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The effects of women's studies on the fear of success and locus of control of female college students

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THE EFFECTS OF WOMEN'S STUDIES ON THE FEAR OF SUCCESS AND LOCUS OF CONTROL OF FEMALE COLLEGE STUDENTS

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THE EFFECTS OF WOMEN'S STUDIES ON THE FEAR OF SUCCESS AND LOCUS OF CONTROL OF FEMALE COLLEGE STUDENTS

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by

Arlene Spielholz Levine

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APPROVAL SHEET

We the undersigned do certify that we have read this dissertation and that in our individual opinions it is acceptable in both scope and quality as a dissertation for the degree of Doctor of Education.

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Chapter 1

Introduction

Former President Lyndon Johnson stated that the under-utilization of women in this century is an extravagance we can no longer afford (Pfiffner, 1972). Johnson voiced what many people feel. Gaffga (1976) proposed that when women's employment and related educational problems are clarified and dealt with equitably and fairly, not only will the economy benefit, but the whole fabric of society will be strengthened and improved.

Although women contribute substantially to the work force, they do so below their optimal level. Upgrading women's aspiration level and developing their potential is needed because, on the average, women who work full time earn fifty-nine cents for every dollar earned by men (Dowling, 1981; An overview of women in the work force, 1978; On the job conference on pay equity: A focus on equal pay for work on comparable value, 1979; The new vital statistics for women (no longer 36-24-36), 1979). Nearly 80% of the women in the work force in March 1978 held positions that were clerical, sales, service, factory or plant jobs. In the professions, 60% of the women were teachers (noncollege) or nurses, while the men tended to be doctors, lawyers, or college professors (An overview of women in the work force, 1978). Women who are employed by colleges and universities tend to be employed in a limited range of fields such as English, foreign languages, and developmental and school psychology. The employment of women in a narrow range of fields tends to create occupational ghettos, where women compete with each other for a limited number of positions (Richardson, 1974). This occupational

ghetto is not entirely self imposed. For example, more women than ever are graduating from chemistry doctoral programs, thus, expanding the pool of female applicants for faculty positions. Yet all over the country, chemistry departments remain almost entirely male (Broad, 1980). Thus, there appears to be resistance both within the individual, and within the environment.

Women's earnings lag behind those of men for at least two reasons. Women are frequently employed in lower paying jobs. Women are also paid at a lower rate for a job, even when they are doing the same work as men (Peterson, 1965). Male nurses earn one-third more than female nurses, although 95% of all nurses are female (Smutney and Artabasy, 1979). In 1977 full-time employed female psychologists with doctorates earned $20,500 whereas the median salary of their male counterparts was $24,700. The median annual salary for female scientists and engineers with doctorates was $20,700, while the median annual salary for males in the same area was $26,000 (National Research Council, 1978). Female full professors averaged $2,316 less per year than their male counterparts (Facts about women in higher education, 1978).

As to women being frequently employed in low paying jobs, Westervelt (cited in Cook and Stone, 1973) feels that our educational practices help to perpetuate the systematic inhibition of female potential. Even in adult education programs for women, the needs and place of women in the world of work have been virtually ignored by the guidance structure of these programs (Boyd and Griffth, 1973). Ahrons (1976) suggests that counselors perceive the career role for a woman as isolated from, or incompatible with, other female roles. This attitude may be reflected in the counseling of women and may serve to further

perpetuate the vocational ghetto of females. Counselors did not come by their attitudes dishonestly. In fact, the writings of Freud may have helped to perpetuate this attitude. Freud wrote that the ability to love and to work effectively is a sign of maturity (Dicaprio, 1974). According to Freud, the role of woman in this man's world, was to be fed, tended and exhibited (Riesman, 1965). Freud believed that women should be careful not to "lure" men to "failure" or drain them of their work potential. Most importantly, women should not enter the world of work of men as a competitor. This act would be construed as an effort to make up for their lack of a penis. Riesman states that this attitude is still believed by many psychoanalysts, including female psychoanalysts.

The reasons for capable women working in menial jobs are numerous. Pfiffner (1972) feels that this is related not only to discrimination in education and the professions, but also to the fears of women themselves. Women lower their aspirations because they fear pursuing their own personal development. They fear this development may damage their relationship with men (Pfiffner, 1972). They fear social rejection or loss of femininity as a result of success (Horner, 1972). This fear keeps women from investigating and pursuing areas that might earn them the label of being unfeminine. Women also feel that revealing their talents beyond home and family will prevent them from getting married.

The fear and avoidance of success are not new ideas to psychology or human behavior (Tressemer, 1976). People have feared that calamity (the evil eye) will befall them at the time of success. This fear is found in most cultures and time periods the world over. It is

from this fear that superstitions, such as, knocking on wood and wearing talismans emerged (Haimowitz and Haimowitz, 1966). It is this fear that causes people to hide or deny assets. Haimowitz and Haimowitz (1966) illustrate the longevity of this fear by citing instances in the Old Testament, such as, the fall of Adam and Eve. According to Haimowitz and Haimowitz, Adam and Eve tasted success when they tasted the fruit of the Tree of Knowledge and were punished for it. Another example used by Haimowitz and Haimowitz is that of Abel and Cain. The successful brother was slain by his less successful brother. According to Haimowitz and Haimowitz (1966, p. 678) the moral of Abel and Cain is "If you do well, your brother may kill you." Margaret Mead is reported to have stated that women view success with ambivalence and "whereas men are unsexed by failure, women become unsexed by success" (cited in O'Leary, 1977, p. 16). In 1915, Freud wrote about the fear of success when discussing people "wrecked by success," that is, people who fall ill just at the time when wish fulfillment was within their grasp (Canavan-Gumpert et al., 1978).

Matina Horner gave a name and shape to that fear which has been constricting and limiting female potential (Horner, 1972; 1974). According to Horner's hypothesis, women did not conform to the achievement motivation research results of men because they have a motive to avoid success, a fear that achievement will have disastrous consequences. It is her contention that women believe that achievement, especially intellectual achievement, is aggressive, and therefore, masculine. Freud stated that the essence of femininity lies in women repressing their aggressiveness (as cited in Horner, 1972; 1974). Thus to display

achievement (aggression) is to lose femininity. Women, therefore, worry about being less feminine if they compete. Anxiety about this conflict makes women defensive if they achieve and may prevent them from achieving in the first place (Tavris and Offir, 1977).

This fear of success for women is culturally conditioned even today. In American society, femininity and competitive achievement are viewed as two desirable, but mutually exclusive ends (Horner, 1972). Zuckerman and Wheeler (1975) note that the relationship between success and masculinity, and the contrast between success and femininity are socially determined. Therefore, any differences between males and females on the fear of success are culturally-bound and subject to change. Horner (cited in Rockefeller Foundation, 1977, p. 22) notes that she does not mean to leave the impression that socialization experiences cannot be re-learned. Horner advocates working with the generation of women now in college "to help them recognize and come to grips with the ways they have been socialized, and bring to the fore some of the forces that are clearly subconscious. That way they can deal with them, and hopefully socialize their own youngsters differently" (Rockefeller Foundation, 1977, pp. 22-23). With this in mind, it becomes clear that legislation such as Title VII in the business sector and Title IX in the education sector may only alleviate, but not completely eradicate the problem of women's lower aspirations and the under-utilization of their potential. The physical blocks to the utilization of the potential of women may be removed by legislation, but the psychological blocks cannot be legislated away.

How then are the psychological blocks lifted and the fear of success dispelled? Horner is not alone in seeing education as an instrument of change for women. Women's studies are seen as a vehicle of resocialization (Brush et al., 1978; Del Rey and Russell, 1978). Harnett (cited in Rendel, 1977, p. 129) discusses the value of women's studies courses as a mechanism for change.

> "Some women's studies courses have had the aim of helping women especially to revalue themselves in light of new knowledge about achievements of women and their contributions to human progress. This knowledge can help further the advent of a more equitable and therefore stable society by increasing the awareness of oppression and its consequences in waste, bitterness, and hostility between the oppressor and the oppressed. The relations between men and women serve as a paradigm case. This knowledge can also contribute to self confidence and knowledge needed to use the mechanisms society has developed to provide for peaceful change."

Women's studies, which is seen as the intellectual arm of the women's movement, is aimed at completing and correcting the scholarly record with respect to the accomplishments of women. This record has largely been concerned with the accomplishments of men, treating women as a deviation from the male norm, of lesser importance or excluding them entirely (Rendel, 1977).

Since women have been socialized into traits of dependence, passiveness, subjectivity, and nonassertiveness and because these traits and behaviors are dysfunctional in the marketplace, Del Rey and Russell (1978) feel that intervention through women's studies courses is imperative for young women. It is imperative "to counteract the harmful effects of sex-role stereotyping encountered during the early

socialization processes" (Del Rey and Russell, 1978, p. 717). The present study deals with this hypothesis.

Theory

The three main areas of this study are reviewed in this section. They are the theory base of the fear of success, the theory base of locus control and the rationale for women's studies.

Fear of Success

Fear of success research developed as an attempt to understand the observed sex differences in achievement motivation (Horner, 1974). Almost from the outset of publication in 1953 of McClelland, Atkinson, Clark and Lowell's Achievement Motivation, sex differences in achievement motivation were identified (Horner, 1974). The original McClelland et al. formulation was that an increase in thematic apperceptive achievement imagery would be elicited when an individual was put in a situation stressing "intelligence and leadership." This was observed for men, but not for women (Horner, 1974; Tavris and Offir, 1977).

In 1968, Horner presented a personality construct to explain the achievement motivation differences between men and women. This construct was called the fear of success or motive to avoid success. The fear of success is the primary factor responsible for the then unresolved sex differences in achievement motivation observed in the previous studies and research (Horner, 1974).

Horner (1972, 1974) originally theorized that the fear of success was a stable personality disposition acquired early in life in conjunction with sex role standards. Condry and Dyer (1976) feel that within this construct women are seen as being victimized by their

socialization, as in the past they were reputed to be victims of their own biology.

Horner conceived of the fear of success as (1) The disposition to feel uncomfortable when successful in competitive (aggressive) achievement situations because such behavior is inconsistent with one's femininity, an internal standard, and (2) The disposition to expect or become concerned about negative consequences such as social rejection following success.

The motive to avoid success is much more common in women than it is in men. This assumes that being successful in competitive achievement situations has generally been consistent with masculine identity and other male goals and not antagonistic to them, as may be the case with women.

The motive to avoid success is probably not equally important to all women. Fear of success should be more strongly developed in women who are highly motivated to achieve and/or are highly able (e.g., who aspire to and/or are readily capable of achieving success). For women with less achievement motivation or ability (e.g., those for whom success is neither a major goal nor one readily within their reach), there is no reason to feel anxious about succeeding. Horner conceptualizes this in approach-avoidance terms. She feels that the highly capable women are closer to the threatening goal than those women of less motivation or ability.

The motive to avoid success is more strongly developed in competitive achievement situations. In such situations performance reflecting "intellectual and leadership ability" is evaluated against

some standard of excellence and against someone else's performance, whereas, in noncompetitive situations competition is directed only against an impersonal standard.

Horner further theorized that once aroused, the tendency to avoid success (T_{-s}) will function as a negative inhibitory tendency acting against the expression of the positive tendency to achieve success which is aroused in achievement-oriented situation. Hence, the tendency to avoid success may lead to defensive responses which serve to relieve the anxiety aroused when the tendency to achieve (T_s) must be expressed, for extrinsic reasons.

Lastly, the negative incentive value of success ($-I_{as}$) will be greater for women in competitive than in noncompetitive achievement situations. When the competitors are male, the negative incentive is greater if the males are important males or if the task is masculine. Horner defines masculine tasks as those requiring mathematical, logical and spatial ability.

Locus of Control

Locus of control is an important aspect of this study since success is a negative incentive related to the consequence of achievement and locus of control is also related to the consequences of events. The social learning theory of Rotter (1966) provides the theoretical background for the construct of locus of control. Rotter (1966) explains social learning theory as: a reinforcement acts to strengthen an expectancy that a particular behavior or event will be followed by that reinforcement in the future. The expectancy will be extinguished or reduced if the reinforcement does not continue to follow.

Women's Studies

The women's movement, Federal legislation, and the growth of female enrollment in the universities have all contributed to the development of women's studies. Women's studies is seen as the academic arm of the women's movement. It is aimed at completing the scholarly record of women, i.e., a way to share history, present, and future of women and their aspirations (Rendel, 1977).

Statement of the Problem

Much has been written about the motive to avoid success. The fear of success has been measured and correlated with other personality variables. Tressemer (1976) cites 155 studies in his annotated bibliography referring to Horner's construct of the fear of success. Much more has been written since 1976. Although there is no scarcity of literature measuring and correlating the fear of success, many of the results are conflicting. Further, there is little written on attempts to treat or alleviate this fear (O'Leary, 1977). As recently as 1980 no information was available on the socializing effects of women's studies on the motive to avoid success (Fleming, 1980).

The purpose of the study was to examine women's studies as a treatment modality for the fear of success in female college students. Anticipated results include a decrease in the fear of success in those female students who elected women's studies courses. It was proposed that this decrease should come about through the awareness of previous successes by females and by using the female instructors as role models.

The fear of success was measured by employing Cohen's Fear of Success Questionnaire. Also used were the Nowicki-Strickland Internal-

External Locus of Control Scale (ANS-IE) and a demographic questionnaire put together by the author. These instruments were selected because they would provide not only a measure of change in fear of success outlook due to the treatment, but also provide complementary data on the relationship between the fear of success and age, sex, college major, college level and number of women's studies courses taken. Data gathered in this study may shed some light on the conflicting results obtained by previous studies. It may also provide information on whether women's studies are an effective mode of treatment to alleviate the fear of success in women.

Hypotheses

The purpose of this study was to measure the effects of women's studies courses on the male and female students who elected them, on such measures as the fear of success (FOS) and locus of control. This study also quantified the relationship between these measures and gender of subjects, and the relationship between fear of success and locus of control. The hypotheses were:

Hypothesis 1

Female subjects taking women's studies courses will show a significant decrease in FOS scores.

Hypothesis 2

Female subjects taking women's studies courses will show a significant increase in internal locus of control as measured by ANS-IE.

Hypothesis 3

Female subjects will have a significantly higher score on the Fear of Success scale than male subjects.

Hypothesis 4

Female subjects will have a higher locus of control score in the external direction than male subjects.

Hypothesis 5

There will be a significant correlation between FOS scores and locus of control scores.

Hypothesis 6

Those females electing women's studies will exhibit significantly less fear of success than their counterparts in regular academic classes, prior to exposure to these classes.

Definition of Terms

Fear of Success

Fear of success (FOS) is a disposition to become anxious about achieving success because one (usually female) expects negative consequences (such as social rejection and/or feelings of being unfeminine) as a result of succeeding. This is not the will to fail (Horner, 1972, p. 159). FOS is ambivalence about success. For the purpose of this study, the fear of success will be operationally defined as a high score on Cohen's questionnaire.

Success

According to Canavan-Gumpert et al. (1978) success is any achievement in the personal, interpersonal, or academic/occupational domains which a person regards as a success. Success is a subjective feeling (Fleming et al., 1979).

Locus of Control

Locus of control describes the sources from which an individual attributes reinforcement or reward. Social learning theory provides the basis for this theoretical construct (Rotter, 1966).

Internal Control

Internal control refers to the perception of positive and/or negative events as being a consequence of one's own actions and, thereby, under personal control (Lefcourt, 1966). For the purposes of this study, internal control will be defined as a low score on the ANS-IE.

External Control

External control refers to the perception of positive and/or negative events as being unrelated to one's own behavior in certain situations and therefore beyond personal control (Lefcourt, 1966). For the purpose of this study high scores on the ANS-IE will be defined as external control.

Women's Studies

A women's studies course focuses on women, their functions, accomplishments or difficulties. Definitions of the individual courses are discussed in detail in chapter three.

Summary and Projection

There are environmental and intrapsychic causes for the under-utilization of women's potential. One such cause is the fear of success. This investigation studied a treatment modality for the fear of success.

The investigation was presented in five sections. Each section was designated as a chapter. The present chapter introduced the reader to the subject, presented the problem, stated the theoretical background, defined important terms, and presented the hypotheses. The second chapter reviewed the related literature. The third chapter included the research methodology. Chapter four covered the analysis and results of the data and the last chapter contained the summary, conclusions and recommendations identified from the study.

Chapter 2

Review of the Literature

The material in this chapter will be restricted to a review of literature concerning the fear of success, locus of control research related to the fear of success, fear of success measures, and women's studies.

Background for the Fear of Success

The concept of the fear of success (FOS), particularly as it is related to sex roles and is being treated in the present research, grew out of research in achievement motivation (Horner, 1972; 1974; Zuckerman and Wheeler, 1975). Horner did her original research to explain unresolved sex differences in achievement motivation of males and females (Tavris and Offir, 1977; Horner, 1974; Zuckerman and Wheeler, 1975). However the fear of success was identified as a neurotic problem as early as 1915 when Sigmund Freud first wrote about people "wrecked by success." Freud offers the examples of people who at the moment of wish fulfillment fall ill (Canavan-Gumpert et al., 1978). There are those theorists who currently write of the fear of success as related to Freudian Oedipal theory and sibling rivalry (Canavan-Gumpert et al., 1978; Friedman, 1980; Cohen, 1975; Haimowitz and Haimowitz, 1966). The Oedipal conflict when not well resolved may be expressed in substitute goals which Canavan-Gumpert et al. (1978) define as other successes or competitive victories. If the success is distant, the person may work toward the goal but as the success appears to be near fulfillment the

guilt from the original Oedipal conflict looms up again causing more internal barriers. Haimowitz and Haimowitz (1966) and Friedman (1980) concur with this view. They further feel that sibling rivalry can also cause success avoidance. The "victorious" child is envied by the other siblings. In addition, the child feels guilt over the victory.

Fear of success can be engendered prior to the Oedipal stage. Negative parental responses, ranging from a disapproving glance to anger and rejection, may be directed toward the child's attempts at mastery and independence. This parental behavior may serve to decrease the child's pleasure in developing competencies (Canavan-Gumpert et al., 1978). Haimowitz and Haimowitz (1966) also see the origin of fear of success as the result of early life experiences of the individual. They feel that the extent that parents can tolerate adequacy and strength in their children, can also cause a fear of success.

Those parents who feel inadequate and incapable of competing with their peers may compete with their children. Because children are less skillful, weaker and younger than their parents they are defeated. Thus their attempts to develop strength, initiative and aggressiveness are punished (Haimowitz and Haimowitz, 1966). Also, negative parental messages which assist in the formation of one's attitude about one's self and one's feeling of competency, may cause an individual to "play it safe." By "playing it safe" the individual may cut off any possibility of further negative criticism, while cutting off the possibility of success (Friedman, 1980).

Another aspect of the fear of success, explained by unconscious motivation, is one's fear of success because of the feeling that one

doesn't deserve success. To the individual thus inclined, success may represent ill gotten gain, achieved through trickery, and that once successful, others may see through the incompetence of the individual. Success also may be the result of vanquishing others, rival parents, siblings or other competitors (Friedman, 1980).

Cohen constructed her Fear of Success questionnaire on the basis of Freudian theory. She hypothesized fear of success as a "neurotic conflict over the expression of self assertive strivings which are "unconsciously equated with aggressive, destructure and/or exhibitionistic drives" (Macdonald and Hyde, 1980, p. 698). It is generalized neurotic conflict, not limited to the specific areas of parental disapproval but rather to any achievement or self assertion (Canavan-Gumpert et al., 1978).

Horney (as cited by Canavan-Gumpert et al., 1978) postulates that cultural influences as well as early childhood experiences are a factor in fear of success conflicts. She feels that there are three cultural factors that aid in the development of the neurotic fear of competition and rivalry. These factors are: (1) our society is dominated by a competitive spirit; unrealistic characteristics or attributes are given to those who succeed or fail; (2) the victor is assigned positive characteristics and reaps admiration, whereas, the person who fails gathers negative characteristics and scorn; and (3) the teaching of society that we should be modest, unselfish, and self sacrificing.

Friedman (1980) who views fear of success in Freudian terms (unresolved Oedipal conflict and sibling rivalry), also sees the fear

of success as a difficulty for men as well as women. She feels that in women, however, there is the added difficulty of how society defines a traditional role for women. Thus added to parental and societal negative messages and the double messages about success, there are those messages that are specifically beamed at women. That very aggression, that Freud sees women as capable of inhibiting, is just what is needed to do and to succeed.

In 1968, Matina Horner, then a graduate student at the University of Michigan, examined achievement motivation differences in the sexes. The achievement motivation research (the theory base from which Horner's construct emanates) began in 1947, with McClelland and Atkinson. They first studied the effects of hunger and then achievement motivation on the content of thematic apperception imagery using Thematic Apperception Test (TAT) cards (Atkinson and Raynor, 1974). Sex differences in achievement motivation were identified almost at the outset of the research (1953), yet there was no attempt made to examine realistically those differences (Horner, 1974). Horner (1974) further states that the data related to achievement motivation of women occupies only one footnote in Atkinson's (1958) 800 page book Motives in Fantasy, Action and Society. McClelland's (1961) Achieving Society makes no mention of women's achievement motivation (Horner, 1974). Veroff, Wilcox, and Atkinson did the original research on sex differences in achievement motivation. In this study, women who were exposed to "achievement-oriented conditions which stress intelligence and leadership ability" did not show an increase in n-achievement imagery (as cited in Horner, 1974). They found that both sexes attributed

more achievement imagery to male cues rather than female cues on the TAT n-achievement cards. These results were interpreted as the "sex role differences in American culture where achievement and success are a definite part of the traditional male role, but not the female role" (Horner, 1974). This concurs with Mead's sentiments. Mead (1949) writes that

> "... men do need to find reassurance in achievement, and because of this connection, cultures frequently phrase achievement as something that women do not or cannot do rather than directly as something which males do well."
>
> p. 160

Despite the fact that the inconsistency between the male and female achievement motivation was observed in 1953, the matter was dropped; psychologists simply stopped studying women as they did not conform to the expected achievement patterns (Tavris and Offir, 1977). The puzzle was not examined again until Matina Horner did her research in 1968. When she studied this problem, she, like her predecessors, used TAT type cues to elicit achievement imagery. However, she used verbal rather than pictorial cues. The TAT imagery was scored on a present absent system. Horner (1974) writes that her original experimental group categorized negative values in three groups:

1. Affiliative concerns - fear of being socially rejected, fear of losing one's friendships, the loss of one's datability or marriageable quality, actual isolation or loneliness, the desire to keep the success or intelligence a secret.

2. Self doubts - doubting one's femininity, normality, feelings of guilt or despair.

3. Denial - denying possibility or reality.

Fear of Success is embedded in the expectancy-value theory of motivation, as Horner conceived of it (Horner, 1972; Zuckerman and Wheeler, 1975). Zuckerman and Wheeler (1975) define the expectancy value theory of motivation as the "amount of interference with performance depends upon the strength of the motive to avoid success, the probability of success, and the negative value of success" (p. 933). Because achievement is not socially acceptable it carries a negative value. Horner (1974) conceptualized a formulation to represent this which reads:

$$t_{-s} = M_{AS} \times P_s \times I_{as}$$

T_{-s}: tendency to avoid success

M_{AS}: motive to avoid success

P_s: subjective probability of success

I_{as}: negative incentive value of success

(Horner, 1974, p. 100).

In this culture denying the competence and achievement of females is deeply rooted. Hoffman (1972) feels that a women's social status is more contingent on who she marries, than on what she achieves. Achievements which are the product of intellectual competence or the ability to lead are excluded from the concept of femininity. These qualities, according to Horner (1972), are considered aggressive and therefore are masculine in nature. As mentioned previously, Freud proclaimed the essence of femininity to be the absence or repression of aggression (cited in Horner, 1972; 1974). It is Horner's (1972) contention that this absence is imposed upon women by their constitution and society. This stereotype has persisted with practicing clinician

as illustrated by the Broverman et al. (1970). Both male and female clinicians feel that healthy women differ from healthy men; they (women) are seen as more submissive, dependent, more easily influenced, less aggressive, less competitive, less objective, and disliking math and science. Men and women differ in their standards of mental health, according to these clinicians. Further, the standards of the healthy adult coincide with the standards of the healthy male; whereas the standards of the healthy female are looked upon as less healthy by adult standards. Maffeo (1979) suggests that therapists rely more on environmental explanations of women's problems than on intrapsychic explanation because women as a group have experienced the environment as more inhibiting to development. Hawkins and Pingree (1978) also see the phenomenon of FOS as being a function of culture rather than intrapsychic factors. This would appear to concur with Horner's beliefs that it is society and culture that create the inhibition women feel.

However, it is interesting to note that there has been conflicting research studies on the fear of success with regard to the gender of the subjects. Some studies found no significant differences between the sexes with regard to fear of success. Cohen (1975) was one such study. Condry and Dyer (1976) point out six more studies where there appeared to be no significant difference in FOS between males and females, whereas Horner (1972), Feather and Simon (1973), and Monahan, Kuhn, and Shaver (1974) found a significantly greater fear of success in females than in males. Other studies have found significantly greater fear of success in males than in females (Canavan-Gumpert et al., 1978). Condry and Dyer (1976) cited several which found FOS higher in male subjects.

Major (1979) found that sex-role orientation rather than gender may be a factor in fear of success. Two hundred and eighteen undergraduate women attending Purdue University were studied. The Bem Sex-Role Inventory (BSRI) and a revised FOS scale were administered. The results indicated that androgynous women (high masculine and high feminine traits) scored lower on the fear of success scale than did sex-reversed women (high masculine--low feminine), sex typed women (low masculine--high feminine) or undifferentiated women (low masculine--low feminine). Sex-reversed women had significantly higher FOS scores than the other three groups. She suggests that women who reject feminine characteristics as sex-reversed women do may be more anxious about additional loss of femininity which might occur in gender inappropriate situations.

The motive to avoid success has also been linked to occupational choice and gender-appropriate behavior (Anderson, 1978; Janda et al., 1978; Cherry and Deaux, 1978). There is some conflict in these studies as Cherry and Deaux (1978) and Janda et al. (1978) point out that males and females, both, exhibited a fear of success in gender-inappropriate behavior, such as a male in nursing school or a female in medical school. Bremer and Wittig (1980) found no significant difference between males and females in fear of success responses. They accounted for negative responses as being dependent on the cue situation rather than the sex of the respondent. The study found higher fear of success scores in response to role deviance than to nondeviance (engineering school versus nursing school success). The research dealt solely with female deviance and not male deviance. Anderson (1978), however, found that women not exhibiting a motive to avoid success were more likely to

choose atraditional careers, whereas women who exhibited a motive to avoid success were oriented to more traditional female occupations. This concurs with Horner (1972) who found that 88.9% of the females with high fear of success were majoring in the humanities and 56% of the females low in the fear of success were majoring in "less traditional natural sciences like math and chemistry."

Conflicting results were not limited to the gender or occupational choice of the subjects, indeed, age and school level also produced conflicting results. Lavach and Lanier (1975) found a positive relationship between grade level and fear of success in junior and senior high school female students; whereas Monahan, Kuhn, and Shaver (1974) found a decrease in fear of success with an increase in age in a study of 10 to 16 year olds.

Topol and Reznikoff (1979) examined the relationship of achievers and underachievers and the fear of success. The authors found that achievers had a more contemporary view of the roles women should assume in society; however, achievers also showed more fear of success fantasies about women succeeding. The difference between the achievers and underachievers did not reach statistical significance. The fact that achievers showed more fear of success than underachievers is in agreement with Horner's (1972) contention that the motive to avoid success would be more characteristic of high achievement oriented, high ability women, who are capable of achieving success.

The relationship between high achieving female students and the motive to avoid success was also explored by Lavach and Lanier (1975). The subjects in this study were 7th, 8th, 9th, and 10th grade girls.

The authors found that the motive was prevalent in high achieving girls and was positively correlated with increasing grade level.

Locus of Control

Locus of control is an important aspect of this study as success as a negative incentive is related to the consequence of achievement and locus of control is also related to the consequences of events. "Internal control refers to the perception of positive and/or negative events as being a consequence of one's own actions and thereby under personal control; external control refers to the perception of positive and/or negative events as being unrelated to one's own behaviors in certain situations and therefore beyond personal control" (Lefcourt, 1966, p. 207). Rotter (1966) defines external control as the perception that a reinforcement following an action of the subject was not entirely contingent upon his action, and is perceived as luck, chance, fate, or under the control of powerful others. Internal control is defined as the belief that the event is contingent upon his own behavior. Locus of control is an expectancy variable rather than a motivational variable (Lefcourt, 1966).

Rotter's social learning theory provides the theoretical background for the construct of locus of control. Rotter (1966) explains social learning theory as follows: a reinforcement acts to strengthen an expectancy that a particular behavior or event will be followed by that reinforcement in the future. The expectancy will extinguish or reduce if the reinforcement does not continue to follow.

Rotter (1966) states that one of the major concepts which may bear some relationship to the belief in internal/external locus of control of

reinforcements is that of need for achievement. He suggests that people who have a high need for achievement have some belief in their own ability or skill to determine the outcome of their efforts. Horner's research would suggest that this statement may pertain to males only.

Some research has linked FOS with internal-external locus of control. Midgely and Abrams (1974) examined the fear of success and locus of control in 108 female undergraduate students and found that they were highly related. Women who scored high in fear of success had higher external control scores. Savage, Stearns, and Friedman (1979) explored locus of control and fear of success in Black college women. They found that students high in external locus of control showed more fear of success imagery. O'Leary (1977) studied 72 women ranging in age from thirty to sixty, measuring the effects of assertiveness training on fear of success, locus of control, and self acceptance. She also found a strong relationship between locus of control and fear of success. This relationship would suggest that women who are more external have a greater motive to avoid success because they are more concerned with societal expectations than they are concerned with their own expectations. Conversely, women who are more internal would have less of a fear of success because they do not support the idea that intellectual achievement may have negative consequences (Savage et al., 1979). Zuckerman and Wheeler (1975) found that subjects who scored high on the Fear of Success Scale (an instrument designed by Zuckerman and Allison) attributed success to external factors and failure to internal factors.

Men and women attribute success differently. Men who are successful attribute their success to ability and their failure to bad luck,

whereas women who are successful attribute their success to luck and their failure to the lack of ability (Lavach and Lanier, 1974). Women have a greater tendency to attribute academic achievement to external factors (Bar-Tal and Frieze, 1977). Bar-Tal and Frieze see this as an explanation as to why women make less attempts to excel in achievement situations. If success is due to luck and luck is unstable, then there is less expectancy for continued luck. However, they see motivation as a causal factor in attributing effort/ability as opposed to luck in successes and failures. Highly achievement motivated males and females rated their ability and effort higher as a causal factor for success; however, females tended to rate external factors somewhat higher than did males.

Women appear to be more externally oriented than males; external orientation may be part of the female sex-role stereotype (Marecek and Frasch, 1977). Passivity, dependence, and submissiveness are attributes which characterize limited control over events (Marecek and Frasch, 1977). Consistent with this notion are three studies cited by Nowicki (1980). One study was involved in the validating of the construct validity of the Adult Nowicki Strickland Internal External Locus of Control Scale (ANS-IE) involving the achievement competence behavior of the subjects. It was found that internality was positively related to grade point average (GPA) in males but not in females. Nowicki cites a study done in 1972 by Pappas and Nowicki where locus of control was found not to be related to Scholastic Aptitude Test (SAT) scores of female subjects. Another study was done in 1972 that was conducted by Nowicki and Duke with similar results. Nowicki (1980) suggests that the results occurred because of culturally proscribed roles.

Wolk and Bloom (1978) found that females do not always attribute success less internally and failure less externally than males. The attribution may be task dependent. If the task is perceived as a feminine one, females will attribute success more internally and failure more externally than males. These findings may be seen as consistent with the previously cited studies suggesting socially proscribed roles where academic success (GPA or SAT scores) is viewed as a masculine task. This effect was confirmed in a study conducted by Rosenfield and Stephan (1978).

There appears to be inconsistent findings regarding the relationship between the fear of success and locus of control (Zuckerman, 1979; Zuckerman and Wheeler, 1975). Zuckerman and Allison (1976) found that those subjects with a high fear of success attributed success externally and failure internally. Savage et al. (1979) explored the relationship between fear of success and locus of control in Black undergraduate women. The authors found that students high in external locus of control showed more fear of success imagery in response to verbal cues used to elicit fear of success. On the other hand, Feather and Simon (1973) found the reverse effect. Subjects who were high in the fear of success but who experienced success saw external factors (i.e., task difficulty, luck) as less important causes for their success.

Fear of Success Measurement

Horner's measure of the fear of success was developed from research on achievement motivation. Tressemer (1976) cites that using story writing for assessing motivation is an adaptation of the procedures used by Murray's Thematic Apperception Test (TAT). This procedure was

used by Atkinson and McClelland in 1948 to measure achievement motivation. Horner used verbal cues rather than pictorial cues for her fear of success research. These stories were then coded on the basis of a present/absent system (FOS was present if the story contained any of specified themes and absent if it had none). The following are the TAT type leads:

1. David (Carol) is looking into his (her) microscope.
2. A young man (woman) is talking about something important with an older person.
3. At the end of the school day, Richard (Barbara) is going back to the chemistry lab.
4. John (Anne) is sitting in a chair with a smile on his (her) face.
5. Steven (Nancy) and the girl (boy) he (she) has been dating for over a year have both applied to the same highly selective university.
6. After first term finals, John (Anne) finds himself (herself) at the top of his (her) med school class.

(Horner, 1974, p. 101)

The stories written in response to the last two verbal leads infer the motive to avoid success (Horner, 1974). Verbal leads rather than pictorial leads were used to avoid the problem of specific cultural content being communicated to the subjects (Fleming et al., 1979).

Much criticism has been directed toward Horner's original method (Zuckerman and Wheeler, 1975; Fleming et al., 1979; Macdonald and Hyde, 1980; Juran, 1979). Some of the criticism includes a need for more

ambiguous stimuli, no standard scoring manual, limited number of stimuli presented, low reliability, and predictive validity (Zuckerman and Wheeler, 1975; Macdonald and Hyde, 1980; Juran, 1979; Fleming et al., 1979). Zuckerman and Wheeler (1975) feel that the sex of the judge or scorer may influence the score. Female judges may find more fear of success imagery in the cue concerning Ann in medical school. Further, they feel that the judges' knowledge of the gender of the respondent may influence their (the judges) expectancies of the responses. Because of the limitations of the original measure, a second measure has been constructed (Fleming et al., 1979). Fleming comments about the new measure as follows: "There are however, a number of reliability issues that remained to be pursued for the newer scoring system along with their implications for validity" (Fleming et al., 1979, p. 1).

Objective questionnaires were developed by Pappo, Cohen, and Zuckerman and Allison. Objective questionnaires eliminate the scorer variability exhibited in Horner's original research. All three questionnaires were developed for use with male and female subjects (Canavan-Gumpert et al., 1978; Cohen, 1975; Zuckerman and Allison, 1976). In the present study the Cohen Fear of Success Questionnaire was utilized.

The questionnaire items were developed to identify success anxiety which is independent of specific achievement situations and without involving stereotypic sex-role behaviors (Cohen, 1975; Canavan-Gumpert et al., 1978). Eleven items in Cohen Fear of Success Questionnaire were taken from the Pappo scale. The two scales have correlation of .74 when those eleven items are removed. Pappo's assumption is that the fear of

success is limited to particular spheres of activity whereas as previously mentioned Cohen feels that success anxiety is not limited to specific achievement situations (Canavan-Gumpert et al., 1978).

Cohen (1975) was able to identify nine factors that can be used to identify a success-fearing individual; she did so by performing a factor analysis on the Cohen Fear of Success Scale. The factors are as follows, along with two sample questions for each factor:

Factor 1: Anxiety over the Expression of Needs and Preferences

It makes me feel uneasy to have to ask other people for things. (yes)

I often have trouble saying no to people. (yes)

Factor 2: Reluctance to Acknowledge Personal Competence

I'm pretty competent at most things I try. (no)

I generally feel uptight about telling a boss or professor that I think I'm entitled to a better deal. (yes)

Factor 3: Impaired Concentration and Distractability

Before getting down to working on a project, I suddenly find a whole bunch of other things to take care of first. (yes)

I have often "woken up" during a lecture or a meeting and realized that I haven't heard a word that was said. (yes)

Factor 4: Indecisiveness

I'm reluctant to make a large purchase without consulting someone else first. (yes)

It pays to check out your ideas with other people before making a final decision. (yes)

Factor 5: Safety Valve Syndrome--Fear of Loss of Control

It's important not to get too excited about things one really desires. (yes)

When I notice that things have been going particularly well for me, I get the feeling that it just can't last. (yes)

Factor 6: Illegitimacy of Self-Promotive Behavior

I tend to believe that people who look out for themselves first are selfish. (yes)

I sometimes have trouble acting like myself when I'm with people I don't know. (yes)

Factor 7: Anxiety Over Being the Focus of Attention

I hate having a fuss made over me. (yes)

I often feel self-conscious when someone who "counts" compliments me. (yes)

Factor 8: Preoccupation with Competition and Evaluation

When I'm praised for something, I sometimes wonder if I can do as well the next time. (yes)

When someone I know well succeeds at something, I usually feel that I've lost out in comparison. (yes)

Factor 9: Preoccupation with Underplaying of Effectiveness

I sometimes "play down" my competence in front of others so they won't think I'm bragging. (yes)

In the lower grades in school, if I got a good grade on a work assignment I often felt that I had fooled the teacher. (yes)

(Canavan-Gumpert et al., 1978, pp. 64-65)

Women's Studies

Snyder (1979) states that women's studies is the study of women. The discovery of neglected women of importance (writers, painters, political theorists, social activists, and others) marked the early phases of women's studies (Gerstenberger and Allen, 1977). Its purpose was to make up for past deficiencies in the curriculum (Del Rey and Russell, 1978). The goal of women's studies is to understand women and the situations and environment within which they interact. Women's studies have gone through considerable change since its inception as an outgrowth of the Women's Social Movement (Snyder, 1979). Snyder (1979) describes this growth by dividing its development into three phases.

The first phase is the educational activism phase. Initially women's studies dealt with numerous sex discriminations faced by women. These discriminations were faced both formally and informally. It pointed to these discriminations as being neither, "normal," fair, nor "acceptable." There was little reliance on academic literature during this phase. The emphasis was on creating literature by writing diaries and journals that would indicate growth. During this phase techniques such as consciousness raising were borrowed from "nonacademic women's groups." Snyder (1979) feels that the importance of this phase is that women learned from one another. They "recognized the relationship between their emotional feelings and the social structure within which these feelings developed" (Snyder, 1979, pp. 4-5). Women were asked to view and examine the sex role structure critically and initiate change in the aspects that are negative.

The second phase is referred to as the interdisciplinary study phase. This phase is still primarily concerned with reassessing women's status; however, it added the dimension of reassessing the literature of various academic study areas with the aim of determining what literature says about women, their capabilities, and their accomplishments (Snyder, 1979). They discovered that there was lack of academic literature about women and that what did exist had questionable validity. This brought women's studies to its third phase.

The third phase is feminist scholarship. During this phase, that lack of knowledge about women was investigated. The attempt was made to put right the scholarly record. Although both men and women contributed to this phase, it was predominantly women who were active in this research. According to Snyder, this research is documenting the narrowness of past studies by raising such questions as the following:

> Have the important questions been asked at the outset?
>
> Why are women's behaviors and attitudes evaluated on the basis of male standards, and what are the consequences of doing so?
>
> Are the conclusions drawn supported by evidence, or are they merely the authors' unsupported speculations?
>
> What assumptions have been interwoven into what we are being told about women?
>
> Do the basic theoretical models used in the various studies include women in their perspectives, or do they assume that everyone is male?

> Whom do the men or women being studied represent--everyone or only one class, one race, or one age? What is their historical and social context?
>
> (Snyder, 1979, p. 6)

At present, women's studies combines aspects of all three phases.

Women's studies have been a recognizable part of higher education since 1970. Women's studies were implemented as a result of various movements in our modern society. The 1960's and 1970's were marked with turmoil on the college campus. Along with minority groups, the women's movement demanded more recognition in the universities' curriculums. This resulted in the birth of women's studies programs (Kaye, 1978).

In an extensive study of women's studies Howe (1977) found that the courses began in disciplines such as English, history, and sociology and moved to other disciplines such as biology, law, and education. Usually there are enough women's studies courses within single departments to permit undergraduate and graduate majors or concentrations in that area. There are also interdisciplinary courses. As of 1976, there were more than 270 programs, 15,000 courses developed by 8,500 teachers at 1,500 different institutions. All of these are accredited institutions. Women's studies are also offered in nontraditional programs which award no credits. They are offered in prisons, YMCA's, adult education programs, and women's centers.

In the early stages of women's studies introductory type courses were included in sociology, literature, history, and psychology. Sometimes economics, political science, science, biology, anthropology, and courses on minority women were included, as well as art history and

European history. Now that women's studies programs have matured, they are developing more depth in such areas as sociology, literature, history, psychology, law, and sometimes education. There are now courses on minority women, courses on lesbiansim, maternity and child care, biology of women, and biochemistry of women. There are also courses like Women and Careers in Traditionally Male Fields, Management Training for Women, Women in the Criminal Justice System, Minority Women, and the Helping Profession.

There was an increasing demand for relevance in curricula (Loring, 1969). This movement is not unique to the women's program, but rather, typifies new approaches to the mission of higher education. The Federal government is largely responsible for the inception and growth of women's programs. While the 1972 Educational Amendment (Title XI) addresses the issue of sex discrimination, which is defined as "any action which limits or denies a person or a group of people opportunities, privileges, roles, or rewards on the basis of their sex" (Vetter and Peterson, 1978). The 1976 Educational Amendment not only addresses sex discrimination in education but also sex bias, or "behavior resulting from the assumption that one sex is superior to the other," and sex stereotyping, attributing behaviors, abilities, interests, values, and roles to a person or a group of persons on the basis of their sex." The 1976 Amendment has given institutions of learning a mandate to actively develop programs to overcome sex bias, stereotyping, and discrimination, and with an authorization to the States to use Federal monies to do so (Vetter and Peterson, 1978). The Federal government also legislated the Women's Educational Equity

Act of 1974. This legislation provides funds to develop programs and try new approaches to equalize educational opportunities for women (Follett, 1975).

A factor which further contributed to the growth of women's studies programs is the increase in the number of women enrolling in institutions of higher education. Women account for 93% of the recent enrollment gains in colleges and universities. Women constitute 52% of the undergraduate population under 22 years of age. They constitute 46% of the graduate population (Lauter, 1978).

Thus the women's movement, Federal legislation, and the growth of female enrollment in the universities have all contributed to the birth of women's studies.

The Old Dominion University Women's Studies Brochure (1980) states that the goals of the women's studies program are the following:

Provide students with an understanding of their roles, achievements, and experiences of women.

Explore the roots of sex-biased ideas and practices in society and academic disciplines.

Develop feminist awareness that will both eliminate distorted notions about women and recognize women's needs and contributions.

Prepare students to serve society through careers in education, health, the arts, politics, and the media, while providing them with an understanding of changing trends and issues related to sex roles.

Although women's studies courses differ in course content, it has been assumed that women's studies courses will raise the participants'

consciousness by increasing the awareness of the "overt and subtle process of sex-role stereotyping that limits women's aspirations and achievement" (Del Rey and Russell, 1978, p. 716). In fact, Brush et al. (1978) sees two sets of goals stressed by women's studies: intellectual mastery of the subject matter, a traditional goal and a less traditional goal, of personal change and consciousness raising. Both Del Rey and Russell (1978) and Brush et al. (1978) investigated this empirically. Previously the evidence was mostly in the form of testimonials.

Del Rey and Russell (1978) administered the Attitudes Toward Women Scale (AWS) to 55 students enrolled in women's studies courses at Cleveland State University. Although Del Rey and Russell state that the courses were "heavily weighted toward cognitive objectives and content" the observed differences on pretest-posttests were statistically significant. The authors found that the women students held less stereotypic views as a result of the courses.

Brush et al. (1978) studied the impact of an interdisciplinary women's studies course over a two year period (1974-1975). The students attended a small liberal arts college. Data were gathered on self-concept, sex-role attitudes, and sex-role stereotypes of the students. Questionnaires concerning information on the student's background and a test battery consisting of the Minnesota Women's Scale, the Broverman Role Inventory, and the I Am Test was administered. The Battery was administered as pretests and posttests. An examination of the overall data did not reveal a redirection of attitudes and self concepts for the students in women's studies courses. Thus are presented two studies concerned with resocialization and attitude

change after being exposed to academic course content. The studies were done in the same year (1978) and they present conflicting results.

Summary of the Fear of Success

A great deal of literature has been generated about the fear of success. The literature, however, is filled with conflicting theories, findings, and results. There are differing theories concerning the causes of the fear of success, who it affects, and what variables are related to it.

There are two distinct schools of thought on the origin of the fear of success. Both schools see early childhood experiences as the origin. Horner and her followers see early socialization as the culprit of the fear of success in women. According to this theory, the fear is culturally induced. On the other hand, Cohen (1975), Canavan-Gumpert et al. (1978), Haimowitz and Haimowitz (1966), and others suggest that an unresolved Oedipal conflict, sibling rivalry, and other early intrapsychic difficulties may be responsible for the fear of success. These ideas apply to the fear of success in both men and women. The present study chooses a synthesis of the two schools of thought. Friedman (1980) views the Freudian hypothesis as the origin of the fear of success, acknowledging that males and females can suffer from these early intrapsychic conflicts. She, however, notes that while males and females suffer from these conflicts, females are receiving double messages about the danger of success. The consequences for females bring potential disaster simply because they are females. Socialization of sex roles is thus an added feature in the formation of the fear of success. The present study concurs with this view.

Although the aim of women's studies is the intellectual mastery of the academic material, a secondary goal may be achieved. That secondary goal is personal change and consciousness raising. Women's studies may undo some of that early sex role socialization that is responsible for and/or enhances the fear of success since in women.

Chapter 3

Methodology

The purpose of this study was to investigate the effects of women's studies on the fear of success and internal-external locus of control. The sample population consisted of volunteer male and female students attending the College of William and Mary in Williamsburg, Virginia, and Old Dominion University in Norfolk, Virginia. This study also investigated the relationship between the fear of success and internal-external locus of control and gender of college student. A discussion of the research design, the sample population, the treatment, the assessment instruments, and the method of analysis is presented in this chapter.

The Research Design

The nonequivalent control group design was used in this study (Campbell and Stanley, 1963). This design involves an experimental group and a control group both receiving pretesting and posttesting. There is no assumption of randomness in this design since this is a field study where the experimenter had no control over the assignment of groups. Instead, the students were assigned to a group by virtue of whether or not they were taking women's studies. The experimenter group consisted of the group of students taking women's studies courses. The control group consisted of the group of students who were enrolled in three nonwomen's studies classes. The experimental group was composed of students enrolled in six women's studies classes (three at the

College of William and Mary and three at Old Dominion University). The control group was composed of students enrolled in three nonwomen's studies classes (one at the College of William and Mary and two at Old Dominion University). Therefore, the test sample consisted of 9 classes of which 6 were experimental and 3 were control. A simple pretest-posttest design was used.

Yb X Ya (Experimental)

Yb X Ya (Experimental)

Yb X Ya (Experimental)

Yb X Ya (Experimental

Yb X Ya (Experimental)

Yb X Ya (Experimental)

Yb $\bar{X}$ Ya (Control)

Yb $\bar{X}$ Ya (Control)

Yb $\bar{X}$ Ya (Control)

Yb represents the pretest, X represents the treatment, $\bar{X}$ represents no treatment, and Ya represents the posttest.

There may be a self-selection effect occurring since students volunteered. Further, students who elect to take women's studies courses may differ from the rest of the student population. Therefore, pretesting of both the experimental and the control group was needed to establish a base level for both groups. Posttesting of the control group was necessary to check for the effect of the natural process of maturation over the academic term in both groups regardless of whether the treatment was given.

The Sample Population

The subjects were College of William and Mary and Old Dominion full-time undergraduate day students. There were 128 students from the College of William and Mary and 115 students from Old Dominion University. The total student population was 243. Out of the total population of 243 students, there were 165 students who took both the pretest and posttest. The posttest was given at the close of the term and a number of students did not attend class at that time. Male and female students were tested in both the experimental and control group. Female students, however, outnumbered the males. At William and Mary, the pretest was taken by 92 female and 31 male students. At Old Dominion University, the pretest was taken by 79 female and 29 male students. There were 126 female and 27 male students in the experimental group. There were 46 female and 35 male students in the control group. (The test populations, college level of subjects, and their majors are summarized in Tables 1-3, respectively.)

Table 1

Populations

School	Group[a]	Number of sections	Number of subjects Pre-Post test		Course title
College of William and Mary	E 1	1	35	29	The Descent of Woman
College of William and Mary	E 2	1	32	22	Changing Sex Roles
College of William and Mary	E 3	1	21	16	German Women Writers
Old Dominion University	E 4	1	19	8	Women's Health and Medical Care
Old Dominion University	E 5	1	39	31	Crime and Women
Old Dominion University	E 6	1	7	5	Women and Power
College of William and Mary	C 1	1	35	27	American History
Old Dominion University	C 2	2[b]	44	27	Criminal Justice
Total				165	
Total E				111	
Total C				54	

[a]E--experimental, C--control.

[b]Consisted of 2 sections; Section 1: 14 and 5; Section 2: 30 and 22 (Totals: 44 students were pretested and 27 students were posttested).

Table 2

Populations by College Level Who Took Pretest and Posttest

Group	Number of students
Freshmen	7
Sophomores	56
Juniors	46
Seniors	56
Total	165

Table 3

College Major for Entire Population

Major	Number of students	Major	Number of students
Computer Science	3	Sociology	21
Chemistry	2	History	15
Biology	10	Foreign Language	4
Industrial Arts	1	English	19
Business Administration	10	Speech	1
Accounting	2	Theatre	1
Economics	8	Art	5
Political Science	1	Elementary Education	8
Government	9	Interdisciplinary	4
Criminal Justice	75	Studies	
Religion	1	Undecided	6
Psychology	18	Geology	1
Anthropology	8	Philosophy	
		Music	1

Treatment

The treatment consisted of exposure to women's studies classes. At William and Mary students enrolled in the following women's studies classes made up the experimental (treatment) group: Anthropology 306 (The Descent of Woman); Sociology 329 (Changing Sex Roles); and German 398 (German Woman Writers of the Twentieth Century). At Old Dominion University the following women's studies classes composed the experimental (treatment) group: Sociology 395 (Women's Health and Medical Care); Criminal Justice 296 (Crime and Women); Women's Studies 396 (Women and Power). The control group at the College of William and Mary was History 202 (American History) and at Old Dominion University the control group consisted of two non-women's studies classes of Criminal Justice.

Women's studies Anthropology 306 (Descent of Women) includes field and laboratory studies of non-human primates, as well as human cross-cultural data. These data will be examined in order to focus on the condition of women in several societies including modern U.S.A. (William and Mary Catalog, 1980).

Women's studies Sociology 329 (Changing Sex Roles in Contemporary Society) examines contemporary changes in sex roles and consequences of being female and male in terms of roles, rewards, costs, and identities. The class examines analysis of biological vs. cultural determinants; and reciprocity of sex roles in terms of exchange theory and power bargaining (William and Mary Catalog, 1980).

Women studies German 398 (German Twentieth Century Women Writers) examines 20th century literature written by German speaking women. The

class critically examines the readings, films, and lectures to gain a better appreciation of the German life experience, of German women writers, of literary style in several genres, and women's concerns (Class syllabus).

Women's studies Sociology 395 (Women's Health and Medical Care) examines the theories, myths, and practices surrounding women's mental and physical health. Folklore about women's biological functions will be compared with research findings, and women's roles in their own health care. Also discussed were topics such as biological mandates, insanity, substance abuse, female sexuality, female diseases and their treatments, the economics of health care, the law and health care, and the merchandizing of health care (Old Dominion University, Women's Studies Brochure, Spring 1980).

Women's studies Criminal Justice 296 (Crime and Women) explores the roles of women as offenders, as victims, and as employees of the criminal justice system. It examines the treatment of the female offenders as they are processed through the police departments, courts, jails, probation, and parole. Also covered are the controversies surrounding women's criminal activities, women as victims of crime (rape, battered wives), career opportunities for women in criminal justice, and issues regarding the future of women as related to crime (Old Dominion University, Women's Studies Brochure, Spring 1980).

Women's studies 396 (Women and Power) is an interdisciplinary course that examines various types of power - reproductive, domestic, economic, political, sexual, legal, and spiritual--that women do and do not have. Students consider how women and men can use power to transform

existing psychological and social realities, how political power permeates domestic relationships, and how economic power operates in male-female interactions. This course also examines the way power is displayed through language and touching, and how white and black women function within the current power structure. Material for this course was drawn from the areas of medical history, sociology, literature, political history, philosophy, economics, and ecology (Old Dominion University, Women's Studies Brochure, Spring 1980).

Measurement Instruments

Unlike Horner's original research which utilized verbal thematic apperception test (TAT) cues to measure achievement or fear of success imagery, the present study utilizes self-report measures in both pretesting and posttesting. The students were assured of the confidentiality of the test data. The respondents were asked for identifying data such as their name. (This was needed to assist in matching pretest and posttests and to enable the researcher to give any student who so desired it, feedback. The students were told that they need not put their names on the answer sheet.) Other data such as age, sex, college level, major, title of the course, previous women's studies courses taken, and whether the student had ever taken these tests before were gathered. (The student personal questionnaire is given in Appendix A.) The data were used for correlation studies. The self-report instruments used in this study were Cohen's Fear of Success Questionnaire (People Knowing Questionnaire) (Appendix B) and the Nowicki-Strickland Locus of Control Scale, Adult Form (ANS-IE) (Appendix C).

Cohen Fear of Success Questionnaire

The Cohen Fear of Success Questionnaire is composed of 64 true-false items (see Appendix B). These items were constructed to reflect success anxiety independent of any specific achievement context and sex role (Cohen, 1975; Canavan-Gumpert et al., 1978; O'Leary, 1977; Tressemer, 1976). The reliability coefficient of the Fear of Success Questionnaire is .90 (Cohen, 1975). Macdonald and Hyde (1980) found a retest reliability of .83 for the Cohen measure as opposed to a retest reliability of .51 for Zuckerman and Allison's Fear of Success Scale. The authors found a retest reliability for Horner's 1968 male cue of .58 and female cue of .20. The 1977 male cue had a retest reliability of .22 and a female retest reliability of .57. Cohen's Fear of Success Questionnaire has a higher retest reliability than either Zuckerman and Allison's or Horner's 1968 or 1977 measures.

Although the correlation with Horner's original FOS instrument was near zero, the correlation with Pappo's 83 item scale of FOS was found to be .74 (Tressemer, 1976) (the problem with Horner's original FOS instrument was discussed in chapter two). The Cohen scale includes 11 items taken from the Pappo scale; however, these items were eliminated before calculating the correlation of the two scales (Canavan-Gumpert et al., 1978). Cohen constructed her scale not to be restricted to academic achievement, but rather to cover a wide range of activities including intellectual, competitive, interpersonal, and sexual (Canavan-Gumpert et al., 1978).

The validation studies for the Cohen scale were done by administering the FOS questionnaire to 240 white, college bound high school male

and female juniors and seniors. From this population 90 students were selected (the highest and lowest scorers--47 male and 43 female students). During the initial testing a memory task was performed by each of the participants. During the second phase, all the participants selected were told that he or she was a finalist and that this was the runoff phase. The participants were then paired with an opponent, some with a same-sex opponent and some with an opponent of the opposite sex. It was found that the high FOS subjects did not perform as well, particularly in the second part of the study. Subjects who scored high in FOS scored much lower when the competitor was of the same sex. Cohen (1975) found that both males and females showed FOS. Sex of the competitor had no effect of low FOS subjects (O'Leary, 1977; Tressemer, 1976; Cohen, 1975; Canavan-Gumpert et al., 1978).

An FOS score is derived by totaling the number of FOS responses, yielding a single score. High scores reflect a fear of success anxiety (O'Leary, 1977). Cohen (1975) found the mean score for female college students to be 38.1 and the mean score for male college students to be 35.7. The difference between the two means was not found to be significant (Canavan-Gumpert et al., 1978). However, Macdonald and Hyde (1980) found a male mean of 31.79 and a female mean of 34.84 when testing 205 college students in a midwestern state university. There were 104 males and 101 females in this study. The sex difference was significant at the .05 level.

As previously cited in chapter two, Cohen factor analyzed the Fear of Success questionnaire. Among the nine factors identified, there was a relatively high intercorrelation of .42. Cohen felt that this

suggested a unitary factor (O'Leary, 1977; Canavan-Gumpert et al., 1978).

Cohen's interpretation of the FOS is based on a neo-Freudian perspective. She feels that the FOS is a generalized neurotic conflict not limited to areas that had previously met with parental disapproval, but also includes all achievement striving and self-assertion activities. It is for this reason that the test items contain many spheres of activity (Canavan-Gumpert et al., 1978).

Nowicki-Strickland Locus of Control Scale, Adult Form

The Nowicki-Strickland Locus of Control Scale Adult Form (ANS-IE) is a forty item self-report questionnaire. It requires the subject to answer yes or no to the test items (see Appendix C). This scale was developed to overcome the shortcomings of the Rotter Internal-External Locus of Control Scale and is based around Rotter's construct. It requires a fifth grade reading level. The adult scale items were derived through modifying the Children's Nowicki-Strickland Internal-External Control Scale (CNS-IE), mostly by changing the word "children" to "people" (Nowicki, 1980). The ANS-IE instrument also changed the tense of some of the items so that they more appropriately fit adult rather than child subjects.

The test-retest reliability for college students over a six week period was .83 and over a year period (based on community college students) was .56 (Nowicki, 1980). The split half reliability ranges from .74 to .86 (Nowicki and Duke, 1974).

A .86 correlation was found between the ANS-IE and the Rotter Internal-External Locus of Control Scale when administered to a college

and a community sample. This led the authors to believe that they are measuring the same construct, but in a different manner, thus establishing construct validity.

It was felt that the ANS-IE instrument was needed since there was no scale whose language was appropriate to the noncollege educated adult. It was also believed desirous to develop a scale with no relationship to social desirability, a scale which is usable with younger children through slight alterations (Nowicki and Duke, 1974; Nowicki, 1980). Nowicki and Strickland believe they had overcome all of these weaknesses.

To compute the score for the ANS-IE the number of external responses are totaled yielding a single score. The higher the score, the more external the locus of control of the subject.

Data Analysis

Data Collection

During the first and second week of the Spring semester, 1980, all of the subjects were given the following measures: biographical data sheet questionnaire, Cohen Fear of Success questionnaire (People Knowing questionnaire), and Nowicki-Strickland Internal-External Control Scale for Adults (ANS-IE). The students were told that their participation in the study was strictly voluntary and that their results were confidential. It was further explained that the researcher was a doctoral candidate in counseling at the School of Education of the College of William and Mary and that their participation in the study was for data needed for her doctoral dissertation research. No further description of the research was given to the subjects. The subjects were told that the examiner would be happy to explain the research and their scores at

the conclusion of the study. The subjects were posttested the week before final examinations. The school terms were 15 weeks long. All the measures were hand scored, and analyzed by computer at the College of William and Mary Computer Center.

Statistical Analysis

Statistical treatment of each hypothesis follows:

Hypothesis 1. Female subjects taking women's studies courses will show a significant decrease in fear of success (FOS) at the conclusion of the semester as measured by Cohen's Fear of Success questionnaire.

To test for a statistically significant difference between pretest and posttest scores, a repeated measure analysis of variance was used. A decrease in the FOS would indicate that some relationship exists between taking women's studies and the fear of success.

Hypothesis 2. Female subjects taking women's studies courses will show a statistically significant decrease in the external locus of control as measured by the ANS-IE by the end of the semester.

A significant decrease would again suggest the effect of the treatment. Subjects' test scores were analyzed by using a repeated measure analysis of variance to compare pretest and posttest scores.

Hypothesis 3. Female subjects will have a significantly higher fear of success as measured by Cohen's Fear of Success questionnaire than male subjects.

A t-test was performed comparing the FOS scores of male and female subjects. A significant difference would indicate that gender of the subjects has some relationship to FOS scores.

Hypothesis 4. Female subjects will have a significantly higher locus of control score in the external direction as measured by the ANS-IE than male subjects.

A significant difference between male and female subjects in anticipated direction would indicate some relationship between gender and locus of control, indicating that females make more external attributions to events than males. A t-test was selected to compare pretest scores of males and females on the ANS-IE.

Hypothesis 5. There will be a significant correlation between FOS scores of the subjects as measured by the Cohen's Fear of Success questionnaire and locus of control scores as measured by ANS-IE.

To test this hypothesis, the Pearson product moment correlation test was selected. A positive correlation between the pretest score on the Fear of Success questionnaire and the pretest score on the ANS-IE for all subjects would indicate that some relationship exists between FOS score and locus of control score of the subjects. This result would concur with the findings of Zuckerman and Wheeler (1975), O'Leary (1977), and Savage et al. (1979).

Hypothesis 6. Those female students electing women's studies courses will have significantly lower pretest FOS scores as measured by the Cohen Fear of Success questionnaire than their female counterparts in the control group.

A t-test was selected to test this hypothesis. A significantly lower FOS score for women's studies students would indicate some selection on the part of the students enrolled in women's studies. Those students may already have a "raised consciousness."

Chapter 4

Results

The statistical findings of this study are presented in this chapter. These findings are the results of test data obtained by using the Cohen Fear of Success questionnaire (FOS), the Nowicki-Strickland Locus of Control Scale, Adult Form (ANS-IE) and the personal data sheet.

The results are presented and interpreted for each hypothesis. Different hypotheses required different methods of analysis, so that there was no one single method of analysis that could be applied to test all of the hypotheses. Repeated measure analysis of variance was computed for the six women's studies classes for the FOS scores and ANS-IE scores. T-tests were also performed to test hypotheses 3, 4, and 6. The data for hypothesis 5 were analyzed using a Pearson product moment correlation. In addition to presenting the results of the hypothesis, exploratory analysis of data was performed on results related to the study, but not hypothesized by the study.

Hypothesis 1

Female subjects taking women's studies courses will show a significant decrease in fear of success (FOS) at the conclusion of the semester as measured by Cohen's Fear of Success questionnaire. This hypothesis was designed to answer the question: Does seeing a female role model and discussing the accomplishments and difficulties of women, within an academic setting, decrease the fear of success for these female students? The results of this analysis are summarized in

Tables 4-7. Table 4 summarizes the results of the analysis of variance run for the pretests and posttests of female students in the experimental group for each of the courses. Table 5 presents the pretest and posttest means for female subjects in both the experimental and control group by course. Table 6 presents the same data for the male subjects.

An examination of Table 4 reveals an f-value of 5.751 which is significant beyond the 0.001 level. Although females in women's studies courses E1, E2, and E3 did indeed decrease their scores, females in courses E4, E5, and E6 increased their posttest scores (see Table 5). The effect of the individual course rather than treatment of women's studies courses in general is highly significant on the outcome of the posttest score. The analysis was performed on five not six women's studies groups because E6 had only two students.

Tables 5 and 6 do not reveal any general trends. An examination of these tables reveals that mean gains are not consistent by course or gender. There are mean gains for some courses, and mean losses for others, within the experimental group and the control group. The results of Table 4 indicate a highly significant difference among the different courses in the experimental group. Therefore, the hypothesis is neither rejected nor accepted.

An examination of Table 7 reveals that the mean decreases in E1 and E2 are significant beyond the 0.01 level. The decrease in E3 is not significant at the 0.05 level. E4, E5, and E6 show mean gains which are also not significant at the 0.05 level. Since three women's studies courses show mean losses in the anticipated direction and three show mean gains, the hypothesis can be accepted for E1 and E2 and rejected for E3, E4, E5, and E6.

Table 4

Analysis of Variance of Posttest Scores of Females in the Five Experimental Groups on Cohen's Fear of Success Questionnaire Using Pretest Scores as a Covariate

Source	Degree of freedom	Sum of squares	Mean square	f-value	Signif-icance level
Covariate	1	4933.332	4933.332	159.369	0.0
Main effects	4	712.105	178.026	5.751	0.0
Explained	5	5645.438	1129.087	36.475	0.0
Residual	81	2507.387	30.955		
Total	86	8152.824	94.800		

Table 5

Pretest-Posttest Means for the Fear of Success Scores of Female Subjects

Group	Number of subjects		Pretest		Posttest		Mean gain
	Pretest	Posttest	Mean	Standard deviation	Mean	Standard deviation	
Experimental groups--test scores							
E1	31	27	32.0968	9.2208	31.1481	8.9602	-0.9487
E2	23	17	29.5217	10.1304	23.9412	11.5946	-5.5805
E3	16	11	31.9375	9.4620	30.8182	10.3906	-1.1193
E4	18	7	29.3889	7.7166	33.8571	8.6685	4.4682
E5	34	29	30.2353	7.2156	31.2759	8.0618	1.0406
E6	4	3	20.0000	4.2426	23.6667	6.3509	3.6667
Total		89	31.3258	8.740	29.5169	9.734	-1.8089
Control groups--test scores							
C1	22	17	29.6364	11.5121	28.1765	11.5555	-1.4599
C2a	7	2	32.8571	8.2347	25.5000	7.7782	-7.3571
C2b	17	12	30.0000	6.6144	32.7500	7.1367	2.7500
Total		29	28.7931	8.986	29.1724	9.921	0.3793

Note: Low scores indicate a low fear of success.

Total refers to number of subjects who took the pretest and posttest.

The titles of groups shown in column 1 are defined in Table 1.

Table 6

Pretest-Posttest Means for the Fear of Success Scores of Male Subjects

Group	Number of subjects		Pretest		Posttest		Mean gain
	Pretest	Posttest	Mean	Standard deviation	Mean	Standard deviation	
Experimental groups--test scores							
E1	4	2	25.7500	5.1881	33.0000	7.0711	7.2500
E2	9	5	25.8889	11.3186	22.4000	13.1263	-3.4889
E3	5	5	22.4000	6.5803	24.0000	4.5277	1.6000
E4	1	1	20.0000	0.0	21.0000	0.0	1.0000
E5	5	2	25.6000	9.0719	15.5000	13.4350	-10.1000
E6	3	2	21.0000	7.8102	18.5000	0.7071	-2.5000
Total		17	20.0588	6.5333	22.7647	9.237	-2.7059
Control groups--test scores							
C1	13	10	30.6154	9.0603	31.6000	8.8217	0.9846
C2a	8	3	29.3750	4.9262	27.6667	3.2146	-1.7083
C2b	14	10	25.4286	9.1291	24.0000	11.5854	-1.4286
Total		22	29.0000	9.196	27.5000	10.183	1.5000

Note: Low scores indicate a low fear of success.

Total refers to number of subjects who took the pretest and posttest.

The titles of groups shown in column 1 are defined in Table 1.

Table 7

t-Values for Pretest-Posttest Means for Fear of Success Scores of Female Subjects

Group	Number of subjects	Pretest		Posttest		t-value	Significance level
		Mean	Standard deviation	Mean	Standard deviation		
Experimental groups--test scores							
E1	24	33.5000	9.614	30.2917	9.024	2.97*	0.007
E2	17	30.2353	10.047	23.9412	11.595	3.83*	0.002
E3	10	32.1000	10.300	30.9000	10.949	0.89	0.397
E4	7	31.1429	9.263	33.8571	8.668	-1.84	0.115
E5	29	30.5517	6.473	31.2759	8.062	-0.66	0.513
E6	2	22.5000	4.950	20.0000	0.0	0.71	0.605
Control groups--test scores							
C1	16	27.4375	10.308	27.3125	11.353	0.09	0.926
C2a	2	31.0000	11.314	25.5000	7.778	2.20	0.272
C2b	11	30.3636	6.874	32.5455	7.448	-1.95	0.080

*$p < 0.01$.

Note: Low scores indicate low fear of success.

The titles of groups shown in column 1 are defined in Table 1.

Hypothesis 2

Female subjects taking women's studies courses will show a statistically significant decrease in the external locus of control as measured by the ANS-IE by the end of the semester. This hypothesis was designed to answer the questions: Will women's studies courses decrease the subject's score on the Nowicki-Strickland Internal External Locus of Control scale, thus producing a more internal locus of control? Will female subjects feel more control over their environment after being exposed to female role models and successes? The results of this analysis are summarized in Tables 8-11.

Table 8 summarizes the results of the analysis of variance run for the pretest and posttest of female students in the experimental groups on the ANS-IE. Tables 9 and 10 summarize the pretest and posttest means on the ANS-IE by sex and by course.

Examination of Table 8 reveals that there is no significant difference in the posttest score of the five individual courses for the females in the experimental group. An f-value of 2.152 with $p < 0.085$ was found. Five courses were analyzed because the sixth course had only two students, and, therefore, was dropped from analysis. Although there was no significant difference among the courses only E1 showed a mean loss in the anticipated direction (see Table 11). The hypothesis can be accepted for E1 and rejected for E2, E3, E4, E5, and E6. Although E4, E5, and E6 also showed mean loss in the anticipated direction, the t-values did not reach the 0.05 level of significance.

Tables 9 and 10 do not reveal any general trends in ANS-IE score mean gains. The gains and losses on pretest and posttest comparisons are not consistent from course to course for either gender. Therefore, the main gains and losses are accounted for by the individual courses, rather than the treatment, in general. The hypothesis is neither rejected nor accepted.

Table 8

Analysis of Variance of Posttest Scores of Females in the Five Experimental Groups on the ANS-IE Using Pretest Scores as a Covariate

Source	Degree of freedom	Sum of squares	Mean square	f-value	Signif-icance level
Covariate	1	1045.200	1045.200	113.271	0.0
Main effect	4	79.444	19.861	2.152	0.082
Explained	5	1124.644	224.929	24.376	0.0
Residual	80	738.196	9.227		
Total	85	11862.840	21.916		

Table 9

Pretest-Posttest Means for ANS-IE

Scores of Female Subjects

Group	Number of subjects		Pretest		Posttest		Mean gain
	Pretest	Posttest	Mean	Standard deviation	Mean	Standard deviation	
Experimental groups--test scores							
E1	31	27	10.9032	4.1098	9.0000	4.4979	-1.9032
E2	23	17	6.6087	3.6648	6.8824	5.1947	0.2737
E3	16	11	9.3125	2.9602	11.0909	2.8445	1.7784
E4	18	7	9.8333	4.7558	9.1429	2.5448	-0.6904
E5	33	29	11.6667	4.3565	10.2759	5.0349	-1.3908
E6	4	3	7.0000	2.5820	5.6667	3.2146	-1.3333
Total		88	9.9773	4.418	9.1591	4.697	-0.8182
Control groups--test scores							
C1	22	17	8.6364	4.2488	7.0588	3.2301	-1.5776
C2a	7	2	7.2857	2.4976	9.5000	2.1213	2.2143
C2b	17	12	8.1176	4.7154	8.0833	4.4407	-0.0343
Total		29	7.2759	3.401	7.6207	3.793	0.3448

Note: Low scores indicate higher internal locus of control.

Total refers to number of subjects who took the pretest and posttest.

The titles of groups shown in column 1 are defined in Table 1.

Table 10

Pretest-Posttest Means for ANS-IE

Scores of Male Subjects

Group	Number of subjects		Pretest		Posttest		Mean gain
	Pretest	Posttest	Mean	Standard deviation	Mean	Standard deviation	
Experimental groups--test scores							
E1	4	2	10.5000	3.3166	10.5000	2.1213	0.0
E2	9	5	9.2222	5.5403	8.8000	6.8702	-0.4222
E3	5	5	7.0000	3.4641	9.0000	4.1833	2.0000
E4	1	1	8.0000	0.0	8.0000	0.0	0.0
E5	5	2	7.8000	1.9235	6.0000	2.8284	-1.8000
E6	3	2	9.3333	4.6188	8.5000	4.9497	-0.8333
Total		17	7.7647	4.221	8.6471	4.457	-0.8824
Control groups--test scores							
C1	13	10	8.7692	3.8113	6.0000	5.4160	-2.7692
C2a	7	3	7.1429	2.3401	7.6667	5.0332	0.5238
C2b	13	10	9.6154	5.5609	9.6000	4.6236	-0.0154
Total		21	8.3810	3.427	7.0476	4.364	1.3333

Note: Low scores indicate higher internal locus of control.

Total refers to number of subjects who took the pretest and posttest.

The titles of groups shown in column 1 are defined in Table 1.

Table 11

t-Values for Pretest-Posttest Means for ANS-IE Scores

Group	Number of subjects	Pretest		Posttest		t-value	Significance level
		Mean	Standard deviation	Mean	Standard deviation		
Experimental groups--test scores							
E1	24	11.1667	4.508	9.2083	4.530	3.08*	0.005
E2	17	6.7647	3.945	6.8824	5.195	-0.16	0.875
E3	10	9.6000	2.797	11.2000	2.974	-2.10	0.650
E4	7	9.4286	3.101	9.1429	2.545	0.79	0.457
E5	28	11.3929	4.508	10.1071	5.043	1.90	0.069
E6	2	7.0000	4.243	4.5000	3.536	5.00	0.126
Control groups--test scores							
C1	16	7.3125	2.892	7.0000	3.327	0.51	0.616
C2a	2	7.0000	1.414	9.5000	2.121	-5.00	0.126
C2b	11	7.2727	4.429	8.1818	4.644	-1.53	0.157

*$p < 0.01$.

Note: Lower scores indicate higher internal locus of control.

The titles of groups shown in column 1 are defined in Table 1.

Hypothesis 3

Female subjects will have a significantly higher fear of success as measured by Cohen's Fear of Success questionnaire than male subjects. This hypothesis was designed to answer the question: Do females have a greater fear of success than males?

Table 12 displays the results of the t-test run to compare the pretest means of female and male subjects. An examination of this table reveals that there is a statistically significant difference between male and female subjects on the pretest scores of Cohen's Fear of Success questionnaire. The t-value was 2.91 with $p < 0.002$. The difference is not only significant beyond the 0.01 level, but is in the anticipated direction. Females had higher FOS scores than males. The hypothesis is accepted.

Table 12

Pretest Means for Subjects on Test Variables

Group	Number of subjects	Mean	Standard deviation	t-value	Significance level
		FOS			
Females	172	30.3140	8.878	2.91*	0.002
Males	62	26.5806	8.586		
Females					
William and Mary	92	30.8370	9.986	0.84	0.200
Old Dominion University	80	29.7125	7.421		
Females					
Treatment	126	30.3333	8.732	0.05	0.482
Control	46	30.2609	9.365		
		ANS-IE			
Females	171	9.4035	4.362	1.06	0.146
Males	60	8.7333	4.170		

*$p < 0.01$.

Note: Low scores indicate a low fear of success.

Low scores indicate high internal locus of control.

Hypothesis 4

Female subjects will have a significantly higher locus of control score in the external direction as measured by the ANS-IE than male subjects. This hypothesis was designed to answer the questions: Do female subjects feel that they have less control over the positive or negative events that occur as a result of their actions? Do female subjects perceive that these events are the product of fate, chance, luck or the actions of powerful others?

A t-test was performed comparing the FOS scores of male and female subjects. A significant difference would indicate that gender of the subjects has some relationship to locus of control. Table 12 summarizes the results of the t-test run on the pretest scores of females and males on the ANS-IE. An examination of Table 12 reveals that the differences between females and males are not statistically significant, although the difference is in the anticipated direction. The t-value was 1.06 with $p < 0.146$. The hypothesis is therefore rejected.

Hypothesis 5

There will be a significant correlation between FOS scores of the subjects as measured by the Cohen's Fear of Success questionnaire and locus of control scores as measured by ANS-IE. This hypothesis was designed to answer the question: Is there a relationship between an individual's fear of success and the attribution of the consequences of the individual's behavior, so that a person with a greater fear of success would have a greater external attribution of events?

The correlation between the fear of success scores and the locus of control scores is shown in Table 13. All subjects scores (male and female, William and Mary and Old Dominion University students) were computed for these two variables. The Pearson product moment correlation coefficient was computed for these scores. Inspection of Table 13 reveals a positive correlation of 0.3777, which has a zero probability of happening by chance. Therefore, the hypothesis is accepted.

Table 13

Fear of Success Correlated with ANS-IE

Variable	Number of subjects	Correlation coefficient	Significance level
ANS-IE	232	0.3777*	0.0

*$p < 0.01$.

Note: Low scores indicate a low fear of success.

Low locus of control scores indicate high internal locus of control.

Hypothesis 6

Those female students electing women's studies courses will have significantly lower pretest FOS scores as measured by the Cohen Fear of Success questionnaire than their female counterparts in the control group. This hypothesis was designed to answer the question: Is there any evidence of self selection of those who elected women's studies classes in the direction of less fear of success for those who elected women's studies?

A t-test was computed to examine the difference between women who select women's studies and the control group who did not, using their pretest Fear of Success scores, as the criteria. An examination of Table 12 reveals a t-value of 0.05 which was not significant at the 0.05 level. The hypothesis is therefore rejected. There is no evidence of self selection on the part of the women electing women's studies.

Chapter 5

Summary, Conclusions, Limitations and Recommendations

In this chapter is provided a summary of the study. In addition, analysis and interpretation of the results, limitations of the study, and recommendations for further research will be discussed.

Summary

In recent years, much attention has been paid to the limitations and underutilization of women's potential. Fear of success has been identified as a factor contributing to the underutilization of women's potential. While fear of success has been frequently measured, few studies have attempted to treat it. The purpose of this study was to examine the effects of women's studies, as a treatment modality on the fear of success and locus of control of female college students.

Subjects of the study were 243 college students. There were 123 William and Mary students and 111 Old Dominion University students. Those students who took the pretest and posttest numbered 165.

Subjects were neither randomly selected, nor assigned to treatment. Rather, students who were attending selected women's studies classes or "regular" classes were asked to volunteer. Both the experimental group, those enrolled in women's studies, and the control group, those enrolled in "regular" classes, were pretested and posttested. The measures used were Cohen's Fear of Success questionnaire, Nowicki-Strickland Internal-External Control Scale, Adult Form and a personal data sheet. Pretesting was done at the beginning of the academic term and posttesting was at the completion of the term. The terms were 15 weeks long.

Statistical treatment of the data consisted of analysis of variance for pretest-posttest measures for female students, in the experimental groups. A Pearson product moment correlation was performed to examine the relationship between fear of success and locus of control.

The following results were based on the study. Female students attending women's studies classes did not show a significant decrease in the fear of success and external locus of control as a unit. Some courses increased the fear of success and some decreased it. The change was significant in only two courses. For those courses the change was in the anticipated direction. A third course decreased fear of success, but it did not reach the 0.05 level of significance. The other three courses increased the fear of success. However, these changes also did not reach the level of significance. Locus of control decreased significantly for only one course and decreased for three other courses, but the decrease was not significant. Locus of control increased for two courses, but again, did not produce a significant gain. Females scored significantly higher than males on the Fear of Success questionnaire; however, they exhibited no significant difference in locus of control. A significant correlation between FOS scores and ANS-IE scores was found. Finally, there was no significant difference initially between those females who elected women's studies and those who did not.

Conclusions

Conclusions concerning the effects of women's studies on fear of success and locus of control and their relationship to other variables are summarized by hypothesis.

Hypothesis 1

The research hypothesis that treatment by women's studies would cause a significant decrease in fear of success in female students, as measured by Cohen's Fear of Success questionnaire, was neither accepted nor rejected. The FOS scores were calculated both at the beginning and the conclusion of treatment. The f-value of the female means in the experimental groups showed that changes varied greatly among the women's studies courses. Three courses decreased in the anticipated direction. Two of the three courses reached statistical significance, the third did not. Three courses increased, but did not reach statistical significance at the 0.05 level. It would appear that the academic content and role models of women's studies courses had differing effects on the fear of success.

Hypothesis 2

An analysis of variance comparing means of females in the experimental groups on posttest scores was computed, controlling for pretest scores. The f-value of 2.152 was not significant. The courses did not vary significantly. The hypothesis was neither rejected nor accepted. After attending women's studies classes, female students scores did not exhibit any general trend, rather some increased and others decreased. It would appear that instructor and/or course content has a controlling effect, rather than the treatment modality in general. Again, there was a mean gain in some courses and a mean loss in others. In only one course was the mean loss statistically significant.

Hypothesis 3

Hypothesis 3 sought to explore the relation of gender on the fear of success. A t-test on the pretest scores of FOS was computed for male and female subjects. The mean of female subjects was 30.3140, and the mean of male subjects was 26.5806. The t-value was significant at the 0.002 level, therefore the hypothesis was accepted. In this sample, females appear to have a significantly greater fear of success than males.

Hypothesis 4

This hypothesis sought to find a higher locus of control in female subjects than in males. Although the mean for female subjects was 9.4035 and the male mean was 8.7333, the hypothesis was rejected. The results were in the anticipated direction, but they did not approach significance at the 0.05 level.

Hypothesis 5

This hypothesis stated that there would be a significant correlation between the fear of success as measured by Cohen's Fear of Success questionnaire and the locus of control as measured by the ANS-IE. A Pearson product moment correlation was run. A significant positive correlation was found, $r = 0.3777$ with $p < 0.0$. It appears that those subjects who have a high fear of success tend to be external in their locus of control, whereas those subjects low in fear of success tend to be internal in their locus of control. The hypothesis was accepted.

Discussion

While 243 subjects were tested only 165 took the pretests and posttests. A t-test was computed on FOS scores for those students who took the pretest only and those who took pretest and posttest (see Table 17, Appendix D). A t-value of 0.08 was found with a significance level of 0.938. The means of the pretest and posttest group was 29.3121 and the mean of the pretest only group was 29.2179. Therefore, the groups did not differ significantly on this variable.

A t-test was computed for pretest ANS-IE scores for those students who took the pretest and posttest as compared with the pretest only. The mean of the pretest-posttest group was 9.0129 and the pretest only group was 9.6623. The t-value was -1.06 with a significance level of 0.290. Therefore, the difference between the groups was not statistically different.

There was no significant difference between the students taking women's studies courses and nonwomen's studies courses with the same instructor. An analysis of variance was computed controlling for pretest scores for fear of success by course and no significant differences were found. This probably indicates an instructor, rather than course content variable. The same analysis was run for posttest ANS-IE scores with the same result.

The females in the three women's studies groups whose scores decreased in the anticipated direction on FOS were all William and Mary students. The three women's studies groups whose scores increased were all Old Dominion University students. This appears to indicate the

possibility of student variables in women's studies courses. Since adequate demographic data were not collected it is not possible to discern the cause with any certainty. A pretest comparison of FOS scores was computed for females at both institutions indicating no differences between the students at the two institutions. The fact that the students changed in opposite directions is simply noted.

A view of Tables 14, 15, and 16 (Appendix D) shows a breakdown of fear of success scores by major. Because of the great variability of numbers of students in majors it is difficult to make any statement about them. They are included for information.

Limitations

In this study, randomization was not possible. There was no random selection of subjects or random assignment of treatment. The subjects were all volunteers from classes that already existed and were not within the control of the experimenter. The classes were not of equal size, making interpretation of statistical analysis difficult. The experimenter had no control over the content or the instruction of courses.

Although the same population started with 243 students only 165 or 68 percent took both pretests and posttests. All statistics were computed on this population.

There is no way of measuring the presentation, teaching style and personality of instructors in women's studies courses. Also, course content varied greatly; it ranged from Criminal Justice to German Literature. Probably the only constant in all the courses was the fact that each course concentrated on the study of women.

It should be noted that nowhere in the search of the literature is there provided any meaning to the fear of success scores that are very high or very low. Thus, interpretation of anything other than mean scores is very difficult.

One control group in this study had a male instructor creating a possible bias for that group of students.

The population tested was confined to two institutions of higher education in the same geographic area, Tidewater, Virginia. Hence, the results cannot be generalized beyond the age group, geographic area or institution of the population tested.

Recommendations

A comparison group using the general population of adults along with the college population may be helpful. There may be a difference between "working" adults and college students in fear of success. There was no difference between female students at William and Mary and Old Dominion University on FOS scores; however, college students versus working adults may yield differences.

A study which includes subjects of varying age groups may shed some light on the increase and decrease of fear of success. A study could include 12 year olds, 18 year olds, 21 year olds and 35 year olds. There may be a rise, a peak and a decline in FOS scores with an increase in age.

A six-month follow-up may yield additional information. Brush et al. (1978) suggests that women's studies programs "may create latent changes not immediately evident but manifest itself later." This possibility indicates that follow-up testing may prove enlightening.

Another study may investigate in greater depth, the majors that attract or foster high and low fear of success. By pretesting students upon college entry and posttesting upon graduation, further data may be uncovered as to whether certain majors attract students with high or low fear of success or whether the college experience within that major engenders the fear of success.

A possible study may be an investigation of the relationship between family background (accepting, rejecting and over concentrating on the child) on the fear of success and locus of control of males and females.

With the differences indicated and noted between students attending the College of William and Mary and students at Old Dominion University there may possibly be a difference related to social class, intellectual level, conservatism, liberalism, etc. A study which controlled for some of these variables might produce some interesting results.

It might be enlightening to examine the effect of the gender of the instructor on FOS score differences. The fact that this study dealt with women's studies courses taught only by female instructors may have created a possible bias.

APPENDIX A

APPENDIX D

Table 14

Breakdown of Entire Population by Major and Fear of Success Score

Major	Number of subjects	Mean	Standard deviation
Computer Science	3	32.333	6.5064
Chemistry	2	24.000	7.0711
Biology	10	26.600	11.2368
Industrial Arts	1	29.000	0.0
Business Administration	10	28.100	11.7988
Accounting	2	31.500	0.7071
Economics	8	27.625	9.6944
Political Science	1	30.000	0.0
Government	9	26.444	10.1994
Criminal Justice	75	29.333	7.8814
Religion	1	30.000	0.0
Psychology	18	29.611	9.9832
Anthropology	8	33.875	10.0490
Sociology	21	27.619	6.8591
History	15	31.400	11.6484
Foreign Language	4	34.000	6.4807
English	19	29.894	8.2117
Speech	1	17.000	0.0
Theatre	1	32.000	0.0
Art	5	31.000	9.0830

Table 14 (Continued)

Major	Number of subjects	Mean	Standard deviation
Elementary Education	8	27.250	9.5282
Interdisciplinary Studies	4	28.750	10.5317
Undecided	6	33.5000	14.6935
Geology	1	32.0000	0.0
Music	1	17.0000	0.0
Total population	233	29.313	8.9549

Note: Low Fear of Success score indicates a low fear of success.

Table 15

Breakdown of Female Population by Major and Fear of Success Score

Major	Number of subjects	Mean	Standard deviation
Computer Science	2	32.5000	9.1924
Chemistry	1	29.0000	0.0
Biology	6	31.5000	10.5024
Industrial Arts	1	29.0000	0.0
Business Administration	10	28.1000	11.7988
Accounting	1	32.0000	0.0
Economics	6	29.0000	10.5071
Government	6	21.0000	5.7619
Criminal Justice	47	31.4468	6.9839
Religion	1	30.0000	0.0
Psychology	16	31.3125	9.0459
Anthropology	8	33.8750	10.0490
Sociology	17	27.8824	6.9811
History	10	29.6000	13.4841
Foreign Language	4	34.0000	6.4807
English	15	31.0000	8.3066
Theatre	1	32.0000	0.0
Art	5	31.0000	9.0830

Table 15 (Continued)

Major	Number of subjects	Mean	Standard deviation
Elementary Education	7	28.5714	9.4667
Interdisciplinary Studies	3	28.0000	12.7671
Undecided	4	33.7500	17.8022

Note: Low Fear of Success score indicates low fear of success.

Table 16

Breakdown of Male Population by Major and Fear of Success Score

Major	Number of subjects	Mean	Standard deviation
Computer Science	1	32.0000	0.0
Chemistry	1	19.0000	0.0
Biology	4	19.2500	8.6554
Accounting	1	31.0000	0.0
Economics	2	23.5000	7.7782
Political Science	1	30.0000	0.0
Government	3	37.3333	8.1445
Criminal Justice	27	26.0370	8.1876
Psychology	2	16.0000	7.0711
Sociology	4	26.5000	7.1880
History	5	35.0000	6.4420
English	4	25.7500	7.3201
Speech	1	17.0000	0.0
Elementary Education	1	18.0000	0.0
Interdisciplinary Studies	1	31.0000	0.0
Undecided	2	33.0000	11.3137
Geology	1	32.0000	0.0
Music	1	17.0000	0.0

Note: Low Fear of Success score indicates low fear of success.

Table 17

A Comparison of Students Who Took Pretest Only and Those Who Took Pretest and Posttest on Pretest Scores

Variable	Group	Number	Mean	Standard deviation	t-value	Significance level
FOS score						
	Pre-posttest	157	29.3121	9.222	0.08	0.938
	Pretest only	78	29.2179	8.412		
ANS-IE score						
	Pre-posttest	155	9.0129	4.223	-1.08	0.280
	Pretest only	77	9.6623	4.462		

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ABSTRACT

THE EFFECTS OF WOMEN'S STUDIES ON THE FEAR OF SUCCESS AND LOCUS OF CONTROL OF FEMALE COLLEGE STUDENTS

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The aim of this study was to assess the effects of women's studies courses on the fear of success and locus of control of female college students. The relationship between fear of success and locus of control was also examined.

Subjects for the investigation included: 243 male and female students from The College of William and Mary (128 students) and Old Dominion University (115 students). The treatment group consisted of 153 students enrolled in women's studies courses. The comparison group consisted of 81 students not enrolled in women's studies classes. Both the treatment and comparison groups were pretested and posttested. The test battery included the Cohen Fear of Success questionnaire, the Nowicki-Strickland Locus of Control Scale, Adult Form (ANS-IE) and a personal data sheet. The pretests were administered at the beginning of the academic term and posttests at the conclusion of the term.

The results of this investigation include the following findings:

1. The hypothesis that treatment by women's studies would show a significant decrease in fear of success (FOS) for female college students as measured by the Cohen Fear of Success questionnaire could neither be accepted nor rejected. Six women's studies classes were tested in this study. The female mean scores of three classes decreased in the anticipated direction. However, only two of the three classes showed decreases that reached the 0.05 level of significance. The female mean scores of the other three classes increased. However, they did not reach the 0.05 level of significance.

2. The hypothesis that female students enrolled in women's studies would show a significant decrease in external locus of control as measured by the ANS-IE could be neither accepted nor rejected. The locus of control of females enrolled in one women's studies class showed a significant decrease in the anticipated direction. However, the mean scores for the other classes either increased or decreased. The changes did not reach statistical significance.

3. The FOS mean for females was 30.3140 and the male mean was 26.5806. Thus, a significant difference between the female and male mean scores was found.

4. The difference between the male and female mean scores of the ANS-IE was not statistically significant.

5. There was a significant positive correlation between FOS and locus of control.

6. There was no significant difference in pretest scores between females in the experimental and comparison group as measured by Cohen's Fear of Success questionnaire, indicating no evidence of self selection on this variable. The test results suggest that there may be an instructor and/or course content interaction which may account for the changes in the scores rather than a uniform treatment.

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