obtaining a followership, conflict resolution, group roles, and evaluation. Although they obtained statistically significant results after a five-day workshop with 25 female sophomores at Southern Illinois University, in which the format was (a) individual and group exercises and discussions on values clarification, risk taking, self-assessment, and conflict resolution; (b) simulation tasks which consisted of problem situations experienced by women on campus and their approach to dealing with the problems; and (c) participation in a team problem-solving obstacle course at SIU's Outdoor Laboratory (series of physical experiences), the study has several limitations: (1) the Leadership and Self-Development Scale has no reliability or validity data included; (2) there is little discussion of the literature pertaining to traditional leadership training; (3) there is no follow-up study which would seem imperative with a five-day workshop; and (4) the study would be difficult to replicate.

Summary of the Literature and Research

The literature on the basic theoretical concepts of decision making is extensive and presents a strong case for considering the decision-making concept as a process rather than an event. Also the importance of decision theory to career decision making has been emphasized. However, most of the studies related to the decision making process have been descriptive rather than empirical, and the importance of utilizing experimental research has been demonstrated. Many theorists of occupational choice literature are dissatisfied with the current

status of occupational research and recognize the need for future research in the area.

The literature related to college-educated females is also extensive and indicates that the new labor market has definite implications for women. Although the women's liberation movement has been trying to change traditional career expectations and self-concepts, many problems still exist regarding female sex-roles and stereotypes.

Perhaps the rapid changes have not allowed adequate time for evaluation or empirical research. Consequently, the present study is felt to be significant in that it (a) attempts to add experimental data concerning the evaluation of teaching the decision-making process; (b) deals with topics in the forefront in current issues; (c) provides data which can be utilized in making policy decisions; and (d) presents research which can be replicated.

CHAPTER III

METHODS AND ANALYSES

Subjects

Data for this study were collected at the University of Tennessee, Knoxville, during Spring Quarter of 1976. Subjects for the study were female volunteers from four undergraduate educational psychology and guidance classes, from an undergraduate Psychology 2540 class (Psychology of the Individual), and from the Oak Ridge community. Students in the educational psychology and guidance classes were recruited through personal contact, and the student volunteers were offered extra credit and free copies of How to Decide for their participation. Male and female volunteers from Psychology 2540 completed the Semantic Differential and the Decision-Making Inventory and received extra credit for pre and post completion of the inventories. Twenty female volunteers from the class were randomly selected to complete the Inventory of Feminine values and were included in the study as the control group. Pre- and posttests of those students not included in the control group were randomly selected for utilization by the raters as practice for rating the Decision-Making Inventory and as a test-retest reliability measure of the adjectives used to evaluate the Semantic Differential concepts. The female subjects in the post-college group were recruited through an article in The Oak Ridger, a local newspaper. Those females who

responded to the article were informed that they would receive free copies of How to Decide.

Twenty undergraduate females volunteered to participate in the college experimental group; 20 undergraduate females volunteered to complete the control group inventories; and 17 females volunteered to participate in the post-college group. One experimental female, undergraduate subject dropped out of the college group after missing three consecutive sessions, but all of the other experimental subjects participated in at least 50 percent of the nine sessions with four sessions being the highest number of sessions missed. Data were collected on the remaining subjects, although four of the experimental subjects and eight of the control subjects had incomplete test data. All subjects with complete test data were included in the analyses. Data were analyzed to determine whether the treatment, i.e., teaching of exercises in How to Decide, had differential effects on responses to measures of goal setting, alternatives generating, risk taking, assertiveness, activeness/passiveness, decision making, and leadership.

Procedure

Women who volunteered to participate in the study were contacted by the researcher and informed that research data would be collected from the groups through the administration of tests at the first and last sessions. They were informed that the anonymity of the subjects would be carefully protected and that a consent form would be needed for their participation in the study (Appendix G). All the females indicated

their willingness to participate under the conditions described and were notified of the time and place of the meetings.

Each of the experimental groups met a total of nine two-hour sessions, two for completing the measures and seven for treatment purposes, over a six-week period. The groups were lead by the investigator.

Each treatment session consisted of completing exercises related to the dependent variables in How to Decide and then discussing the various responses. Two sessions each were devoted to goal setting, alternatives generating, and assertiveness, and one session was devoted to risk taking. Although the investigator suggested that those females who had to miss sessions work the exercises that they had missed, no outside work was given to the participants. Thus, outside work was neither required nor discouraged by the researcher. The females completed two additional forms not previously mentioned: (a) a background information form at the first meeting (Appendix H); and (b) a program evaluation form at the last meeting (Appendix I).

Instruments

The instruments used to measure change were (1) A Semantic Differential; (2) the Inventory of Feminine Values, Forms A, B, and C; (3) the Decision-Making Inventory consisting of four scales developed by the researcher for rating goal setting, alternatives generating, risk taking, and assertiveness; and (4) the Leadership and Self-Development Scale. Each of these instruments was considered to be relevant to the variables being measured.

Semantic Differential

The Semantic Differential developed for this study was designed to assess the subjects' attitudes toward two concepts: decision making and risk taking. Twelve bipolar adjectives of the evaluative dimension, an attitudinal dimension, were selected to evaluate each concept. The order of presentation of each pair of adjectives (first through twelfth) and the presentation of each pole member (e.g., good-bad versus bad-good) were based on Annaratone (1971) who randomly assigned them. With the exception of four bipolar pairs, boring-interesting, friendly-unfriendly, harmful-helpful, and uncooperative-cooperative, all adjective pairs had factor loadings of .75 and above (Osgood, Suci, & Tannenbaum, 1965, p. 37) on the evaluative dimension. Annaratone found statistical significance on these adjectives in a pilot study; in addition, Cowen, Zax, and Laird (1966) obtained statistical significance under concepts similar to Annaratone's.

The raw data of the Semantic Differential consisted of a collection of check-marks on a 7-point scale, a check being made for each bipolar pair of adjectives. Scoring was done by assigning the unfavorable poles a score of "1" and the favorable poles a score of "7" and then summing all evaluative ratings for that concept to obtain an attitude score.

Data concerning validity of the Semantic Differential is reported in two ways. First, as a measure of attitude, "reasonable face validity" (Osgood et al., 1965, p. 93) is claimed. Second, correlations with the Thurstone attitudinal scales and with a Guttman attitudinal scale are reported to be significantly greater than chance. Osgood and associates have noted that whatever the Thurstone and Guttman scales measure,

"...the evaluative scales of the Semantic Differential are measuring the same thing to a considerable degree" (p. 194).

The reliability of the evaluative dimension of the Semantic Differential is given support in two sources: (a) Tannenbaum's (1953) study in which test-retest reliability ranged from .87 to .93 and (b) Thurstone's (1931) study in which test-retest reliabilities ranged from .81 to .93. Also, in this study the test-retest reliabilities ranged from .83 to .91. Thus, sufficient data are available to support the reliability and validity of the evaluative dimension of the Semantic Differential. A copy of the Semantic Differential Booklet including instructions for administration can be found in Appendix A.

Inventory of Feminine Values

The Inventory of Feminine Values (IFV) was used to measure passiveness and activeness of the subjects. The IFV has been found to be a reliable and valid measure of these variables, and it consists of 34 statements, each of which expresses a particular value or value judgment related to a female's activities and satisfactions.

> Seventeen of the 34 items are considered to provide a respondent with the opportunity to delineate a passive woman, that is, a woman who sees her own satisfaction coming second after those of her husband and family, and who sees her family responsibilities as taking precedence over any potential occupational activity. The other 17 items delineate an active woman, one who considers her own satisfactions equally important with those of husband and family and who wishes to have opportunities to realize any latent ability or talent. (Steinmann, Levi, & Fox, 1964, p. 370)

A five-point Likert type scale ranging from "completely agree" to "completely disagree" through the midpoint of "I have no opinion" is utilized to indicate the strength of agreement or disagreement to each

statement. The items are paired so that the score represents the relative strength of agreement to each pair of items. An example of a pair of items is: "A wife's opinion should be as important as the husband's opinion." "If we disagree, I would give in to my husband more often than I would expect him to give in to me." Negative scores between 0 and -68 represent intermediate degrees of the passive, or domestic, intra-family orientation, whereas positive scores between 0 and +68 represent intermediate degrees of the active, self-achieving, extra-family orientation (Steinmann et al. 1964).

The split-half technique was used to determine the IFV's reliability which is estimated at .81 when corrected through the Spearman-Brown procedure. Although the statements which are generally accepted connotations have face validity, they have also been validated by seven judges and counter checked by clinical interviews.

The data reported for the IFV were collected from 15 American cluster samples totaling 1094 women, including undergraduates in public and both moderately and highly expensive private colleges, physicians, lawyers, artists, musicians, nurses, business women, housewives, and Negro professional women. Non-college respondents had all received a high school education. The age range was from the late teens to the seventies, although a majority were under 40.

Three forms of the IFV were utilized in this research. First, respondents were asked to respond to items in terms of how they themselves feel, i.e., their self-perception or self-image (Form A, Appendix B). Second, they were given the same 34 items in scrambled order and asked to respond as they thought their ideal woman would respond (Form B,

Appendix C). The third time, with items again scrambled, they were asked to respond as they thought men would want women to respond, i.e., man's ideal woman (Form C, Appendix D).

Decision-Making Inventory

The Decision-Making Inventory consists of four scales developed for specific use in this research project and designed to measure four aspects of the How to Decide program. The goal-setting scale was designed to measure specificity of stating goals and objectives. All of the scales were rated by three raters, two volunteers and the investigator, who utilized a random selection of Psychology 2540 pre- and posttests as practice for rating. Each of the six objectives were rated as either vague or specific, and scores could range from -6 to +6 with negative numbers indicating vague responses and positive numbers indicating specific responses. The generating alternatives scale was scored by the raters in terms of number of alternatives (those with probable outcomes) counted for each subject. All strategy statements were combined into an alternative statement to which the particular strategies pertained. For example, if the option was to get a job as a teacher, all statements related to getting the particular job, i.e., an interview at Tyson, an interview at Webb, were combined and counted as one option. Also statements related to getting a job, i.e., getting a job as a teacher, getting a job as a counselor, and getting a job as a doctor, were combined into one general category of getting a job. The risk scale was scored by the researcher by utilizing the number that was selected from one to eight in terms of the subject's perception or report of herself as

risky or cautious. The assertiveness scale was rated in terms of whether the statements indicated an active or passive orientation with active responses receiving a score of +1, neutral responses receiving a score of 0, and passive responses receiving a score of -1. Inter-rater-reliability of .95 was achieved by the raters.

Leadership and Self-Development Scale

The Leadership and Self-Development Scale was selected because it reportedly measures the variables included in the How to Decide program. It contains 25 items measuring assertiveness, risk taking, self-concept, setting goals, decision making, obtaining a followership, conflict resolution, group roles, and evaluation. The respondents are directed to respond to statements 1 through 16 using a five-category rating scale from always to never and to statements 15 through 25 using a five-category rating scale from strongly agree to strongly disagree (Britton and Elmore, 1976). Scores may range from 25 to 125 with higher scores indicating more leadership qualities and more liberal feminist attitudes. No reliability and validity data are available on this scale.

Statistical Design and Analyses

The independent variable in this study was the assignment to one of two treatment levels, (1) an all female college group and (2) an all female post-college group, or to an all female control group. Dependent measures used in the analyses were obtained from scores on a Semantic Differential (SD), the Inventory of Feminine Values (IFV), the Decision-

Making Inventory (DMI), and the Leadership and Self-Development Scale (LSDS).

One-way analyses of covariance compared the three treatments with regard to posttest scores on two concepts of the SD, three scales of the IFV, and four scales of the DMI. Only the experimental groups were utilized in the one-way analysis of covariance on the LSDS. The assumptions of random assignment, the covariates' not being affected by the treatment, and the linearity of the within-groups regression assumption were considered to be met. Also the assumption of homogeneity of variance was tested utilizing Cochran's C test and was met. By utilizing pretest scores as the covariates, this design permitted the researcher to control for any initial subject differences that might have existed prior to treatment participation. Since 10 separate dependent variables were investigated, 10 different analyses of covariance, one for each dependent variable, were performed.

Two-tailed t tests for correlated samples were used to test overall pre- and posttest differences within the three groups on all scales except the Leadership and Self-Development Scale which included only the experimental groups. It is possible that between group changes for a given variable that were not detectable in the analysis of covariance design might not have been detected due to equal changes. Such information would be valuable but not detectable by the analysis of covariance. Twenty-nine t tests were performed. The assumptions underlying the use of the t test (Hays, 1963) were considered to have been met. Normality and randomness were met by a) the size of the sample and b) the adjusted means and F values.

The *t* tests and analyses of covariance were programmed and computed by The University of Tennessee Computer Center. The computer programs were "Paired-T" (PRTTT) and "Multivariate Analysis of Variance" (MANOVA). The .05 level of probability was the chosen level for statistical significance.

CHAPTER IV

PRESENTATION OF RESULTS

This chapter describes the results and gives an interpretation of the statistical analyses employed in this study.

Data Analysis and Interpretation

Semantic Differential Analyses

To ascertain whether changes on the Semantic Differential (SD) actually occurred in the three groups, two-tailed *t* tests for significant differences between pre- and posttest means for each group were performed. The pre- and posttest means and standard deviations for scores of the college, post-college, and control groups on the two concepts of the SD are presented in Table 1.

Results of the *t* tests for significance of differences between pre- and posttest means on the SD showed that the college student experimental group changed significantly ($p < .01$) on the decision-making concept and that the post-college treatment group changed significantly ($p < .05$) on the risk-taking concept. Table 2 shows the *t* values for the three groups on the SD concepts.

One-way analyses of covarance compared the three treatments with regard to the posttest scores on the two SD concepts. The analyses of covariance comparing adjusted posttest scores on the SD showed only one significant difference at the .01 level on the decision-making concept.

Table 1

Means and Standard Deviations on the Concepts of the Semantic Differential

Concept/ Testing	College N = 18 $\bar{X}$	SD	Post-College N = 14 $\bar{X}$	SD	Control N = 17 $\bar{X}$	SD
Decision Making						
Pretest	61.22	9.71	57.57	9.31	63.00	13.33
Posttest	66.72	9.67	60.78	5.22	58.82	10.90
Risk Taking						
Pretest	53.28	6.22	53.94	9.30	57.12	10.00
Posttest	59.21	7.92	57.27	11.44	58.70	9.17

Table 2

t Values for Tests of Significance of Differences Between Pre- and Posttest Means on the Semantic Differential

Scale	*t* Value College (df = 17)	Post-College (df = 13)	Control (df = 16)
Decision Making	-3.61**	-1.22	1.99
Risk Taking	-1.61	-2.56*	-0.77

*$p < .05$
**$p < .01$

Table 3 shows the adjusted means and F values for the three groups on the two concepts of the SD. Analyses of covariance summary tables for these two concepts are shown in Appendix J. A multiple comparison test, the Scheffe procedure , indicated that both the college and post-college means differed significantly from the control group mean and that the college group mean differed significantly from the post-college group mean. With unequal size groups, the assumption of homogeneity of within group regression was tested; the .25 level of significance was selected, in accordance with Kirk's (1968) recommendation, and was obtained. Also Cochran's C test was used to test for homogeneity of variance, with the level of significance set at .05, and the assumption of homogeneity of variance was also met.

Inventory of Feminine Values Analyses

To determine whether positive changes on the Inventory of Feminine Values scales occurred in each of the three groups, two-tailed *t* tests for significant differences between pre- and posttest means for each group were performed. Pre- and posttest means and standard deviations for scores of the groups are shown in Table 4.

Results of the *t* tests showed that the college experimental group changed significantly ($p < .05$) on the Self-Image scale of the IFV. The three groups did not change significantly on either the Ideal Woman or Male Ideal Woman scales of the IFV. Table 5 shows the *t* values for all groups on the IFV.

One-way analyses of covariance comparing adjusted posttest scores on the IFV revealed significant differences between the three groups'

Table 3

Adjusted Means and F Values of the Two Concepts of The Semantic Differential

Scale	Adjusted Means College N=18	Post College N=14	Control N=12	F Values Analysis of Co-Variance
Decision Making	66.49	62.59	57.59	7.390**
Risk Taking	57.86	60.21	57.28	0.536

** $p < .01$

Table 4

Means and Standard Deviations for the Three Groups on the Scales of the IFV

Scale / Testing	College N = 18		Post-College N = 14		Control N = 12	
	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD
Self Image						
Pretest	17.55	7.97	15.07	12.26	12.75	7.66
Posttest	21.88	7.93	20.00	9.66	11.75	11.05
Ideal Woman						
Pretest	22.00	16.47	18.00	23.72	18.33	14.28
Posttest	27.28	14.84	26.43	12.61	13.25	15.13
Male Ideal Woman						
Pretest	-21.89	18.08	-13.14	18.53	-10.64	16.48
Posttest	-17.50	24.19	-10.78	24.04	-13.09	16.88

Table 5

t Values for Tests of Significance of Differences Between the Pre- and Posttest Means on the IFV

Scale	*t* Values		
	College (df = 17)	Post-College (df = 13)	Control (df = 11)
Self Image	-2.48*	-2.10	0.30
Ideal Woman	-1.27	-1.24	1.22
Male Ideal Woman	-1.35	0.51	0.40

*$p < .05$

responses on the Self-Image and Ideal Woman scales of this instrument. Adjusted means and F values for scores of all groups on the three scales of the IFV are presented in Table 6. Analyses of covariance summary tables for these three scales are shown in Appendix J. A multiple comparison test, the Scheffe procedure, indicated that the college and post-college group means differed significantly from the control group mean but not from each other on both the Self-Image and Ideal Woman scales of the IFV. Both the assumptions of homogeneity of within group regression ($p < .25$) and homogeneity of variance ($p < .05$) were tested and were met.

Decision-Making Inventory Analyses

To determine whether expected changes on the Decision-Making Inventory, which was designed by the researcher and rated by three independent raters, occurred, two-tailed *t* tests for significant differences between pre- and posttest means for each group were performed. The pre- and posttest means and standard deviations for scores of the college, post-college and control groups on the four scales are presented in Table 7.

Results of the *t* tests for significance of differences between pre- and posttest means showed that the college group changed significantly ($p < .01$) on goal setting, the post-college group changed significantly on alternatives generating ($p < .01$) and goal setting ($p < .05$), and the control group changed significantly ($p < .05$) on goal setting although in a negative direction (Table 8).

Table 6

Adjusted Means and F Values For The
Three Scales of the IFV

Scale	Adjusted Means			F Values
	College N = 18	Post-College N = 14	Control N = 12	Analysis of Co-Variance
Self Image	20.77	20.20	13.18	3.524*
Ideal Woman	26.75	26.82	13.57	4.017*
Male Ideal Woman	-13.38	-12.58	-17.84	0.345

*$p < .05$

Note: On each scale of the IFV, positive scores indicate an active or self-achieving image, negative scores indicate a passive or domestic image.

Table 7

Means and Standard Deviations for the Three Groups on the Decision-Making Inventory

Scale / Testing	College N = 18 $\bar{X}$	College N = 18 SD	Post-College N = 14 $\bar{X}$	Post-College N = 14 SD	Control N = 17 $\bar{X}$	Control N = 17 SD
Alternatives Generating						
Pretest	5.05	2.44	4.93	1.64	4.53	2.43
Posttest	4.67	2.20	6.21	2.05	3.64	2.31
Risky/Cautious						
Pretest	4.72	1.64	4.50	1.74	5.06	1.60
Posttest	4.78	1.77	4.86	1.17	5.06	1.43
Goal Setting						
Pretest	-1.76	4.24	-2.57	3.55	-1.75	4.12
Posttest	2.35	4.01	-0.14	4.18	-1.87	3.82
Assertiveness						
Pretest	0.87	0.35	0.71	0.47	0.88	0.33
Posttest	0.94	0.42	0.78	0.58	0.88	0.33

Table 8

t Values for Tests of Significance Between Pre- And Posttest Means on the Decision-Making Inventory

Scale	t Values College (df = 17)	Post-College (df = 13)	Control (df = 16)
Alternatives Generating	0.68	-3.03**	2.50*
Risky/Cautious	-0.29	-1.16	0.00
Goal Setting	-3.92**	-2.79*	0.14
Assertiveness	-0.36	-0.32	0.00

*$p < .05$

**$p < .01$

One-way analyses of covariance compared the three treatments with regard to the posttest scores on the four scales of the Decision-Making Inventory. The analyses of covariance comparing adjusted posttest scores on the DMI revealed significant differences ($p < .01$) on the alternatives generating and goal setting scales. Adjusted means and F values for scores on all groups on the four scales are presented in Table 9. Analyses of covariance summary tables for these four scales are shown in Appendix J. The Scheffe procedure indicated that the post-college experimental group mean differed significantly ($p < .01$) from the control group mean on the alternatives generating scale and that the college experimental group mean differed significantly from the control group mean on the goal setting scale. Assumptions of equal regression slopes and of homogeneity of variance were not met for the alternatives generating and goal setting scales.

Leadership and Self-Development Scale Analyses

To determine whether expected changes occurred on the Leadership and Self-Development Scale (LSDS), two-tailed *t* tests for significant differences between pre- and posttest means for the college and post-college groups were performed. The control group did not take the LSDS pretest. The pre- and posttest means and standard deviations for scores of both groups are presented in Table 10.

Results of the *t* tests showed that neither group changed significantly on the LSDS. Table 11 shows the *t* values for both groups on the LSDS.

Table 9

Adjusted Means and F Values For The
Four Scales of the Decision-Making Inventory

Scale	Adjusted Means			F Values Analysis of Co-variance
	College N = 18	Post-College N = 14	Control N = 17	
Alternatives Generating	4.54	6.16	3.84	7.17**
Risky/Cautious	4.82	5.06	4.85	0.31
Goal Setting	2.22	0.17	-2.01	6.478**
Assertiveness	0.99	0.80	0.87	0.95

** $p < .01$

Table 10

Means and Standard Deviations for the Experimental Groups on the Leadership and Self-Development Scale

Scale / Testing	College N = 16 $\bar{X}$	College N = 16 SD	Post-College N = 11 $\bar{X}$	Post-College N = 11 SD
Leadership and Self-Development				
Pretest	90.94	7.07	86.36	9.56
Posttest	91.44	7.50	88.27	8.13

Table 11

t Values for Tests of Significance of Differences Between Pre- and Posttest Means on the LSDS

Scale	t Values: College (df = 15)	t Values: Post-College (df = 10)
Leadership and Self-Development	-0.43	-1.03

One-way analysis of covariance comparing adjusted posttest scores on the LSDS revealed no significant differences between the two groups' responses on this instrument. Adjusted means and F values for scores of both groups are presented in Table 12; in addition, an analysis of covariance summary table is shown in Appendix J.

Evaluation Form Analyses

A summary of responses to the post-group evaluation form are presented in Table 13. Results showed:

1. All (32) of the respondents felt positive about what they learned because of the sessions. Sample responses included:

   a. Different approaches to decision-making and more objectivity in making decisions;
   b. More self awareness and self-confidence;
   c. Others have similar problems, feelings of frustration, doubts, as well as hopes for improvement;
   d. Values are clearer;
   e. Better methods of delineating priorities;
   f. Assertiveness strategies;
   g. Social attitudes towards women's roles;
   h. Importance of setting goals and gathering information.

2. All respondents indicated positive responses to handling things better in their lives. Sample responses included:

   a. Personal decisions about human relations;
   b. Personal decisions about futures and careers;
   c. Personal decisions about school, marriage, and family;
   d. Influencing woman's involvement.

3. Thirty-one of 32 respondents indicated that the time they put in was worth what they received from the sessions. The one who responded "no" commented that she felt that too much time was spent on cases about people who were trying to decide whether or not to work and that not enough time was spent on how to find a job. Other responses included:

Table 12

Adjusted Means and F Values for the LSDS

Scale	Adjusted Means		F Values
	College N = 16	Post-College N = 11	Analysis of Co-variance
Leadership and Self-Development	90.06	90.28	0.01

Table 13

Summary of Responses to the Post-Group Evaluation Form

Question	Response Tallies College (N responding = 18)			Post-College (N responding = 14)		
1. What things do you have more knowledge of because of these sessions?	positive 18		negative 0	positive 14		negative 0
2. What things do you think you can handle better in your life because of these sessions?	positive 18		negative 0	positive 14		negative 0
3. Was the time you put in worth what you received from the sessions?	yes 18		no 0	yes 13		no 1
4. How would you evaluate these sessions compared to other courses?	positive 18	neutral 0	negative 0	positive 11	neutral 3	negative 0
5. Do you think that you covered things in these sessions that are not covered elsewhere in school?	yes 18		no 0	yes 14		no 0
6. What improvements do you think can be made in the program?	See responses in Chapter IV.					
7. Would you recommend this program to your friends?	yes 18		no 0	yes 14		no 0

a. Need to spend more time on own between sessions;
b. Received more than the time put into the sessions;
c. Group time much more valuable than reading the book alone;
d. Benefits well outweigh scheduling problems;
e. Really enjoyed getting to meet people with the same insecurities;
f. Two-hour sessions too long to sit still but enjoyed general outline and flexibility;
g. Most sessions were helpful but some were not;
h. Gained more from assertiveness discussions.

4. Twenty-nine respondents gave positive responses when evaluating these sessions compared to other courses, and three gave neutral responses. Sample responses were:

a. More helpful, effective, and useful than other courses;
b. No pressure compared to other courses;
c. Excellent; great;
d. Participate more and was more involved than in other courses;
e. Much more interesting than many courses;
f. More valuable because helps in self-knowledge;
g. More open, honest, and comfortable;
h. More willing to discuss in a short time;
i. More relaxing and insightful;
j. Never had another course that was comparable;
k. Hard to compare something interested in doing with courses that are required to take for graduation.

5. All respondents felt that they covered things in these sessions that are not covered elsewhere in school. Sample responses were:

a. Never had session on decision making or assertiveness;
b. Self-exploration is not usually stressed in school;
c. Never had a course in human relations and problems;
d. Ideas in other courses are skimmed over, if anything;
e. Most courses don't take time;
f. Never had a course that dealt with women this specifically before;
g. Course was more realistic than school courses;
h. In mixed classes girls may not speak as openly;
i. These sessions had a very personal atmosphere that could not be had in many classes;
j. These things should be covered in psychology and sociology; have had both but learned more in these sessions.

6. Sample responses to the question asking for improvements in the program were:

a. Sticking more to the topics and more complete answers to questions in the guide;
b. Encouraging more between sessions work in the book to allow more personal involvement;
c. Role playing assertiveness strategies;
d. Homework and practice;
e. Might be more valuable if spread over a longer time period;
f. More sessions, and more sessions with shorter time;
g. Offer it to younger students during their high school years;
h. Discussions were interesting but did not particularly care for the guide;
i. Get credit hours for it;
j. Examples in the book sometimes seemed repetitious;
k. A speaker on women's rights;
l. Need to move a bit slower—too much at once causes a culture shock.

7. All respondents indicated that they would recommend this program to their friends. Sample responses included:

a. It could help a lot of women;
b. This helpful information needs to be more available;
c. It was time well spent.

Summary

This chapter has presented the results and analyses of the Semantic Differential, the Inventory of Feminine Values, the Decision-Making Inventory, the Leadership and Self-Development Scale, and the Post-Group Evaluation Form. Ten analyses of covariance yielded five significant treatment differences. One significant difference favored the post-college experimental group who made significantly higher mean scores on the Semantic Differential concept of decision making than the college treatment or control groups. The college experimental group also made significantly higher mean scores on the SD decision-making concept than

the control group. Both experimental groups made significantly higher mean scores on the Self-Image and Ideal Woman scales of the IFV. The other differences occurred on the Decision-Making Inventory with the experimental post-college group receiving a significantly greater ($p < .01$) mean score than the control group on the alternatives generating scale and the college experimental group receiving a significantly greater mean score ($p < .01$) on the goal setting scale. The treatment had differential effects on the experimental groups on these variables.

The 29 two-tailed correlated *t* analyses of the pre- post changes within each group of subjects produced seven significant differences, six which were consistent with the analyses of covariance findings. The other came from the post-college treatment group who achieved significantly higher posttest scores on the risk taking concept of the Semantic Differential.

The post-group evaluation forms indicated that all of the respondents were positive about the sessions and would recommend a similar program to their friends. Only two negative comments were made about the How to Decide program on the evaluation forms.

CHAPTER V

FINDINGS AND DISCUSSION, CONCLUSIONS, RECOMMENDATIONS, PROBLEMS FOR FURTHER STUDY

Findings and Discussion

The seven null hypotheses of this study are presented and discussed as follows:

Hypothesis I

Hypothesis I indicated that the three groups of females would not differ significantly on attitude toward the concept of decision making as measured by a Semantic Differential. This hypothesis was rejected since significant differences were obtained on both the t tests and analysis of covariance. The t tests yielded significant differences for the college group but not the post-college group. The analysis of covariance yielded a significant F value ($F = 7.390$, df 2,45 $p < .01$), with a multiple comparison test, the Scheffe procedure, indicating that the means of both experimental groups were higher than the control group and the mean of the college group was higher than the post-college group. The treatment accounted for 52.7 percent of the variance in the posttest (see Appendix K). These findings suggest that the How to Decide program deals effectively with influencing a more positive evaluation of the decision-making concept. The guide as a total program stresses decision making as a positive process, and thus in actuality, 14 hours

were spent on this concept. Thus, it is not surprising that the females evaluated decision making more positively following the program.

Hypothesis II

Hypothesis II indicated that the three groups of females would not differ significantly on two measures of risk taking:

(A) Attitude toward the concept of risk taking as measured by a Semantic Differential.

The analysis of covariance did not yield a significant F value on this variable. However, a t test indicated a significant difference between pre- and posttest means for the post-college experimental group on the risk-taking concept of the Semantic Differential. Thus, although Part A could not be rejected, the post-college group evaluated risk taking more positively from pre- to post-treatment. The treatment accounted for 32.9 percent (see Appendix K) of the variance.

(b) Self report of riskiness and cautiousness as measured on an eight-point scale.

The risky/cautious scale of the Decision-Making Inventory neglected to yield a significant F value or t test, and, thus, Part B of Hypothesis III could not be rejected.

Hypothesis III

Hypothesis III indicated that the three groups of females would not differ significantly on activeness or passiveness as measured by responses on the scales of the Inventory of Feminine Values:

(A) Self Image—This scale yielded a significantly high F value ($F = 3.524$, df 2,40 $p < .05$), on the analysis of covariance, and

41.2 percent (see Appendix K) of the variance of the posttest means was accounted for by the treatment. The treatment accounted for the change to a more self-achieving or active self image of both the college and post-college groups who differed significantly from the control group but not from each other. The t tests showed significant mean differences on the Self Image scale for both experimental groups. Thus, Part A of this hypothesis was rejected.

The findings suggest that the How to Decide program deals adequately with women becoming more active and extra-family oriented. All of the examples deal with career oriented or achievement oriented women who have successfully achieved in the world of work or who have successfully combined a career and marriage. Thus, although freedom to decide for oneself is a goal of the decision-making program, the guide stresses an achievement component and emphasizes the working female. The variance of the pretest means was much higher for the post-college group than the college group. This might possibly be attributed to an age or work experience difference in the two groups.

(B) Ideal Woman—This scale yielded a significantly high F value, ($F = 4.017$, df 2,40 $p < .01$), on the analysis of covariance, and 24 percent (see Appendix K) of the variance was accounted for by the treatment. Thus, the treatment had a minor effect on the change to a more self-achieving or active ideal woman of both the college and post-college groups who differed significantly from the control group but not from each other. The t tests did not yield significant mean differences on the Ideal Woman scale. Thus, the adjusted means were critical for

getting significant differences on this scale and for rejecting Part B of this hypothesis.

The findings suggest the same as the Self-Image Scale—that the ideal woman is an active, achievement oriented female, and also that How to Decide deals effectively in teaching volunteer or interested females an active orientation. This might be due to the types of females who volunteered to participate in the study or to the possibility that the college population has become more extra-family oriented. Pretest means for all groups were positive on both the Self Image and Ideal Woman scales.

(C) Male Ideal Woman—This scale did not yield a significantly high F value, or t, and, thus, Part C could not be rejected. Although a change was not expected on this scale, significance might be achieved by including males in one of the groups. How to Decide is self oriented and does not actually deal with male's perception of a female.

Hypothesis IV

Hypothesis IV indicated that the three groups of females would not differ significantly on ability to generate possible alternatives or options (i.e., those with probable outcomes) as measured by an inventory, the Decision-Making Inventory, designed by the investigator for this research, rated by three independent raters, and administered pre- and posttreatment. Both the t tests and the analysis of covariance yielded significant differences on the alternatives generating variable. The post-college experimental group yielded a significantly higher posttest mean, whereas the control group yielded a significantly lower posttest

mean. The treatment was responsible for 51 percent (see Appendix K) of the differential effects on the experimental group.

The analysis of covariance yielded a significantly high F value ($F = 7.9$, df 2,45, $p < .01$), on this variable, and the findings suggest that the How to Decide program might deal more specifically with this aspect of the decision-making process or that this aspect was stressed more during the group sessions. Utilizing a multiple comparison test, the Scheffe procedure, at the .05 level of significance to determine which means were significantly different from each other, results indicated that the post-college experimental group mean was significantly greater than the control group mean. Thus, this null hypothesis was rejected.

The opposite situation from the goal setting concept existed for the alternatives generating variable. The post-college experimental group yielded significance ($p < .01$) whereas the college group did not. Again the leader might have been able to communicate the concept better to the post-college group, or once they understood the concept, the post-college group might have been able to identify more alternatives based on their having had more work experience than the college group.

Hypothesis V

Hypothesis V indicated that the three groups of females would not differ significantly on the ability to specifically state goals and objectives as measured by an inventory, the Decision-Making Inventory, designed by the investigator for this research, rated by three independent raters, and administered pre- and post-treatment. Both the

t tests and the analysis of covariance yielded significant differences on the goal setting variable. The *t* tests yielded significance for both the college ($p < .01$) and post-college ($p < .05$) experimental groups.

The analysis of covariance yielded a significantly high F value ($F = 6.478$, df 2,43, $p < .01$), on the goal-setting variable. The Scheffe procedure (a conservative post hoc, multiple comparison test) was used to determine which means were significantly different from each other, and results indicated that the college treatment group mean was significantly greater than the control group mean. The treatment was responsible for 42.6 percent (see Appendix K) of the differential effects on the experimental groups. Thus, this null hypothesis was rejected.

Four hours were devoted to this aspect of the *How to Decide* program. The findings suggest that the goal setting activities in the guide might be adequate for teaching female college and post-college volunteers how to specifically state goals and objectives. The college treatment group was the only group achieving a significance utilizing the Scheffe procedure, and this result might be due to the students' being more acclimated to an academic setting or to the leader's ability to communicate information to the students better than to the post-college group. This aspect was the first to be covered by the groups and a majority of the post-college females had not been in college for at least five years. Thus, more time could be spent in teaching the goal setting concept to females who have not been in a college setting for a period of time.

Hypothesis VI

Hypothesis VI indicated that the three groups of females would not differ significantly on assertiveness as measured by an inventory, the Decision-Making Inventory, designed by the investigator for this research, rated by three independent raters, and administered pre- and post-treatment. The assertiveness scale of the DMI neglected to yield a significant F value on the analysis of covariance or a significant *t*, and, thus, this hypothesis could not be rejected for the assertiveness variable. Although four hours were devoted to this aspect of the program, more time might be needed to yield significance on this measure. Some assertiveness training courses encompass 20 hours or more of activities which include role playing and films. Also the scores indicated that females may have already been assertive prior to their participation in the group. The pre-test scores indicated that the females were already assertive. Also expressions of assertiveness or willingness to take action might not be indicative of actual behaviors that would be taken in such an incidence. Thus, a behavioral test or a social desirability scale might be utilized in future research on the assertiveness measure.

Hypothesis VII

Hypothesis VII indicated that the two experimental groups of females would not differ significantly on attitude toward leadership as measured by the Leadership and Self-Development Scale. This hypothesis could not be rejected for this variable since neither the *t* test nor the analysis of covariance yielded significance. The findings suggest that the How

to Decide program does not deal specifically with leadership ability. Thus although similar processes are involved in leadership and decision making, a difference apparently exists between the two skills.

Conclusions

This study began as an attempt to evaluate the effectiveness of teaching a decision-making process to two groups of females, college and post-college. Because little information or research was available concerning the effectiveness of teaching decision-making programs, it was anticipated that the present study could provide empirical evidence on the comparative effects of utilizing a program with two different groups of females.

Significant results were observed in several instances. T tests indicated significant differences between pre- and posttest means for the college experimental group on the decision-making concept of the Semantic Differential, on the Self Image scale of the Inventory of Feminine Values, and on the goal setting scale of the Decision-Making Inventory. Also significant t's were observed for the post-college group on the risk-taking concept of the Semantic Differential, on the Self Image scale of the Inventory of Feminine Values, and on two scales, alternatives generating and goal setting, of the Decision-Making Inventory. The control group achieved one significant t ($p < .05$) on the alternatives generating scale of the Decision-Making Inventory, but on examining the pre- and posttest means, it was noted that the change was in a negative direction. This change might have occurred because the control group completed the inventories during final exam week.

The analysis of covariance yielded a total of five significant differences, and, therefore, resulted in the rejection of five null hypotheses. The college and post-college groups differed significantly from the control group and from each other on the decision-making concept of the Semantic Differential. Also both experimental groups differed significantly from the control group on two scales, Self Image and Ideal Woman, of the Inventory of Feminine Values but not from each other. Thus, these findings are felt to be notable findings—this study provided empirical data that favored utilizing How to Decide in both college and community settings.

The major conclusions of the study were 1) female participants changed in a positive direction on variables measuring attitude toward decision making and risk taking, ability to generate alternatives and specifically state goals, and on activeness, 2) the treatment had differential effects on the experimental subjects in both the college and post-college groups, and 3) How to Decide is effective in teaching college volunteers and post-college females a process of career decision making.

Recommendations

From this study a number of recommendations related to teaching decision making seem to be in order. Since five null hypotheses were rejected, the treatment definitely was significant for the volunteer female participants. Thus, it would seem appropriate to offer How to Decide to interested females in both college and community settings.

Both experimental groups changed significantly on attitude toward decision making. This was not surprising in that the How to Decide guide stresses decision making as a positive process. Since the outcome of a decision is not stressed in the How to Decide process, it might be more realistic to include exercises which utilize the decision-making process but lead to an unsatisfactory outcome. Thus, the opportunity to reevaluate the alternatives would then exist.

Two scales of the Inventory of Feminine Values, the Self Image and Ideal Woman, yielded significant results for both experimental groups. The variance of the post-college group mean was much higher than the college group mean on the pretest of the Self Image scale. This difference might be attributed to an age or work experience factor since the post-college females had an age range of 28 years and all had work experience, whereas the college females had an age range of three years and little work experience.

Although the post-college experimental group change significantly ($p < .05$) on a t test measuring pre and posttest differences, the risk-taking hypothesis could not be rejected. Only two hours of the total 14 hours of treatment were devoted to the risk-taking aspect of the program. Thus, it is recommended that more time be spent on this dimension in future studies related to teaching decision making. One possibility for lack of significance might be that the study of risk-taking could actually lead to less willingness to take risks. By examining the risks, a person could become more cautious.

The goal setting scale yielded significance for both experimental groups ($p < .01$-college; $p < .05$- post-college on the t tests and for the

college ($p < .01$) experimental group on the analysis of covariance. This aspect was the first one covered in the groups, and thus, it is recommended that more time be devoted to the goal setting concept with women who have been out of an academic environment for a period of time. The post-college females might need to have a longer introduction to the program with more emphasis on the initial aspect.

The alternatives generating scale yielded significance for the post-college group on the analysis of covariance, but not for the college experimental group. Thus, it is recommended that more time be spent on the concept with college females who are participating in a similar program. The t value on this scale was also significant ($p < .05$) for the control group, but the posttest group mean was significantly lower than the pretest group mean. The posttest was administered during final exam week, and the students might have hurriedly completed the inventories.

Significant results were not observed on the assertiveness measure. The pretest means were high for all three groups on this variable, and thus, little change was possible. Utilization of other types of assertiveness measures, such as a behavioral test, or of a social desirability scale might be effective in achieving significant results. In addition, only four hours were spent on assertiveness, and more time on this concept might be needed. Some assertiveness programs encompass 20 hours or more and emphasize role playing and films. Thus, a recommendation would be to combine How to Decide with supplementary materials, i.e. films and video tapes; activities, i.e. role playing and debating; and speakers.

Another recommendation is that the Leadership and Self-Development Scale be replaced by another inventory in a future study involving the teaching of decision making. This scale did not have reliability or validity data available and did not yield significance due perhaps to different skills being required in the teaching of leadership ability.

The leader of any group has an effect on the motivation of the group, and the leader definitely influenced the effectiveness of the program in this study. Thus, it is recommended that the leader be interested in the program and also trained to teach the exercises in How to Decide or a similar program. The training might include participation in a similar program or in a workshop on teaching decision making.

Problems For Further Study

A number of possibilities for further investigation have been raised during the course of this investigation:

1. The present study utilized college and post-college females. What would be the result of this treatment with high school females? What would be the result of a similar treatment with males? Would the treatment have a greater impact if only freshman or only sophomores were utilized?

2. The present study yielded significant data over a four-week treatment period. What would be the result of increasing or decreasing the number of sessions? Would a workshop approach be an effective method for teaching a decision-making program?

3. In evaluating the Semantic Differential, the present study employed only "evaluative" or attitudinal adjectives. Further

investigations might also employ "activity" or "potency" adjectives or the measurement of changes in meaning rather than merely changes in attitudes.

4. In evaluating the Inventory of Feminine Values, the Male Ideal Woman scale yielded non-significant results. Would including males in the groups be effective in increasing the possibility of gaining significance on this scale?

Summary

This chapter has presented a discussion of the hypotheses and findings; conclusions; recommendations; and problems for further study. This study was felt to be significant in that five of the 10 null hypotheses were rejected. This research has presented one of the most empirical and controlled investigations of the decision making process and should provide support for future experimental research in this area. This study has succeeded in providing data which can be utilized in making policy decision, has dealt with topics in the forefront in current issues, and has presented a program which can be replicated in future research.

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APPENDIXES

APPENDIX A

SEMANTIC DIFFERENTIAL BOOKLET

INSTRUCTIONS:

The purpose of these rating scales is to measure the meanings of certain concepts (things or people) to you by having you judge them against a series of descriptive scales. In completing these rating scales, please make your judgment on the basis of what these concepts (things or people) mean to you. At the top of each of the following pages you find a different concept to be judged and beneath it a set of scales. You are to rate the concept (thing or person) on each of these scales in order.

Here is how you are to use these scales:

If you feel that the concept at the top of the page is very closely related to one end of the scale, you should place your check-mark as follows:

fair : X : : : : : : unfair

fair : : : : : : X : unfair

If you feel that the concept is quite closely related to one or the other end of the scale (but not extremely), you should place your check-mark as follows:

strong : : X : : : : : weak

strong : : : : : X : : weak

If the concept seems only slightly related to one side as opposed to the other side (but not really neutral), then you should check as follows:

active : : X : : : : : passive

active : : : : X : : : passive

The direction toward which you check, of course, depends upon which of the two ends of the scale seem most characteristic of the things you're judging.

If you consider the concept to be neutral on the scale, both sides of the scale equally associated with the concept, or if the scale is completely

irrelevant, unrelated to the concept, then you should place your check-mark in the middle space:

safe :_____:_____:_____: X :_____:_____:_____: dangerous

IMPORTANT: (1) Place your check-marks in the middle of the spaces, not on the boundaries:

This Not This

:_____: X :_____:_____:_____:_____X_____:

(2) Be sure you check every scale for every concept—do not omit any.

(3) Never put more than one check-mark on a single scale.

Sometimes you may feel as though you've had the same item before on the test. This will not be the case, so do not look back and forth through the items. Do not try to try to remember how you checked similar items earlier in the test. Make each item a separate and independent judgment. Work at fairly high speed. Do not worry or puzzle over individual items. It is your first impressions, the immediate feelings about the items, that we want. On the other hand, please do not be careless, because we want your true impressions.

DECISION MAKING

Valuable	:	:	:	:	:	:	:	:Worthless
Pleasant	:	:	:	:	:	:	:	:Unpleasant
Sad	:	:	:	:	:	:	:	:Happy
Beautiful	:	:	:	:	:	:	:	:Ugly
Unfair	:	:	:	:	:	:	:	:Fair
Bad	:	:	:	:	:	:	:	:Good
Kind	:	:	:	:	:	:	:	:Cruel
Nice	:	:	:	:	:	:	:	:Awful
Boring	:	:	:	:	:	:	:	:Interesting
Friendly	:	:	:	:	:	:	:	:Unfriendly
Harmful	:	:	:	:	:	:	:	:Helpful
Uncooperative	:	:	:	:	:	:	:	:Cooperative

RISK TAKING

Valuable	:	:	:	:	:	:	:	:Worthless
Pleasant	:	:	:	:	:	:	:	:Unpleasant
Sad	:	:	:	:	:	:	:	:Happy
Beautiful	:	:	:	:	:	:	:	:Ugly
Unfair	:	:	:	:	:	:	:	:Fair
Bad	:	:	:	:	:	:	:	:Good
Kind	:	:	:	:	:	:	:	:Cruel
Nice	:	:	:	:	:	:	:	:Awful
Boring	:	:	:	:	:	:	:	:Interesting
Friendly	:	:	:	:	:	:	:	:Unfriendly
Harmful	:	:	:	:	:	:	:	:Helpful
Uncooperative:		:	:	:	:	:	:	:Cooperative

APPENDIX B

FR - FORM A

Please read the instructions at the top of each page carefully. You are asked to indicate your opinion on each item by writing a number from 1 to 5 in the space to the left of the item, using the following scale:

STRONGLY AGREE -1 AGREE -2 NO OPINION/DON'T KNOW -3 DISAGREE -4 STRONGLY DISAGREE -5

PLEASE RESPOND TO THESE STATEMENTS WITH YOUR TRUE OPINION. KEEP IN MIND THE WAY YOU REALLY ARE.

_____ 1. An ambitious and responsible husband does not like his wife to work.
_____ 2. I usually pay no attention to other people's feelings.
_____ 3. A woman who works cannot possibly be as good a mother as the one who stays home.
_____ 4. I would like to do something that everybody knows is important.
_____ 5. I try to do what I think people want me to do.
_____ 6. A woman has a conflict in what she has to do as a woman and what she wishes to do for herself.
_____ 7. A woman should get married even if the man does not measure up to all her hopes.
_____ 8. I sometimes feel that I must do everything myself, that I can accept nothing from others.
_____ 9. The needs of a family come before a woman's personal ambitions.
_____10. I am not sure that the joys of motherhood make up for the sacrifices.
_____11. I like listening to people better than talking.
_____12. I argue with people who try to give me orders.
_____13. Marriage and children should come first in a woman's life.
_____14. When I am with a group of people, I usually become the leader.
_____15. I worry about what people think of me.
_____16. I express my ideas strongly.
_____17. Single women need personal success, but all a married woman needs is her husband's success.
_____18. I would not get married if I had to give up what I really believe in order to get along with another person.
_____19. It is up to the woman to make a marriage work.
_____20. A working mother can get along as well with her children as can a mother who stays at home.
_____21. The greatest help a wife can give her husband is to encourage his progress.

_____22. It is unfair that women have to give up more than men in order to have a good marriage.
_____23. I can put myself in the background and work hard for a person I admire.
_____24. A wife's opinion should be as important as the husband's opinion.
_____25. My main interest is to raise normal, well-behaved children.
_____26. How I develop as a person is more important to me than what others think of me.
_____27. If we disagree, I would give in to my husband more often than I would expect him to give in to me.
_____28. The greatest satisfactions in life come from what you do yourself.
_____29. I would like to marry a man to whom I could really look up.
_____30. A woman should have interests outside the home.
_____31. I am sure that what a woman gains from marriage makes up for sacrifices.
_____32. Modern mothers should bring up their boys and girls to believe in absolute equal rights and freedoms for both sexes.
_____33. A woman's place is in the home.
_____34. I would rather be famous, admired and popular throughout the nation than have the constant affection of just one man.

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APPENDIX C

FR - FORM B

Please read the instructions at the top of each page carefully. You are asked to indicate your opinion on each item by writing a number from 1 to 5 in the space to the left of the item, using the following scale:

STRONGLY AGREE -1 AGREE -2 NO OPINION/DON'T KNOW -3 DISAGREE -4 STRONGLY DISAGREE -5

THINK OF YOUR IDEAL WOMAN AND RESPOND TO EACH STATEMENT OF THIS FORM AS YOU BELIEVE SHE WOULD.

_____35. I worry about what people think of me.
_____36. A wife's opinion should be as important as the husband's opinion.
_____37. A woman's place is in the home.
_____38. I am not sure that the joys of motherhood make up for the sacrifices.
_____39. The greatest help a wife can give her husband is to encourage his progress.
_____40. A woman should have interests outside the home.
_____41. My main interest is to raise normal, well-behaved children.
_____42. I argue with people who try to give me orders.
_____43. Single women need personal success, but all a married woman needs is her husband's success.
_____44. It is unfair that women have to give up more than men in order to have a good marriage.
_____45. I can put myself in the background and work hard for a person I admire.
_____46. I would like to do something that everybody knows is important.
_____47. It is up to the woman to make a marriage work.
_____48. A woman has a conflict in what she has to do as a woman and what she wishes to do for herself.
_____49. I try to do what I think people want me to do.
_____50. I sometimes feel that I must do everything myself, that I can accept nothing from others.
_____51. A woman should get married even if the man does not measure up to all her hopes.
_____52. I express my ideas strongly.
_____53. The needs of a family come before a woman's personal ambitions.
_____54. When I am with a group of people, I usually become the leader.
_____55. I like listening to people better than talking.
_____56. Modern mothers should bring up their boys and girls to believe in absolute equal rights and freedoms for both sexes.

_____57. If we disagree, I would give in to my husband more often than I would expect him to give in to me.
_____58. The greatest satisfactions in life come from what you do yourself.
_____59. Marriage and children should come first in a woman's life.
_____60. I usually pay no attention to other people's feelings.
_____61. I would like to marry a man to whom I could really look up.
_____62. A working mother can get along as well with her child as can a mother who stays at home.
_____63. I am sure that what a woman gains from a marriage makes up for sacrifices.
_____64. I would rather be famous, admired and popular throughout the nation than have the constant affection of just one man.
_____65. A woman who works cannot possibly be as good a mother as the one who stays home.
_____66. How I develop as a person is more important to me than what others think of me.
_____67. An ambitious and responsible husband does not want his wife to work.
_____68. I would not get married if I had to give up what I really believe in to get along with another person.

Did you have a specific woman in mind when you answered this? YES___
NO ___

If so, how related to you?_____

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APPENDIX D

FR - FORM C

Please read the instructions at the top of each page carefully. You are asked to indicate your opinion on each item by writing a number from 1 to 5 in the space to the left of the item, using the following scale:

STRONGLY AGREE -1 AGREE -2 NO OPINION/DON'T KNOW -3 DISAGREE -4 STRONGLY DISAGREE -5

THINK OF MAN'S IDEAL WOMAN AND RESPOND TO EACH STATEMENT ON THIS FORM AS YOU THINK MAN'S IDEAL WOMAN WOULD.

_____69. I express my ideas strongly.
_____70. I try to do what I think people want me to do.
_____71. I sometimes feel that I must do everything myself, that I can accept nothing from others.
_____72. I can put myself in the background and work hard for a person I admire.
_____73. The greatest satisfactions in life come from what you do yourself.
_____74. Single women need personal success, but all a married woman needs is her husband's success.
_____75. It is unfair that women have to give up more than men in order to have a good marriage.
_____76. The greatest help a wife can give her husband is to encourage his progress.
_____77. How I develop as a person is more important to me than what others think of me.
_____78. My main interest is to raise normal, well-behaved children.
_____79. I am not sure that the joys of motherhood make up for the sacrifices.
_____80. If we disagree, I would give in to my husband more often than I would expect him to give in to me.
_____81. A woman should have interests outside the home.
_____82. A woman who works cannot possibly be as good a mother as the one who stays home.
_____83. When I am with a group of people, I usually become the leader.
_____84. I would like to marry a man to whom I could really look up.
_____85. Modern mothers should bring up their boys and girls to believe in absolute equal rights and freedoms for both sexes.
_____86. A woman's place is in the home.
_____87. A working mother can get along as well with her children as can a mother who stays at home.
_____88. It is up to the woman to make a marriage work.

_____89. I would rather be famous, admired and popular throughout the nation than have the constant affection of just one man.
_____90. An ambitious husband does not like his wife to work.
_____91. I usually pay no attention to other people's feelings.
_____92. I am sure that what a woman gains from a marriage makes up for sacrifices.
_____93. I argue with people who try to give me orders.
_____94. The needs of a family come before a woman's personal ambitions.
_____95. I would not get married if I had to give up what I really believe in to get along with another person.
_____96. I like listening to people better than talking.
_____97. I would like to do something everybody knows is important.
_____98. A woman should get married even if the man does not measure up to all her hopes.
_____99. A woman has a conflict in what she has to do as a woman and what she wishes to do for herself.
_____100. Marriage and children should come first in a woman's life.
_____101. A wife's opinion should be as important as the husband's opinion.
_____102. I worry about what people think of me.

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APPENDIX E

DECISION-MAKING INVENTORY

Goal Setting

Imagine that you must decide on a career. First, from the following list of common work values, select three that pertain to you. From them, determine three long-term goals for yourself. Then, decide on three short-term objectives that will help you reach your long-term goals.

Values: Interest; Independence; Self-Expression; Service; Leadership; Reward; Achievement; Recognition; Variety; Security.

Values:
1.
2.
3.

Long-term goals:
1.
2.
3.

Short-term objectives:
1.
2.
3.

Alternatives generating

Mary is a sophomore at a university. She must make some decisions pertaining to her life and her future. What are her alternatives? List as many as you can. Use the back of this sheet if you wish.

Risk taking

Describe your risk-taking tendencies by circling the number which best describes you.

Safe Sally 1 2 3 4 5 6 7 8 Risky Rae

Safe Sally never takes a chance.
Risky Rae is always taking chances.

Assertiveness

You apply for an executive training program in retail sales. You are accepted, but the salary offered you is less than that of a comparable trainee who is a man. What are your rights? What action would you take?

APPENDIX F

LEADERSHIP AND SELF-DEVELOPMENT SCALE

Name _____

Part I:
Indicate how likely you are to do the following statements. Please use the scale below.

Always 5; Almost always 4; Sometimes 3; Hardly ever 2; Never 1

_____how likely are you to suggest a new idea
_____how likely are you to take responsibility for a specific project
_____how likely are you to carry the project to completion if the group is not willing to help you on a particular project but is willing to support you if you take it on yourself
_____how likely are you to ignore personality conflicts
_____how likely are you to set deadlines
_____how likely are you to try out something you've never done before
_____how likely are you to understand the relationship consistency between a certain project and the group's goals
_____how likely are you to delegate authority to other group members in order to get the job done, when you yourself have assumed responsibility for that particular project
_____how likely are you to compromise your feelings when the group feels the opposite, even if you feel that you are in the right
_____how likely are you to argue an idea's merits
_____how likely are you to keep deadlines
_____how likely are you to say no to a reasonable request someone has made of you
_____how likely are you to object to an idea even though the group seems to feel the opposite
_____how likely are you to assume a leadership role, even if you are not the designated leader of the group
_____how likely are you to itemize a schedule of duties for a group
_____how likely are you to "think a decision out" before making it

Part II:
Indicate your agreement with the following statements. Please use the scale below.

Strongly agree 5; Agree 4; Neutral 3; Disagree 2; Strongly disagree 1

_____I would rate myself very highly in terms of leadership ability.
_____It is important to know the specific purposes of a group.

_____Group commitment is important to decision making.
_____A good leader delegates more duties than she herself assumes.
_____I feel confident in a leadership role.
_____Most effective groups consist of one leader and a number of hard working members.
_____It is necessary for me to take into account all points of view of a particular problem even if some of the points seem completely out of focus with my group's goals.
_____It makes for a better group if each individual assumes a certain amount of responsibility in order to get the job done.
_____It is important for me to know whether or not the group is accomplishing its objectives (even though I have achieved positive results).

APPENDIX G

PARTICIPANT CONSENT FORM

Dear Participant:

I would like to request your participation in a research study that I am conducting for my doctoral dissertation.

The study is to be submitted in partial fulfillment of the requirements for the degree of Doctor of Education. As a researcher, I will be supervised by professors in the Department of Educational Psychology and Guidance at the University of Tennessee.

In this study I will evaluate the effectiveness of How to Decide: A Guide for Women in teaching career decision-making skills to college and post-college females. First, inventories on objectives, alternatives, risk taking, and assertiveness will be completed. You will then participate in 8 2-hour sessions in which the guide will be used. At the end of 4 weeks, the inventories will be completed again.

All information collected will be confidential. That which will be printed in the dissertation will not identify anyone by name. Results of the study will be available upon request, and you, as a subject, have the right to inquire about procedures.

Barbara Lane Fox

If you agree to participate in this study, please complete the bottom portion of this form.

I understand the methods of the study, and I agree to participate.

I reserve the right to withdraw my consent at any time.

Signature of student or participant: _____

_____ Date: _____

APPENDIX H

BACKGROUND INFORMATION

Name _____

Address _____

Phone—School _____ home _____

Age _____

College(s) or University(ies) Attended _____
Write degrees and majors also.

_____

_____

_____

Work Experience _____
Length and Description

_____

_____

_____

_____

What you would like to learn in the sessions _____

_____

All information will be kept confidential and will be utilized solely for this research project on decision making. The results of the study will be published without names or identifying information of participants and will be available to those interested in seeing them.

APPENDIX I

EVALUATION OF THE PROGRAM

Please state what you think you learned in the decision-making sessions and whether or not you think that they were of value to you.

1. What things do you have more knowledge of because of these sessions? (examples: values, people's approaches to decision-making, assertiveness, etc.)

2. What things do you think you can handle better in your life because of the sessions? (examples: personal decision about jobs, marriage, human relations).

3. Was the time you put in worth what you received from the sessions? _____Yes _____No. Please explain your answer.

4. How would you evaluate these sessions compared to other courses?

5. Do you think that you covered things in these sessions that are not covered elsewhere in school? _____Yes _____No. Explain.

6. What improvements do you think can be made in the program?

7. Would you recommend this program to your friends? _____Yes _____No. Please explain your answer.

APPENDIX J

ANALYSIS OF COVARIANCE SUMMARY TABLES

Table 14

The Decision-Making Concept of
The Semantic Differential

Source	df	SS'	MS'	F
Treatment	2	689.073	344.536	7.390*
Error	45	2097.900	46.620	
Total	47	2786.973		

*Significant at the .01 level of confidence.

Table 15

The Risk-Taking Concept of
The Semantic Differential

Source	df	SS'	MS'	F
Treatment	2	70.601	35.301	0.536
Error	45	2965.779	65.993	
Total	47	3036.380		

Table 16

The Self Image Scale of the Inventory
Of Feminine Values

Source	df	SS'	MS'	F
Treatment	2	456.777	228.389	3.524*
Error	40	2592.237	64.806	
Total	42	3049.014		

*Significant at the .05 level of confidence.

Table 17

The Ideal Woman Scale of the Inventory
Of Feminine Values

Source	df	SS'	MS'	F
Treatment	2	1520.054	760.027	4.017*
Error	40	7568.906	189.223	
Total	42	9088.960		

*Significant at the .05 level of confidence.

Table 18

The Male Ideal Woman Scale of the
Inventory of Feminine Values

Source	df	SS'	MS'	F
Treatment	2	193.211	96.605	0.345
Error	39	10905.461	279.627	
Total	41	11098.672		

Table 19

The Alternatives Generating Scale of
The Decision-Making Inventory

Source	df	SS'	MS'	F
Treatment	2	42.600	21.300	7.168**
Error	45	133.715	2.971	
Total	47	176.315		

**Significant at the .01 level of confidence.

Table 20

The Risky/Cautious Scale of The
Decision-Making Inventory

Source	df	SS'	MS'	F
Treatment	2	0.508	0.254	0.310
Error	45	36.868	0.819	
Total	47	37.376		

Table 21

The Goal Setting Scale of The
Decision-Making Inventory

Source	df	SS'	MS'	F
Treatment	2	147.903	73.951	6.478**
Error	43	490.912	11.417	
Total	45	638.815		

**Significant at the .01 level of confidence.

Table 22

The Assertiveness Scale of the
Decision-Making Inventory

Source	df	SS'	MS'	F
Treatment	2	0.271	0.135	0.949
Error	42	5.992	0.143	
Total	44	6.263		

Table 23

The Leadership and Self-Development Scale

Source	df	SS'	MS'	F
Treatment	1	0.283	0.283	0.011
Error	24	595.743	24.823	
Total	25	596.026		

APPENDIX K

TABLE OF R AND R^2

Table 24

Correlation Coefficients (r) and Percentages
Of Variance Accounted for by the Treatment (r^2)
For the 10 Dependent Variables

Scale/Concept	r	r^2
Decision making	0.726	51.2%
Risk taking	0.574	32.9%
Self image	0.642	41.2%
Ideal woman	0.490	24.0%
Male ideal woman	0.688	43.3%
Alternatives generating	0.714	51.0%
Risky/cautious	0.804	64.7%
Goal setting	0.652	42.6%
Assertiveness	0.268	7.2%
Leadership & self development	0.788	6.2%

VITA

Barbara Lane Fox was born in Knoxville, Tennessee, on October 6, 1943. She attended elementary school in Oak Ridge and was graduated from Oak Ridge High School in 1961. In 1965 she received her Bachelor of Science degree in Secondary Education from Tennessee Technological University. Her Master of Arts degree in Educational Psychology and Guidance was awarded in June, 1966, from Tennessee Tech. University. Her employment experience includes: a) remedial reading teacher at Robertsville Junior High School in Oak Ridge, 1966; b) teacher of English, American History, and government in Raleigh, North Carolina, 1966-1968; c) special services teacher, psychometrist, and guidance counselor in Aiken, South Carolina, 1971-1973; and d) guidance counselor at Daniel Arthur Rehabilitation Center in Oak Ridge, 1973-1975.

She entered the Graduate School at The University of Tennessee, Knoxville, in March, 1974, and received the Doctor of Education degree with a major in Educational Psychology and Guidance in August, 1976. She is married to Charles Hayden Fox, Jr. and has two daughters, Angela and Kimberly.