

A GENDER ROLE-FOCUSED SELF-EFFICACY APPROACH TO AN  
UNDERGRADUATE CAREER DECISION-MAKING COURSE

by

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(Under the Direction of John Carl Dagley)

ABSTRACT

The current study sought to impact the career self-efficacy of female students by utilizing an established undergraduate career decision-making course as the selected intervention. Career self-efficacy is defined as the extent or degree to which an individual believes in his or her ability to successfully engage in the process of career decision-making (Taylor & Betz, 1983). The course was divided into a control group of three sections ( $n = 52$ ) and a treatment group of three sections ( $n = 53$ ). The control group followed the traditional decision-making curriculum, while the treatment group incorporated gender role socialization exploration and psychoeducation as well as self-efficacy-enhancing components into the traditional curriculum. Gender role is defined as a set of socially prescribed behaviors and characteristics assigned to men and women that stem from traditional expectations rather than biological determinants (Bem, 1974; Lindsey, 1990). Participants completed the Personal Attributes Questionnaire (Spence, Helmreich, & Stapp, 1974) as a pretest instrument for the purpose of identifying gender role self-perception (Feminine, Masculine, Androgynous, or Undifferentiated). The Career Decision-Making Self-Efficacy Scale-Short Form (Betz, Klein, & Taylor, 1996) was utilized as both a pretest and posttest instrument to measure increases in career self-efficacy. A series of analyses of covariance indicated that participants in the treatment group with a Feminine gender role orientation demonstrated a statistically significant increase in self-efficacy when compared with Masculine- or Androgynous-typed participants; no significant differences were found among these gender role categories in the control group. No significant differences were discovered on the basis of biological gender. Results suggest that interventions attending to sociological variables and utilizing relevant theoretical constructs may be more effective in assisting college women with the major and career decision-making process than general approaches.

INDEX WORDS: Self-efficacy, Career decision-making, Career self-efficacy, Career course, Gender role, Personal Attributes Questionnaire, Career

Decision Making Self-Efficacy Scale, Women's career, Career development

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## DEDICATION

This dissertation is dedicated to my parents, Mr. John E. Bell, Jr., and Mrs. Suzie J. Bell. Without their unfailing emotional, spiritual, psychological, and financial support, neither this document nor my degree would have been possible. I owe them both a lifetime of gratitude for their words of encouragement, listening ears, good advice, and expressions of confidence. The love and acceptance of my mother and father gave me the necessary strength to complete this lifelong journey through academia--the wind beneath my wings. This dissertation represents the efforts of three.

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## TABLE OF CONTENTS

	Page
ACKNOWLEDGEMENTS.....	v
LIST OF TABLES .....	viii
CHAPTER	
1 INTRODUCTION .....	1
Statement of the Problem .....	2
Significance of the Study .....	5
Purpose of the Study .....	9
Research Hypotheses .....	10
Limitations of the Study.....	13
Definitions.....	15
2 REVIEW OF THE LITERATURE .....	17
Career Interventions.....	17
Theories of Women’s Career Development.....	20
Self-Efficacy Theory.....	24
Self-Efficacy Theory of Women’s Career Development.....	26
Self-Efficacy Assessment .....	27
Gender Roles .....	29
Gender Roles and Self-Efficacy .....	31

3	METHODOLOGY.....	36
	Sample.....	36
	Procedure .....	37
	Instrumentation.....	40
	Limitations .....	45
4	ANALYSIS OF THE DATA .....	47
	Overview .....	47
	Demographic Information.....	48
	Research Hypotheses .....	49
	Summary .....	62
5	DISCUSSION AND RECOMMENDATIONS .....	64
	Overview .....	64
	Purpose.....	65
	Procedures .....	66
	Results.....	67
	Conclusions .....	73
	Implications.....	74
	REFERENCES.....	78
	APPENDICES	
	A CONSENT FORM.....	98
	B DEMOGRAPHIC SHEET .....	100
	C COURSE OUTLINES .....	101

## LIST OF TABLES

	Page
Table 1: Frequencies for Gender, Ethnicity, Academic Year, and Gender Role Category.....	50
Table 2: Means, Standard Deviations, and t-scores Comparing Pre and Post CDMSE-SF Scores.....	51
Table 3: ANCOVA Summary Table for Differences in Treatment Group Post CDMSE-SF Scores Based on Gender .....	52
Table 4: ANCOVA Summary Table for Differences in Treatment and Control Group Post CDMSE-SF Scores of Females .....	53
Table 5: ANCOVA Summary Table for Differences in Treatment Group Post CDMSE-SF Scores Based on Feminine, Masculine, and Androgynous PAQ Categories .....	53
Table 6: ANCOVA Summary Table for Differences in Treatment Group Post CDMSE-SF Scores Based on Feminine and Masculine PAQ Categories.....	54
Table 7: ANCOVA Summary Table for Differences in Treatment Group Post CDMSE-SF Scores Based on Feminine and Androgynous PAQ Categories.....	55
Table 8: ANCOVA Summary Table for Differences in Treatment Group Post CDMSE-SF Scores Based on Masculine and Androgynous PAQ Categories .....	56
Table 9: ANCOVA Summary Table for Differences in Treatment Group Post CDMSE-SF Scores Based on Undifferentiated, Masculine, and Androgynous Categories .....	57

Table 10: ANCOVA Summary Table for Differences in Treatment Group Post CDMSE-SF Scores Based on (Masculine + Androgynous) and (Feminine + Undifferentiated) Collapsed PAQ Categories.....	58
Table 11: ANCOVA Summary Table for Differences in Control Group Post CDMSE-SF Scores Based on Feminine, Masculine, and Androgynous PAQ Categories .....	59
Table 12: ANCOVA Summary Table for Differences in Control Group Post CDMSE-SF Scores Based on Undifferentiated, Masculine, and Androgynous PAQ Categories.....	59
Table 13: ANCOVA Summary Table for Differences in Control Group Post CDMSE-SF Scores Based on (Masculine + Androgynous) and (Feminine + Undifferentiated) Collapsed PAQ Categories.....	60
Table 14: ANCOVA Summary Table for Differences in Treatment and Control Group Post CDMSE-SF Scores Based on Feminine PAQ Category .....	61
Table 15: ANCOVA Summary Table for Differences in Treatment and Control Group Post CDMSE-SF Scores Based on Undifferentiated PAQ Category .....	61
Table 16: ANCOVA Summary Table for Differences in Treatment and Control Group Post CDMSE-SF Scores Based on (Masculine + Androgynous) and (Feminine + Undifferentiated) Collapsed PAQ Categories.....	62

## CHAPTER 1

### INTRODUCTION

The number of women attending college and seeking bachelor's degrees surpassed the number of men in the early 1980s and the gap between the genders has continued to widen throughout the 1990s. In 1997, 56% of undergraduate students were female; that figure is projected to increase to 58% by the year 2010 (U.S. Department of Education, National Center for Education Statistics, 1997, 2000). In spite of becoming the educational majority, it appears that women have not achieved the same vocational status of men, nor have they received equal benefits from their side-by-side academic experiences (Betz & Fitzgerald, 1987; Fox, 1995; Gilbert, 1992; Lindsey, 1990; Thornborrow & Sheldon, 1995).

Women face obstacles that both impede and add to the complexity of understanding their career development. These obstacles include environmental barriers such as discrimination and sexual harassment (Fitzgerald, Fassinger, & Betz, 1995). Internal barriers that restrict women's career choices and adjustment include traditional feminine gender role socialization and low self-efficacy. Simply attending college is not sufficient to provide female students with the means necessary to choose, pursue, and attain occupations from the full spectrum of choices. A disproportionate amount of women continue to select majors in education, health, and library science, signifying the expectation of seeking employment in fields considered traditionally or stereotypically feminine (Fox, 1995). As such, there is a need to address the career decision-making

process of female students, so that the college degrees that are being sought and earned are both useful and satisfying to the recipients.

*Statement of the Problem*

While women today have greater opportunity to prepare themselves for the world of work than women of earlier generations, the fact remains that our male-dominated society's expectations and social messages about men and women, including gender-specific roles and qualities, continue to negatively influence and impact career choice and development. Women continue to be overrepresented in stereotypically feminine occupations, such as elementary school teaching, secretarial positions, and bookkeeping, and underrepresented in many prestigious, high-income fields, including law, dentistry, and engineering (U.S. Department of Labor, Bureau of Labor Statistics, 1994). Furthermore, the unfortunate reality is that whether employed in a male-dominated or a female-dominated field, women find themselves in positions with limited power, low prestige, and less compensation (Dexter, 1985).

A major factor affecting women's career decision-making process and outcome is their self-efficacy, or their expectations about whether they can successfully engage in a task or behavior (Bandura, 1977, 1986; Hackett & Betz, 1981). Especially relevant to women who are in college, assumed to be engaging in the process of selecting their major and career goal, is the specific domain of career self-efficacy (Betz & Hackett, 1981; Mathieu, Sowa, & Niles, 1993; Nevill & Schlecker, 1988; Rotberg, Brown, & Ware, 1987), referring to her level of confidence in her ability to effectively make decisions related to her career (Robbins, 1985).

Roles, traits, and behaviors associated with gender are socially assigned and prescribed rather than physiologically determined (Lott, 1994). While women have been the focus of most of the career-related self-efficacy literature, the reasoning for this is not due to biological sex differences; instead, Betz and Hackett's (1981) original study pointed to the differential socialization of men and women, and the subsequent disparity in women's belief in their ability to successfully undertake and engage in occupational tasks, activities and roles that are male-dominated. In order to determine how to best intervene and improve the career self-efficacy of women who plan to enter the American workforce, it appears that one's perception of oneself in terms of possessing or representing traits that are most like men (i.e., instrumental, agentic, self-assertive) or most like women (i.e., expressive, interpersonally-focused, relationship-oriented) would provide a broader picture of one's approach to career decision-making rather than simply whether one is biologically male or female. While neither masculine nor feminine traits are inherently more positive or valuable than the other, the prevailing reality is that "[g]ender expectations lead us to prefer men for authority positions and assign women to subordinate roles" (Geis, 1993, p. 21).

While the need for career self-efficacy-enhancing interventions that target issues relating to women and their prescribed or perceived roles is clear, very few studies involving such efforts have been documented. In a study by Sullivan and Mahalik (2000), a group intervention specifically designed to address the career self-efficacy of women is described. The program was created and implemented to improve career self-efficacy by incorporating key informational sources integral to self-efficacy theory as well as issues related to feminine socialization. The results of this study showed

significant increases in career self-efficacy among participants in the career group intervention when compared to control subjects, indicating that the combination of self-efficacy and gender socialization is effective in improving career self-efficacy in women. The authors recommend future career interventions that address and incorporate gender socialization factors and perceptions, stating, “[s]uch interventions might positively affect girls’ and women’s self-efficacy expectations regarding male-dominated educational majors and careers, occupational preferences, and willingness to engage in career-related activities of nontraditional occupations for women” (p.60).

Sullivan and Mahalik’s (2000) study indicates that self-efficacy-enhancing interventions aimed at university women can make a difference. In order to meet the career-related concerns of young women, efforts are needed that address the process of selecting an academic major as well as a career goal. Undecided students often feel pressured to choose a major, basing their decisions on convenience, whims, or parental influence. According to Gordon (1995), undecided students often face an information deficit in one or more of three general areas, which include personal characteristics, academic areas and programs, and occupational information. With accessible, effective assistance, students learn more and become empowered to take responsibility for their own career preparation and future. Women who actively engage in the process of choosing a major are better equipped to independently and confidently manage their career choices.

The lack of theory-based gender- and gender-role-focused career interventions at the college and university level represents the current gap between theory and practice that exists in the field of vocational psychology (Savickas, 1995). Furthermore, without

the future development and implementation of programs aimed at improving the career decision-making process of women, the majority of our nation's college students will continue to remain underserved, underrepresented, and disempowered. According to Freeman (1989), women attending college face the "null educational environment," which is defined as an environment that offers neither encouragement nor discouragement, but rather a passive, nonsupportive, state of being ignored. Due to the lack of encouragement and support that women may have received from parents, relatives, significant others, role models, and teachers, compounded with the historical affirmation of men as the primary career-focused gender, Freeman postulated that women do not have to be actively discouraged or discriminated against in order to feel negative effects. Betz (1994) states: "[I]f we are not actively supporting and encouraging women we are, in effect, leaving them at the mercy of gender role and occupational stereotypes" (p. 18).

#### *Significance of the Study*

The reality of gender role socialization in our society has been shown to exert a negative effect on women's perceptions of what career choices they are capable of undertaking. Human characteristics associated with the traditional female personality, described as feminine, include more expressive, relational attributes, whereas more instrumental, agentic behaviors are thought to represent the masculine personality. In the United States, and specifically in the U.S. labor market, masculine traits have tended to be more highly valued and associated with successful, highly compensated career pursuits (Betz & Klein, 1996). Women who perceive themselves as competent and self-assertive, or instrumental, have been shown to be more career-oriented, more

achievement-oriented, and display higher self-reported capability estimates (Greenglass & Devins, 1982; Marshall & Wijting, 1980; Orlofsky & Stake, 1981). Farmer (1985) found that women who perceive themselves as psychologically androgynous also possess high degrees of career-related motivation.

High levels of career self-efficacy have been linked with career certainty, academic persistence, and educational success in college students (Betz & Hackett, 1987; Bores-Rangel, Church, Szendure, & Reeves, 1990; Brown, Lent, & Larkin, 1989). Career decision-making self-efficacy has also been shown to be positively correlated with generalized self-efficacy, or overall confidence in one's ability to achieve tasks with which one is unfamiliar (Betz & Klein, 1996). This study also found generalized self-efficacy to be correlated to instrumentality or masculinity. Therefore, interventions that seek to improve career decision-making self-efficacy could be conceptualized as being especially beneficial to individuals who see themselves as more feminine, or expressive and relationship-oriented, than masculine or androgynous (perceiving oneself as having strong feminine as well as masculine characteristics).

Interventions that encourage interactions between women who perceive themselves as instrumental and women who perceive themselves as expressive provide the opportunity for vicarious learning to occur. Furthermore, there is some evidence to suggest that mixed-gender treatment settings result in greater benefits to women (Egner & Jackson, 1978; Krumboltz, 1979), which may also facilitate the fostering of career self-efficacy in those who do not perceive themselves as instrumental. Betz (1994) proposes four strategies for restoring options that may have been lost due to gender role socialization. The first strategy is to assist women in exploring their beliefs about

women's roles and capabilities, how these beliefs may have impacted and continue to impact their choices and perceptions of available choices, and counteracting and challenging their restrictive attitudes. A second activity involves encouraging her to avoid premature foreclosure and avoidance of certain fields, tasks, and opportunities without evidence to support these rejections. A third suggested strategy is to assist her with assessment of interests in a nonsexist manner, while focusing her attention on how gender role socialization may be impacting her perceived interests. Finally, Betz recommends providing an environment that encourages the expansion of options and the seeking out of new information and experiences. Providing intentional encouragement and attention to college women can provide an opportunity to counteract the negative gender role socialization process that exists in our culture and empower women to make a fully informed choice about their career path.

Researchers in the fields of career development, counseling psychology, and college student development have called for interventions that planfully attend to individual attributes, such as gender and gender-related personality traits (that is, those that tend to be associated with stereotypical masculinity or femininity), in order to most effectively enhance and impact levels of career self-efficacy in the clientele receiving services (Bergeron & Romano, 1994; Betz & Fitzgerald, 1987; Betz & Klein, 1996; Betz & Luzzo, 1996; McAuliffe, 1991; Rotberg, Brown, & Ware, 1987; Sullivan & Mahalik, 2000).

A vehicle that has the opportunity to provide the elements of restoring options, enhancing self-efficacy, and exploring and challenging the effects of gender role socialization is the undergraduate career course. The current study utilized a course

format that includes the following elements: career-related information, decision-making skills, four information sources associated with increased self-efficacy, activities that encourage group process and interaction, and gender role exploration. Several studies have shown the effectiveness of career courses in enhancing career self-efficacy, including measuring whether differences exist based on the gender of the participants (Cox, 1996; Foltz, 1993; Oreshnick, 1991). While many studies have shown gender- and gender-role-based differences in self-efficacy, very few have reported programs specifically designed to explore gender, gender role, and career decision-making self-efficacy in individuals at the college level (Foss & Slaney, 1986; Sullivan & Mahalik, 2000). Furthermore, no studies have been reported in which college students have been considered and targeted in terms of not only their biological gender, but in terms of gender-socialized characteristics by way of a semester-long career course. Career self-efficacy has been shown to be related to the masculine-typed trait of instrumentality as well as psychological androgyny in a variety of research studies (Arnold & Bye, 1989; Gianakos, 1995; Hackett, 1985; Matsui, 1994; Wulff & Steitz, 1999). By addressing individuals who perceive themselves as feminine, or expressive, rather than instrumental, such a career course would not only target women, who currently and most likely will continue to outnumber males in college, it would also address and explore the environmental and societal influences that contribute to lowered career self-efficacy.

While evidence exists to support the claim that career interventions, and career courses in particular, are effective, many researchers have called for interventions that address and encompass client or student variables or attributes as a means of providing maximum benefits to the recipients. Oliver and Spokane (1988) state that “[w]e cannot

assume that people are all alike ('uniform hypothesis') nor that they will react similarly to any given intervention" (p. 458). They report a paucity of career interventions that assess and take into account individual client attributes and recommend that future programming designs consider such variables. Bergeron and Romano (1994) suggest that career interventions should explore an individual's perceptions of himself or herself, including one's estimates of one's abilities as well as one's attitudes about the gender-appropriateness of different occupations, in order to address and enhance self-efficacy expectations. McAuliffe (1991) suggests that career classes may improve their impact on participants if the specific needs of the students are assessed beforehand and then targeted; gender-related attitudes and career decision-making self-efficacy are both cited as important client variables to consider when designing course curricula.

#### *Purpose of the Study*

While career counseling, workshops, courses, and groups have been shown to be effective (Dagley, 1999; Davis & Horne, 1986; Oliver & Spokane, 1988; Rounds & Tinsley, 1984), less is known about how, why, and with whom. Several studies have demonstrated the effectiveness of career courses in enhancing career self-efficacy (Cox, 1996; Oreshnick, 1991), while other studies have shown that group interventions are effective in increasing women's self-efficacy (Betz & Schifano, 2000; Foss & Slaney, 1986; Sullivan & Mahalik, 2000). Women's career development and behavior have been conceptualized by many researchers as particularly complex due to the effects of negative gender role socialization (Astin, 1984; Farmer, 1997; Gottfredson, 1981; Hackett & Betz, 1981).

The present study sought to increase women's self-efficacy with regard to approaching and engaging in the career decision-making process, with a focus on measuring outcome differences based on participants' gender role perceptions. The current study consisted of a career course that was offered in two forms: an enhanced format (treatment group) and a standard format (control group). The enhanced format focused on gender role perceptions and incorporated specific activities designed to foster the exploration of gender role socialization and its effects on women and men. The standard format addressed gender to some degree, but did not involve intentionally designed gender role-based content, activities, or discussions. Appendix C contains the course outlines for both the standard format of the course and the enhanced format of the course. The current study sought to determine whether a career decision-making course made a difference in the career self-efficacy of those who participated. In addition, the current study examined whether participants' career self-efficacy differed based on participation in a gender role-focused course format and a traditional course format. Finally, the current study investigated whether career self-efficacy differences emerged based on gender and gender role attributes of participants.

#### *Research Hypotheses*

The current study examined the following hypotheses:

1. Participants who complete a career decision-making course will demonstrate a statistically significant increase in pre-intervention to post-intervention career self-efficacy as measured by the Career Decision-Making Self-Efficacy Scale-Short Form (CDMSE-SF) (Betz, Klein, & Taylor, 1996).

2. Female participants in the treatment group will demonstrate statistically greater post-intervention career self-efficacy than male participants in the treatment group as measured by the CDMSE-SF while controlling for pre-intervention career self-efficacy as measured by the CDMSE-SF.
3. Female participants in the treatment group will demonstrate statistically greater post-intervention career self-efficacy than female participants in the control group as measured by the CDMSE-SF while controlling for pre-intervention career self-efficacy as measured by the CDMSE-SF.
4. Participants in the treatment group who perceive themselves as Feminine/Expressive as determined by the Personal Attributes Questionnaire (PAQ) (Spence, Helmreich, & Stapp, 1974) will demonstrate statistically greater post-intervention career self-efficacy as measured by the CDMSE-SF than participants in the treatment group who perceive themselves as either Masculine/Instrumental or Androgynous as determined by the PAQ while controlling for pre-intervention career self-efficacy as measured by the CDMSE-SF.
5. Participants in the treatment group who perceive themselves as Undifferentiated as determined by the PAQ will demonstrate statistically greater post-intervention career self-efficacy as measured by the CDMSE-SF than participants in the treatment group who perceive themselves as either Masculine/Instrumental or Androgynous as determined by the PAQ while controlling for pre-intervention career self-efficacy as measured by the CDMSE-SF.
6. Participants in the treatment group who perceive themselves as either Feminine/Expressive or Undifferentiated as determined by the PAQ will demonstrate

statistically greater post-intervention career self-efficacy as measured by the CDMSE-SF than participants in the treatment group who perceive themselves as either Masculine/Instrumental or Androgynous as determined by the PAQ while controlling for pre-intervention career self-efficacy as measured by the CDMSE-SF.

7. Participants in the control group who perceive themselves as Feminine/Expressive as determined by the PAQ will not demonstrate statistically greater post-intervention career self-efficacy as measured by the CDMSE-SF than participants in the control group who perceive themselves as either Masculine/Instrumental or Androgynous as determined by the PAQ while controlling for pre-intervention career self-efficacy as measured by the CDMSE-SF.

8. Participants in the control group who perceive themselves as Undifferentiated as determined by the PAQ will not demonstrate statistically greater post-intervention career self-efficacy as measured by the CDMSE-SF than participants in the control group who perceive themselves as either Masculine/Instrumental or Androgynous as determined by the PAQ while controlling for pre-intervention career self-efficacy as measured by the CDMSE-SF.

9. Participants in the control group who perceive themselves as either Feminine/Expressive or Undifferentiated as determined by the PAQ will not demonstrate statistically greater post-intervention career self-efficacy as measured by the CDMSE-SF than participants in the control group who perceive themselves as either Masculine/Instrumental or Androgynous as determined by the PAQ while controlling for pre-intervention career self-efficacy as measured by the CDMSE-SF.

10. Participants in the treatment group who perceive themselves as Feminine/Expressive as determined by the PAQ will demonstrate statistically greater post-intervention career self-efficacy as measured by the CDMSE-SF than participants in the control group who perceive themselves as Feminine/Expressive as determined by the PAQ while controlling for pre-intervention career self-efficacy as measured by the CDMSE-SF.

11. Participants in the treatment group who perceive themselves as Undifferentiated as determined by the PAQ will demonstrate statistically greater post-intervention career self-efficacy as determined by the CDMSE-SF than participants in the control group who perceive themselves as Undifferentiated as determined by the PAQ while controlling for pre-intervention career self-efficacy as measured by the CDMSE-SF.

12. Participants in the treatment group who perceive themselves as either Feminine/Expressive or Undifferentiated as determined by the PAQ will demonstrate statistically greater post-intervention career self-efficacy as determined by the CDMSE-SF than participants in the control group who perceive themselves as either Feminine/Expressive or Undifferentiated as determined by the PAQ while controlling for pre-intervention career self-efficacy as measured by the CDMSE-SF.

#### *Limitations of the Study*

Random assignment of participants to treatment and control conditions was not possible in the present study. Participants in the current study included those students who chose to enroll in ECHD 3050, an undergraduate course at the University of Georgia entitled “Choosing a Major and Career Goal.” The sample, therefore, may represent a segment of the student population that feels less capable of major selection or possibly more motivated about the career decision-making process than the general student

population. The method of measurement for this study was the collection of data from participants both before and after the intervention took place by means of the same instrument. This pretest-posttest design allowed for the possibility that practice effects, resulting from subjects taking a familiar instrument during the posttest phase, may have occurred and therefore account for a portion of any observed effects attributed to the intervention itself.

In order to determine participants' perceptions of themselves as masculine, feminine, or psychologically androgynous, it was necessary to choose from a limited number of assessment instruments that either purport to measure or have been suggested as measures of "gender role." The authors of the PAQ (Spence, Helmreich, & Stapp, 1974) explain that their instrument is an attitudinal measure of perceived instrumentality and expressiveness previously related to stereotypical prescriptions of men and women.

In terms of sample size, this study faced certain limitations. Because class sections are necessarily limited due to space and instructor resources, the result was a relatively small sample size ( $n = 105$ ). Furthermore, due to the pretest-posttest design, certain students who dropped the class following completion of the pretest instruments and students who did not attend class during the posttest administration resulted in a reduction in the final sample size ( $n = 9$ ). Because this study took place at the University of Georgia, a predominantly White institution, the results should be interpreted in terms of this institution's population and should not be assumed to indicate generalizability to dissimilar groups.

## *Definitions*

### *Treatment Group*

The treatment group included those participants who attended one of the three sections based on the gender role-focused self-efficacy course model. The treatment group sections employed the enhanced format of the course.

### *Control Group*

The control group included those participants who attended one of the three sections based on the traditional decision-making course model. The control group sections used the standard format of the course.

### *Enhanced Format*

The enhanced format refers to the version of the career decision-making course that incorporated the gender role and self-efficacy focused curriculum into the traditional curriculum.

### *Standard Format*

The standard format refers to the version of the career decision-making course that followed the traditional curriculum.

### *Self-Efficacy, Career Self-Efficacy, Career Decision-Making Self-Efficacy*

Self-efficacy refers to an individual's level of confidence regarding his or her ability to successfully undertake and perform a given task or behavior (Bandura, 1977). Career decision-making self-efficacy, or career self-efficacy, is a specific domain of self-efficacy that is defined as the extent or degree to which an individual believes in his or her ability to successfully engage in the process of career decision-making (Taylor & Betz, 1983).

*Gender Roles, Sex Roles*

Gender roles, or sex roles, refer to socially prescribed behaviors and characteristics assigned to men and women that stem from traditional expectations rather than biological determinants (Bem, 1974; Lindsey, 1990). Femininity, or expressiveness, is defined as an attitudinal and behavioral orientation towards relationships and interpersonal connection that has been associated with stereotypical females (Bakan, 1966; Bem, 1974; Spence & Helmreich, 1978; Spence, Helmreich, & Stapp, 1975). Masculinity, or instrumentality, is defined as an attitudinal and behavioral orientation towards assertiveness and personal agency that has been associated with stereotypical males (Bakan, 1966; Bem, 1974; Spence & Helmreich, 1978; Spence, Helmreich, & Stapp, 1975).

## CHAPTER 2

### REVIEW OF THE LITERATURE

The current study is based on a combination of research and practice areas that involve theoretical models of career choice and development, and career interventions for college student populations. The specific bodies of literature that informed the present study include career interventions, theories of women's career development, the tenets of general self-efficacy theory, the application of self-efficacy theory to the career development of women, and efforts and instruments utilized in the assessment of self-efficacy. This chapter concludes with a review of the literature examining gender roles and the relationship between gender roles and self-efficacy levels.

#### *Career Interventions*

Recently, studies have been reported in which interventions aimed at improving career-related self-efficacy have been developed and investigated for effectiveness. Betz and Schifano (2000) reported a statistically significant increase in female subjects' confidence levels regarding activities and tasks related to the Realistic (Holland, 1973, 1985) theme when measured before and after an intervention designed to foster self-efficacy. The authors state the importance of increasing women's confidence in Realistic-themed occupations lies in the current underrepresentation of women in the engineering and technology fields. Sullivan and Mahalik (2000) found that women who participated in a six-week-long group which focused on enhancing career-related self-efficacy displayed significant gains in career decision-making self-efficacy when compared with women who did not participate in the intervention.

Juntunen (1996) reported that when compared with conventional approaches, a feminist approach to career counseling was found to significantly improve female college students' career self-efficacy beliefs, both in general and in terms of engaging in nontraditional occupations. Foss and Slaney (1986) evaluated a program for women that incorporated subjects' viewing of a videotape which provided information on career-related opportunities for women. Prior to participating in the intervention, subjects completed and were categorized according to their scores on the Attitudes Towards Women Scale (AWS) (Spence & Helmreich, 1972) and the CDMSE Scale (Taylor & Betz, 1983). AWS scores were found to be negatively correlated with self-efficacy and positively correlated with a preference for traditional careers. Following the intervention, participants demonstrated significant increases in CDMSE scores and in hypothetical nontraditional career choices.

Among the multiple modes of service delivery aimed at assisting persons with career concerns, it has been determined that career classes and other group interventions are as effective as or superior to individual career counseling (Davis & Horne, 1986; Oliver & Spokane, 1988). Within the career course or class format, several studies have reported significant gains in career-related self-efficacy among college students who enroll in such courses. In separate studies, Oreshnick (1991) and Cox (1996) each found that undergraduates who enrolled in a career planning course demonstrated significantly higher levels of career decision-making self-efficacy upon completion of the course.

Career courses, workshops, groups, counseling sessions, and other modes of service delivery at the college level have primarily been designed to assist the undergraduate population at large in selecting and attaining a career, while special

attention and efforts have been aimed at students who are undecided about their major (Goodson, 1982; Hardesty, 1991; Smith, Slavit, & Broday, 1991). Students who are undecided about their major and career goal constitute significant percentages of the college population nationwide (Hannah & Robinson, 1990; Kelly & White, 1993; Orndorff & Herr, 1996; U.S. Department of Education, National Center for Education Statistics, 1998), and these students have been identified as at-risk for attrition, late graduation, and lowered levels of academic achievement and adjustment (Groccia & Harrity, 1991; Hartman & Fuqua, 1983; Plaud, Baker, & Groccia, 1990).

According to Bergeron and Romano (1994), career decision-making self-efficacy was found to be positively correlated with vocational and educational certainty in undergraduate students. Oreshnick (1991) found similar results, reporting an inverse relationship between career decision-making self-efficacy and career indecision and a positive relationship between career decision-making and career decidedness. Taylor and Betz (1983) reported that college students' career self-efficacy levels were "strongly and negatively related to overall levels of career indecision" (p. 63). Levels of self-efficacy have been shown to be positively correlated with academic persistence and success (Brown, Lent, & Larkin, 1989; Multon, Brown, & Lent, 1991).

In order to adequately address the unique career issues women college students face, interventions incorporating specific methods designed to improve self-efficacy are needed. Sullivan and Mahalik (2000) suggest that a longer-term group approach should be examined as a follow-up to their successful six-week career self-efficacy intervention for women. Lent and Hackett (1987) state that "the career self-efficacy construct may be

useful in redesigning existing interventions or in tailoring treatment packages consisting of multiple elements” (p. 375).

### *Theories of Women’s Career Development*

Women are a legitimate focus of career interventions due to the challenges, barriers, and societal role prescriptions they presently face; in response to this need, career development theories that seek to explain or apply to women’s experiences and behavior have emerged and proliferated over the last four decades. Many of the accepted career paradigms (Holland, 1973, 1985; Super 1957, 1980, 1990) have been revised to incorporate the changes that the American vocational landscape has undergone in terms of women as workers--rather than homemakers. By default, these theories have been criticized as remaining too limited in scope to fully explain the career behavior and developmental patterns of women (Betz & Fitzgerald, 1987; Brooks, 1990; Farmer, 1997; Fitzgerald & Crites, 1980; Fitzgerald & Weitzman, 1992; Vetter, 1973).

Super (1957) and Zytowski (1969) may be considered the first two “mainstream” theorists who received attention for their theoretical considerations of and contributions to the career concerns of women. In his landmark text *The Psychology of Careers*, Super (1957) described seven variable career patterns of women, in accordance with the complexity of family and homemaking responsibilities. While Super is noteworthy for essentially opening the door to the consideration of women as following a different career pattern than men, his early writing was somewhat simplistic in that it merely described and observed patterns, rather than addressing psychosocial issues that may be impacting these differences. Zytowski (1969) hypothesized that women’s motivation, in combination with skills, opportunities, and responsibilities, determined the degree to

which a woman may choose to participate in her career. This marked a departure from a descriptive approach to women's career behavior to an attempt to incorporate internal processes as factors in the career behavior of women.

Farmer (1976, 1985, 1997) and Harmon (1967, 1970, 1978) were two early theorists and researchers who developed and extended novel approaches and models for understanding the career development of women. Each of these scholars conducted longitudinal, lifespan-focused studies that helped bring to light and validate the intricacies of females' career paths and outcomes. Harmon's (1978) work confirmed the multiple patterns and role emphases displayed by women as earlier proposed by Super.

Farmer (1976) conceptualized a multiple-factor model of lowered or inhibited motivation in females, both at the educational and occupational levels. Farmer's model denoted nine barriers, encompassing both internal barriers (home-career conflict, sex role orientation, risk taking behavior, academic self-esteem, vicarious achievement motive, and fear of success) and external barriers (family socialization, resources in the community/work, and discrimination in community/work). Farmer's formulation of a more comprehensive model of how and why women develop and approach their careers differently than men contributed greatly to the realization that historical career theories did not fully capture or explain the unique perspectives and experiences of women. According to Farmer (1997), differential gender socialization was a key element in her model: "The personal or self-concept variables...were primarily variables related to sex role socialization and other self-concepts found in the literature to affect women's achievement and career motivation in ways that differed from the way they affected men" (p. 8).

Harmon (1978) suggested that women were at a disadvantage as compared with men due to both the realities of external barriers, including discrimination and socially-imposed and prescribed roles, and internal barriers, including lack of confidence and low motivation that results from being a female in a male-dominated, male-affirming society. Harmon's (1967; 1970) efforts to demonstrate how earlier versions of standardized assessment instruments such as the Strong Vocational Interest Blank (Strong, 1933) served to narrowly define and categorize females helped to pave the way for more progressive methods of career assessment and interpretation.

One theoretical model that was not initially developed as a means of explaining women's career behavior, but one that has its roots in the social psychological underpinnings of several emerging theories of the career development of women (including Hackett & Betz's career self-efficacy theory) is Krumboltz's social learning theory of career choice and development (Krumboltz, Mitchell, & Gelatt, 1975; Mitchell & Krumboltz, 1990). An outgrowth of Bandura's (1977, 1986) social learning theory postulates that career decisions are impacted by four important factors, which include genetic endowment and abilities, environmental conditions and events, learning experiences, and task-approach skills. The first three influences are thought to determine outcome behaviors regarding task-approach skills in the individual, along with general conclusions about self based on observations, coping skills, and career-entry behaviors (Fitzgerald, Fassinger, & Betz, 1995). While Bandura's social learning concepts have become useful for describing women's career choices and developmental paths, Krumboltz's theory did not explicitly state that women could have differential exposure to learning opportunities and experiences, could grow up in an environment which

discourages nontraditional career choices and patterns, and could face obstacles and challenges not experienced by men. Krumboltz and his colleagues provided a theoretical perspective in which non-gender-specific environmental influences were considered important due their external locus of control on the development of an individual's career.

The 1980s saw the rise of career theories that directly addressed the career development and decision-making processes of women. Gottfredson (1981) and Astin (1984) each included the concept of social forces, societal structure, and gender-role socialization as necessary elements of consideration in describing and understanding how women develop, choose, and embark on their careers. These theorists built on Farmer's and Harmon's earlier ideas regarding women's roles and attempted to expand and extend the boundaries of career psychology to include and integrate women.

Gottfredson (1981) theorized that individuals develop career aspirations through the processes of circumscription and compromise, or elimination of certain careers and acceptance of others, based on realistic opportunities. Integral to circumscription and compromise is the self-concept, which is impacted by gender role socialization, among other factors. According to Gottfredson, during childhood and adolescence, women gain an understanding of themselves as female and begin to see certain careers as out of their zone of acceptable alternatives. Furthermore, it is postulated that occupations are discarded primarily on the basis of gender appropriateness, with perceptions of ability, social class, interests, and values following as reasons for rejecting careers.

Astin (1984) proposed a theory of career development that comprised four major factors: motivations, expectations, gender role socialization, and the structure of

opportunity. This theory consisted of both psychological and sociological constructs as influential in an individual's career decisions. Astin delineated the differences in what men and women expect for themselves as a result of factors such as gender bias and discrimination, for example, and hypothesized that as culture and society adapt to the reality that women are a stable addition to the workforce, more opportunities will become available and ultimately, women will perceive themselves and their expectations about work in a more positive and less limited light.

While both of these theories represent advances in the quest to address women's career development, they have been met with criticism resulting from studies attempting to test the validity of their constructs and hypotheses, including difficulty operationalizing terms, contradictory results, and lack of comprehensiveness and sufficiency (Gilbert, 1984; Hannah & Kahn, 1989; Holt, 1989; Leung & Harmon, 1990; Poole, Langan-Fox, Ciavella, & Onedei, 1991).

#### *Self-Efficacy Theory*

Albert Bandura's (1977, 1982, 1986, 1995) theory of self-efficacy proposes that human beings formulate expectations and perceptions about their abilities, which in turn impact the likelihood that one will attempt and eventually successfully perform a given task or activity. According to Bandura (1995), "[p]erceived self-efficacy refers to beliefs in one's capabilities to organize and execute the courses of action required to manage prospective situations...[e]fficacy beliefs influence how people think, feel, motivate themselves, and act" (p. 2). The primary goal of this theory is to offer a conceptual framework with applications for developing and improving levels of self-efficacy (Bandura, 1995).

Self-efficacy theory identifies four types of influences postulated to inform an individual's personal beliefs regarding his or her own efficacy. The first source of influence is mastery experience, or direct exposure to a situation and its specific demands. Often, this results in a sense of confidence, mixed with an understanding that success requires effort and that the future holds opportunity for improvement. The second means of information regarding self-efficacy is vicarious experience. Vicarious experience refers to the chance to observe or interact with someone similar to one's self who has already experienced a measure of success and thus serves as a role model. Social persuasion, or verbal encouragement, is the third influential source of self-efficacy beliefs. Stating that an individual is capable of accomplishing a task assists in negating self-defeating thoughts and self-generated doubts as well as in providing an externally-based, positive appraisal of one's abilities. The fourth set of self-efficacy influences are physiological and emotional states. Stress reactions, tension, and negative mood, as well as how they are interpreted, can all have a detrimental impact on an individual's level of confidence.

Self-efficacy theory has been useful in describing human beings' general functioning, including motivation, agency, and cognitive processing. Since its introduction, many theorists and researchers have applied its tenets to specific roles, areas, fields, and domains, including parenting self-efficacy (Raver & Leadbeater, 1999), research self-efficacy (Kahn, 2000), teacher self-efficacy (Prieto & Meyers, 1999), counselor self-efficacy (Ladany, Ellis, & Friendlander, 1999; Meier, 1999), mathematics self-efficacy (Betz & Hackett, 1983), academic and achievement self-efficacy (Brown,

Lent, & Larkin, 1989; Multon, Brown, & Lent, 1991), and career self-efficacy (Betz, 1994; Betz & Hackett, 1987; Hackett, 1995; Hackett & Betz, 1981).

### *Self-Efficacy Theory of Women's Career Development*

A third major theoretical approach to understanding women's career development also emerged in the 1980s, and has been extensively utilized and researched over the last two decades. The self-efficacy approach to women's career development was first proposed by Gail Hackett and Nancy Betz (1981). Based on Bandura's (1977, 1982, 1986, 1995) theory of self-efficacy, which stated that individuals hold expectations about their own ability to effect change or produce a desired result through their own behavior, career self-efficacy theory postulates that although low self-efficacy expectations may negatively impact the career behavior of both women and men, women's limitations and disadvantages in the occupational realm may be directly related to gender-differential expectations of self-efficacy (Hackett & Betz, 1981).

The four sources of information that guide the formation of one's expectations of self-efficacy are different for males and females (Hackett & Betz, 1981). The first information source, based on Bandura (1977, 1982, 1986, 1995), includes performance accomplishments, which women are thought to experience to a lesser degree than men. Because masculine traits are more likely to result in attempting new and different tasks as well as achieving success in those tasks, a subsequent increase in self-efficacy results. Typically, males grow to possess masculine characteristics; therefore, males are more likely to experience higher degrees of self-efficacy by virtue of the socialization process. Women are postulated to suffer from a lack of vicarious learning opportunities, which is the second information source contributing to self-efficacy. In general, females are

underrepresented in certain occupational fields, possibly because males are portrayed in a greater number and a wider variety of occupational roles are provided in the media in all its forms. Thus, fewer role models and observable career paths for females are available. Feelings of inadequacy or lack of exposure to nontraditional or unfamiliar situations or activities may perpetuate the perception of low self-efficacy in women and girls.

The third source of self-efficacy enhancing information is emotional arousal, or the opportunity to learn new tasks in a relatively anxiety-free state. Higher levels of anxiety, which have been shown to exist in feminine-typed individuals, are thought to be associated with lower degrees of self-efficacy, leading to the possible conclusion that societal messages towards females and males who perceive themselves as feminine may reduce perceptions of self-efficacy. Finally, verbal persuasion contributes to an individual's sense of self-efficacy. Traditionally, males have been actively encouraged and rewarded for career motivation and pursuits, whereas women have not, perhaps leading to perceptions of inability and lack of confidence in females.

Hackett and Betz's theory not only takes into account the effects of gender role socialization, it also attempts to understand the cognitive and societal mechanisms that occur and exert influence on subsequent behaviors in women, such as career-related preferences, expectations, confidence, and choices. This has provided a basis for designing and delivering methods of intervening at a variety of levels in order to address women's vocational development and behavior.

#### *Self-Efficacy Assessment*

Since Hackett and Betz first introduced the construct of career self-efficacy and described its theoretical implications for women's career development and behavior, an

entire body of literature has emerged, extending the scope of their early ideas. One dimension resulting from subsequent inquiry into self-efficacy as a concept is that of specificity of self-efficacy domains. Examples of various types of self-efficacy include occupational, task-specific, mathematics, academic, scientific-technical, and generalized self-efficacy. Career decision-making self-efficacy, generally referred to as career self-efficacy, is defined as one's beliefs about whether or not one can successfully engage in the process of making and implementing a choice regarding one's career (Hackett & Lent, 1992; Taylor & Betz, 1983).

Adding to the utility of career self-efficacy theory is the ability to accurately measure the general and specific constructs associated with the model. Several assessment instruments have been developed to measure these various self-efficacy constructs and have been used extensively with various populations as a means of identifying and assisting groups and individuals who may be experiencing lower levels of confidence or expectations about their abilities. Examples of these instruments include the Occupational Self-Efficacy Scale (OSES) (Betz & Hackett, 1981), the Task-Specific Occupational Self-Efficacy Scale (TSOSS) (Rooney & Osipow, 1992), the Generalized Self-Efficacy Scale (GSES) (Sherer, Maddux, Mercandante, Prentice-Dunn, Jacobs, & Rogers, 1982), and the Mathematics Self-Efficacy Scale (Betz & Hackett, 1983). The Career Decision-Making Self-Efficacy Scale (Taylor & Betz, 1983) and its subsequent shorter version, the Career Decision-Making Self-Efficacy Scale-Short Form (Betz, Klein, & Taylor, 1996), are both used to assess an individual's confidence level in terms of engaging in the career selection process.

A great advantage of the development of the self-efficacy instruments is the ability to identify self-efficacy levels among certain individuals, leading to more informed treatment and intervention planning and service delivery. Several studies have suggested that individual differences or attributes mediate or impact levels of self-efficacy. One variable that has been studied in relation to career development and self-efficacy is that of gender role, or more accurately, personality characteristics that have traditionally been associated with stereotypical males and females (Lott, 1994; Spence & Helmreich, 1978).

### *Gender Roles*

The construct of gender role has been conceptualized as a component of one's gender, encompassing sex-linked norms, expectations, rights, obligations, behaviors, and attitudes (Cook, 1985; Doyle & Paludi, 1991; Lindsey, 1990). Historically, women and men have been subject to differential socialization processes, resulting in stereotypical or idealistic roles associated with men and women. The terms masculinity and femininity describe the characteristics that constitute stereotypical gender roles for men and women, respectively (Freimuth & Hornstein, 1982).

In Western culture, masculinity has traditionally been associated with and thought to be evidenced by competitiveness, aggressiveness, accomplishment, leadership and independence (Lindsey, 1990; Lips, 1997). Bakan (1966) distinguished masculinity by a sense of agency, which includes assertiveness, self-protection, self-expansion, and a focus on one's individuality. Parsons and Bales (1955) associated masculinity with instrumentality, or a tendency toward ambition, self-reliance, and action. In general, research has shown that positively viewed masculine traits are clustered around

competency, power, and potency (Broverman, Vogel, Broverman, Clarkson, & Rosenkrantz, 1972; De Lisi & Soundranayagam, 1990; McKee & Sherriffs (1957).

Femininity has been characterized by expressiveness (Parsons & Bales, 1955), communion (Bakan, 1966), and lack of competition (Spence & Helmreich, 1978). Parsons and Bales (1955) defined expressiveness, or the feminine role, as having one's primary focus on others, both in terms of interpersonal relationships and sensitivity to another's responses. Nurturance, emotional support, and warmth are considered displays of an orientation towards expressiveness. Bakan's (1966) concept of communion involves an individual's collaborative existence and functioning within a larger whole, and involves cooperation, openness, and interdependence. Core stereotypical female characteristics have been identified as "nice" (De Lisi & Soundranayagam, 1990), "emotional", "sensitive", "talkative", "dependent", "affectionate", "submissive" (Williams & Bennett, 1975), "sympathetic", "gentle", and "quiet" (Cook, 1985).

Theorists and researchers have drawn distinct differences between traits associated with traditional female and male roles. Extending the dichotomous model of gender role typology is the concept of psychological androgyny, which refers to "the blending of masculine and feminine characteristics within a person" (Cook, 1985, p. 33). Prior to the pioneering work of Bem (1974) and later, Spence, Helmreich, and Stapp (1975), the constructs of masculinity and femininity were viewed and measured as opposite ends of the same continuum (Cook, 1985). According to Constantinople (1973), the central problematic assumptions inherent to earlier conceptualizations of masculinity and femininity were unidimensionality and polarity. Unidimensionality refers to the idea that a general trait, existing in both males and females, can be assessed by a single score

on a particular measure. Polarity describes the delineation of masculinity and femininity as occupying opposite ends of the same dimension.

Bem (1974, 1975, 1981) described the construct of psychological androgyny as an individual's capacity to be flexible in terms of his or her masculine and feminine thinking and behaving—essentially, one tends to appropriately adapt his or her sex-typed qualities to the demands of a given situation. In Bem's view, then, androgyny is considered a more healthy psychological state than either masculinity or femininity. According to Block (1973), psychological androgyny represents an individual's highest stage of development, evidenced by a balanced integration of both masculinity and femininity. Block asserts that achieving a state of androgyny reflects positively on both the self and those with whom he or she has contact. Spence and Helmreich (1978, 1979) base their perspective of psychological androgyny on a combination of Bakan's (1966) agency/communion conceptualization and Parsons and Bales' (1955) instrumental/expressiveness terminology. Individuals who perceive themselves as highly masculine as well as highly feminine, possessing both instrumental and feminine traits, and likely to engage in instrumental as well as expressive behaviors are considered androgynous (Spence & Helmreich, 1978, 1979, 1986; Spence, Helmreich, & Stapp, 1974, 1975).

#### *Gender Roles and Self-Efficacy*

While one's gender or sex is often correlated with one's perception of self, socially prescribed gender-linked traits often transcend biology. The terms masculinity and femininity have been described as denoting instrumentality and expressiveness, respectively (Spence & Helmreich, 1978, 1986; Spence, Helmreich, & Stapp, 1974).

Males may perceive themselves as expressive and females may see themselves as instrumental. Persons of both genders may view themselves as androgynous (possessing both instrumental and expressive characteristics) or undifferentiated (possessing neither type of personality traits to a very clear degree) (Spence & Helmreich, 1978, 1986; Spence, Helmreich, & Stapp, 1974).

Hackett (1985) completed a study with male and female undergraduate students in which gender-related socialization influences, specifically the construct of masculinity, were found to contribute to mathematics self-efficacy levels. Nevill and Schlecker (1988) reported that in a study involving 122 female college students, high levels of assertiveness and career decision-making self-efficacy were found to be positively correlated to participants' willingness to consider nontraditional occupational activities. The gender-role related characteristic of instrumentality was found to be significantly related to perceived self-efficacy for the Holland (1985) themes of Realistic, Investigative, Artistic, Social, and Enterprising, whereas expressiveness was related to the Artistic, Social, and Conventional themes in a study of Japanese females by Matsui and Onglatco (1991).

A study by Lapan and Jingeleski (1992) of eighth-grade students yielded the finding that assertiveness was positively correlated with perceptions of self-efficacy and interest in scientific careers among subjects, whereas emotional expressiveness was negatively correlated to self-efficacy expectations regarding a career in science. Furthermore, emotional expressiveness ratings were inversely correlated with nontraditional careers for women and with high-prestige occupations. In a study of Arab college students, Abdalla (1995) found that masculine/instrumental attributes were more

strongly positively correlated with career decision-making self-efficacy than expressive/feminine attributes, with subjects who fell in the androgynous and masculine categories rating themselves higher on career decision-making self-efficacy than those who were undifferentiated.

In a study of 44 graduate-level counseling psychology supervisees, Warner (1999) found that perceived instrumentality was a significant predictor of perceived self-efficacy, whereas perceived expressiveness predicted relationship-oriented outcomes such as self-disclosure and working alliance. Christie and Segrin (1998) found that psychological gender was significantly related to academic performance in undergraduate students. The study examined students' undertaking of two types of tasks (social and nonsocial), and two types of self-efficacy (generalized and domain-specific). Masculinity, or instrumentality, was significantly related to generalized self-efficacy in both public speaking (social task) and test performance (nonsocial task) as well as social self-efficacy (domain-specific) for the social task. Adams and Sherer (1985) found that higher levels of instrumentality/masculinity were correlated with higher levels of self-efficacy and assertiveness, and that subjects who fell into the masculine gender-role category, regardless of sex, displayed superior levels of psychological adjustment when compared with subjects who were feminine, androgynous, and undifferentiated.

In a study of 90 college students examining stereotypical sex-typed traits, Robins (1986) found a significant positive relationship between self-reported masculinity and self-efficacy, whereas perceived femininity was found to be unrelated to self-efficacy. The study also discovered that masculinity was negatively correlated with both same-sex and opposite-sex social discomfort, and femininity was again found to be unrelated.

Dimitrovsky, Singer, and Yinon (1989) completed a study with 499 males and females who were in training for specific army functions that had been traditionally classified as male and female. The results of their investigation showed that androgynous men and women, masculine men, and masculine women rated themselves as most likely to succeed; furthermore, both men and women who perceived themselves as being higher in instrumentality received greater peer ratings than did subjects who saw themselves as low on masculinity.

In a study that included adolescents ranging from sixth to twelfth grade, Rose and Montemayor (1994) found that masculinity was a significant predictor of academic competency and close friendship competency self-estimates in both girls and boys. This study also found that masculinity was positively related to perceived overall self-worth among female subjects. Finally, androgynous participants reported the highest levels of perceived scholastic competency, close friendship competency, and global self-worth.

A review of the literature provided evidence of the need for applications of emerging and established theories of women's career development. While such theories have flourished in recent years, a paucity of studies exist in which practitioners have delivered services aimed at utilizing theoretical constructs with clients, students, or community members. The basis of self-efficacy theory and its contributions to understanding the career behavior of women was explored, leading to the present study's effort to create a theoretically derived career intervention for women. The implication of the gender role socialization process was determined to be a relevant variable in career self-efficacy after reviewing several studies focusing on the career choice and development of females. The current study sought to investigate gender role self-

perceptions and their relationship to levels of career self-efficacy in female college students who were seeking assistance with selecting a major. The intervention utilized for the present study was an undergraduate career decision-making course format that was designed to incorporate research- and theory-driven elements of career self-efficacy and gender role socialization.

## CHAPTER 3

### METHODOLOGY

The current research study is a quasi-experimental pretest posttest between-subjects and within-subjects design (Keppel, 1991). The overall effectiveness of a career decision-making course on the career self-efficacy of college students was measured, as well as the effectiveness of a gender role-focused course format. Individual differences, including gender and self-perceptions of masculinity and femininity, were also examined as variables affecting the effectiveness of each course format offered. Specific gender role and self-efficacy-enhancing interventions were included in three of the six sections offered, and the standard decision-making course format was offered in the remaining three sections of the course.

#### *Sample*

The sample for the current study consisted of a total of 114 undergraduate students who enrolled in a career decision-making course (ECHD 3050) at the University of Georgia, a large Southeastern public institution with approximately 30,000 undergraduate and graduate students. Six sections of the course were offered, with a maximum of twenty students per section. Students self-selected specific sections based on their own preferences for course times, or for other unknown reasons. Three sections were randomly placed in the treatment group ( $n = 58$ ) and three sections were randomly placed in the control group ( $n = 56$ ). Individuals in the treatment group participated in the enhanced format of the career course, while individuals in the control group participated in the standard format of the course. Participants in both the treatment group

and the control group received the career decision-making intervention in the form of a fifteen-week course for academic credit.

### *Procedure*

The current study took place during the fifteen-week spring academic semester of 2001, with the course intervention consisting of fourteen of the fifteen weeks. The first two weeks of the semester were used to collect pre-intervention data, to gather contact information from participants, to describe the format, content, and purpose of the course, and to allow for introductions and group formation.

The career decision-making course met weekly for approximately two hours in a classroom located at the Counseling and Testing Center at the University of Georgia. The current study's researcher served as one of the instructors for one section in the treatment group and for one section in the control group. Both course formats sought to assist students in making an informed major and career decision, including learning about one's self through assessing and clarifying one's values, personality preferences, interests, and abilities; learning about the world of work through exposure to resources and researching specific careers; and learning about and implementing an informed choice model. Students in both groups made a presentation to the class on careers of their choice and completed a paper that integrates their knowledge of self as it relates to class-related assessments and activities. During the last meeting of the fifteen-week semester, participants completed the post-intervention assessment instruments. Both pretests and posttests were administered in a group setting by the principal researcher and took place in the classroom where the course was taught each week.

In the traditional format of the course, students were presented with a general decision-making model that involves combining knowledge of the self with knowledge of the world of work. The goal of the course was for students to understand the informed decision-making process as it applies to their college major and career path. Through individual and group-oriented activities and assignments, students seek to identify their values, personality preferences, interests, and skills. They are also asked to complete a career research project, presentation, and integrative paper.

While retaining the general structure and components of the traditional format as described above, the enhanced format sections incorporated specific activities intended to enhance the career self-efficacy of women. A variety of in-class exercises, including stimulus-generated discussions, individual presentations and group presentations in a mixed-gender environment, allowed female students to actively engage in confidence-building activities and experience performance accomplishments. Discussions, reactions, and dialogues regarding gender norms, expectations, and stereotypes were intentionally fostered among students. Course instructors utilized their counseling and facilitative skills to encourage respectful conversations that allowed for the voicing of differing viewpoints, with the goal of increasing women's self-efficacy through knowledge about socialization, theory, statistics, trends, barriers, and family and community influence. Exercises and activities were modified in the enhanced format of the course to incorporate gender roles and self-efficacy.

Students were asked to interview individuals of their same gender currently working in a field they were considering as a future career. This component was designed to provide modeling or vicarious learning experiences for women at the college

level who may have had little or no exposure to an environment in which they are interested. The primary instructional goal was for female students to gain the opportunity to hear from and ask questions of an individual in these occupations, and secondarily to facilitate verbal persuasion and encouragement. A guided fantasy exercise regarding students' perceptions of themselves as successfully employed, having overcome self-selected barriers and challenges, took place during one class session. This exercise was utilized as a means of demonstrating the effects of relaxation on anxiety levels related to women's career concerns. Students were asked to identify and reflect on their familial vocational patterns and messages about men and women pursuing education and careers. Additionally, students participated in small group discussions in which they shared their histories with others, noting gender-related differences and similarities. This exercise allowed students to identify sources of encouragement and support as well as role models and the importance of each of these.

Students completed several career assessment instruments to assist with the career decision-making process. In the enhanced format, students were asked to specifically address personality traits and variables that may be stereotyped as feminine or masculine and how these impact, both positively and negatively, one's career choice. Additionally, students were required to consider occupations in which they expressed high degrees of interest in comparison to both males and females, and subsequently were challenged to explore and discuss barriers and impediments to pursuing fields that were not typical interests for their own gender. Students also participated in a group decision-making exercise in which male and female leaders received different instructions about what to focus on within their group in order to achieve success, based on traditional gender role

expectations. In a large-group discussion, course instructors facilitated a discussion about these differences and assumptions that are made about individuals based on biological sex.

Gender roles and their impact on individuals' career expectations, choices, and opportunities were discussed in the enhanced format of the course. Information regarding gender-related career issues (including stereotypes, biases, family and societal expectations, salary discrepancies, occupational underrepresentation and overrepresentation, barriers, assertiveness, advantages and disadvantages) was presented in class lectures and explored through both interactive (career presentations, occupational interviews, fishbowl discussion) and introspective (journal entries, career investigation, integrative paper) activities and exercises. Course outlines for the traditional and enhanced formats of the course are provided in Appendix C.

#### *Instrumentation*

The Personal Attributes Questionnaire (PAQ) (Spence, Helmreich, & Stapp, 1974) was selected to serve as the assessment instrument for measuring participants' perception of themselves as more stereotypically masculine (instrumental) or feminine (expressive). The Career Decision-Making Self-Efficacy Scale-Short Form (CDMSE-SF) (Betz, Klein, & Taylor, 1996) was utilized to assess participants' levels of confidence in their ability to successfully engage in the career choice process. The PAQ was utilized as a pre-intervention assessment instrument. The CDMSE-SF was used as both a pre-intervention and post-intervention instrument.

### *Personal Attributes Questionnaire*

The PAQ measures an individual's perception of himself or herself in terms of possessing instrumental and expressive characteristics. Instrumentality refers to an agentic, assertive orientation, and is associated with masculinity, or traits typically associated with males. Expressiveness, which is described as interpersonally-focused and relationship-oriented, is associated with traditional or stereotypically feminine qualities (Spence, Helmreich, & Stapp, 1974). The PAQ consists of three 8-item scales, resulting in 24 total items. Each item is based on a five-point Likert-scale in which the respondent is asked to rate himself or herself on where he or she falls on the continuum between two extremes. Instructions state for respondents to answer quickly, based on their first impressions. Sample items include "Very passive.....Very active" (item #6); "Not at all competitive.....Very competitive" (item #10); and "Can make decisions very easily.....Have difficulty making decisions" (item #16). The PAQ takes approximately 10-15 minutes to complete.

The M scale assesses an individual's perception of himself or herself in terms of stereotypically male attributes. The F scale measures one's view of himself or herself in terms of stereotypically feminine traits. The M-F scale is somewhat different from the M and F scales in that it contains a combination of items that describe traits thought to be positive for males but negative for females, and vice-versa. Because items on the M-F scale are scored in a masculine direction, however, the authors state that this scale also provides a measure of masculinity; therefore, higher scores indicate a more instrumental orientation (Spence & Helmreich, 1978, 1986). For the purposes of addressing the

current study's hypotheses, items loading into the M-F scale were not used in the scoring or analyses of participants' PAQ scores.

The PAQ was normed on male and female college students, who were asked to provide ratings for the following: the typical adult male and female, the typical male and female college student, and the ideal male and female, as well as himself or herself on each item. The resulting instrument contains items that describe socially desirable traits for both sexes; as such, the PAQ has been recommended (Hackett & Lonborg, 1994) as the instrument of preference over the Bem Sex-Role Inventory (Bem, 1974). Upon completion of the instrument, participants can be categorized based on self-perception as Masculine, Feminine, Androgynous, or Undifferentiated, or they can be assessed according to where they fall on each of the three scale continuums (M, F, M-F). Individuals are categorized based on scores that are equal to or greater than the means obtained in the normative sample. Individuals whose scores on the M scale are equal to or greater than the mean but lower than the mean on the F scale are categorized as Masculine. The reverse is true for respondents who are categorized as Feminine. Individuals are categorized as Androgynous when their scores are equal to or greater than the mean on both the F and M scales. The Undifferentiated category consists of respondents whose scores fall below the mean on both the F and M scales. Utilization of categories based on PAQ responses results in broad associations regarding how respondents view themselves with regard to gender role stereotypes. Masculine individuals primarily endorse items that signify instrumentality, whereas Feminine respondents endorse items relating to expressiveness. Androgynous individuals' responses indicate that they perceive themselves as possessing both instrumentality and

expressiveness. Undifferentiated respondents endorse few items on either scale, suggesting that they view themselves as neither expressive nor instrumental.

The Masculinity and Femininity scales of the PAQ were determined to accurately and independently measure the traits of instrumentality and expressiveness, respectively, in a study by Cota and Fekken (1988). The authors administered the PAQ to a total of 208 Canadian college students (96 male and 112 female) and upon analyses of the collected data, stated that the PAQ's construct validity was supported. Holmbeck and Bale (1988) completed a study in which the Masculinity and Femininity scales of the PAQ were found to be positively correlated with instrumental and expressive behaviors for men and women, respectively.

A multitude of recent studies have utilized the Personal Attributes Questionnaire to measure masculinity, femininity, and androgyny (Ametrano & Pappas, 1996; Dade & Sloan, 2000; Halpern, 1999; Moten, 2001; Wark & Krebs, 1996). The PAQ has been used to assess individual gender role perception in several recent studies in which the relationship between psychological gender and choice of major and career are foci of inquiry (Berzok, 1997; Burgard, 2000; Lackland, 1997; McCormick, 1997; Yoo & Lee, 1997). Additionally, a number of contemporary studies examining gender role, body image, and disordered eating have employed the PAQ as an assessment tool (Bessellieu, 1997; Braitman & Ramanaiah, 1999; Forbes, Adams-Curtis, Rade, & Jaberg, 2001; Lanter, 1999; Novick, 1999; Snyder & Hasbrouck, 1996).

#### *Career Decision-Making Self-Efficacy Scale-Short Form*

The CDMSE-SF (Betz, Klein, & Taylor, 1996), consisting of 25 items, is a shortened version of the original 50-item CDMSE (Taylor & Betz, 1983). Each item is

based on a five-point Likert-scale, ranging from “no confidence at all” to “complete confidence”. The CDMSE-SF was normed on 184 college students. The CDMSE-SF is based on Crites’s (1978) five Career Choice Competencies, resulting in the following five 5-item subscales: Self-Appraisal, Occupational Information, Goal Selection, Planning, and Problem Solving (Betz, Klein, & Taylor, 1996). This instrument measures self-efficacy expectations with respect to the process of career decision-making. The instrument’s instructions direct respondents to carefully consider their answers and to estimate their confidence levels with regards to a variety of tasks. The sentence stem for each item is presented prior to the first item: “How much confidence do you have that you could:.” Sample items include “Determine the steps you need to take to successfully complete your chosen major” (item #7); “Make a career decision and then not worry about whether it was wrong” (item #16); and “Talk with a person already employed in the field you are interested in” (item #19).

The CDMSE-SF was determined to have alpha values on the five subscales ranging from .73 to .83 and a total scale alpha value of .94, as compared to subscales ranging from .86 to .89 and a total value of .97 for the original CDMSE (Betz, Klein, & Taylor, 1996). In subsequent studies with a total of 347 college students, reliability coefficients ranged from .69 to .83 for the subscales and resulted in an alpha of .93 for the total score (Betz & Luzzo, 1996). No significant gender differences were found to exist in the CDMSE-SF norming sample. The CDMSE-SF was found to have comparable or higher concurrent validity than the original CDMSE when correlations were compared with regards to career indecision as measured by the Career Decision Scale (Osipow,

1987) and the Vocational Identity Scale of My Vocational Situation (Holland, Johnston, & Asama, 1993).

The short form of the Career Decision-Making Self-Efficacy Scale was developed in 1996, so published studies utilizing this instrument are limited. It has been used in several recent studies with a variety of student populations including African Americans (Hill, 1998), students with disabilities (Ochs & Roessler, 2001), athletes (Kornspan & Etzel, 2001), and Asian students (Mau, 2000). The CDMSE-SF has also been used in studies examining such topics as career issues in relationship to family of origin (Dodge, 2001), battered women's career self-efficacy (Brown, Reedy, Fountain, Johnson, & Dichiser, 2000), computer-assisted career guidance (Leckie, 1999), and career counseling with veterans (Krieshok, Ulven, Hecox, & Wettersten, 2000).

#### *Limitations*

The current study followed a pretest-posttest control group design (Huck, Cormier, & Bounds, 1974). Because students registered for course sections of their own choosing, randomization was not possible. During the registration period for spring semester students registered for one of six sections of ECHD 3050, distinguishable from one another only by differing meeting times. Upon reaching maximum capacity for all sections, the principal researcher randomly assigned three sections to the treatment condition and three sections to the control condition.

The rationale for assigning sections was based on level of instructor experience. Of the four available instructors, two were first-time ECHD 3050 teachers, one had taught ECHD 3050 twice prior to the semester in which the current study took place, and one (the principal researcher) had taught ECHD 3050 seven times before the current

study. Therefore, the principle researcher taught one control group section and one treatment group section, as did the other veteran instructor. One new instructor taught a control group section and the other new instructor taught a treatment group section. All four instructors met weekly with the director of the Counseling and Testing Center, who is the professor of record for ECHD 3050, and with the coordinator of Career Services at the Counseling and Testing Center.

While efforts were made to control for instructor variability, certain human characteristics (interpersonal style, sense of humor, interest in topic area) may have differentially impacted the effectiveness of the interventions. Furthermore, varying demographics and personality characteristics inherent to the group of students enrolled in each section may have contributed to the effectiveness of the interventions.

A second limitation the current study faced was the lack of an external control group. In order to measure the overall effectiveness of the career decision-making course, students' pretest scores, administered prior to the intervention, were compared with their posttest scores, administered upon completion of the intervention.

Participants' scores were not compared with subjects who did not enroll in a career course intervention. Because all of the subjects in the present study received a career decision-making intervention, the generalizability of the results may be limited.

Thirdly, the initial sample of 114 participants was reduced to 105 due to a combination of students dropping the course after completing the pretest instruments and failing to attend the final class period, which included administration of the posttest assessment inventory.

## CHAPTER 4

### ANALYSIS OF THE DATA

#### *Overview*

The present study investigated the effectiveness of a career course designed to improve career self-efficacy in undergraduate women. Specifically, the study measured whether targeted (females; feminine and undifferentiated) participants in the enhanced format of the course demonstrated significantly higher career decision-making self-efficacy than those in the traditional format of the course. By incorporating information, exercises, and assignments that address gender roles and self-efficacy into the course curriculum, the study sought to provide an intervention that impacts individuals negatively affected by gender stereotyping and socialization.

In order to accomplish the goals of the present study, 114 undergraduate students enrolled at the University of Georgia who registered for ECHD 3050, “Choosing a Major and Career Goal”, were administered two assessment instruments prior to the intervention: the Career Decision-Making Self-Efficacy Scale-Short Form (CDMSE-SF) (Betz, Klein, & Taylor, 1996) and the Personal Attributes Questionnaire (PAQ) (Spence, Helmreich, & Stapp, 1974). The CDMSE-SF was administered to gather information regarding participants’ confidence in their ability to select a college major and career goal. The PAQ was utilized to assess participants’ self-perceptions in terms of gender role. Subjects’ answers determined their placement into one of four mutually exclusive categories: Feminine, Masculine, Androgynous, or Undifferentiated. During the final class period of the semester, 105 students completed the CDMSE-SF as a posttest

assessment inventory. Nine students who completed the pretest instruments did not complete the posttest assessment due to absences on the day of posttest administration or their having dropped the class earlier in the semester.

This chapter presents the results of the present study. First, the characteristics of the sample are presented, providing demographic distributions for participants in the treatment and control groups, including gender, ethnicity, and academic year. Then the data is presented in the order of the research hypotheses stated earlier. Each hypothesis is presented, along with the relevant data and a description of the methods of statistical analyses utilized to obtain the results.

### *Demographic Information*

#### *Gender*

The distribution of males and females in each group was fairly equivalent, with the treatment group consisting of 69% females and 31% males and the control group consisting of 66.1% females and 33.9% males. Although both groups contained more females than males, these figures represent the current trend in females outnumbering males in American colleges and universities.

#### *Ethnicity*

Both groups were primarily Caucasian in terms of ethnicity. The treatment group was 82.8% Caucasian and the control group was 83.9% Caucasian. Other ethnic groups represented in the treatment group included African-American (6), Asian-American (3), and American Indian (1). The control group included African-Americans (3), Hispanic-Americans (1), Asian-Americans (4), and one individual who self-identified as "Other."

### *Academic Year*

Both groups contained undergraduate students at each of the four class levels. The control group consisted of more freshmen (46.4%) and sophomores (35.7%) than the treatment group (31% freshmen, 29.3% sophomores). The treatment group was comprised of almost twice as many juniors as the control group (15:8) and four times as many seniors as the control group (8:2).

### *Gender Role Category*

Both the treatment group and the control group were comprised of students in all four PAQ categories. The treatment group was distributed almost equally among all four categories, with a range of only 5.3% between Feminine, the least represented category (22.8%) and Undifferentiated, with the highest representation (28.11%). The control group's categorical representation was notably different from the treatment group's, with 75.0% of respondents falling into either the Feminine or Undifferentiated categories.

Frequencies for gender, ethnicity, academic year, and gender role category are presented for both the treatment group and the control group in Table 1.

## *Research Hypotheses*

### *Overall Course Effectiveness*

*Hypothesis 1.* Participants who complete a career decision-making course will demonstrate a statistically significant increase in career self-efficacy as measured by the Career Decision-Making Self-Efficacy Scale-Short Form (CDMSE-SF) (Betz, Klein, & Taylor, 1996).

All participants included in the final sample ( $n = 105$ ) completed the CDMSE-SF prior to and following the career course intervention. Significant increases in career self-

Table 1

*Frequencies for Gender, Ethnicity, Academic Year, and Gender Role Category*

Variable	Treatment Group		Control Group	
	Frequency	Percentage	Frequency	Percentage
<u>Gender</u>				
Female	40	69	37	66.1
Male	18	31	19	33.9
<u>Ethnicity</u>				
Afr-Am	6	10.3	3	5.4
Hispanic	0	0	1	1.8
Asian	3	5.2	4	7.1
Am Ind	1	1.7	0	0
Caucas	48	82.8	47	83.9
Other	0	0	1	1.8
<u>Academic Year</u>				
Freshman	18	31	26	46.4
Sophomore	17	29.3	20	35.7
Junior	15	25.9	8	14.3
Senior	8	13.8	2	3.6
<u>Gender Role Category</u>				
Feminine	13	22.8	20	35.7
Masculine	14	24.6	6	10.7
Androgynous	14	24.6	8	14.3
Undifferentiated	16	28.1	22	39.3

efficacy were found in the sample as a whole ( $t=10.12$ ,  $p=.00$ ), as well as in females ( $t=8.13$ ,  $p=.00$ ), males ( $t=5.95$ ,  $p=.00$ ), treatment group participants ( $t=7.61$ ,  $p=.00$ ), and control group participants ( $t=6.69$ ,  $p=.00$ ). The result of t-test analyses, as shown in Table 2, leads to support for this hypothesis.

Table 2

*Means, Standard Deviations, and t-scores Comparing Pre and Post CDMSE-SF Scores*

Group	Pre		Post		<u>t</u>	<u>p</u>
	Mean	<u>SD</u>	Mean	<u>SD</u>		
<u>Ttl Smp</u>	83.33	15.30	97.30	14.36	10.12	.00**
Females	83.55	15.09	97.39	15.29	8.13	.00**
Males	82.92	15.90	97.14	12.60	5.95	.00**
<u>Trt Grp</u>	82.77	13.31	98.21	14.71	7.61	.00**
Females	82.34	13.78	97.03	16.20	5.54	.00**
Males	83.65	12.66	100.65	11.09	5.62	.00**
<u>Ctrl Grp</u>	83.89	17.13	96.42	14.08	6.69	.00**
Females	84.79	16.44	97.76	14.52	6.03	.00**
Males	82.26	18.66	94.00	13.30	3.25	.00**

\*  $p < .05$ ; \*\* $p \leq .01$

Ttl Smp = Total Sample ( $n=105$ ), Trt Grp = Treatment Group ( $n=52$ ), Ctrl Grp = Control Group ( $n=53$ ).

*Gender*

*Hypothesis 2.* Female participants in the treatment group will demonstrate statistically greater post-intervention career self-efficacy than male participants in the treatment group as measured by the CDMSE-SF while controlling for pre-intervention career self-efficacy as measured by the CDMSE-SF.

When males and females who completed the treatment format of the course were compared, no significant differences were found in their CDMSE-SE posttest scores ( $F=1.14, p=.29$ ). The treatment format appears to be equally effective with students across gender. The results of the analysis of covariance, presented in Table 3, show that this hypothesis was not supported.

Table 3

*ANCOVA Summary Table for Differences in Treatment Group Post CDMSE-SF Scores based on Gender*

Source	SS	df	MS	F	Sig.
Gender	.838	1	.838	1.14	.29
Pretest Score	6.63	1	6.63	9.03	.00**
Error	35.97	49	.73		
Total	940.00	52			

\*  $p \leq .05$ ; \*\*  $p \leq .01$

Adjusted  $R^2 = .17$

*Hypothesis 3.* Female participants in the treatment group will demonstrate statistically greater post-intervention career self-efficacy than female participants in the control group as measured by the CDMSE-SF while controlling for pre-intervention career self-efficacy as measured by the CDMSE-SF.

An analysis of covariance demonstrated no significant differences in post-intervention CDMSE-SF scores when comparing females in the treatment group with females in the control group. The results of this ANCOVA, which lead to failure to support the hypothesis, are displayed in Table 4.

#### *Gender Role Category and Course Format*

*Hypothesis 4.* Participants in the treatment group who perceive themselves as feminine/expressive as determined by the Personal Attributes Questionnaire (PAQ)

(Spence, Helmreich, & Stapp, 1974) will demonstrate statistically greater post-intervention career self-efficacy as measured by the CDMSE-SF than participants in the

Table 4

*ANCOVA Summary Table for Differences in Treatment and Control Group Post CDMSE-SF Scores of Females*

Source	SS	df	MS	F	Sig.
Group	1.46	1	1.46	2.69	.11
Pretest Score	16.66	1	16.66	30.70	.00**
Error	35.82	66	.54		
Total	1238.00	69			

\*  $p \leq .05$ ; \*\* $p \leq .01$

Adjusted  $R^2 = .30$

treatment group who perceive themselves as either masculine/instrumental or androgynous as determined by the PAQ while controlling for pre-intervention career self-efficacy as measured by the CDMSE-SF.

As shown in Table 5, an analysis of covariance indicated that a significant difference existed between treatment group participants' posttest CDMSE-SF scores

Table 5

*ANCOVA Summary Table for Differences in Treatment Group Post CDMSE-SF Scores based on Feminine, Masculine, and Androgynous PAQ Categories*

Source	SS	df	MS	F	Sig.
Gender Role Category	4.36	2	2.18	3.28	.05*
Pretest Score	3.11	1	3.11	4.67	.04*
Error	21.95	33	.67		
Total	688.00	37			

\*  $p \leq .05$ ; \*\* $p \leq .01$

Adjusted  $R^2 = .21$

when categorized according to gender role perception ( $F=3.28$ ,  $p=.05$ ). Among individuals who perceived themselves as feminine, masculine, and androgynous, a significant difference in post-intervention career self-efficacy was demonstrated. The hypothesis was supported.

Subsequent ANCOVAs were conducted in order to determine whether significant differences existed between each possible pair of categories. Table 6 displays the ANCOVA results for the Feminine-Masculine pair, which were significantly different from one another ( $F=4.59$ ,  $p=.04$ ). In Table 7, the ANCOVA results for the Feminine-Androgynous pair are presented, indicating a significant difference between individuals in these two categories ( $F=7.77$ ,  $p=.01$ ). The ANCOVA for the Masculine-Androgynous pair did not reveal a significant difference among participants in these two gender role categories ( $F=.01$ ,  $p=.95$ ), as shown in Table 8.

*Hypothesis 5.* Participants in the treatment group who perceive themselves as undifferentiated as determined by the PAQ will demonstrate statistically greater post-intervention career self-efficacy as measured by the CDMSE-SF than participants in the treatment group who perceive themselves as either masculine/instrumental or

Table 6

*ANCOVA Summary Table for Differences in Treatment Group Post CDMSE-SF Scores based on Feminine and Masculine PAQ Categories*

Source	SS	df	MS	<u>F</u>	Sig.
Gender Role Category	3.46	1	3.46	4.59	.04*
Pretest Score	4.00	1	4.00	5.31	.03*
Error	15.83	21	.75		
Total	23.83	23			

\*  $p \leq .05$ ; \*\*  $p \leq .01$

androgynous as determined by the PAQ while controlling for pre-intervention career self-efficacy as measured by the CDMSE-SF.

When compared with masculine-categorized and androgynous-categorized participants in the treatment group, subjects in the undifferentiated category did not demonstrate a significant difference in posttest CDMSE-SF scores ( $F=.63, p=.54$ ). The results of the analysis of covariance are presented in Table 9, leading to a failure to support the hypothesis.

*Hypotheses 6.* Participants in the treatment group who perceive themselves as either feminine/expressive or undifferentiated as determined by the PAQ will demonstrate statistically greater post-intervention career self-efficacy as measured by the CDMSE-SF than participants in the treatment group who perceive themselves as either masculine/instrumental or androgynous as determined by the PAQ while controlling for pre-intervention career self-efficacy as measured by the CDMSE-SF.

Table 7

*ANCOVA Summary Table for Differences in Treatment Group Post CDMSE-SF Scores based on Feminine and Androgynous PAQ Categories*

Source	SS	df	MS	F	Sig.
Gender Role Category	3.65	1	3.65	7.77	.01**
Pretest Score	.23	1	.23	.49	.49
Error	9.40	20	.47		
Total	13.83	22			

\*  $p \leq .05$ ; \*\*  $p \leq .01$

When individuals in the treatment format who fell into either the feminine or the undifferentiated categories were combined and subsequently compared with individuals who fell into either the masculine or the androgynous categories, a significant difference in post-intervention CDMSE-SF scores was found ( $F=4.67$ ,  $p=.04$ ). Thus, the hypothesis was supported. The results of the analysis of covariance are presented in Table 10.

*Hypothesis 7.* Participants in the control group who perceive themselves as feminine/expressive as determined by the PAQ will not demonstrate statistically greater post-intervention career self-efficacy as measured by the CDMSE-SF than participants in the control group who perceive themselves as either masculine/instrumental or androgynous as determined by the PAQ while controlling for pre-intervention career self-efficacy as measured by the CDMSE-SF.

Table 8

*ANCOVA Summary Table for Differences in Treatment Group Post CDMSE-SF Scores based on Masculine and Androgynous PAQ Categories*

Source	SS	df	MS	F	Sig.
Gender Role Category	.03	1	.03	.01	.95
Pretest Score	2.75	1	2.75	3.68	.07
Error	17.91	24	.75		
Total	20.67	26			

\*  $p \leq .05$ ; \*\* $p \leq .01$

When CDMSE-SF posttest scores were analyzed for Feminine, Masculine and Androgynous control-group subjects, no significant difference was found ( $F=.65$ ,  $p=.53$ ). The results of the analysis of covariance are displayed in Table 11, leading to support for this hypothesis.

*Hypothesis 8.* Participants in the control group who perceive themselves as undifferentiated as determined by the PAQ will not demonstrate statistically greater post-intervention career self-efficacy as measured by the CDMSE-SF than participants in the control group who perceive themselves as either masculine/instrumental or androgynous as determined by the PAQ while controlling for pre-intervention career self-efficacy as measured by the CDMSE-SF.

An analysis of covariance demonstrated no significant difference in control-group CDMSE-SF scores among Undifferentiated, Masculine, and Androgynous participants

Table 9

*ANCOVA Summary Table for Differences in Treatment Group Post CDMSE-SF Scores based on Undifferentiated, Masculine, and Androgynous PAQ Categories*

Source	SS	df	MS	F	Sig.
Gender Role Category	.97	2	4.29	.63	.54
Pretest Score	4.29	1	4.29	5.60	.02*
Error	28.37	37	.77		
Total	790.00	41			

\*  $p \leq .05$ ; \*\*  $p \leq .01$

Adjusted  $R^2 = .11$

( $F=.39$ ,  $p=.68$ ). The results of the ANCOVA are presented in Table 12. This hypothesis was supported.

*Hypothesis 9.* Participants in the control group who perceive themselves as either feminine/expressive or undifferentiated as determined by the PAQ will not demonstrate statistically greater post-intervention career self-efficacy as measured by the CDMSE-SF than participants in the control group who perceive themselves as either

masculine/instrumental or androgynous as determined by the PAQ while controlling for pre-intervention career self-efficacy as measured by the CDMSE-SF.

When participants who viewed themselves as either feminine or undifferentiated were taken together and compared with those who perceived themselves as belonging to either the masculine or androgynous categories, no significant difference emerged among those in the control format ( $F=.05$ ,  $p=.82$ ). The hypothesis was supported. The results of the analysis of covariance are presented in Table 13.

Table 10

*ANCOVA Summary Table for Differences in Treatment Group Post CDMSE-SF Scores based on (Masculine + Androgynous) and (Feminine + Undifferentiated) Collapsed PAQ Categories*

Source	SS	df	MS	F	Sig.
Gender Role Category	3.26	1	3.26	4.67	.04*
Pretest Score	4.46	1	4.46	6.38	.02*
Error	33.56	48	.70		
Total	924.00	51			

\*  $p \leq .05$ ; \*\* $p \leq .01$

Adjusted  $R^2 = .18$

*Hypothesis 10.* Participants in the treatment group who perceive themselves as feminine/expressive as determined by the PAQ will demonstrate statistically greater post-intervention career self-efficacy as measured by the CDMSE-SF than participants in the control group who perceive themselves as feminine/expressive as determined by the PAQ while controlling for pre-intervention career self-efficacy as measured by the CDMSE-SF.

Table 14 presents the results of the analysis of covariance comparing individuals in the Feminine category who completed the treatment format of the course with

Feminine-typed participants in the control format of the course. As shown, no significant post-intervention differences were found ( $F=1.80$ ,  $p=.19$ ), leading to failure to support the hypothesis.

Table 11

*ANCOVA Summary Table for Differences in Control Group Post CDMSE-SF Scores based on Feminine, Masculine, and Androgynous PAQ Categories*

Source	SS	df	MS	F	Sig.
Gender Role Category	.59	2	.29	.65	.53
Pretest Score	6.57	1	6.57	14.42	.00**
Error	12.75	28	.46		
Total	525.00	32			

\*  $p \leq .05$ ; \*\* $p \leq .01$

Adjusted  $R^2 = .33$

*Hypothesis 11.* Participants in the treatment group who perceive themselves as undifferentiated as determined by the PAQ will demonstrate statistically greater post-intervention career self-efficacy as determined by the CDMSE-SF than participants in the

Table 12

*ANCOVA Summary Table for Differences in Control Group Post CDMSE-SF Scores based on Undifferentiated, Masculine, and Androgynous PAQ Categories*

Source	SS	df	MS	F	Sig.
Gender Role Category	.43	2	.21	.39	.68
Pretest Score	8.86	1	8.86	16.00	.00**
Error	17.16	31	.55		
Total	627.00	35			

\*  $p \leq .05$ ; \*\* $p \leq .01$

Adjusted  $R^2 = .28$

control group who perceive themselves as undifferentiated as determined by the PAQ while controlling for pre-intervention career self-efficacy as measured by the CDMSE-SF.

A comparison of individuals in the treatment group who perceive themselves as Undifferentiated with their counterparts in the control group resulted in no significant differences in post-intervention CDMSE-SF scores ( $F=.47, p=.50$ ). The results of the analysis of covariance are displayed in Table 15. The hypothesis was not supported.

*Hypothesis 12.* Participants in the treatment group who perceive themselves as either feminine/expressive or undifferentiated as determined by the PAQ will demonstrate statistically greater post-intervention career self-efficacy as determined by the CDMSE-SF than participants in the control group who perceive themselves as either feminine/expressive or undifferentiated as determined by the PAQ while controlling for pre-intervention career self-efficacy as measured by the CDMSE-SF.

Table 13

*ANCOVA Summary Table for Differences in Control Group Post CDMSE-SF Scores based on (Masculine + Androgynous) and (Feminine + Undifferentiated) Collapsed PAQ Categories*

Source	SS	df	MS	F	Sig.
Gender Role Category	2.72	1	2.72	.05	.82
Pretest Score	10.44	1	10.44	20.22	.00**
Error	25.82	50	.52		
Total	893.00	53			

\*  $p \leq .05$ ; \*\* $p \leq .01$

Adjusted  $R^2 = .27$

Table 14

*ANCOVA Summary Table for Differences in Treatment and Control Group Post CDMSE-SF Scores based on Feminine PAQ Category*

Source	SS	df	MS	F	Sig.
Group	.84	1	.84	1.80	.19
Pretest Score	1.90	1	1.90	4.08	.05*
Error	11.62	25	.47		
Total	400.00	28			

\*  $p \leq .05$ ; \*\* $p \leq .01$

Adjusted  $R^2 = .09$

When participants in either the Feminine or Undifferentiated categories were considered together, as were those in either the Masculine or Androgynous categories, an analysis of covariance revealed no significant difference between those in the treatment group and those in the control group ( $F=1.78$ ,  $p=.19$ ). CDMSE-SF posttest scores were not significantly different among these two groups, as summarized in Table 16. The hypothesis was not supported.

Table 15

*ANCOVA Summary Table for Differences in Treatment and Control Group Post CDMSE-SF Scores based on Undifferentiated PAQ Category*

Source	SS	df	MS	F	Sig.
Group	.33	1	.33	.47	.50
Pretest Score	5.45	1	5.45	7.79	.01**
Error	22.37	32	.70		
Total	604.00	35			

\*  $p \leq .05$ ; \*\* $p \leq .01$

Adjusted  $R^2 = .15$

Table 16

*ANCOVA Summary Table for Differences in Treatment and Control Group Post CDMSE-SF Scores based on (Masculine + Androgynous) and (Feminine + Undifferentiated) Collapsed PAQ Categories*

Source	SS	df	MS	F	Sig.
Group	1.06	1	1.06	1.78	.19
Pretest Score	7.46	1	7.46	12.52	.00**
Error	35.77	60	.60		
Total	1004.00	63			

\*  $p \leq .05$ ; \*\*  $p \leq .01$

Adjusted  $R^2 = .15$

### Summary

This chapter presented the results of the analysis of the data collected from this study along with a description of the characteristics of the sample. Significant increases in post-intervention CDMSE-SF scores were found among all participants completing the career decision-making course, across gender and format (treatment or control). By conducting a series of ANCOVAs, significant differences were found in post-intervention career decision-making self-efficacy among various gender role categorized participants. When gender role was considered, no significant differences were found in CDMSE-SF posttest scores among control group subjects. In the treatment group, posttest scores were significantly different among Feminine and Masculine participants and Feminine and Androgynous participants, but not among Masculine and Androgynous participants. No significant differences in treatment group CDMSE-SF scores were found to exist when Undifferentiated individuals were compared with those in other categories. When Undifferentiated and Feminine participants were combined and their CDMSE-SF posttest scores were compared with the combined Masculine and Androgynous subjects' scores,

significant differences were found only in the treatment group. When matched treatment and control group categories were compared on the basis of CDMSE-SF posttest scores, no significant differences were found.

## CHAPTER 5

### DISCUSSION AND RECOMMENDATIONS

#### *Overview*

College students face the task of selecting a major and career path in the context of society's sex-typed roles, expectations, and vocational paths. For undergraduate women, this task is especially challenging due to the nature of these gender-based norms. The stereotypical feminine role is one that lacks assertiveness and instrumentality, two characteristics for which society rewards workers with high salary, prestige, and advancement. Without opportunities to explore gender role socialization, nontraditional careers, and related self-confidence levels, young women may conform to society-imposed standards and ideals that may not be reflective of their full potential.

Currently, more women are attending college than ever before; however, merely attending an institution of higher learning does not ensure greater self-confidence, a larger range of career options, or an understanding of how one's prescribed gender role impacts either of these. Exposure to sources of information that increase career self-efficacy and an exploration of internalized messages about gender roles, gender-appropriate majors and careers, and barriers are critical experiences for women if they are to reap the full benefits from college.

Programs and interventions that actively address women's career development needs before they receive training and enter the job market are needed to fill the gap between theory and practice. An effective mode of service delivery is the career exploration course offered on many college and university campuses. Incorporating self-

efficacy-enhancement and gender role exploration into an existing career decision-making course curriculum is a possible method of attending to both female and male students' needs while specifically targeting the negative impact societal messages have on women in particular.

### *Purpose*

The purpose of the current study was to evaluate the effectiveness of a career decision-making course in increasing undergraduates' self-efficacy. More specifically, the present study sought to determine whether an experimental format of the course that incorporated career self-efficacy theory (Hackett & Betz, 1981) and gender role socialization (Bem, 1974; Spence & Helmreich, 1978) into its curriculum was more effective with women and/or individuals who view themselves in a manner consistent with stereotypical feminine qualities. Research has drawn attention to the utility and benefits of career classes at the college level (Cox, 1996; Foltz, 1993; Oreshnick, 1991), but researchers have also raised the issue of discerning what methods work best for whom (Bergeron and Romano, 1987; Herr, 1996; Krumboltz, 1996; McAuliffe, 1991; Oliver & Spokane, 1988). The primary aim of the study was to determine the overall effectiveness of the career course in its ability to develop and improve decision-making skills and secondarily to assess the impact of an attempt to enhance the curriculum designed to address the needs of targeted populations.

The need for interventions based on career theory has been stated in the literature, both as a means of scientific inquiry into theories' robustness and as a method of evaluating their potential utility (Brooks, 1990; Brown, 1996; Holland, 1996; Savickas, 1995). The emergence of theories of women's career choice and development, coupled

with increasing numbers of females entering college and the professional workforce, provide rich direction for theoretical implementation, informed service delivery, and needs-based programming. The present study attempted to translate self-efficacy theory (Bandura, 1977, 1986; Hackett & Betz, 1981) and gender role socialization theory (Bem, 1974; Spence & Helmreich, 1978) into practice by infusing theoretical constructs into an established mode of career assistance, using psychometrically sound assessment instruments to measure its effectiveness.

### *Procedures*

#### *Sample and Intervention*

The sample for the current study comprised 105 undergraduate students attending the University of Georgia. All participants were enrolled in ECHD 3050, a career decision-making course entitled “Choosing a Major and Career Goal.” Of the 114 subjects who completed the pre-test measures, 105 remained enrolled and completed post-test instrumentation. The treatment group consisted of 52 participants and the control group consisted of 53 participants. The treatment group and the control group each consisted of three sections of the course. The control group followed the standard career exploration and decision-making model. The treatment group followed a format that incorporated self-efficacy-enhancing activities and gender role exploration into the standard curriculum. Both groups were taught by advanced doctoral-level counseling psychology students under supervision. The primary aims of the course for both the treatment group and the control group were to increase self-awareness, to familiarize students with the world of work, and assist them with the process of selecting a major area of study and a career path.

### *Instrumentation*

Self-efficacy theory (Bandura, 1977, 1986), and more specifically, career self-efficacy theory (Hackett & Betz, 1981) provided the foundation upon which the treatment intervention for the present study was built. Spence and Helmreich's (1978) conceptualization of gender roles provided the framework for the target population of the current study. In order to measure the effectiveness of the treatment condition and with whom it was most effective, instruments constructed by the theorists themselves were utilized. The Career Decision-Making Self-Efficacy Scale – Short Form (CDMSE-SF) (Betz, Klein, & Taylor, 1996) was selected to measure participants' pre-intervention and post-intervention levels of self-confidence regarding their ability to choose a career. The Personal Attributes Questionnaire (PAQ) (Spence, Helmreich, & Stapp, 1974) was used as a pre-intervention assessment of participants' views of themselves with regard to possessing stereotypical masculine and feminine traits. Based on their PAQ scores, participants were placed in one of four corresponding gender role categories and their CDMSE-SF pre-test and post-test scores were examined for significant differences according to which format of the course they completed.

### *Results*

#### *Research Hypotheses*

Three primary areas of inquiry emerged from the review of the literature to form the basic research questions. The first question sought to determine whether an undergraduate career decision-making course was significantly impactful in increasing students' career self-efficacy. The second area of interest centered around the effects of gender role socialization on males and females and how levels of self-efficacy may be

impacted by gender-based expectations and norms. The third topic of exploration was the possibility of differentially impacting career-related self-confidence by planfully incorporating self-efficacy-enhancing components into a career decision-making intervention. In order to adequately address the research questions, hypotheses were generated in an effort to make specific comparisons based on overall course effectiveness, gender, gender role category, and course format.

*Overall Course Effectiveness.* As expected, the sample participants demonstrated statistically significant increases in career decision-making self-efficacy when pre-intervention assessment scores were compared with post-intervention assessment scores. The data suggests that both formats of the career decision-making course were effective in increasing students' levels of confidence in their ability to engage in the process of selecting a major and career.

*Gender.* Differences based on the gender of the participants were not established. No statistically significant differences in post-intervention career self-efficacy were found between females in the treatment group and females in the control group, nor between males and females in the treatment group. While the assumption is that females are more likely to see themselves as stereotypically feminine, and therefore less career-efficacious, and males more likely to see themselves as stereotypically masculine, this may not necessarily be true. This demonstrates the need for deeper investigation into individual self-perception beyond one's biological sex. Many of the females in the current study may have viewed themselves as possessing the masculine-linked qualities of assertiveness and instrumentality, and vice-versa for the males. Additionally, differences in the characteristics of the control group and the treatment group, such as

percentage of upperclassmen and distribution of gender role categories may have impacted direct comparisons based on biological gender.

*Gender Role Category and Course Format.* As expected, no significant differences in post-intervention career self-efficacy were discovered among control group participants based on gender role category. This suggests that the standard format of the career decision-making course was uniformly effective among all participants, regardless of their gender role self-perception, in increasing career self-efficacy. Within the treatment group, significant differences in post-intervention self-efficacy were found between participants who viewed themselves as possessing masculine or instrumental qualities (Masculine and Androgynous categories) and participants who did not see themselves as having these traits (Feminine and Undifferentiated). Additionally, as expected, statistically significant differences in post-intervention career self-efficacy were demonstrated when Feminine-typed participants in the treatment group were contrasted with Masculine-typed and Androgynous-typed participants in the treatment group. Also, consistent with expectations, no significant differences were found within treatment group subjects when Masculine-typed participants were contrasted with Androgynous-typed participants.

These results suggest that the enhanced format career intervention was especially effective with those students who do not feel assertive and perhaps lack a sense of agency and confidence, particularly in their ability to execute the career decision-making process. Since pre-intervention career self-efficacy was held constant in each statistical analysis, these results suggest that treatment group participants who did not view themselves as assertive benefited from greater gains in career self-efficacy than those

who saw themselves as significantly assertive. It is possible that individuals in the treatment group who saw themselves as primarily expressive in nature (Feminine) or did not see themselves as particularly assertive or expressive (Undifferentiated) responded more strongly to the treatment format's self-efficacy-enhancing activities and exploration of gender role socialization, and experienced a greater increase in self-efficacy after completing the course, than did participants in the Masculine and Androgynous categories.

Unexpectedly, no statistically significant differences were found in post-intervention career self-efficacy between participants in the treatment group and participants in the control group when gender role category was considered. The data suggest that the treatment format of the course was not more effective than the control format in increasing career self-efficacy among Feminine-typed and Undifferentiated-typed participants. This may indicate that the enhanced format, while effective, was not powerful enough to elicit significantly substantial gains when compared with the already-effective standard format. It may also suggest that the construct of efficacy is more dominant than gender constructs.

#### *Confounding Variables*

A number of confounding variables were noted in the present study and may have impacted the results due to their presence. These include the power of the intervention, individual instructor differences, variety in treatment and control group characteristics, and ceiling effects.

*Power of the intervention.* While the treatment format of the course appeared to be effective in significantly increasing career self-efficacy levels of Feminine and

Undifferentiated participants, it was not found to be significantly more effective than the control format with individuals in these gender role categories. These findings may be an indicator that the intervention was especially helpful to targeted individuals, but was not powerful enough to show that it is superior to the standard career decision-making course curriculum. The present study attempted to retain the original standard course format in both conditions, while enhancing the treatment group; therefore, the two formats may have been ultimately more similar than different. Perhaps additional or alternative textbooks and/or supporting articles regarding gender roles, as well as a more clearly defined departure from the standard format (i.e., theoretical models of career development), would result in significant differences between groups. Another area of inquiry lies in assessing the impact of the treatment program on a group restricted to women.

*Individual instructor differences.* While efforts were made to control for variation in instructor personnel, certain individual differences may have impacted the results. The principal researcher, a Caucasian female, taught one control section and one treatment section, as did an African American male, second-semester graduate assistant. The remaining two sections (one control, one treatment) were taught by predoctoral interns, both Caucasian females who had not previously taught the course. Any personal factors on the part of the instructors that may have contributed to the results of the present study are unknown; however, it must be assumed that a certain degree of variability was present due to differences in personality, style, interpersonal characteristics, and communication patterns, for example.

*Variety in treatment and control group characteristics.* Students self-selected the sections ECHD 3050 in which to enroll, and sections were assigned to either the treatment or the control group based on instructor variables. As such, certain characteristics existed within each condition that may have impacted the results of the current study. For example, the control group consisted of 82% underclassmen, while the treatment group consisted of only 60.3%. Additionally, differences were found to exist between the two groups in terms of gender role distribution: 75% of the control group fell into either the Undifferentiated or Feminine categories, whereas this was true for only 50.9% of the treatment group. The treatment group was much more evenly distributed both in terms of gender role and class level. Because gender role perception is thought to be a stable construct, it was not expected that these differences should be related to one another and therefore no attempts to control for class level were made. However, with regard to comparisons, the groups do appear to reflect some notable differences in terms of relevant variables. Motivation for enrolling in the course may have been different for underclassmen than for upperclassmen (i.e., more upperclassmen may have already determined their major and career path and simply needed a two-credit course to graduate).

*Ceiling effect.* Because the pretest-posttest instrument selected for this study, the CDMSE-SF (Betz, Klein, & Taylor, 1996), utilizes a five-point, Likert-type scale, it is possible that differences between the treatment group and the control group were not demonstrated due to the lack of sensitivity on the part of the instrument. When scores for groups being compared are clustered at similar points on a given scale (i.e., the upper end), it is possible that differences are not evident because the possible spread of scores is

restricted, resulted in a “ceiling effect” (Kazdin, 1998). Utilizing the original CDMSE (Taylor & Betz, 1983), which utilizes a nine-point Likert-type scale, may be a method of remedying the possible liability presented by the short form of this instrument in future repeated-measures designs that seek to explore career self-efficacy.

### *Conclusions*

The current study sought to determine whether a career decision-making course was effective in increasing the career self-efficacy of undergraduate students. More specifically, the present study sought to demonstrate that an experimental format of the aforementioned course that incorporated gender role socialization and self-efficacy enhancing elements into its curriculum would be significantly more effective with targeted individuals (females, Feminine and Undifferentiated gender role types). All sections of the course proved to be effective in significantly increasing participants’ career self-efficacy. No differences based on sex were found. In terms of gender role categories, individuals in the treatment group who viewed themselves as Feminine or Undifferentiated demonstrated significantly higher levels of post-intervention career self-efficacy than Masculine- or Androgynous-typed individuals in the treatment group. No significant differences based on gender role categorization were found within the control group. When between-group comparisons were made on the basis of gender role categories, no significant differences in career self-efficacy were discovered. The results of current study indicate that addressing gender role and self-efficacy is beneficial for certain individuals who are engaging in the career decision-making process. Specifically, students who do not view themselves as possessing instrumental or assertive

characteristics appeared to have made noteworthy gains in their self-estimated ability to successfully undertake the process of selecting a career.

The present study sought to impact the career self-efficacy of female colleges students by investigating gender role perceptions and adding a curriculum component designed to address these variables to an existing career course. The results indicate that women who view themselves as more stereotypically feminine did in fact benefit from this intervention. It appears that incorporating the tenets of self-efficacy theory into women's career decision-making process in an intentional, interactive, and visible way made a difference in levels of self-confidence for these women. The present study indicates that by participating in the enhanced format of the course, women who view themselves as possessing more stereotypically feminine qualities benefited in an especially meaningful way when compared with other students in the course.

#### *Implications*

The results of the current study are promising. The findings clearly demonstrate the utility and effectiveness of career exploration and decision-making courses in the process of assisting college students with the process of selecting a major and career goal. The present study's finding that participation in ECHD 3050 resulted in significant increases in career self-efficacy adds to the growing body of literature that suggests that career interventions not only provide knowledge and skills but also a personal sense of confidence in one's ability to carry out the process of decision-making. Furthermore, the present study highlights the importance of tailoring career interventions to provide optimal results for specific populations. While the course was found to be effective with all participants, individuals possessing certain self-perceptions (i.e., saw themselves as

Feminine or Undifferentiated) responded more strongly and made even greater gains in levels of self-efficacy after completing the treatment format of the course than did individuals who viewed themselves as Masculine or Androgynous.

These results suggest that by attending to certain states or traits that may make the career decision-making process more difficult for certain subgroups of students, higher levels of success may be experienced in a shorter amount of time. By utilizing career development theories to design specific interventions that address the needs of various student groups, service providers in institutions of higher learning may be able to maximize time, energy, and space by delivering the most effective method of assistance the first time. While it cannot be guaranteed that further counseling or resources will not be needed by participants, it may be possible that individuals who experience a significant elevation in self-efficacy may feel more empowered and confident to utilize resources on his or her own, rather than feel the need to solicit additional individual or group therapy with regard to career concerns.

In terms of assisting female college students, the present study did not demonstrate that the enhanced format of the course was more effective with women. It did suggest, however, that women as well as men who do not feel they possess high levels of instrumentality or assertiveness can make significant gains in self-efficacy when gender role socialization is an intentional component of their career exploration and decision-making process. As such, the current study may be an indicator that future research may rely less on biological gender and more on gender role perception as a means of identifying students' needs. One area of inquiry may focus on prescreening individuals prior to registering and subsequently placing them in a course format in

which the curriculum explicitly addresses gender roles and specifically aims to enhance self-efficacy if they endorse a Feminine or Undifferentiated self-perception. An important point is that the goal of gender role-tailored interventions such as the current study is not to modify an individual's perception of self; no category is viewed as superior to another. Instead, the aim is to combat or remedy the low self-efficacy that research has shown to be correlated with Feminine and Undifferentiated gender role perceptions.

The present study indicates that women who lack an instrumental or assertive view of self are at risk for lowered career self-efficacy. By identifying the specific needs of this population, which includes Feminine-typed and Undifferentiated-typed females, it appears that significant gains in self-efficacy are possible. College and university counseling centers, advising offices, career counseling and placement centers, and student affairs administrative units may incorporate gender role identification and self-efficacy enhancing assessments, activities, workshops, and activities into their current programming as a way to assist such women. As prior research shows, assuming that women have not been negatively impacted by societal gender role messages is to ignore a genuine problem. Proactively addressing women's unique career development needs may promote retention and academic success; the present study suggests that a specific facet of female college students' career identities in need of attention is that of self-efficacy and gender role perception.

Additionally, future research endeavors may seek to address the identified career needs of racially and ethnically diverse student populations. Possible characteristics that may be negatively affecting individuals' career self-efficacy include perceived barriers, locus of control, institutionalized racism, lack of role models in fields of interest, lack of

exposure to resources due to socioeconomic level, family responsibilities and/or multiple role integration. Prescreening or prior assessment of potential needs of students who may be at risk of lowered career-related self-efficacy upon entering college may provide a method of providing more comprehensive services in the context of a specially-designed course format.

## REFERENCES

- Abdalla, I. A. (1995). Sex, sex-role self-concepts and career decision-making self-efficacy among Arab students. *Social Behavior and Personality, 23*(4), 389-401.
- Adams, C. H., & Sherer, M. (1985). Sex-role orientation and psychological adjustment: Implications for the masculinity model. *Sex Roles, 12*(11-12), 1211-1218.
- Ametrano, I. M., & Pappas, J. G. (1996). Client perceptions of counselors-in-training: The effects of sex and gender role orientation. *Counselor Education and Supervision, 35*(3), 190-203.
- Arnold, J., & Bye, H. (1989). Sex and sex role self-concept as correlates of career decision-making self-efficacy. *British Journal of Guidance and Counselling, 17*(2), 201-206.
- Astin, H. S. (1984). The meaning of work in women's lives: A sociopsychological model of career choice and work behavior. *The Counseling Psychologist, 12*, 117-126.
- Bakan, D. (1966). *The duality of human existence*. Chicago: Rand McNally.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavior change. *Psychological Review, 84*, 191-215.
- Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist, 37*(2), 122-147.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Bandura, A. (1995). *Self-efficacy in changing societies*. New York: Cambridge University Press.

- Bem, S. L. (1974). The measurement of psychological androgyny. *Journal of Consulting and Clinical Psychology, 42*, 155-162.
- Bem, S. L. (1975). Sex-role adaptability: One consequence of psychological androgyny. *Journal of Personality and Social Psychology, 31*, 634-643.
- Bem, S. L. (1981). Gender schema theory: A cognitive account of sex typing. *Psychological Review, 88*, 354-364.
- Bergeron, L. M., & Romano, J. L. (1994). The relationships among career decision-making self-efficacy, educational indecision, vocational indecision, and gender. *Journal of College Student Development, 35*, 19-24.
- Berzok, R. S. (1997). A comparison between Florida State University system's female administrators and female faculty in their personal attributes and self-efficacy beliefs. (Doctoral dissertation, Florida Atlantic University, 1997). *Dissertation Abstracts International, 58*(6), 2097A.
- Bessellieu, L. D. (1997). The meaning of weight and body image in African-American women. *Dissertation Abstracts International, 58*(3), 1520B.
- Betz, N. E. (1994). Basic issues and concepts in career counseling for women. In W. B. Walsh & S. H. Osipow (Eds.), *Career Counseling for Women*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Betz, N. E., & Fitzgerald, L. F. (1987). *The career psychology of women*. New York: Academic Press.
- Betz, N. E., & Hackett, G. (1981). The relationship of career-related self-efficacy expectations to perceived career options in college women and men. *Journal of Counseling Psychology, 28*(5), 399-410.

- Betz, N. E., & Hackett, G. (1983). The relationship of career mathematics self-efficacy expectations to the selection of science-based college majors. *Journal of Vocational Behavior, 23*, 329-345.
- Betz, N. E., & Hackett, G. (1987). Concept of agency in educational and career development. *Journal of Counseling Psychology, 34*, 299-308.
- Betz, N. E., & Klein, K. L. (1996). Relationships among measures of career self-efficacy, generalized self-efficacy, and global self-esteem. *Journal of Career Assessment, 4*(3), 285-298.
- Betz, N. E., Klein, K. L., & Taylor, K. M. (1996). Evaluation of a short form of the Career Decision-Making Self-Efficacy Scale. *Journal of Career Assessment, 4*(1), 47-57.
- Betz, N. E., & Luzzo, D. A. (1996). Career assessment and the Career Decision-Making Self-Efficacy Scale. *Journal of Career Assessment, 4*(4), 413-428.
- Betz, N. E., & Schifano, R. S. (2000). Evaluation of an intervention to increase realistic self-efficacy in college women. *Journal of Vocational Behavior, 56*(1), 35-52.
- Block, J. H. (1973). Conceptions of sex roles: Some cross-cultural and longitudinal perspectives. *American Psychologist, 28*, 512-526.
- Bores-Rangel, E., Church, A. T., Szendre, D., & Reeves, C. (1990). Self-efficacy in relation to occupational consideration and academic performance in high school equivalency students. *Journal of Counseling Psychology, 37*, 407-418.
- Braitman, K. A., & Ramanaiah, N. V. (1999). Sex roles and body image. *Psychological Reports, 84*(3), 1055-1058.

- Brooks, L. (1990). Recent developments in theory building. In D. Brown & L. Brooks (Eds.), *Career choice and development* (2<sup>nd</sup> ed.). San Francisco: Jossey-Bass.
- Brooks, L., & Forrest, L. (1994). Feminism and career counseling. In W. B. Walsh & S.H. Osipow (Eds.), *Career counseling for women*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Broverman, I. K., Vogel, S. R., Broverman, D. M., Clarkson, F. E., & Rosenkrantz, P. S. (1972). Sex-role stereotypes: A current appraisal. *Journal of Social Issues*, 28(2), 59-78.
- Brown, C., Reedy, D., Fountain, J., Johnson, A., Dichiser, T. (2000). Battered women's career decision-making self-efficacy: Further insights and contributing factors. *Journal of Career Assessment*, 8(3), 251-265.
- Brown, D. (1996). Status of career development theories. In D. Brown & L. Brooks (Eds.), *Career choice and development* (3<sup>rd</sup> ed.). San Francisco: Jossey-Bass.
- Brown, S. D., Lent, R. W., & Larkin, K. C. (1989). Self-efficacy as a moderator of scholastic aptitude-academic performance relationships. *Journal of Vocational Behavior*, 35, 64-75.
- Burgard, B. N. (2000). An examination of psychological characteristics and environmental influences of female college students who choose traditional versus nontraditional academic majors. (Doctoral dissertation, University of Missouri-Kansas City, 2000). *Dissertation Abstracts International*, 61(1), 396A.
- Christie, V., & Segrin, C. (1998). The influence of self-efficacy and of gender on the performance of social and nonsocial tasks. *Journal of Applied Communication Research*, 26(4), 374-389.

- Constantinople, A. (1973). Masculinity-femininity: An exception to the famous dictum? *Psychological Bulletin*, 80(3), 389-407.
- Cook, E. P. (1985). *Psychological Androgyny*. New York: Pergamon.
- Cota, A. A., & Fekken, G. C. (1988). Dimensionality of the Personal Attributes Questionnaire: An empirical replication. *Journal of Social Behavior and Personality*, 3(1), 135-140.
- Cox, S. H. (1996). The effectiveness of career planning courses in enhancing career decision-making self-efficacy. (Doctoral dissertation, University of Dayton, 1996). *Dissertation Abstracts International*, 57 (10), 4272A.
- Crites, J. O. (1969). *Vocational psychology*. New York: McGraw-Hill.
- Crites, J. O. (1978). *Career Maturity Inventory: Theory and research handbook* (2<sup>nd</sup> ed.). Monterey, CA: CTB/McGraw-Hill.
- Dade, L. R., & Sloan, L. R. (2000). An investigation of sex-role stereotypes in African Americans. *Journal of Black Studies*, 30(5), 676-690.
- Dagley, J. C. (1999). The restoration of group process in career counseling groups. *The International Journal of Action Methods: Psychodrama, Skill Training, and Role Playing*, 51(4), 141-157.
- Davis, R., & Horne, A. (1986). The effect of small-group counseling and a career course on career decidedness and maturity. *Vocational Guidance Quarterly*, 34, 255-262.
- De Lisi, R., & Soundranayagam, L. (1990). The conceptual structure of sex role stereotypes in college students. *Sex Roles*, 23, 593-611.
- Dexter, C. R. (1985). Women and the exercise of power in organizations: From ascribed to achieved status. In L. Larwood, A. H. Stromberg, & B. A. Gutek (Eds.),

*Women and work: An annual review* (Vol. 1, pp. 239-258). Beverly Hills, CA: Sage.

- Dimitrovsky, L., Singer, J., & Yinon, Y. (1989). Masculine and feminine traits: Their relation to suitedness for and success in training for traditionally masculine and feminine army functions. *Journal of Personality & Social Psychology*, 57(5), 839-847.
- Dodge, T. D. (2001). An investigation of the relationship between the family of origin and selected career development outcomes. *Dissertation Abstracts International*, 62(2), 1140B.
- Doyle, J. A., & Paludi, M. A. (1991). *Sex and gender: The human experience* (2<sup>nd</sup> ed.). Dubuque, IA: Wm. C. Brown.
- Egner, J. R., & Jackson, D. J. (1978). Effectiveness of a counseling intervention program for teaching career decision making skills. *Journal of Counseling Psychology*, 25, 45-52.
- Farmer, H. S. (1976). What inhibits achievement and career motivation in women? *The Counseling Psychologist*, 6(2) 12-15.
- Farmer, H. S. (1985). A model of career and achievement motivation for women and men. *Journal of Counseling Psychology*, 32, 363-390.
- Farmer, H. S. (1997). Theoretical overview: The longitudinal study. In H. S. Farmer and associates (Eds.), *Diversity & women's career development*. Thousand Oaks, CA: Sage.
- Fitzgerald, L. F., & Crites, J. O. (1980). Toward a career psychology of women. *Journal of Counseling Psychology*, 27, 44-62.

- Fitzgerald, L. F., Fassinger, R. E., & Betz, N. E. (1995). Theoretical advances in the study of women's career development. In W. B. Walsh & S. H. Osipow (Eds.), *Handbook of vocational psychology: theory, research, and practice*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Fitzgerald, L. F., & Weitzman, L. M. (1992). Women's career development: Theory and practice from a feminist perspective. In Z. Leibowitz & D. Lea (Eds.), *Adult career development* (2<sup>nd</sup> ed., pp. 124-160). Alexandria, VA: National Career Development Association.
- Foltz, B. M. (1993). The effect of a career counseling workshop on the career self-efficacy of non-traditional college students. *Dissertation Abstracts International*, 55 (04), 867A.
- Forbes, G. B., Adams-Curtis, L. E., Rade, B., & Jaberg, P. (2001). Body dissatisfaction in women and men: The role of gender-typing and self-esteem. *Sex Roles*, 44(7-8), 461-484.
- Foss, C. J., & Slaney, R. B. (1986). Increasing nontraditional career choices in women: Relation of attitudes toward women and responses to a career intervention. *Journal of Vocational Behavior*, 28(3), 191-202.
- Fox, M. F. (1995). Women and higher education: Gender differences in the status of students and scholars. In J. Freeman (Ed.), *Women: A feminist perspective* (5<sup>th</sup> ed., pp. 220-237). Mountain View, CA: Mayfield.
- Freeman, J. (1989). How to discriminate against women without really trying. In J. Freeman (Ed.), *Women: A feminist perspective* (2<sup>nd</sup> ed.). Palo Alto, CA: Mayfield.

- Freimuth, M., & Hornstein, G. (1982). A critical examination of the concept of gender. *Sex Roles, 8*, (515-532).
- Geis, F. L. (1993). Self-fulfilling prophecies: A social psychological view of gender. In A. E. Beall & R. J. Sternberg (Eds.), *The psychology of gender* (pp. 9-54). New York: Guilford.
- Gianakos, I. (1995). The relation of sex role identity to career decision-making self-efficacy. *Journal of Vocational Behavior, 46*(2), 131-143.
- Gilbert, L. A. (1984). Comments on the meaning of work in women's lives. *Counseling Psychologist, 12*(3-4), 129-130.
- Gilbert, L. A. (1992). Gender and counseling psychology: Current knowledge and directions for research and social action. In S. D. Brown & R. W. Lent (Eds.), *Handbook of counseling psychology* (2<sup>nd</sup> ed., pp. 383-416). New York: Wiley.
- Goodson, W. D. (1982). Status of career programs on college and university campuses. *The Vocational Guidance Quarterly, 30*, 230-235.
- Gordon, V. N. (1995). *The undecided college student: An academic and career advising challenge* (2<sup>nd</sup> ed.). Springfield, IL: Charles C. Thomas.
- Gottfredson, L. S. (1981). Circumscription and compromise: A developmental theory of occupational aspirations. *Journal of Counseling Psychology, 28*, 545-579.
- Greenglass, E. R., & Devins, R. (1982). Factors related to marriage and career plans in unmarried women. *Sex Roles, 8*, 57-72.
- Groccia, J. E., & Harrity, M. B. (1991). The major selection program: A proactive retention and enrichment program for undecided freshmen. *Journal of College Student Development, 32*, 178-179.

- Hackett, G. (1985). Role of mathematics self-efficacy in the choice of math-related majors of college women and men: A path analysis. *Journal of Counseling Psychology, 32*(1), 47-56.
- Hackett, G., & Betz, N. E. (1981). A self-efficacy approach to the career development of women. *Journal of Vocational Behavior, 18*, 326-339.
- Hackett, G., & Lent, R. W. (1992). Theoretical advances and current inquiry in career psychology. In S. D. Brown & R. W. Lent (Eds.), *Handbook of Counseling Psychology* (2<sup>nd</sup> ed., pp. 419-452). New York: Wiley.
- Hackett, G., & Lonborg, S. D. (1994). Career assessment and counseling for women. In W. B. Walsh & S. H. Osipow (Eds.), *Career Counseling for Women*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Halpern, T. (1999). The influence of maternal and paternal identifications on the development of agency in women. *Dissertation Abstracts International, 60*(5), 2341B.
- Hannah, J. S., & Kahn, S. E. (1989). The relationship of socioeconomic status and gender to the occupational choices of Grade 12 students. *Journal of Vocational Behavior, 34*, 161-178.
- Hannah, L. K., & Robinson, L. F. (1990). Survey report: How colleges help freshmen select courses and careers. *Journal of Career Planning and Employment, 50*(4), 53-57.
- Hardesty, P. H. (1991). Undergraduate career courses for credit: A review and meta-analysis. *Journal of College Student Development, 32*, 184-185.

- Harmon, L. W. (1967). Women's working patterns related to their housewife and "own" occupational scores. *Journal of Counseling Psychology, 14*, 299-301.
- Harmon, L. W. (1970). Anatomy of career commitment in women. *Journal of Counseling Psychology, 17*, 77-80.
- Harmon, L. W. (1978). Career counseling for women. In L. Hansen & R. Rapoza (Eds.), *Career development and counseling of women* (pp. 443-453). Springfield, IL: Charles C. Thomas.
- Hartman, B. W., & Fuqua, D. R. (1983). Career indecision from a multidimensional perspective: A reply to Grites. *The School Counselor, 30*, 340-349.
- Herr, E. L. (1996). Toward the convergence of career theory and practice: Mythology, issues, and possibilities. In M. L. Savickas & W. B. Walsh (Eds.), *Handbook of career counseling theory and practice* (pp. 13-35). Palo Alto, CA: Davies-Black.
- Hill, M. (1998). Social cognitive theory and career development in African-American and Euro-American college students. *Dissertation Abstracts International, 58*(7), 3925B.
- Holland, J. L. (1973). *Making vocational choices: A theory of careers*. Englewood Cliffs, NJ: Prentice-Hall
- Holland, J.L. (1985). *Making vocational choices: A theory of vocational personalities and work environments* (2<sup>nd</sup> ed.). Englewood Cliffs, NJ: Prentice-Hall.
- Holland, J. L. (1996). Integrating career theory and practice: The current situation and some potential remedies. In M. L. Savickas & W. B. Walsh (Eds.), *Handbook of Career Counseling Theory and Practice* (pp. 1-11). Palo Alto, CA: Davies-Black.

- Holland, J. L., Johnston, J. A., & Asama, N. F. (1993). The *Vocational Identity Scale*: A diagnostic a treatment tool. *Journal of Career Assessment*, *1*(1), 1-12.
- Holmbeck, G. N., & Bale, P. (1988). Relations between instrumental and expressive personality characteristics and behaviors: A test of Spence & Helmreich's theory. *Journal of Research in Personality*, *22*, 37-59.
- Holt, P. A. (1989). Differential effect of status and interest in the process of compromise. *Journal of Counseling Psychology*, *36*, 42-47.
- Huck, S. W., Cormier, W. H., & Bounds, W. G., Jr. (1974). *Reading statistics and research*. New York: Harper & Row.
- Jaggar, A. (1977). On sexual equality. In J. English (Ed.), *Sex equality*. Englewood Cliffs, NJ: Prentice-Hall.
- Juntunen, C. (1996). Relationship between a feminist approach to career counseling and career self-efficacy beliefs. *Journal of Employment Counseling*, *33*(3), 130-143.
- Kahn, J. H. (2000, August). *Research training environment changes: Impacts on research self-efficacy and interest*. Paper presented at the Annual Conference of the American Psychological Association, Washington, DC.
- Kazdin, A. E. (1998). *Research design in clinical psychology* (3<sup>rd</sup> ed.). Needham Heights, MA: Allyn and Bacon.
- Kelly, J. J., & White, E. R. (1993). *Profiling freshman academic characteristics*. University Park: Pennsylvania State University.
- Keppel, G. (1991). *Design and analysis: A researcher's handbook* (2<sup>nd</sup> ed.). Englewood Cliffs, NJ: Prentice Hall.

- Kornspan, A. S., & Etzel, E. F. (2001). The relationship of demographic and psychological variables to career maturity of junior college student-athletes. *Journal of College Student Development, 42*(2), 122-132.
- Krieshok, T. S., Ulven, J. C., Hecox, J. L., & Wettersten, K. (2000). Resume therapy and vocational test feedback: Tailoring interventions to self-efficacy outcomes. *Journal of Career Assessment, 8*(3), 267-281.
- Krumboltz, J. D. (1979). A social learning theory of career decision making. In A. M. Mitchell, G. G. James, & J. D. Krumboltz (Eds.), *Social learning and career decision making*. Cranston, RI: Carrole Press.
- Krumboltz, J.D. (1996). A learning theory of career counseling. In M. L. Savickas & W. B. Walsh (Eds.), *Handbook of career counseling theory and practice* (pp. 55-80). Palo Alto, CA: Davies-Black.
- Krumboltz, J. D., Mitchell, A., & Gelatt, H. G. (1975). Applications of social learning theory of career selection. *Focus on Guidance, 8*, 1-16.
- Lackland, A. G. C. (1997). Prediction of traditional and nontraditional college major within an expectancy-value framework. (Doctoral dissertation, Rutgers University, 1997). *Dissertation Abstracts International, 58*(5), 1582A.
- Ladany, N., Ellis, M. V., & Friedlander, M. L. (1999). The supervisory working alliance, trainee self-efficacy, and satisfaction. *Journal of Counseling & Development, 77*(4), 447-455.
- Lanter, R. L. (1999). Instrumentality, expressiveness, and body image/slimness ideal in European American women. (eating disorders). (Doctoral dissertation, California

- School of Professional Psychology, 1999). *Dissertation Abstracts International*, 60(6), 3001B.
- Lapan, R. T., & Jingeleski, J. (1992). Circumscribing vocational aspirations in junior high school. *Journal of Counseling Psychology*, 39(1), 81-90.
- Leckie, J. F. (1999). The effect of a computer-assisted career guidance program and a vicarious experience on career decision-making self-efficacy. *Dissertation Abstracts International*, 59(11), 6094B.
- Lent, R. W., & Hackett, G. (1987). Career self-efficacy: Empirical status and future directions. *Journal of Vocational Behavior*, 30(3), 347-382.
- Leung, S. A., & Harmon, L. W. (1990). Individual and sex differences in the zone of acceptable alternatives. *Journal of Counseling Psychology*, 37(2), 153-159.
- Lindsey, L. L. (1990). *Gender roles: A sociological perspective*. Englewood Cliffs, NJ: Prentice-Hall.
- Lips, H. M. (1997). *Sex and gender: An introduction* (3<sup>rd</sup> ed.). Mountain View, CA: Mayfield.
- Lott, B. E. (1994). *Women's lives: Themes and variations in gender learning* (2<sup>nd</sup> ed.). Pacific Grove, CA: Brooks/Cole.
- Marshall, S. J., & Wijting, J. P. (1980). Relationships of achievement motivation and sex role identity to college women's career orientation. *Journal of Vocational Behavior*, 16, 299-311.
- Mathieu, P. S., Sowa, C. J., & Niles, S. G. (1993). Differences in career self-efficacy among women. *Journal of Career Development*, 19(3), 187-196.

- Matsui, T. (1994). Mechanisms underlying sex differences in career self-efficacy expectations of university students. *Journal of Vocational Behavior, 45*(2), 177-184.
- Matsui, T., & Onglatco, M. L. (1991). Instrumentality, expressiveness, and self-efficacy in career activities among Japanese working women. *Journal of Vocational Behavior, 39*(2), 241-250.
- Mau, W. (2000). Cultural differences in career decision-making styles and self-efficacy. *Journal of Vocational Behavior, 57*(3), 365-378.
- McAuliffe, G. J. (1991). Assessing and treating barriers to decision making in career classes. *The Career Development Quarterly, 40*, 83-92.
- McCormick, M. E. (1997). The influence of gender-role identity, mathematics self-efficacy, and outcome expectations on the math- and science-related career interests of gifted adolescent girls. (Doctoral dissertation, University of Utah, 1997). *Dissertation Abstracts International, 57*(9), 3812A.
- McKee, J. P., & Sherriffs, A. C. (1957). The differential evaluation of males and females. *Journal of Personality, 25*, 356-371.
- Meier, S. T. (1999). Training the practitioner-scientist: Bridging case conceptualization, assessment, and intervention. *Counseling Psychologist, 27*(6), 846-869.
- Mitchell, L. K., & Krumboltz, J. D. (1990). Social learning approach to career decision making: Krumboltz's theory. In D. Brown & L. Brooks (Eds.), *Career choice and development* (2<sup>nd</sup> ed.). San Francisco: Jossey-Bass.
- Moten, C. P. (2001). Psychological dimensions of masculinity, femininity and androgyny among Black and white college women's self perceptions and sex role attitudes:

- Developmental characterizations and beyond. *Dissertation Abstracts International*, 61(12), 6739B.
- Multon, K. D., Brown, S. D., & Lent, R. W. (1991). Relation of self-efficacy beliefs to academic outcomes: A meta-analytic investigation. *Journal of Counseling Psychology*, 38, 30-38.
- Nevill, D. D., & Schlecker, D. I. (1988). The relation of self-efficacy and assertiveness to willingness to engage in traditional/nontraditional career activities. *Psychology of Women Quarterly*, 12(1), 91-98.
- Novick, E. R. (1999). A comparison of self-esteem, gender role orientation, and body image in adolescent female athletes and nonathletes. *Dissertation Abstracts International*, 59(9), 5150B.
- Ochs, L. A., & Roessler, R. T. (2001). Students with disabilities: How ready are they for the 21<sup>st</sup> century? *Rehabilitation Counseling Bulletin*, 44(3), 170-176.
- Oliver, L. W., & Spokane, A. R. (1988). Career-intervention outcome: What contributes to client gain? *Journal of Counseling Psychology*, 25(4), 447-462.
- Oreshnick, C. A. (1991). Enhancing career decision-making self-efficacy via a university career course intervention. *Dissertation Abstracts International*, 53 (02), 1072B.
- Orlofsky, J., & Stake, J. (1981). Psychological masculinity and femininity: Relationship to striving and self-concept in the achievement and interpersonal domains. *Psychology of Women Quarterly*, 6, 218-233.
- Orndorff, R. M., & Herr, E. L. (1996). A comparative study of declared and undeclared college students on career uncertainty and involvement in career development activities. *Journal of Counseling & Development*, 74, 632-639.

- Osipow, S. H. (1987). *Manual for the Career Decision Scale*. Odessa, FL: Psychological Assessment Resources.
- Parsons, T., & Bales, R. F. (1955). *Family, socialization, and interaction process*. Glencoe, IL: Free Press.
- Plaud, J. P., Baker, R. W., & Groccia, J. E. (1990). Freshman decidedness regarding academic major and anticipated and actual adjustment to an engineering college. *National Academic Advising Association Journal, 10*, 20-26.
- Poole, M. E., Langan-Fox, J., Ciavella, M., & Onedei, M. (1991). A contextual model of professional attainment: Results of a longitudinal study of career paths of men and women. *Counseling Psychologist, 19*, 603-624.
- Prieto, L. R., & Meyers, S. A. (1999). Effects of training and supervision on the self-efficacy of psychology graduate teaching assistants. *Teaching of Psychology, 26*(4), 264-266.
- Raver, C. C., & Leadbeater, B. J. (1999). Mothering under pressure: Environmental, child, and dyadic correlates of maternal self-efficacy among low-income women. *Journal of Family Psychology, 13*(4), 523-534.
- Robbins, S. B. (1985). Validity estimates for the Career Decision-Making Self-Efficacy Scale. *Measurement and Evaluation in Counseling and Development, 4*, 64-71.
- Robins, C. J. (1986). Sex role perceptions and social anxiety in opposite-sex and same-sex situations. *Sex Roles, 14*(7-8), 383-395.
- Rooney, R. A., & Osipow, S. H. (1992). Task-specific occupational self-efficacy scale. *Journal of Vocational Behavior, 40*, 14-32.

- Rose, A. J., & Montemayor, R. (1994). The relationship between gender role orientation and perceived self-competency in male and female adolescents. *Sex Roles, 31*(9-10), 579-595.
- Rotberg H. L., Brown, D., & Ware, W. B. (1987). Career self-efficacy expectations and perceived range of career options in community college students. *Journal of Counseling Psychology, 34*(2), 164-170.
- Rounds, J. B., & Tinsley, H. E. A. (1984). Diagnosis and treatment of vocational problems. In S. D. Brown & R. W. Lent (Eds.), *Handbook of Counseling Psychology* (pp. 137-177). New York: Wiley.
- Savickas, M. L. (1995). Current theoretical issues in vocational psychology: convergence, divergence, and schism. In W. B. Walsh & S. H. Osipow (Eds.), *Handbook of vocational psychology: theory, research, and practice*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Sherer, M., Maddux, J., Mercandante, B., Prentice-Dunn, S., Jacobs, B., & Rogers, R. W. (1982). The Self-Efficacy Scale: Construction and validation. *Psychological Reports, 51*, 663-671.
- Smith, J. L., Slavitt, M. R., & Broday, S. F. (1991). Career orientation seminars. *Journal of College Student Development, 32*, 183-184.
- Snyder, R., & Hasbrouck, L. (1996). Feminist identity, gender traits, and symptoms of disturbed eating among college women. *Psychology of Women Quarterly, 20*(4), 593-598.
- Spence, J. T., & Helmreich, R. L. (1972). The Attitudes toward Women Scale: An objective instrument to measure attitudes toward the rights and roles of women in

- contemporary society. *JSAS Catalog of Selected Documents in Psychology*, 4, 127.
- Spence, J. T., & Helmreich, R. L. (1978). *Masculinity and femininity: Their psychological dimensions, correlates, and antecedents*. University of Texas Press: Austin.
- Spence, J. T., & Helmreich, R. L. (1979). On assessing androgyny. *Sex Roles*, 5(6), 721-738.
- Spence, J. T., & Helmreich, R. L. (1986). Personal Attributes Questionnaire. Unpublished instructional manual.
- Spence, J. T., Helmreich, R. L., & Stapp, J. (1974). The Personal Attributes Questionnaire: A measure of sex-role stereotypes and masculinity-femininity. *JSAS Catalog of Selected Documents in Psychology*, 4, 127.
- Spence, J. T., Helmreich, R. L., & Stapp, J. (1975). Ratings of self and peers on sex-role attributes and their relation to self-esteem and conceptions of masculinity and femininity. *Journal of Personality and Social Psychology*, 32, 29-39.
- Sullivan, K. R., & Mahalik, J. R. (2000). Increasing career self-efficacy for women: Evaluating a group intervention. *Journal of Counseling and Development*, 78, 54-62.
- Strong, E. K. (1933). *Manual for vocational interest blank*. Stanford University, CA: Stanford University Press.
- Super, D. E. (1957). *The psychology of careers*. New York: Harper.
- Super, D. E. (1980). A life-span, life-space approach to career development. *Journal of Vocational Behavior*, 16, 282-298.

- Super, D. E. (1990). A life-span, life-space approach to career development. In D. Brown & L. Brooks (Eds.), *Career choice and development* (2<sup>nd</sup> ed.). San Francisco: Jossey-Bass.
- Taylor, K. M., & Betz, N. E. (1983). Applications of self-efficacy theory to the understanding and treatment of career indecision. *Journal of Vocational Behavior*, 22, 63-81.
- Thornborrow, N. M., & Sheldon, M. B. (1995). Women in the labor force. In J. Freeman (Ed.), *Women: A feminist perspective* (5<sup>th</sup> ed., pp. 197-219). Mountain View, CA: Mayfield.
- U. S. Department of Education, National Center for Education Statistics. (1998). The 1995-96 National Postsecondary Student Aid Study. In *Digest of Education Statistics* (NCES Publication No. 98-015). Washington, DC: U.S. Government Printing Office.
- U. S. Department of Education, National Center for Education Statistics. (2000). Projections of Education Statistics to 2010. Washington, DC: U.S. Government Printing Office.
- U. S. Department of Labor, Bureau of Labor Statistics. The American work force, 1992-2005. (1994). Washington, DC: U.S. Government Printing Office.
- Vetter, L. (1973). Career counseling for women. *The Counseling Psychologist*, 4, 54-67.
- Walsh, W. B., & Osipow, S. H. (1994). *Career counseling for women*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Walsh, W. B., & Osipow, S. H. (1995). *Handbook of vocational psychology: theory, research, and practice*. Mahwah, NJ: Lawrence Erlbaum Associates.

- Wark, G. R., & Krebs, D. L. (1996). Gender and dilemma differences in real-life moral judgment. *Developmental Psychology, 32*(2), 220-230.
- Warner, P. K. (1999). The role of perceived gender-related personality traits in initial supervisory relationships. *Dissertation Abstracts International, 60-4B*, 1904.
- Williams, J. E., & Bennett, S. M. (1975). The definition of sex stereotypes via the adjective check list. *Sex Roles, 1*, (327-337).
- Wulff, M. B., & Steitz, J. A. (1999). A path model of the relationship between career indecision, androgyny, self-efficacy, and self-esteem. *Perceptual and Motor Skills, 88*, 935-940.
- Yoo, K. S., & Lee, J. C. (1997). A study on the effect of fear of success, achievement motivation, and sex-role identity on career decision making. *Korean Journal of Counseling & Psychotherapy, 9*(1), 259-288.
- Zytowski, D. (1969). Toward a theory of career development of women. *Personnel and Guidance Journal, 47*, 660-664.

## APPENDIX A

### CONSENT FORM

Thank you for expressing an interest in taking part in this study. Your participation will assist with future programs and services for students who are seeking guidance with choosing a major and career goal. The reason for this research is determine whether programs that are currently in use are beneficial and whether new programs are as effective or more effective with different individuals.

- My participation in this study is entirely voluntary. There will be no consequences for not participating in this study.
- You will have the opportunity to explore your perceptions about yourself in terms of personal qualities and in terms of career decision-making. Your answers will contribute to decisions about future courses and services offered to students at the University of Georgia.
- By participating in this study you will be asked to respond to questions about how you see yourself as an individual as well as your confidence level about career-related activities.
- No discomforts or stresses are foreseen.
- You will receive an identification number for data entry purposes and your name will never be connected to your response form. Your identity will not be revealed in any publications of the results of this research. Any information about me as a participant in this study, including my identity, will be kept confidential.
- The researcher will answer any further questions about this research, now or during the course of the project, and can be reached at (706) 542-1812.

I agree to participate in the research titled A Gender Role-Focused Self-Efficacy Approach to an Undergraduate Career Decision-Making Course, which is being conducted by Angela Bell, Department of Counseling and Human Development Services (706-542-1812). I understand that this participation is entirely voluntary; I can withdraw my consent at any time without penalty and have the results of the participation, to the extent that it can be identified as mine, returned to me, removed from the research records, or destroyed.

Please sign both copies of this form. Keep one and return the other to the investigator.

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Signature of Participant/Date

---

Signature of Researcher/Date

Research at the University of Georgia that involves human participants is overseen by the Institutional Review Board. Questions or problems regarding your rights as a participant should be addressed to Julia D. Alexander, M.A., Institutional Review Board, Office of the Vice President for Research, University of Georgia, 606A Boyd Graduate Studies Research Center, Athens, Georgia 30602-7411; Telephone (706) 542-6514; E-mail Address IRB@uga.edu.

APPENDIX B  
DEMOGRAPHIC SHEET

ID# \_\_\_\_\_

**Gender:**

Male \_\_\_\_\_

Female \_\_\_\_\_

**Your Approximate GPA:**

4.0 – 3.0 \_\_\_\_\_

2.9 – 2.0 \_\_\_\_\_

1.9 – 1.0 \_\_\_\_\_

0.9 – 0.0 \_\_\_\_\_

**Class Standing:**

Freshman \_\_\_\_\_

Sophomore \_\_\_\_\_

Junior \_\_\_\_\_

Senior \_\_\_\_\_

**Please check all that apply:**

Father/stepfather works full-time \_\_\_\_\_

Mother/stepmother works full-time \_\_\_\_\_

Father/stepfather works part-time \_\_\_\_\_

Mother/stepmother works part-time \_\_\_\_\_

Father/stepfather graduated from college \_\_\_\_\_

Mother/stepmother graduated from college \_\_\_\_\_

Mother/stepmother's occupation:  
\_\_\_\_\_

Father/stepfather's occupation:  
\_\_\_\_\_

**Race/Ethnicity**

African American \_\_\_\_\_

Hispanic \_\_\_\_\_

Asian \_\_\_\_\_

American Indian \_\_\_\_\_

Caucasian \_\_\_\_\_

Other \_\_\_\_\_

(Specify: \_\_\_\_\_)

APPENDIX C  
COURSE OUTLINES

*Enhanced Format (EF) and Standard Format (SF) Course Outlines*

Class 1-EF

Class 1-SF

- Discuss syllabus and schedule
- Orientation to course content and requirements
- Complete assessment instruments
- Collect student information sheets
- Class introductions
- Tour of the Career Information Center

- Discuss syllabus and schedule
- Orientation to course content and requirements
- Complete assessment instruments
- Collect student information sheets
- Class introductions
- Tour of the Career Information Center

Class 2-EF

Class 2-SF

- Explanation of career exploration process
- Group decision-making activity
- Lecture: attitudes, beliefs, values, decision-making
- Gender role attitudes questionnaire & fishbowl discussion

- Explanation of career exploration process
- Group decision-making activity
- Lecture: attitudes, beliefs, values, decision-making

Class 3-EF

Class 3-SF

- Values and decision-making styles

- Values and decision-making style

lecture

- Values activity: Differential Leader Instructions (4 groups; 2 female leaders and 2 male leaders)
- Class discussion, including reactions to different instructions
- Summarize and discuss decision-making styles, personal values, and values conflicts

Class 4-EF

- Definitions of job vs. career
- Explanation of Super's Self-Concept Theory and Stages
- Explanation of self-efficacy theory and 4 information sources
- In-class journal
- Family Values exercise-Gender Role Focus Dyads
- Discussion Question
- Myers-Briggs Type Indicator administration

Class 5-EF

- Career Decision-Making System booklet and folder
- Introduction to Holland themes

lecture

- Values activity: Class Instructions (4 groups)
- Class discussion
- Summarize and discuss decision-making styles, personal values, and values conflicts

Class 4-SF

- Definitions of job vs. career
- Explanation of Super's Self Concept Theory and Stages
- Family Values exercise-Discussion Dyads
- Discussion Questions
- Myers-Briggs Type Indicator administration

Class 5-SF

- Career Decision-Making System booklet and folder
- Introduction to Holland themes

-Lecture: success, assertiveness,  
affirmations

-Guided Fantasy Exercise with gender  
role focus

Class 6-EF

-Myers-Briggs Type Indicator  
interpretation

-Lecture on personality preferences

-Instructors share gender breakdown  
of class types

-Small group discussions

Class 7-EF

-Review for midterm exam

-Strong Interest Inventory  
administration

-Myers-Briggs group activities

Class 8-EF

-Midterm exam administration

-Review guidelines and demonstration  
of career search

-Presentation sign-ups

-Discuss focus of second half of semester

-Lecture: success, assertiveness,  
affirmations

-Guided Fantasy Exercise

Class 6-SF

-Myers-Briggs Type Indicator  
interpretation

-Lecture on personality preferences

Class 7-SF

-Review for midterm exam

-Strong Interest Inventory  
administration

-Myers-Briggs group activities

Class 8-SF

-Midterm exam administration

-Review guidelines and  
demonstration of career search

-Presentation sign-ups

Class 9-EF

- Return midterm exams and review answers
- Holland Jeopardy
- Strong Interest Inventory interpretation
- Occupational List
- Opposite-Gender Occupational List

## Journal

- Cover letter exercise

Class 10-EF

- Definitions of ability, skill, and aptitude
- Explanation of Dictionary of Occupational Titles
- DOT activity
- Guest Speakers: 1 male/1 female in field underrepresented by women

Class 11-EF

- Lecture and discussion of diversity and multiculturalism, emphasizing the workplace and the university
- Cultural exploration activity

Class 9-SF

- Return midterm exams and review answers
- Holland Jeopardy
- Strong Interest Inventory interpretation
- Occupational List

Class 10-SF

- Definitions of ability, skill, and aptitude
- Explanation of Dictionary of Occupational Titles
- DOT activity
- Guest Speakers

Class 11-SF

- Lecture and discussion of diversity and multiculturalism, emphasizing the workplace and the university
- Cultural exploration activity

-Small Group activity

-Journal Entry

-Journal Entry

Class 12-EF

Class 12-SF

-Lecture on decision-making and  
goal-setting

-Lecture on decision-making and  
goal-setting

-Goal-Setting Activity

-Goal-Setting Activity

-In-class journal entry

Class 13-EF

Class 13-SF

-Career Search Presentations -  
standard content areas plus  
gender-related content areas

-Career Search Presentations -  
standard content areas

Class 14-EF

Class 14-SF

-Career Search Presentations

-Career Search Presentations

Class 15-EF

Class 15-SF

-Career Search Presentations

-Career Search Presentations

-Collect Integrative Papers -  
standard content areas, plus additional  
questions relevant to enhanced format  
course material and activities

-Collect Integrative Papers -

standard content areas

-Review for Final Exam

-Administration of post-test

-Review for Final Exam

assessment instruments

-Administration of post-test assessment  
instruments

-Completion of course evaluations

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