A CAREER COUNSELING UNIT FOR TEENAGE GIRLS

By

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This document is dedicated to my parents, Ramon and Mirta. Without your love, guidance, support and encouragement, I would be lost.
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Abstract of Dissertation Presented to the Graduate School of the University of Florida in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy

A CAREER COUNSELING UNIT FOR TEENAGE GIRLS

By

Elizabeth Villares

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Chair:  M. H. Daniels
Major Department:  Counselor Education

The purpose of this study was to determine the effectiveness of a theory-based career counseling unit, delivered through small group counseling and designed to promote academically able ninth grade participants’ self-esteem, career self-efficacy, and locus of control. Participants included 62 students from four high schools in Alachua County, Florida, who were randomly assigned to experimental and control groups. Three separate analyses of variance were conducted, one for each of the three variables self-esteem, career self-efficacy and locus of control, related to the hypotheses. Differences between the experimental and control groups and school setting were examined. All hypotheses were tested at the .05 level of significance.

Pre-posttest analysis results for the Rosenberg Self-esteem Scale and the Occupational Self-Efficacy Scale revealed a significant positive change between treatment groups and schools in self-esteem and career self-efficacy specifically as it relates to nontraditional education and job duty performance. Evidence of a potential role model effect was discussed. This study was a modest contribution to the research on the
career development for adolescent females. The findings suggest further research into the potential role model effect school counselors have when working with students in developmental small groups counseling interventions and broadening inclusion criteria to include additional academic performance groups.
CHAPTER 1
INTRODUCTION

Women make up a considerable portion of the 21st century workforce. At the turn of the 20th century the U.S. Department of Labor projected that “the women's labor force will grow more rapidly than the men's, and the women's share of the labor force will increase from 46.5 percent in 2002 to 47.5 percent in 2012” (2001). Despite the increase in the labor force, according to the U.S. Census Bureau the “majority of women in the labor force were still employed in traditional ‘female’ occupations” (Watson, Quatman & Edler, 2002).

Even when girls consider a wide range of career choices they tend to aspire to careers that have traditionally been attractive to women (Whiston & Brecheisen, 2002). For example, of the “18 million people in administrative support occupations (including clerical), 79 percent were women, and while female and male high school graduation rates were virtually identical; men were more likely to complete a four year bachelor’s degree” (Spraggins, 2003). Women continue to struggle with issues related to sex role stereotyping and gender bias that limit their educational pursuits, career preparation and career decision-making (Chliwniak, 1997; Ostling & Urquhart, 1992; Schuster, 1991). Sex role stereotyping or gender stereotyping and gender bias can shape the way males and females are socialized and even what kinds of employment they aspire to obtain (Avard, 2000).

Adolescence is a critical stage of career development for young women. The messages young women receive about themselves and career opportunities are
particularly important during adolescence because of the added emphasis on career preparation and career decision-making placed upon them by adults. According to Herr and Kramer (1992), females are often discouraged from having higher aspirations in terms of career choice and advancement within a chosen career. Women are more likely to experience lower levels of self-esteem (AAUW, 1992; Kleinfeld, 1999; Sadker & Sadker, 1994), self-efficacy (Betz, 2001; Kraus & Hughey, 1999; Lapan & Jingeleski, 1992; Sullivan & Mahalik, 2000) and feelings of control over choosing a career, and often have a fear of failure and success (Larson & Butler, 1994).

According to Schuster (1991) by the time females hit adolescence they begin experiencing a decline in self-esteem, in part due to the lack of attention they receive from their teachers. High levels of self-esteem are associated with high academic achievement, strong interpersonal relationship skills, involvement in sports and other extracurricular school activities as well as a strong sense of self and connectedness to peers, parents, families and communities as a whole (King, Vidourek, Davis & McClellan, 2002). In 1992, The American Association of University Women (AAUW) reported three principal findings in a study entitled *Shortchanging Girls, Shortchanging America*. AAUW researchers found that ‘first, girls fall behind boys in science and mathematics; second, girls participate less than boys in class or, as it is said, are ‘silenced’ in the classroom; and third, girls suffer a major decline in self-esteem at adolescence while adolescent boys gain in self-esteem’ (Kleinfeld, 1999).

Researchers in a 1990 national survey of 3,000 girls and boys from ages nine to fifteen concluded that upon entering adolescence girls’ self esteem takes a nose dive compared to the boys’ (AAUW). For example, “In response to the statement, ‘I’m happy
the way I am,’ 67 percent of the boys responded affirmatively in elementary school, but by the time they reached high school, only 46 percent agreed with the statement. In contrast, while 60 percent of girls agreed with the statement in elementary school, 37 percent answered affirmatively in middle school, and only 29 percent in high school” (Sadker & Sadker, 1994, p.78).

Young women who succumb to the environmental, physical and societal pressures experience a loss of confidence in their abilities, expect less from life, and lose interest in challenging courses of study. Numerous studies have corroborated this notion of female vulnerability and loss potential especially in the fields requiring math and science backgrounds (Hollinger, 1985; Hollinger & Fleming, 1993; Sanders & Peterson, 1999; Trusty, 2002).

Researchers have found that schools play an important role in perpetuating gender stereotyping and gender bias (AAUW, 1990 & 1992) instead of minimizing their impact. From an early age, females are portrayed in passive and domestic roles while males are depicted as athletic, aggressive, and problem solvers. Males are more likely to be featured in positions of authority while women are viewed as caregivers (Larson & Butler, 1994). For example, in a typical elementary school, teachers most often tend to be females while the administrators are male. “In 1995, only 19 percent of all principals at a secondary level were female. Despite many qualified female applicants in the job pool, females are often overlooked for leadership positions” (Owens, Smothers & Love, 2003).

**Need for the Study**

As women continue to be the largest segment of new entrants to the workforce from year to year, they will need assistance in dealing with sex role stereotyping, related
attitudinal barriers and more importantly career development. By addressing the career development needs of adolescent females, in particular by attending to their levels of self-esteem, self efficacy, locus of control and career decision making, females are more likely to increase self awareness, delay pregnancies, delay marriages, increase their educational and training levels, and obtain higher paying jobs (King, Vidourek, Davis & McClellan, 2002).

As adolescent girls struggle to find their place in society, they look to others for approval, guidance, and encouragement. Family background is an important influence on adolescent girls’ career development. Many of the attitudes about work and careers are learned through family interactions. Factors such as socioeconomic status, parent’s educational level, occupational aspirations and gender are particularly influential on young girls (Lankard, 1995). A recent study on parent support and African American adolescent’s career self-efficacy found that girls were most responsive to their parents’ emotional support when contemplating transitions from school to work, post-secondary planning, and effective career decision making (Alliman-Brissett, Turner & Skovholt, 2004).

A young girl’s self esteem and self-efficacy are particularly vulnerable when she enters high school. Researchers have found this decline is in part because of the way teachers interact with young girls (AAUW, 1990, 1992, 1998; Sadker & Sadker, 1994). For example, girls are often discouraged from taking higher-level courses in mathematics, science and technology (AAUW, 1992; Owens, Smothers & Love, 2003). “Teachers need to evaluate their own classrooms in terms of gender equity and strive to
ensure that gifted girls are active participants in, rather than passive observers of, the learning process” (Hollinger & Fleming, 1993).

“The development and implementation of career guidance activities as a part of a school’s guidance program is essential to facilitate the career development of students” (Kraus & Hughey, 1999, p. 388). “Young girls are likely to limit career options during early adolescence and, in fact, already may have eliminated many possibilities” (Gottfredson, 1981, as cited in Rainey & Borders, 1997, p. 161) because of stereotyping, attitudinal barriers and gender bias. By implementing interventions that attend to the specific needs of their female population, school counselors can encourage female participants to select rigorous courses, consider both traditional and non-traditional occupations while improving their self-esteem, career self-efficacy and locus of control.

**Theoretical Rationale**

Frank Parsons (1909) has long been considered the pioneer of career counseling. Parsons’ approach to occupational selection called for individuals to gain a (1) clear understanding of one’s self; one’s attitudes, abilities, interests, ambitions, resource limitations, and their causes; (2) knowledge of the requirements and conditions of success, advantages and disadvantages, compensation, opportunities, and prospects in different lines of work; and (3) true reasoning on the relations of these to groups of facts (p. 5). Using Parson’s model can be a particularly difficult task for young women as they become more vulnerable to environmental, physical, and societal pressures during their high school years (AAUW, 1990 & 1992; Ginzberg, 1987; Sadker & Sadker, 1994). Adolescent girls need activities that build self-esteem, increase self-efficacy, and feelings
of control over their lives in order to gain a clear sense of self and make informed career decisions.

Just over a quarter century ago, the majority of women did not work outside the home. Almost absent completely from the workforce were married women with children. Today, women make up almost one half of the work force. “Even more remarkable is the fact that the greatest proportion of this increase is accounted for by women with children, traditionally the group least likely to be working” (Fitzgerald & Harmon, 2001, p. 208). In most cases, “female employment is critical to buffering thousands of families, particularly racial and ethnic minority families, from poverty” (Cattan, 1998, as citied in Fitzgerald & Harmon, 2001, p. 209).

Career development theories developed before 1960 neglect females’ career development issues, in part, because the research sampling and theoretical statements were based on white males from middle-class or upper class families (Sharf, 2002). Similarly, many of the original career inventories were developed with only men in mind. Many contained gender stereotyped items and occupational scales that were developed for women in non-traditional fields and normed for both sexes; however, large discrepancies existed between male and female scores on the male and female versions of a scale (Fitzgerald & Harmon, 2001).

Only recently have women been a focus in career development research. For example, female’s self-efficacy for mathematics, scientific and technical careers have been the subject of numerous studies (Betz, 1992, 2001; Hollinger, 1985; Hollinger & Fleming, 1993; Sanders & Paterson, 1999). Similarly, career assessment, theoretical approaches and interventions have begun to include core issues that are unique to the
women’s career development, for example the effects of gender role socialization (Reis, 2001), multiple role issues (Luzzo & MacGregor, 2001), and support and barriers on career choice (Rainey & Borders, 1997; Reis, 2002; Turner & Lapan, 2002; Whiston & Brecheisen, 2002).

Bandura’s (1977) model of social learning assumes that people’s cognitive development occurs because they experience verbal and symbolic stimuli and then reflect on those experiences. Personalities grow more from environmental interactions, self-perceptions and actual behaviors (Sharf, 2002). “Within this paradigm, important constructs include mental representations of our capacity to successfully perform tasks (self-efficacy), expectancies about the likely outcomes if we act (outcome expectations), and future plans (goals)” (Douglas, 2001). According to Bandura, an individual’s self-efficacy expectations are learned and modified through four sources of information. “These sources of information include: (1) performance accomplishments, that is experiences of successfully performing the behavior in question, (2) vicarious learning or modeling, (3) verbal persuasion, for example, encouragement and support from others, and (4) lower levels of emotional arousal, that is, lack of anxiety, in connection with the behavior” (Betz, 2001, p.58).

The fundamental component of Bandura’s (1977) social-cognitive theory is the concept of self-efficacy. Self-efficacy refers to a person’s belief that he or she has the ability to perform a given behavior or set of tasks (Nauta, Kahn, Angell & Cantarelli, 2002). For example, a girl’s belief about her educational and occupational abilities will influence the course of study she chooses to take and the range of career options she considers.
The concept of self-efficacy as it relates to career development has been the subject of numerous studies of young women of varying ages including college students (Lent, Brown & Gore, 1997; Nauta, Kahn, Angell & Cantarelli, 2002; O’Brien, Friedman, Tipton, Linn, 2000), community college students (Rotberg, Brown & Ware, 1987), and high school students (Bong, 1998; Lapan & Jingeleski, 1992; Leong & Barak, 2001; Phillips & Gully, 1997). Hackett and Betz’s (1981) work extended the concept of self-efficacy to the career development of women. Hackett and Betz suggest that adolescent girls avoid a number of occupational areas because of a lack of confidence in their own abilities, have less of an opportunity to experience successful career behaviors and receive less encouragement than men in the process (Sharf, 2002).

The concept of locus of control evolved from Julian B. Rotter’s Social Learning Theory. The main idea in Rotter’s Social Learning Theory is that a person’s personality represents the interaction of the individual with his or her environment. Rotter believed that what a person believed or behaved was related to the person’s life experiences. For example, if an individual changed his or her beliefs, or changed the environment, then the behavior would change (Mearns, 2003).

Rotter defined locus of control as “people’s very general, cross-situational beliefs about what determines whether or not they get reinforced in life. People’s locus of control can be classified along a continuum from very internal to very external” (Mearns, 2003). Within this frame of reference, people with a strong internal locus of control believe that they are ultimately responsible for the events in their own lives and success or failure is due to their own efforts. In contrast, people with very external locus of
control are less inclined to believe in their own efforts and more likely to believe the events in their life are due to chance or luck.

The concept of locus of control has been the subject of numerous studies dealing with at-risk youth (Miller, Fitch, Marshall, 2003; Lynch, Hurford & Cole, 2002), academic achievement (Ross & Taylor, n.d.), attention deficit hyperactivity disorder (Webb & Myrick, 2003), female role models (Howard, 1996), and self-efficacy (Strauser, Ketz, & Keim, 2002). However, a thorough review of the literature yielded few studies relating the concept of locus of control to adolescent career development.

**Career Counseling**

The developmental approach to career counseling can be viewed as a series of general and specific interventions throughout the life span, dealing with such concerns as “self-understanding; broadening one’s horizons; work selection, challenge, satisfaction, and other intrapersonal matters; work site behavior, communication, and other interpersonal phenomena; and lifestyle issues, such as balancing work, family, and leisure” (Engels & Minor, 1995). In other words, career counseling involves making career decisions by taking into account other life issues such as social roles, family systems, gender bias, stereotyping, pay inequality, education and economic status. While it is recognized that different issues are ascendant at different times in one’s life, Herr (1997) suggests if one works primarily with adolescents, the primary purpose of career counseling is to assist clients in the exploration of occupations and career planning and decision making.
Small Group Counseling

Adolescence can be an overwhelming time for many middle and high school students. “School counselors spend much of their time helping students develop skills in understanding themselves, developing healthy relationships with others, resolving conflicts, setting educational and career goals, managing stress, valuing diversity, and making effective decision” (Coy & Sears, 2000, p.59). Small group counseling is defined by Myrick (1997) as “a unique educational experience in which students can work together to explore their ideas, attitudes, feelings, and behaviors, especially as related to personal development and progress in school” (p.187).

“Group counseling is an effective method of delivering counseling services in the middle schools” (Baker, 2000, p.51). A variety of issues can be addressed using small group counseling. Topics such as divorce, career exploration, conflict resolution, improving self-esteem, peer relations, study skills, and social skills training can often be handled in small group units. Students who share common concerns can learn new coping strategies, can support each other by giving and receiving feedback, and challenging each other to make changes (Borders & Drury, 1992; Coy & Sears, 2000; Greenberg, 2003; Schmidt, 1999).

Empirical support for small group counseling has been summarized in the following professional articles. “Counseling young children in groups has been shown to be an effective technique for encouraging change in school-aged children” (Ehly & Dustin, 1991; Hutchinson, Freeman & Quick, 1996; Kreig, 1988; Nims, 1998; Yalom, 1975; as cited in Greenberg, 2003, p.13). Herr (2002) suggests that “group work is more efficient and, for some purposes, possibly more effective than individual counseling or individual
meetings” (p.232). Studies examining the effectiveness of career guidance indicated a positive effect on career decision-making, goal setting, and parental involvement (Savickas, 1990; Kush & Cochran, 1993; Palmer & Cochran, 1988; as cited in Whitson & Sexton, 1998).

Purpose of the Study

The purpose of this study was to determine the effectiveness of a theory-based career counseling unit, delivered through small group counseling and designed to promote the academically able ninth grade participant’s self-esteem, career self-efficacy, and locus of control.

Definition of Terms

The following terms were useful in understanding this study:

Academically able is a term used to identify students who have maintained at least a 2.5 grade point average and passed at least the Mathematics and/or Reading portion(s) of the eighth grade Florida Comprehensive Achievement Test.

Career decision-making is a process by which one evaluates vocational choices and arrives at a conclusion regarding a career.

Career self-efficacy is the expectancy for success at completing the required training and performing the job tasks for a specific occupation (Sullivan & Mahalik, 2000)

Developmental guidance unit is a specific educational experience designed to address common issues of growth and development which is integrated into the overall school curriculum.
Gender bias is the separation of gender in a way that places one sex over the other or as treating boys and girls differently (Owens, Smothers & Love, 2003).

Locus of control concerns feelings of control over events in one’s life or taking responsibility for one’s life (Miller, Fitch & Marshall, 2003).

Self-efficacy is the belief or expectation that one can successfully perform a specific task or activity (Nauta, Kahn, Angell & Cantarelli, 2002).

Self-esteem is an individual’s evaluation of self, commonly expressed as an attitude of approval or disapproval (Harper & Marshall, 1991).

Sex role stereotyping or gender stereotyping is the belief about what is appropriate for a person based on their sex and for the opposite sex (Sharf, 2002).

Research Questions

The following three research questions were investigated:

1. When working with academically able ninth grade girls, who are enrolled in different schools, is it possible to exert a positive influence on their self-esteem by engaging them in a theory-based career development unit?

2. When working with academically able ninth grade girls, who are enrolled in different schools, is it possible to exert a positive influence on their locus of control by engaging them in a theory-based career development unit?

3. When working with academically able ninth grade girls, who are enrolled in different schools, is it possible to influence their career self-efficacy by engaging them in a theory-based career development unit?

Organization of the Remainder of the Study

The remainder of the study is presented in four chapters. Chapter 2 is a review and analysis of related literature. Chapter 3 is a discussion of the research methodology used for the study. The results of the study are presented in Chapter 4 followed by a discussion, implications and recommendations of the results in Chapter 5.
CHAPTER 2
REVIEW OF LITERATURE

This chapter is a review of the professional literature focusing on the need for a theory-based career development unit for adolescent females. The initial section includes information about the unique obstacles and limitations that exist in the work place and educational settings. The next section has a description of the influence attitudinal barriers have on women’s self-esteem, self-efficacy and sense of control as they relate to their career development. The final section includes a description of relevant career development theory and the implications for school counseling interventions that are designed to enhance self-esteem, career self-efficacy, and locus of control.

Women and the World of Work

The world of work has shifted dramatically for women since the 1960s. Today’s working woman is more educated (DiNatale & Boraas, 2002; Spraggins, 2003), better trained (DiNatale & Boraas, 2002), earns more money (DiNatale & Boraas, 2002; U.S. Department of Labor, 1999a, 1999b), is more financially independent (DiNatale & Boraas, 2002), and is working more full-time hours than her 1970s predecessor (DiNatale & Boraas, 2002; Rones, Ilg & Gardner, 1997; U.S. Department of Labor, 1999b). Despite these gains, women still face gender stereotyping, educational constraints, and the “ubiquitous assumptions concerning women’s role as wife and mother” (Fitzgerald & Harmon, 2001, p.218).
Confronting Inequalities Through Legislation

The government used legislative efforts to guarantee women equal access to employment opportunities and wages. The Equal Pay Act of 1963 was an amendment to the Fair Labor Standards Act, which “establishes minimum wage, overtime pay, record keeping, and child labor standards affecting full-time and part-time workers in the private sector and in the Federal, State and local governments” (U.S. Department of Labor, 2004c). The Equal Pay Act of 1963 required that male and female workers receive equal pay for work requiring equal skill, effort and responsibility while performed under similar working conditions; however, executives, administrators, and professions employees were exempt from the amendment. In other words, anti-discriminatory wages laws do not protect female executives, administrators and professions.

A second legislative effort was Title VII of the Civil Rights Act of 1964. Title VII of the Civil Rights Act of 1964 prohibits employers from discriminating on the basis of race, color, religion, sex, or national origin in hiring and firing; compensations; assignment; or classification of employees; transfer; promotion; layoff; or recall; job advertisements; recruitment; testing; use of company facilities, training and apprenticeship programs; fringe benefits; pay; retirement plans; and disability leave (U.S. Equal Employment Opportunity Commission, n.d.). To enforce the laws created, Congress originally created the Equal Employment Opportunity Commission (EEOC) in 1964 as an independent federal agency.

Title VII also contained guarantees against sexual harassment, employment decision based on stereotypes or assumptions about abilities, traits, or performance of individuals, or denying employment opportunities to individuals based on sex, race, age,
religion, disabilities and/or ethnic group (U.S. Equal Employment Opportunity Commission, n.d.). Despite the guarantees provided by Title VII, the EEOC continues to receive approximately 15,000 sexual harassment cases each year (U.S. Equal Employment Opportunity Commission, n.d.). In a study conducted with Minnesota high school students 80 percent of the respondents were aware of sexual harassment occurring in their school; in another study, the American Psychological Association found that 21 percent of female participants reported avoiding classes at the college level for fear of being sexually harassed (Katz, 2004).

Title IX of the Education Amendments of 1972 protects women from being excluded from participation, or denied benefits, or subject to discrimination under any education program or activity receiving federal financial assistance including equal opportunity for admission into any vocational, professional, undergraduate or graduate institution (U.S. Department of Labor, Office of the Assistant Secretary for Administration and Management, 2004). The passage of Title IX leveled the playing field for women involved in intercollegiate athletic programs. Evidence of the success of Title IX can be found in a 19-year longitudinal study conducted by Acosta and Carpenter (1996). Acosta and Carpenter (1996) reported the average number of teams available to women athletes increased from 5.61 to 7.5 per school and increases across the board in women’s team at the Division I (8.33), Division II (6.1) and Division III (7.7) levels. The most popular teams remain basketball, volleyball, tennis, cross country and softball.

Despite the increase in participation, the status of women as coaches and administrators has decreased (Acosta & Carpenter, 1996). For example, in 1996 women held 47.7 percent of head coaching positions, 61.1 percent of paid assistant coaching
positions for all women’s teams and only 18.5 percent of all women’s programs were headed by a female administrator. More surprising is that in 87 percent of schools having full time Sports Information Directors only 11.8 percent of women head the position and women are completely absent in the administration of 23.8 percent of women’s programs (Acosta & Carpenter, 1996).

More recently, Congress (2001) passed a bill amending Title III of the Elementary and Secondary Education Act of 1965, sometimes referred to as the Go Girl Bill (Dads & Daughters, n.d.). In the general, the Go Girl Bill makes available $50,000,000 in grant funding to elementary and secondary schools to encourage the ongoing interest of girls in science, mathematics, engineering, and technology and to prepare girls to pursue advanced degrees and careers in same fields. The decision to appropriate funding came from the following Congressional findings:

1. Women have historically been underrepresented in mathematics, science, engineering, and technology occupations.

2. Female students take fewer high-level mathematics and science courses in high school than male students.

3. Female students take far fewer advanced computer classes than male students take and tend to take only basic data entry and word processing classes.

4. Female students earn fewer baccalaureate, master’s, and doctoral degrees in mathematics, science, engineering, and technology than male students.

5. Early career exploration is key to choosing a career.

6. Teachers' attitudes, methods of teaching, and classroom atmosphere affect female student's interest in nontraditional fields.

7. Stereotypes about appropriate careers for females, a lack of female role models, and a lack of basic career information significantly deter girls' interest in mathematics, science, engineering, and technology careers.

8. Females consistently rate themselves significantly lower than males in computer ability.
9. In the coming years, 65 percent of the economy will be based on information-technology.

10. Limited access is a hurdle faced by females seeking jobs in mathematics, science, engineering, and technology.

11. Common recruitment and hiring practices make extensive use of traditional networks that often overlook females.

(Dads & Daughters, n.d.)

In summary, women are likely to experience sexual harassment at all levels of education and in the workplace. Legislation passed since the 1960s is an ongoing attempt to give women equal educational and occupational opportunities for success. While women have made some improvements, their advancements in nontraditional fields, wage earnings and professional levels compared to men have remained considerably lower.

**Current Status of Women**

Statistics from the U.S. Department of Labor (2004e) predict that the rate of women entering the labor force will grow over the next ten years by 14.3 percent, thereby increasing women’s share of the labor force from 46.5 percent in 2002 to 47.5 by 2012 (see Table 2-1).

**Table 2-1. Civilian Labor Force by Sex, 1992, 2002, and projected 2012 (numbers in thousands)**

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<th>Level</th>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1992 to 2002</td>
<td>2002 to 2002</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>to 2002</td>
<td>to 2002</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1992 to 2012</td>
<td>2002 to 2012</td>
</tr>
<tr>
<td>Group</td>
<td>1992</td>
<td>2002 (a)</td>
<td>2003 (b)</td>
<td>2012</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td>69,964</td>
<td>76,052</td>
<td>77,500</td>
<td>85,252</td>
<td>8.7</td>
<td>10.0</td>
</tr>
<tr>
<td>Women</td>
<td>58,141</td>
<td>66,481</td>
<td>67,363</td>
<td>77,017</td>
<td>14.3</td>
<td>14.3</td>
</tr>
</tbody>
</table>

(a) Data calculated with 1990 census weights.
(b) Data calculated with 2000 census weights.
Source: US Department of Labor, 2004e
DiNatale and Borras (2002) reported in the year 2000, nearly three-quarters of the women aged 25-34 were employed, 30 percent of women had completed four years of college, were earning 82 percent as much of men in the same age group for full-time employment, and single and married women were working more hours per week their predecessors. Although the statistics indicate that women are entering the work force and achieving success as never before, inequities in education and training remain.

For example, data based on a 1996 sample of the civilian non-institutional population revealed that men continued to earn greater numbers of bachelor or higher degrees in the fields of agriculture, business, computers, engineering, law, mathematics, medicine and dentistry, natural sciences, philosophy and other general fields than did women. On the other hand, women were earning more bachelors or higher degrees in the fields of architecture, communications, education, literature, foreign language, health sciences, liberal arts, nursing and public health, pre-professional, psychology and social sciences (Digest of Education Statistics, 2002a). These figures support the notion that some progress has been made by women yet differences continue to persist between men and women’s opportunities for successful entry into the higher paid professional occupations.

Similarly, although women graduating in the field of education out number male graduates by a margin of approximately three to one (25.9 percent compared to 8.2 percent male graduates), men continue to receive more promotions and hold higher positions within educational institutions. Figures from the Digest of Educational Statistics (2002b) support the discrepancy between male and female promotions in degree-granting institutions, 79.1 percent of males were full professors compared to 20.9 percent of
females. Sixty-five percent of males where assistant professors compared to 35 percent of females and 55 percent of males were assistant professors while 45 percent were female. The only faculty position held by more females (51 percent) in these same educational institutions was as an instructor (49 percent for males) (Digest of Education Statistics, 2002b).

Education is the key to advancement and increased earning potential. There is no question that education pays (see Table 2-2) however in order to compete in the 21st century females will need to pursue education and degrees in nontraditional fields. In order to be prepared to succeed at high levels of education and compete in nontraditional fields, females must begin by taking higher-level course work in science, mathematics and technology during their high school years (AAUW, 2000; Farmer, Wardrop, Anderson & Risinger, 1995; Sanders & Peterson, 1999).

Table 2-2. Unemployment and Earnings for Workers Age 25 and Over, by Education Attainment

<table>
<thead>
<tr>
<th>Unemployment rate in 2002 (Percent)</th>
<th>Education attained</th>
<th>Median earnings in 2001 (Dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.8</td>
<td>Master’s degree</td>
<td>56,600</td>
</tr>
<tr>
<td>3.1</td>
<td>Bachelor’s degree</td>
<td>47,000</td>
</tr>
<tr>
<td>4.0</td>
<td>Associate degree</td>
<td>36,400</td>
</tr>
<tr>
<td>4.8</td>
<td>Some college, no degree</td>
<td>34,300</td>
</tr>
<tr>
<td>5.3</td>
<td>High School graduate</td>
<td>29,200</td>
</tr>
<tr>
<td>9.2</td>
<td>Some High School, no diploma</td>
<td>22,400</td>
</tr>
</tbody>
</table>

Source: U.S. Department of Labor, 2001

The literature suggests that young women have not pursued more careers in nontraditional fields because of a decline in self-esteem (AAUW, 1992; Kleinfeld, 1999; Sadker & Sadker, 1994), lack of self-efficacy (Betz, 2001; Kraus & Hughey, 1999; Lapan & Jingeleski, 1992; Sullivan & Mahalik, 2000) and feelings of loss of control over their
choices of careers and career preparation during the adolescent years (Larson & Butler, 1994) there is also evidence females may have a fear of failure and success (Larson & Butler, 1994). Career interventions aimed at improving young girls’ self-esteem and self-efficacy is essential to female career development (Betz, 1992, 2001; Hollinger, 1985; Hollinger & Fleming, 1993; Sanders & Paterson, 1999) particularly in light of the fact that tomorrow’s jobs will be heavily concentrated on math and science. In fact, over the next eight years, nine of the 10 fastest growing occupations are health or computer (information technology) occupations and an associate or bachelor's degree is the most significant source of post-secondary education or training for six of the 10 fastest growing occupations (see table 2-3). Similarly, the fastest wage and salary growths will be in the technology and the health care industries (see Table 2-4).
<table>
<thead>
<tr>
<th>Occupation</th>
<th>2002</th>
<th>2012</th>
<th>Number</th>
<th>Percent</th>
<th>Most significant source of post-secondary education or training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical assistants</td>
<td>365</td>
<td>579</td>
<td>215</td>
<td>59</td>
<td>Moderate-term on the job training</td>
</tr>
<tr>
<td>Network systems and data communications analysts</td>
<td>186</td>
<td>292</td>
<td>106</td>
<td>57</td>
<td>Bachelor's degree</td>
</tr>
<tr>
<td>Physician assistants</td>
<td>63</td>
<td>94</td>
<td>31</td>
<td>49</td>
<td>Bachelor's degree</td>
</tr>
<tr>
<td>Social and human service assistants</td>
<td>305</td>
<td>454</td>
<td>149</td>
<td>49</td>
<td>Moderate-term on-the-job training</td>
</tr>
<tr>
<td>Home health aides</td>
<td>580</td>
<td>859</td>
<td>279</td>
<td>48</td>
<td>Short-term on-the-job training</td>
</tr>
<tr>
<td>Medical records and health information technicians</td>
<td>147</td>
<td>216</td>
<td>69</td>
<td>47</td>
<td>Associate degree</td>
</tr>
<tr>
<td>Physical therapist aides</td>
<td>37</td>
<td>54</td>
<td>17</td>
<td>46</td>
<td>Short-term on-the-job training</td>
</tr>
<tr>
<td>Computer software engineers, applications</td>
<td>394</td>
<td>573</td>
<td>179</td>
<td>46</td>
<td>Bachelor's degree</td>
</tr>
<tr>
<td>Computer software engineers, systems software</td>
<td>281</td>
<td>409</td>
<td>128</td>
<td>45</td>
<td>Bachelor's degree</td>
</tr>
<tr>
<td>Physical therapist assistants</td>
<td>50</td>
<td>73</td>
<td>22</td>
<td>45</td>
<td>Associate degree</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Industry description</th>
<th>Jobs in thousands 2002</th>
<th>Jobs in thousands 2012</th>
<th>Change 2002-12</th>
<th>Average annual rate of change 2002-12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Software publishers</td>
<td>256.0</td>
<td>429.7</td>
<td>171.7</td>
<td>5.3</td>
</tr>
<tr>
<td>Management, scientific, and technical consulting services</td>
<td>731.8</td>
<td>1,137.4</td>
<td>405.6</td>
<td>4.5</td>
</tr>
<tr>
<td>Community care facilities for the elderly and residential care facilities</td>
<td>695.3</td>
<td>1,077.6</td>
<td>382.3</td>
<td>4.5</td>
</tr>
<tr>
<td>Computer systems design and related services</td>
<td>1,162.7</td>
<td>1,797.7</td>
<td>635.0</td>
<td>4.5</td>
</tr>
<tr>
<td>Employment services</td>
<td>3,248.8</td>
<td>5,012.3</td>
<td>1,763.5</td>
<td>4.4</td>
</tr>
<tr>
<td>Individual, family, community, and vocational rehabilitation services</td>
<td>1,269.3</td>
<td>1,866.6</td>
<td>597.3</td>
<td>3.9</td>
</tr>
<tr>
<td>Ambulatory health care services except offices of health practitioners</td>
<td>1,443.6</td>
<td>2,113.4</td>
<td>669.8</td>
<td>3.9</td>
</tr>
<tr>
<td>Water, sewage, and other systems</td>
<td>48.5</td>
<td>71.0</td>
<td>22.5</td>
<td>3.9</td>
</tr>
<tr>
<td>Internet services, data processing, and other information services</td>
<td>528.8</td>
<td>773.1</td>
<td>224.3</td>
<td>3.9</td>
</tr>
<tr>
<td>Child day care services</td>
<td>734.2</td>
<td>1,050.3</td>
<td>316.1</td>
<td>3.6</td>
</tr>
</tbody>
</table>


Earning gaps among men and women continue to exist in the 21st century.

Spaggins (2003) reported of 100 million full-time, year-around employees 15 and over in 2001, 4.4 percent of women, compared with 2.8 percent of men, reported earnings less than $10,000. At the opposite end of the earnings distribution, only 5.5 percent of women reported earnings of $75.00 or more, compared with 15.8 percent of men. Marital status
is also important in terms of total income. For instance, of married couples in 2001, only two percent had income below $10,000 and 37 percent had an income of $75,000. Another figure suggests while “the average woman’s wage still trails a man’s (78 cents to the dollar), enough women are breaking into better-paying professions that in 30.7 percent of married households with a working wife, the wife’s earnings exceed the husband’s in 2001” (Tyre & McGinn, 2003, p.46). In single parent families where a female was the sole income provider, 17 percent had income below $10,000 and eight percent had income over $75,000. In contrast, families where a single man was the sole income provider, only eight percent of men had an income below $10,000 and 17 percent had incomes above $75,000 (Spaggins, 2003).

In summary, the fastest growing occupations and industries will require education and training in the fields of math, science and technology. The higher degree earned in post-secondary institutions the better chance women have in increasing their earning potential. Married women are likely to have higher overall family income, raising questions for young women faced with making choices about careers and family role expectations.

Obstacles Women Face

Women often face obstacles in negotiating the day to day events in life that are not usually encountered by men such as challenging sex role socialization (Farmer, 1995) and gender stereotyping (Rojewski & Hill, 1998), family influences (Lankard, 1995; O’Brien, Friedman, Tipton & Linn, 2000; Rainey & Borders, 1997; Schultheiss, Palma, Predrogoovich & Glasscock, 2002), and balancing multiple roles (Bonett, 1994; Larson & Butler, 1994) have been the topic of numerous studies. In the paragraphs that follow research that is relevant to each of these challenges is reviewed.
Gender Gaps

Gender is a term used to classify an individual into male and female categories based on their biological sex. From an early age, boys and girls are treated differently and our taught social role expectations by their parents, teachers and other caregivers. For example, girls are expected to be *pretty in pink* and play with dolls while boys are expected to be *rough and tough* and are given trucks and sporting equipment. Sadker and Sadker (1994) revealed the ways girls are treated differently in schools and illustrated the impact of gender stereotyping on females:

1. In the early grades, girls are ahead of or equal to boys on almost every standardized measure of achievement and psychological well-being. By the time they graduate from high school or college, they have fallen behind. Girls enter school ahead but leave behind.

2. In high school, girl’s score lower on the SAT and ACT tests, which are critical for college admissions. The greatest gender gap is the crucial areas of science and math.

3. Girls score far lower on College Board Achievement tests, which are required by most of the highly selective colleges.

4. Boys are much more likely to be awarded state and national college scholarships.

5. The gap does not narrow in college. Women score lower on all sections of the Graduate Record Exam, which is necessary to enter many graduate programs.

6. From elementary school through higher education, female students receive less active instruction, both in the quantity and in quality of teacher time and attention. (p.13-14).

Sex role stereotyping or gender stereotyping is the belief about what is appropriate for a person based on their sex and for the opposite sex (Sharf, 2002). Gender bias is the separation of gender in a way that places one sex over the other or as treating boys and girls differently (Owens, Smothers & Love, 2003). Sex role stereotyping or gender stereotyping and gender bias can shape the way males and females are socialized and
even what kinds of employment they aspire to obtain (Avard, 2000). When related to
career preparation and career decision-making, research has shown that when females go
without challenging gender ideas they limit their educational pursuits (Chliwniak, 1997;
Ostling & Urquhart, 1992; Schuster, 1991) and often create a narrow, gender-based range
of career options (Watson, Quatman & Edler, 2002).

Research on the attitudes about school and work of 11 to 16 year-olds conducted by
the Equal Opportunities Commission (2001) revealed that gender stereotyping
experienced by boys and girls in the home had an influence on subjects that the students
choose at school and restricted their choice of future jobs and career. For example,
attitudes about the computer were quite different among the male and female participants.
Boys were more likely to picture themselves doing a job that involved computers and
described them as exciting and fun, whereas girls saw them more as a useful tool for
chatting and doing homework.

Family Influences

Family influences on career development have only recently been the topic of study
(Rainey & Borders, 1997; Schultheiss, Palma, Predrogovich & Glasscock, 2002). More
specifically, Schultheiss, et al. (2002) investigated the impact relational influences had on
siblings’ career exploration and decision making and confirmed that young adults turn to
their older siblings for emotional support, social integration (having someone to talk to
and share common ideas), esteem and information support as well as contextual supports
on career choice, educational planning and career exploration. For example, siblings can
be important role models and providers of various forms of support and caretaking. This
notion is particularly important for young people who are living in families headed by a single parent.

Rainey and Borders (1997) studied the relationship between mothers and daughters in their early adolescence to determine how mothers influence their daughter’s career development. Two hundred and seventy-six mothers and daughters participated in the study. Mothers completed a survey of instruments at home while their daughters met in small groups with the principal investigator at their school. The principle question of interest was “whether specific factors pertinent to older female adolescents’ career development (i.e. ability, agentic characteristics, gender role attitudes, attachment and psychological separation in the mother-daughter relationship, and maternal characteristics) are also influential at the beginning of the career-development process” (Rainey & Borders, 1997, p. 161). Based on their findings, Rainey and Borders (1997) concluded a mother’s personal characteristics (independence, assertiveness, willingness to take a stand, attitudes towards other women) and the mother’s educational status were the factors that most influenced the early adolescent girls’ gender attitudes and career choice.

Similarly, O’Brien, Friedman, Tipton & Linn (2000) hypothesized that attachment to and separation from parents would have a direct influence of the career self-efficacy of young women and directly affect career aspirations. Using a sample size of 207 women, the researchers initially surveyed the group in their senior year and again five years later to identify changes in attachment to and separation from parents, career self-efficacy, and career aspiration and to describe the future occupational and relational plans of the sample of young women. O’Brien, Friedman, Tipton & Linn (2000) concluded the
relationship between mother and daughter had a significant effect on career self-efficacy. “Given that mothers are often the primary caretakers, their attachment to their daughters during the high school years may facilitate exploration and efficacy more so than would the fathers, who may not be as involved in their daughter’s daily activities” (O’Brien, Friedman, Tipton & Linn, 2000).

Lankard’s (1995) review of research on family influences on career development found that adolescents are influenced both positively and negatively by their family’s attitudes about the world of work, socioeconomic status, parent’s education level, and parental involvement. For example, families with limited economic resources tend to first support the male’s educational and career aspirations or hold values that place girls in the role of homemaker and care givers. “Parents as daily models provide cultural standards, attitudes and expectations and, in many ways, determine the eventual adequacy of self-acceptance and confidence, of social skills and of sex roles” (DeRidder, 1990, p.3, as cited in Lankard, 1995).

Multiple Roles

According to traditional gender roles and stereotypes, men are expected to financially support their families, while women are responsible for taking care of the home and children (Moya, Exposito & Ruiz, 2000). In light of the fact that 50% of marriages in the year 2002 ended in divorce (Divorce Rates, 2002) young women are better served by increasing their career awareness and challenging gender stereotypes. Concerns about marriage, bearing and raising children, and balancing the role of wife, mother and employee are issues faced by women throughout their career development (Rojewski & Hill, 1998). “Managing both marriage and career may mean limiting social
relationships, increasing organization and delegation of home and other activities, and developing flexible jobs that allow part-time work and time at home” (Sharf, 2002, p. 264). When making decisions about how to combine family and work, “adolescent girls have historically tended to aspire to lower prestige (and usually more stereotypically feminine) careers than have boys” (e.g., Danziger, 1983; Eccles, 1985; Shapiro & Crowley, 1982 as cited in Watson, Ouatman & Edler, 2002).

**Need for Career Development among Adolescent Females**

Adolescence is an ideal time to for young women to increase awareness of their skills and interests. Puberty and emerging sexuality, including a growing interest in peer relationships and an increase in independence contribute to the process of gender role identity (Watson, Quatmand & Edler, 2002) which in turn influence their career decision-making. The messages young women receive about themselves and career opportunities are particularly important during adolescence because of the added emphasis on career preparation and career decision-making placed upon them by adults. During this time, women are more likely to experience lower levels of self-esteem (AAUW, 1992; Sadker & Sadker, 1994; Kleinfeld, 1999), self-efficacy (Lapan & Jingeleski, 1992; Kraus & Hughey, 1999; Sullivan & Mahalik, 2000; Betz, 2001) and feelings of control over choosing a career, and often have a fear of failure and success (Larson & Butler, 1994).

As adolescent girls struggle to find their place in society, they look to others for approval, guidance, and encouragement. Family background is an important influence on adolescent girls’ career development (O’Brien, Friedman, Tipton & Linn, 2000). Many of the attitudes about work and careers are learned through family interactions (Hall, 2003; Seligman, 1994). Factors such as socioeconomic status, parent’s educational level,
occupational aspirations and gender are particularly influential on young girls (Lankard, 1995; Seligman, 1994).

A recent study of 162 African American eighth graders (81 girls and 81 boys) investigated the “relationships between African American parents’ provision of self-efficacy information along each of the four dimensions hypothesized by Bandura, and their adolescents’ self-efficacy to pursue their educational and career-related goals” (Alliman-Brissett, Turner & Skovholt, 2004, p.125). Researchers found that African American adolescent girls were most responsive to their parents’ emotional support when contemplating transitions from school to work, post-secondary planning, and effective career decision-making (Alliman-Brissett, Turner & Skovholt, 2004).

**Stereotyping at an Early Age and the Role of the School**

Researchers have found that schools play an important role in perpetuating gender stereotyping and gender bias (AAUW, 1990 & 1992) instead of minimizing their impact. From an early age, females are portrayed in passive and domestic roles while males are depicted as athletic, aggressive, and problem solvers. A young girl’s self-esteem and self-efficacy are particularly vulnerable when she enters high school. Researchers have found this decline is in part because of the way teachers interact with young girls (AAUW, 1990, 1992, 1998; Sadker & Sadker, 1994). For example, girls are often discouraged from taking high-level courses in mathematics, science and technology (AAUW, 1992; Owens, Smothers & Love, 2003). “Teachers need to evaluate their own classrooms in terms of gender equity and strive to ensure that gifted girls are active participants in, rather than passive observers of, the learning process” (Hollinger & Fleming, 1993).

“The development and implementation of career guidance activities as a part of a school’s guidance program is essential to facilitate the career development of students”
(Kraus & Hughey, 1999, p. 388) this is particularly true for young women. “Young girls are likely to limit career options during early adolescence and, in fact, already may have eliminated many possibilities” (Gottfredson, 1981, as cited in Rainey & Borders, 1997, p. 161) because of stereotyping, attitudinal barriers and gender bias. By implementing interventions that attend to the specific needs of their female population, school counselors can encourage female participants to select rigorous courses, consider both traditional and non-traditional occupations while improving their self-esteem, self-efficacy and locus of control.

**Career Development and Interventions for Females**

Only recently have women been a focus in career development research. For example, female’s self-efficacy for mathematics, scientific and technical careers have been the subject of numerous studies (Betz, 1992, 2001; Hollinger, 1985; Hollinger & Fleming, 1993; Sanders & Paterson, 1999). Similarly, career assessment procedures, theoretical approaches and counseling interventions have begun to focus on issues that are unique to the women’s career development. For example, the effects of gender role socialization (Reis, 2001), multiple role issues (Luzzo & MacGregor, 2001), and support and barriers on career choice (Rainey & Borders, 1997; Reis, 2001; Turner & Lapan, 2002; Whiston & Brecheisen, 2002) have been examined by different investigators in the past seven years.

The fundamental component of Bandura’s (1977) social-cognitive theory is the concept of self-efficacy. Self-efficacy refers to a person’s belief that he or she has the ability to perform a given behavior or set of tasks (Nauta, Kahn, Angell & Cantarelli, 2002). For example, a girl’s belief about her educational and occupational abilities will
influence the course of study she chooses to take and the range of career options she considers.

Bandura’s (1977) theory of social learning assumes that people’s cognitive development occurs because they experience verbal and symbolic stimuli and then reflect on those experiences. From this perspective, personalities grow from environmental interactions, self-perceptions and actual behaviors (Sharf, 2002). “Within this paradigm, important constructs include mental representations of our capacity to successfully perform tasks (self-efficacy), expectancies about the likely outcomes if we act (outcome expectations), and future plans (goals)” (Douglas, 2001). According to Bandura, an individual’s self-efficacy expectations are learned and modified through four sources of information. “These sources of information include: (1) performance accomplishments, that is experiences of successfully performing the behavior in question, (2) vicarious learning or modeling, (3) verbal persuasion, for example, encouragement and support from others, and (4) lower levels of emotional arousal, that is, lack of anxiety, in connection with the behavior” (Betz, 2001, p.58).

Self-Efficacy

Hackett and Betz’s (1981) extended the concept of self-efficacy to the career development of women. The concept of self-efficacy as it relates to career development has been the subject of numerous studies of young women of varying ages including college students (Lent, Brown & Gore, 1997; Nauta, Kahn, Angell & Cantarelli, 2002; O’Brien, Friedman, Tipton, Linn, 2000), community college students (Rotberg, Brown & Ware, 1987), and high school students (Bong, 1998; Lapan & Jingeleski, 1992; Leong & Barak, 2001; Phillips & Gully, 1997). According to Hackett and Betz it is important to extend the concept of career self-efficacy to adolescent girls because they avoid a number
of occupational areas because of a lack of confidence in their own abilities, have less of an opportunity to experience successful career behaviors and receive less encouragement than men in the process (Sharf, 2002).

When it comes to the science, math and technology, young girls are particularly vulnerable to experiencing a decline in self-efficacy. Farmer, Wardrop, Anderson, and Risinger (1995) conducted a 10-year longitudinal study of 173 participants (97 women and 76 men) who in 1980 all aspired to a science, math or technology career. In 1980, all participants aspired to a science, math or technology career but by 1990, only 36% of the women (n=35) had followed through with their career aspiration. One of the contributing factors in women persisting in their science-related career was the number of elective science course taken by the women during high school.

Trusty (2002) explored the effects of high school course-taking on future choice of science and math majors. Using a national representative sample of 2,956 women and 2,747 men taken from the National Educational Longitudinal Study from 1988-94, Trusty found that math and science course-taking in high school was an influential factor in choosing a math or science major. For instance, women who took the most academically challenging mathematics courses such as trigonometry, pre-calculus and calculus had a significant effect of their choice of college major (Trusty, 2002).

Self-Esteem

According to Schuster (1991) by the time females hit adolescence they begin experiencing a decline in self-esteem, in part due to the lack of attention they receive from their teachers. High levels of self-esteem are associated with high academic achievement, strong interpersonal relationship skills, involvement in sports and other extracurricular school activities as well as a strong sense of self and connectedness to
peers, parents, families and communities as a whole (King, Vidourek, Davis & McClellan, 2002).

Researchers in a 1990 national survey of 3,000 girls and boys from ages nine to fifteen concluded that upon entering adolescence girls’ self esteem takes a nose dive compared to the boys’ (AAUW). For example, “In response to the statement, ‘I’m happy the way I am,’ 67 percent of the boys responded affirmatively in elementary school, but by the time they reached high school, only 46 percent agreed with the statement. In contrast, while 60 percent of girls agreed with the statement in elementary school, 37 percent answered affirmatively in middle school, and only 29 percent in high school” (Sadker & Sadker, 1994, p.78). This finding was corroborated in 1992, in a study authorized by the American Association of University Women (AAUW) researchers reported three principal findings in a study entitled *Shortchanging Girls, Shortchanging America*. AAUW researchers found that “first, girls fall behind boys in science and mathematics; second, girls participate less than boys in class or, as it is said, are ‘silenced’ in the classroom; and third, girls suffer a major decline in self-esteem at adolescence while adolescent boys gain in self-esteem” (Kleinfeld, 1999).

Young women who succumb to the environmental, physical and societal pressures experience a loss of confidence in their abilities, expect less from life, and lose interest in challenging courses of study. Numerous studies have corroborated this notion of female vulnerability and loss potential especially in the fields requiring math and science backgrounds (Hollinger, 1985; Hollinger & Fleming, 1993; Sanders & Peterson, 1999; Trusty, 2002).
Locus of Control

A thorough review of the literature yielded very few studies of locus of control as it relates to career development. Locus of control is a personality attribute reflecting the degree to which one generally perceives events to be under their control (internal locus) or under the control of powerful others (external locus) (Rotter, 1966, 1990 as cited in Phillips & Gully, 1997). Persons with a greater level of internal locus of control tend to see themselves as having more power over the events in their lives. One study investigated locus of control and at-risk youth compared high school students in regular education setting to students in alternative high schools. Using the Nowicki-Strickland locus of control scale with 234 high school and middle school students Miller, Fitch & Marshall (2003) found that among the students in five different schools in Kentucky students in alternative education programs on average, were found to have a more external sense of control. Locus of control is an important factor when working with at risk-youth. Counselors and teachers who teach students to gain a greater sense of personal control are likely to see an improvement on academics, relationships with others, chronic behavior and attendance problems.

Phillips and Gully examined the relationship between locus of control, goal setting and performance using a sample of 405 undergraduate students at a midwestern university. Seventy-two percent of the sample were women. Participants were involved in two sessions and completed questionnaire measures of goal orientation, locus of control and self-efficacy. Researchers found that locus of control along with ability and learning goal orientation was positively related to self-efficacy (Phillips & Gully, 1997).

Similarly, Ross & Taylor (n.d.) conducted a study of the relationship between locus of control and academic level and sex of 267 ninth grade Ontario secondary school
students. Each participating student was enrolled either at one vocational school or from one of two academic school settings and completed the Nowicki-Strickland Locus of Control for Children. Results indicated that students in advance level programs had a high sense of internal control. Furthermore, females were more inclined to take responsibility for their success and failures (Ross & Taylor, n.d.). Future research on the relationship between locus of control and career development is needed.

**Small Group Counseling**

Small group counseling is defined by Myrick (1997) as “a unique educational experience in which students can work together to explore their ideas, attitudes, feelings, and behaviors, especially as related to personal development and progress in school” (p.187). “Group counseling is an effective method of delivering counseling services in the middle schools” (Baker, 2000, p.51). A variety of issues can be addressed using small group counseling. Topics such as divorce, career exploration, conflict resolution, improving self-esteem, peer relations, study skills, and social skills training can often be handled in small groups.

School counselors can maximize their time by implementing career development interventions that utilized the small group counseling method. Small group counseling sessions provide students with the opportunity to share ideas, explore common experiences, provide and receive feedback, and help and be helped by their peers who are in similar situations (Sharf, 2002; Seligman, 1994). Herr (2002) suggests that “group work in more efficient and, for some purposes, possibly more effective than individual counseling or individual meetings” (p. 232). Studies examining the effectiveness of career guidance indicated a positive effect on career decision-making, goal setting, and

Results from Sullivan & Mahalik’s (2000) group intervention study with 61 females enrolled (31 in a treatment group, 30 in a non-treatment group) in three universities in New England supported the effectiveness for increasing career self-efficacy in women through counselor interventions. Sullivan & Mahalik (2000) concluded group interventions are effective ways for clients to discuss past mastery experiences and for counselors to facilitate current successful experiences in “occupational exploration, and specific task performance to increase clients’ performance accomplishments. Counselors can facilitate vicarious learning through helping clients hear other women’s stories, both inside and outside the group, about overcoming obstacles and their successes in education, exploration and decision making, and career accomplishments” (p. 60).

School Guidance Counselors

School counselors are key personnel in helping students gain valuable insight into their academic, occupational and career interests. “Too many students find themselves without the math or science which they need in technical programs or the basic verbal, reading, and math skills necessary for postsecondary completion” (Boesel & Friendland, 1999; Educational Trust, 2001 as cited in Feller, 2003, p.263). Counselors need to urge young women to explore and plan for careers earlier before they begin to experience a decline in self-esteem, self-efficacy and locus of control. Counselors need to encourage young girls to take higher-level mathematics and scientific subjects as well as facilitate student exposure to more occupations that are nontraditional and community role models.
Counselors can assist young women by increasing awareness and understanding of both the professional and personal conflicts unique to women’s career development. Interventions and activities specifically aimed at reducing gender bias or gender stereotyping (Whitson, 1996), sexual harassment, and balancing multiple roles (McBride, 1997) not only prepare women to cope with potential workplace issues but also increase the likelihood that women continue in the their pursuit of higher paying, nontraditional occupations (Sullivan & Mahalik, 2000). Finally, “counselors play an important role in reducing occupational barriers and expanding opportunities and should look beyond the walls of their office to find ways to promote people positive career development” (Seligman, 1994, p.473). Kraus & Hughey (1999) suggest the development and implementation of career guidance activities to facilitate the career development of students. “In addition, school counselors can supplement classroom lessons with a variety of career guidance strategies outside the structure of the classroom setting” (Kraus & Hughey, 1999, p. 388).
CHAPTER 3
RESEARCH DESIGN, METHODOLOGY, AND PROCEDURES

The purpose of this study was to determine the effectiveness of a theory-based career counseling unit, delivered through small group counseling and designed to promote the academically able ninth grade participant’s self-esteem, career self-efficacy, and locus of control. The counselor led intervention focused on increasing student’s self-esteem, career self-efficacy and locus of control as it related to career decision-making. The population, sampling procedures, research design, treatment description, relevant variables, school counselor training, instruments, hypotheses, an overview of the career counseling unit, and data analyses are described in this chapter.

Population

Alachua County is located in north-central Florida, spans 965 square miles and includes the municipalities of Archer, Alachua, Cross Creek, Gainesville, Hawthorne, High Springs, LaCrosse, Melrose, Micanopy, Newberry, Waldo, and Windsor. According to the Gainesville Area Chamber of Commerce (2002), the Alachua County population exceeds 228,000 and employs over 107,000 individuals in a variety of positions in the healthcare, educational and agriculture industries. The University of Florida is the area’s largest employer, followed by Shands Hospital and Alachua County School Board (Gainesville Area Chamber of Commerce, 2002).

The population for this study consisted of 1, 324 ninth grade girls from seven high schools in Alachua County, Florida. The total number of students attending school within Alachua County, Florida was 29,599 and included 7 high schools, 8 middle schools, 25
elementary schools, 9 charter schools, 4 Department of Juvenile Justice schools and 13 other type schools. The total number of students currently attending high school is 8,672. The high schools are racially integrated: 58.4% of the students are white, 32.2% are African American, .03% are Asian/Pacific Islander, 4.8% are Hispanic, and 1.3% are Native American or Multiracial. The percentages of males and females in the system are 47.8 and 52.2, respectively.

**Sampling Procedures**

Following approval of the doctoral committee, the University of Florida Institutional Review Board (IRB) and the Alachua County School Board Department of Research and Evaluation each Alachua County guidance school counselor in six high schools were informed of the nature of the study and invited to volunteer for participation.

Within each school, all female students in the ninth grade were identified as eligible participants and placed on a list and received an invitation to participate in the study. Statistical information about the gender, race and school of eligible participants is included in Table 3-1. For the purpose of this study, students with a 2.5 grade point average and a minimum passing score (300) on the Florida Comprehensive Achievement Tests (FCAT) Reading or Math exams were described as academically able and eligible to participate.
Table 3-1. Population of Females in Six Alachua County High Schools Organized by Race

<table>
<thead>
<tr>
<th>School</th>
<th>AF</th>
<th>AAF</th>
<th>HF</th>
<th>MF</th>
<th>NF</th>
<th>WF</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>10</td>
<td>132</td>
<td>17</td>
<td>4</td>
<td>1</td>
<td>141</td>
<td>305</td>
</tr>
<tr>
<td>B</td>
<td>1</td>
<td>23</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>33</td>
<td>58</td>
</tr>
<tr>
<td>C</td>
<td>1</td>
<td>27</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>33</td>
<td>58</td>
</tr>
<tr>
<td>D</td>
<td>2</td>
<td>32</td>
<td>7</td>
<td>2</td>
<td>1</td>
<td>122</td>
<td>166</td>
</tr>
<tr>
<td>E</td>
<td>25</td>
<td>147</td>
<td>13</td>
<td>5</td>
<td>0</td>
<td>84</td>
<td>274</td>
</tr>
<tr>
<td>F</td>
<td>10</td>
<td>126</td>
<td>22</td>
<td>11</td>
<td>0</td>
<td>192</td>
<td>361</td>
</tr>
</tbody>
</table>

Information provided by the School Board of Alachua County 1/26/04.

Legend:  
AF = Asian-American Females  
AAF = African-American Females  
HF = Hispanic Females  
MF = Multi Race Females  
NF = Native American Females  
WF = White Females  
A = Gainesville High School (GHS)  
B = Hawthorne High School (HHS)  
C = Newberry High School (NHS)  
D = Santa Fe High School (SHS)  
E = Eastside High School (EHS)  
F = Buchholz High School (BHS)

All eligible students received a consent form, requesting parent and student signatures. Students were randomly assigned to an experimental and control group from the pool of students who had returned their consent forms. In order to track all pre and posttest measures and protect the participant’s confidentiality all results were coded (see Appendix C). Each experimental group received the career counseling unit and each control group received an alternate intervention. Students in the control group will receive the career counseling unit only after the completion of the study. Each counselor led group will consist of 10 participants bringing the minimum number of participants to 120 (see Table 3-2).
Table 3-2. Sampling of Alachua County High Schools

<table>
<thead>
<tr>
<th>Condition</th>
<th>School</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>Experimental</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Control</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Treatment</td>
<td>20</td>
<td>20</td>
</tr>
</tbody>
</table>

Research Design

The research design used in this study was a pre-posttest control group design as seen in Table 3-3. The pre-posttest control group design was used to “rule out virtually all threats to internal validity through the use of control groups and random assignment…this permits the researcher to make casual inferences about the effect of the independent variables on the dependent variable” (Shavelson, 1996, p.25).

Following random assignment of students to the experimental and control groups, all students completed the Rosenberg Self-Esteem Scale (RSE), Occupational Self-Efficacy Scale (OSES), and Nowicki-Strickland Locus of Control Scale for Children (NSLCS). Immediately following the completion of the intervention, all measures were re-administered. All instruments are self-reported measures.

In an attempt to standardized the delivery of the career counseling unit each counselor received identical “Career Counseling for Teenage Girls” manuals, intervention and assessment materials and attended an intervention training workshop presented the researcher. A detailed explanation of the workshop is presented in the school counseling training section of this chapter.
Table 3-3. Pre-Post Control Group Design

<table>
<thead>
<tr>
<th>Conditions</th>
<th>Pre</th>
<th>Post</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment Group</td>
<td>R</td>
<td>X</td>
</tr>
<tr>
<td>Control Group</td>
<td>R</td>
<td>O</td>
</tr>
</tbody>
</table>

R = Random assignment of subjects to groups  
X = Group counseling for academically able ninth grade girls  
O = Rosenberg Self-Esteem Scale (RSE)  
O = Occupational Self-Efficacy Scale (OSES)  
O = Nowicki-Strickland Locus of Control Scale for Children (NSLCS)

Hypotheses

This study will include three dependent measures: self-esteem, career self-efficacy, and locus of control. The alpha level for all measures will be set at the .05 to determine statistical significance. The following nine null hypotheses were tested:

- \( H_01 \): There will be no significant interaction between the treatment group (experimental and control) and schools in self-esteem, measured by the Rosenberg Self-esteem scale.
- \( H_02 \): There will be no significant difference in self-esteem, measured by the Rosenberg Self-Esteem scale, between the experimental and control groups.
- \( H_03 \): There will be no significant difference in self-esteem, measured by the Rosenberg Self-Esteem scale, between the schools.
- \( H_04 \): There will be no significant interaction between the treatment group (experimental and control) and schools in locus of control, measured by the Nowicki-Strickland Locus of Control Scale for Children.
- \( H_05 \): There will be no significant difference in locus of control, measured by the Nowicki-Strickland Locus of Control Scale for Children, between the experimental and control groups.
- \( H_06 \): There will be no significant difference in locus of control, measured by the Nowicki-Strickland Locus of Control Scale for Children, between schools.
- \( H_07 \): There will be no significant interaction between the treatment group (experimental and control) and schools in career self-efficacy, measured by the Occupational Self-efficacy Scale.
• HO₈: There will be no significant difference in career self-efficacy, measured by the Occupational Self-Efficacy Scale, between the experimental and control groups.

• HO₉: There will be no significant difference in career self-efficacy, measured by the Occupational Self-Efficacy Scale, between schools.

Variables of Interest

Dependent Variables

This intervention focused on three relevant dependent variables: Self-Esteem (SE), Career Self-Efficacy (CSE), and Locus of Control (LC). An appropriate instrument in a pre and posttest administration will measure each of the dependent variables.

Independent Variables

This study included two independent variables: a two level treatment variable and school setting. The unit is described in the “Career Counseling for Teenage Girls” manual. The two levels of treatment are the experimental and control groups. A brief overview of the career counseling unit is outlined in Table 3-4. A more detailed explanation of the activities in the unit by session is provided in Appendix A.
<table>
<thead>
<tr>
<th>Session</th>
<th>Title</th>
<th>Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Session 1</td>
<td>Sex, Dreams &amp; Gender Roles</td>
<td>Students will identify the realities behind sex role stereotyping in development. Students will identify sources of stereotypes and possible obstacles.</td>
</tr>
<tr>
<td>Session 2</td>
<td>Women in the World of Work</td>
<td>Students will identify message that affect career success and choices. Students will identify impact of sex role stereotypes in world of work.</td>
</tr>
<tr>
<td>Session 3</td>
<td>Who Are Your Heroines</td>
<td>Students will identify females who have overcome obstacles. Students will identify characteristics necessary to overcome obstacles.</td>
</tr>
<tr>
<td>Session 4</td>
<td>What a Girl Wants</td>
<td>Students will identify role of sex role stereotypes in present life. Students will describe the relationship between positive and negative ideas and success in careers.</td>
</tr>
<tr>
<td>Session 5</td>
<td>Becoming the Girl of Your Dreams</td>
<td>Students will identify relationships that have had an influence on their lives. Students will identify the positive and negative messages that have shaped their career interests.</td>
</tr>
<tr>
<td>Session 6</td>
<td>Setting Your Sights on the Future</td>
<td>Students will analyze their own values, abilities, interest and goals.</td>
</tr>
</tbody>
</table>

**Treatment Description**

A small group counseling intervention was used to deliver the career counseling unit to the academically able ninth grade girls. The career counseling unit consisted of six sessions and was delivered over a period of three weeks with each session lasting
approximately 50 minutes. Counselors followed the session guidelines and implemented the activities in sequential order as described in the manual.

Initially, the counselor helped the participants become acquainted, clarified their reasons for being in the group, began building rapport with the students in an introductory activity and administered all the pretest instruments. The following sessions featured activities and discussions that helped participants identify their perceptions about the world of work, levels of self-esteem and locus of control, and build on their knowledge of the careers and future opportunities. In general, each session was aimed at preparing the young women to make informed career decisions about traditional and nontraditional occupations; examined social expectations, gender stereotypes, personal relationships, empowerment and their implications on career choices.

Participants had the opportunity to demonstrate changes in their levels of self-esteem, career self-efficacy, and locus of control in a posttest administration. At the same time the experimental group was meeting, participants in the control group met with another certified school guidance counselor and completed three Internet exploratory activities. Following each career exploratory activity the counselor asked the students to write down three things they learned during the session and ways they can apply the knowledge in their life today and in the future. Students who participate in the experimental group were compared to the students in the control group on each dependent measures.

School Counselor Training

The researcher trained each participating Alachua County, Florida school counselor. Each counselor was a state certified employee of the School Board of Alachua County. The counselors took part in a workshop led by the researcher where
they discussed the session objectives, procedures, and activities in the “Career Counseling for Teenage Girls” manual (see Appendix B). Counselors were encouraged to ask questions in order to understand the manual and materials so that they would deliver the intervention in the most standardized method possible.

At the intervention workshop, the counselors received the “Career Counseling for Teenage Girls” manual that included the procedures and presentation guidelines and materials for each session. Counselors received the dependent measures and instructions on how to administer each measure. The researcher was available before, during, and after the study to assist counselors who had questions or concerns about the research procedures. Each counselor received a list of eligible participants, returned to their respective schools, and began to implement the study. In addition, the researcher randomly assigned the students at each school to the experimental and control groups.

After the completion of the study, the counselors completed a comment sheet to ensure that all procedures were followed as described in the manual and provided feedback to the researcher. The researcher was responsible for analyzing the data collected by each school counselor and disseminating the information in a final report to the Alachua County Department of Research and Evaluation and participating schools.

**Instruments**

In order to measure the effectiveness of the intervention, the following instruments were used, (a) Rosenberg Self-Esteem Scale (RSE), (b) Occupational Self-Efficacy Scale (OSES), and (c) The Nowicki-Strickland Locus of Control Scale for Children (NSLCS).
Rosenberg Self-Esteem Scale (RSE)

Self-esteem is a positive or negative orientation toward oneself; an overall evaluation of one's worth or value. "Rosenberg's scale was originally developed to measure adolescents' global feelings of self-worth or self-acceptance, and is generally considered the standard against which other measures of self-esteem are compared" (Adler, 1997). The original sample for which the scale was developed in the 1960s consisted of 5,024 high school students from 10 randomly selected schools in New York State (Rosenberg Self Esteem Scale, n.d.). Numerous studies have cited the RSE as an instrument to measure self-esteem in female adolescents (Bragley, Bolitho & Bertrand, 1997; Chiu, 1990; Duke & Martinez, 1994; Hagborg, 1993; Harper & Marsh, 1991).

The RSE consists of 10 statements of personal self-worth, including both positive and negative self-evaluations (five items each), which are global rather than situation specific. Historically, responses to items are ranked using a 4-point Likert-type response ranging from (1) 'strongly disagree' to (4) 'strongly agree'. Scores range from 10 – 40, with a high score representing a high self-esteem level. The scale generally has high reliability: test-retest correlations are typically in the range of .82 to .88, and Cronbach's alpha for various samples are in the range of .77 to .88 (Rosenberg Self Esteem Scale, n.d.).

Occupational Self-Efficacy Scale (OSES)

Bandura (1977), defined self-efficacy as a person's beliefs concerning his/her ability to successfully perform a given task or behavior. Bandura proposed that a person with low self-efficacy expectations would tend to avoid certain behaviors or behavioral domains. On the other hand, a person with higher levels of self-efficacy expectations
would increase the frequency of that behavior or behavioral domain. Thus, self-efficacy beliefs can be useful in understanding and predicting behavior.

Using Bandura’s definition of self-efficacy, Betz and Hackett (1981) developed the Occupational Self-Efficacy Scale to measure students’ perceptions of self-efficacy with respect to educational requirements and job duties of 20 commonly known occupations. The 20-item instrument was originally developed to “test the postulate that the under representation of women in many non-traditional-for-women (male-dominated) career fields was due in part to women's low expectations of career-related self-efficacy with respect to male-dominated career fields” (Hackett & Betz, 1981).

Format A of the OSES was used. Respondents indicate their belief that they could successfully complete: a) the educational requirements and b) the job duties for each occupation. Format A requires respondents to make both "yes/no" and "confidence" ratings in response to each occupational title. The confidence rating is on a (1-10) Likert-type scale ranging from Completely Unsure to Completely Sure.

Research primarily using college students (Betz & Klein, 1996; Betz & Schifano, 2000; Hackett & Betz, 1981; Williams & Betz, 1994) “suggested that self-efficacy beliefs serve as an important cognitive influence on career decisions and achievements, helping to determine people's range of perceived career options and their success and persistence in chosen options” (Lent, Brown & Larkin, 1987). In order to establish a comparative group of ninth graders the OSES was given to a random sample of female students in Hillsborough County.

Internal consistency reliability found to be .95 (total score), .91 (sum for traditionally-female occupations across educational requirements and job duties), and .92
(sum for male-dominated occupations across educational requirements and job duties).

Test-retest reliability of overall OSES level and strength scores over a one-week retest period was .55 and .70, respectively (Hackett & Betz, 1998).

**Nowicki-Strickland Locus of Control Scale for Children (NSLCS)**

The Nowicki-Strickland Locus of Control Scale is a scale constructed based on Rotter's definition of the internal-external control of reinforcement dimension. “Locus of control refers to people's very general, cross-situational beliefs about what determines whether or not they get reinforced in life. People can be classified along a continuum from very internal to very external” (Mearns, 2003). Hau (1995) describes the NSLCS as a paper-and-pencil measure of 40 yes and no items with satisfactory internal consistency, test-retest reliability, and construct validity as demonstrated in its relation with children’s adaptive behaviors and academic performance” (p.118).

Administration of the NSLCS took approximately 10 to 15 minutes. Items were scored in an externally controlled direction; therefore, the higher the score, the more external the locus of control. Nowicki-Strickland (1973) reported test-retest reliabilities after a six-week period ranged from .66 to .71. Nowicki-Strickland added estimates of internal consistency using the split half method, correlated the Spearman Brown formula were correlated by grade levels ranging from .75 (for combined grades 9,10, and 11) to .81 (for grade 12). Non-significant correlations were reported on several variables such as sex, race, intelligence, and social desirability (Nowicki & Strickland, 1973).

“Over 700 studies have been completed with the Nowicki-Strickland Internal-External Scale for Children, and it has been translated into over two dozen languages” (Strickland, 1989). Most recently, Miller, Fitch and Marshall (2003) used the Nowicki-Strickland Locus of Control Scale with “234 high school and middle school students as a
means of comparing locus of control between regular education students and alternative education students who exhibit chronic behavior problems”.

Data Collection

This study took place in six high schools in Alachua County, Florida. Pretests were administered before the intervention began. All measures were coded by number to ensure confidentiality of results (see Appendix C). Each of the volunteer school guidance counselors administered the pre and posttest assessments in their respective schools.

The six sessions were delivered over a period of three weeks. Participants in the experimental and control groups met with the school counselor for a total of five hours. See Table 3-5 for a timetable and summary of the procedures. At the end of the intervention, the school counselors re-administered each measure. All data was collected and analyzed by the researcher and results were shared with the school counselors and school administration.

Table 3-5. Summary of Procedures and Timetable

<table>
<thead>
<tr>
<th>Week</th>
<th>Procedures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1</td>
<td>Obtain permission and informed consent forms</td>
</tr>
<tr>
<td></td>
<td>Randomly assign participants to groups</td>
</tr>
<tr>
<td></td>
<td>Hold training workshop for School Counselors</td>
</tr>
<tr>
<td>Week 2</td>
<td>Administer Pretests</td>
</tr>
<tr>
<td>Week 3</td>
<td>Day One: Experimental Group – Conduct session 1 – 2 – periods 1 &amp; 2</td>
</tr>
<tr>
<td></td>
<td>Control Group – Internet Activity 1 – periods 1 &amp; 2</td>
</tr>
<tr>
<td>Week 4</td>
<td>Day Two: Experimental Group – Conduct sessions 3 – 4 – periods 3 &amp; 4</td>
</tr>
<tr>
<td></td>
<td>Control Group – Internet Activity 2 – periods 3 &amp; 4</td>
</tr>
<tr>
<td>Week 5</td>
<td>Day Three: Experimental Group – Conduct sessions 5 &amp; 6 – periods 5 &amp; 6</td>
</tr>
<tr>
<td></td>
<td>Control Group – Internet Activity 3 – periods 5 &amp; 6</td>
</tr>
<tr>
<td></td>
<td>Administer Posttests</td>
</tr>
<tr>
<td>Week 6</td>
<td>Collect and analyze data</td>
</tr>
</tbody>
</table>
Data Analyses

The alpha significance level was set at the .05 to test the measures in this study. A two-way (group X school) factorial analysis of variance (ANOVA) was used to determine whether there is a statistically significant difference between the experimental and control groups and schools by adjusting for any initial differences on all posttest measures. “The two-way ANOVA tests three hypotheses statistically. One hypothesis refers to the main effect for the first variable, another to the main effect for the second variable, and the third to the unique effect of certain levels of one variable paired with certain levels of the other variable” (Shavelson, 1996, p.419).
The purpose of this study was to determine the effectiveness of a theory-based career counseling unit, delivered through small group counseling and designed to promote the academically able ninth grade participant’s self-esteem, career self-efficacy, and locus of control. In addition, two group conditions related to the delivery of the unit were compared: experimental and control groups.

Research findings are presented in this chapter. Internal consistency reliability coefficients calculated using data from the present study are reported. Finally, outcome testing of the study’s research hypotheses are discussed. Data were collected from 62 students from four high schools in Alachua County, Florida. Three separate analyses of variance were conducted, one for each of the three variables: self-esteem, career self-efficacy and locus of control related to the hypotheses. Differences between the experimental and control groups and school setting were examined. All hypotheses were tested at the .05 level of significance.

Description of Sample

Sixty-two female ninth grade students from Hawthorne High School, Newberry High School, Gainesville High School and Santa Fe High School located in Alachua County, Florida, participated in the study. Each participant received a passing score of their 8th grade FCAT Reading and/or Math exam and maintained at least a 2.5 grade point average after the first semester of their ninth grade year. Seventy-three percent of the participants were Caucasian, twenty-three percent were African American, three percent
were Asian and one percent were Native American. Participants were randomly assigned to the experimental and the control groups and attended all three sessions of the intervention at their respective schools.

Descriptive Data

Rosenberg Self Esteem Scale

Self-esteem is an individual’s evaluation of self, commonly expressed as an attitude of approval or disapproval (Harper & Marshall, 1991). For the present study, the Rosenberg Self-Esteem Scale was used, consisting of 10 statements of personal self-worth, including both positive and negative self-evaluations (five items each), which are global rather than situation specific. Responses to the items are ranks using a 4-point Likert-type response ranging from (1) ‘strongly disagree’ to (4) ‘strongly agree’. Scores range from 10 – 40, with a high score representing a high level of self-esteem. The scale generally has a high reliability: test-retest correlations are typically in the range of .82 to .88, and Cronbach’s alpha for various samples are in the range of .77 to .88 (Rosenberg Self Esteem Scale, n.d.). Reliability results for the present data were reported as Cronbach’s alpha = .85 and is comparable with the standard reliability of the RSE measure.

The mean for the present sample of 62 academically able ninth-grade girls on the RSE, ranged from 32.31 (SD=4.61) for pretest for the experimental group (n=32) and 33.83 (SD=5.03) for the pretest for the control group (n=30). Posttest scores ranged from 34.06 (SD=4.77) for the experimental group and 34.10 (SD=4.65) for the control group. Appendix D illustrates the mean scores for the experimental and control groups by measure and educational setting. The total means score for the 62 participants for the pretest was 33.05 (SD=4.84) the total mean score for the posttest was 34.08 (SD= 4.67).
Nowicki-Strickland Locus of Control Scale for Children

Locus of control is a personality attribute reflecting the degree to which one generally perceives events to be under their control (internal locus) or under the control of powerful others (external locus) (Rotter, 1966, 1990 as cited in Phillips & Gully, 1997). For the present study, the Nowicki-Strickland Locus of Control Scale for Children (NSLOC) was used. The NSLOC can be used with students in grades 1-12 and consisted of 40, yes or no items. Items are scored in an externally controlled direction; therefore, the higher the score, the more external the locus of control. Nowicki-Strickland (1973) reported test-retest reliabilities after a six-week period ranged from .66 to .71. Reliability results for the present data were reported as Cronbach’s alpha = .84 and is higher than the standard reliability .66 to .71 after a six-week period of the NSLOC measure.

The mean for the present sample of 62 academically able ninth-grade girls on the NSLOC, ranged from 11.06 (SD=4) for pretest for the experimental group (n=32) and 13.2 (SD=5) for the pretest for the control group (n=30). Posttest scores ranged from 9.75 (SD=3.9) for the experimental group and 11.8 (SD=3.3) for the control group. Appendix D illustrates the mean scores for the experimental and control groups by measure and educational setting. The total means score for the 62 participants for the pretest was 12.1 (SD=4.6) the total mean score for the posttest was 10.73 (SD= 3.7).

Occupational Self-Efficacy Scale

The Occupational Self-Efficacy Scale was developed by Betz and Hackett (1981) to measure students’ perceptions of self-efficacy with respect to educational requirements and job duties of 20 commonly known occupations, of which ten were male dominated and ten female dominated occupations. The 20-item instrument was originally developed to “test the postulate that the under representation of women in many non-traditional-for-
women (male-dominated) career fields was due in part to women's low expectations of career-related self-efficacy with respect to male-dominated career fields” (Betz & Hackett, 1981).

Respondents completed Format A of the OSES and indicated their belief that they could successfully complete: a) the educational requirements and b) the job duties for each occupation. Totals for traditional occupations were computed as the sum of "yes" responses to both educational requirements and job duties across traditional occupations, and, similarly, a total for non-traditional were computed as the sum over the educational requirements and job duties of the ten non-traditional occupations. Internal consistency reliability found to be .95 (total score), .91 (sum for traditionally-female occupations across educational requirements and job duties), and .92 (sum for male-dominated occupations across educational requirements and job duties) (Betz and Hackett, 1981). Each subtest is described below.

Traditional Education Self-Efficacy

The mean for the present sample of 62 academically able ninth-grade girls on the OSES traditional education self-efficacy, ranged from 6.84 (SD=2.7) for pretest for the experimental group (n=32) and 5.9 (SD=2.2) for the pretest for the control group (n=32). Posttest scores ranged from 7.8 (SD=2.2) for the experimental group and 6.83 (SD=2.7) for the control group. Appendix D illustrates the mean scores for the experimental and control groups by measure and educational setting. The total means score for the 62 participants for the pretest was 6.39 (SD=2.5) and the total mean score for the posttest was 7.32 (SD=2.5). Reliability results for the present data were reported as Cronbach’s alpha = .94 and is comparable to the standard reliability .95 (total score) of the OSES measure.
**Traditional Job Duty Self-Efficacy**

The mean for the present sample of 62 academically able ninth-grade girls on the OSES traditional job duty self-efficacy, ranged from 6.53 (SD=2.6) for pretest for the experimental group (n=32) and 5.6 (SD=2.04) for the pretest for the control group (n=32). Posttest scores ranged from 7.4 (SD=2.3) for the experimental group and 6.73 (SD=2.3) for the control group. Appendix D illustrates the mean scores for the experimental and control groups by measure and educational setting. The total mean score for the 62 participants was the pretest was 6.1 (SD=2.4) and the total mean score for the posttest was 7.1(SD=2.3). Reliability results for the present data were reported as Cronbach’s alpha = .94 and is comparable to the standard reliability .95 (total score) of the OSES measure.

**Nontraditional Education Self-Efficacy**

The mean for the present sample of 62 academically able ninth-grade girls on the OSES nontraditional education self-efficacy ranged from 5.91 (SD=3.12) for pretest for the experimental group (n=32) and 4.40 (SD=2.3) for the pretest for the control group (n=30). Posttest scores ranged from 6.9 (SD=2.9) for the experimental group and 6.17(SD=3) for the control group. Appendix D illustrates the mean scores for the experimental and control groups by measure and educational setting. The total means score for the 62 participants for the pretest was 5.18 (SD=2.83) and the total mean score for the posttest was 6.44 (SD=2.9). Reliability results for the present data were reported as Cronbach’s alpha = .94 and is comparable to the standard reliability .95 (total score) of the OSES measure.
Nontraditional job duty self-efficacy

The mean for the present sample of 62 academically able ninth-grade girls on the OSES nontraditional job duty self-efficacy, ranged from 5.62 (SD=3.2) for pretest for the experimental group (n=32) and 4.2 (SD=2.2) for the pretest for the control group (n=30). Posttest scores ranged from 6.19 (SD=2.9) for the experimental group and 5.73 (SD=2.8) for the control group. Appendix D illustrates the mean scores for the experimental and control groups by measure and educational setting. The total means score for the 62 participants for the pretest was 4.94 (SD=2.8) and the total mean score for the posttest was 5.97 (SD=2.8). Reliability results for the present data were reported as Cronbach’s alpha = .94 and is comparable to the standard reliability .95 (total score) of the OSES measure.

Tests of Hypotheses

This study included three dependent measures: self-esteem, locus of control and the career self-efficacy. Results from the ANOVA analyses will be presented and decisions about the nine null hypotheses tested using an alpha level of .05 to determine statistically significant differences.

Self Esteem

The answer to the question of whether the experimental treatment was more effective than the non-treatment control group for self-esteem was determined by using a two (group X school) factor analysis of variance (ANOVA). The results for the ANOVA are presented in Table 4-1.
Table 4-1. Summary Table for Analysis of Variance for the RSE Scale by Group and School (N=62)

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>df</th>
<th>SS</th>
<th>Mean Square</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
<td>1</td>
<td>15.645</td>
<td>15.645</td>
<td>1.767</td>
<td>.19</td>
</tr>
<tr>
<td>School</td>
<td>3</td>
<td>76.194</td>
<td>25.398</td>
<td>2.868</td>
<td>.05</td>
</tr>
<tr>
<td>Group*School</td>
<td>3</td>
<td>108.841</td>
<td>36.280</td>
<td>4.097</td>
<td>.01</td>
</tr>
<tr>
<td>Error</td>
<td>54</td>
<td>478.229</td>
<td>8.856</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The results were employed to test the following hypotheses: HO1: There will be no significant interaction between the treatment group (experimental and control) and schools in self-esteem, measured by the Rosenberg Self-esteem scale. HO2: There will be no significant difference in self-esteem, measured by the Rosenberg Self-Esteem scale, between the experimental and control groups. HO3: There will be no significant difference in self-esteem, measured by the Rosenberg Self-Esteem scale, between the schools. As noted in Table 4-1 the F test for group and school interaction was significant (F=36.280, df=3, P=.01). The F test for main effects for groups was not significant (F=1.767, df=1, P=.19) and the F test for main effects for school was significant (F=2.868, df=3, P=.05).

It is important to note the Levene’s test of equality of error variance was significant at .050 and indicated a violation of homogeneity across groups. To account for the error an additional analysis was necessary. The four original schools were collapsed into two groups: Group one – Newberry and Gainesville High School and Group two – Hawthorne and Santa Fe High School. The schools were paired according to their similarity in mean scores. The results for the ANOVA are presented in Table 4-2.
Table 4-2. Summary Table for Analysis of Variance for the RSE Scale by School (N=62)

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>df</th>
<th>SS</th>
<th>Mean Square</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>School</td>
<td>1</td>
<td>67.808</td>
<td>67.808</td>
<td>6.396</td>
<td>.01</td>
</tr>
<tr>
<td>Error</td>
<td>60</td>
<td>636.128</td>
<td>10.602</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Under the new conditions there was no violation of homogeneity across groups and the F test for the school difference (see Table 4-2) was found to be significant (F=6.39, df=1, P=.01). There was a statistically significant interaction between the treatment group and schools in self-esteem; therefore, the null hypothesis (HO1) was rejected. There were no statistically significant differences in self-esteem between the experimental and control groups; therefore, the null hypothesis (HO2) was not rejected. There were statistically significant differences in self-esteem among schools; therefore, the null hypothesis (HO3) was rejected.

**Locus of Control**

The answer to the question of whether the experimental treatment was more effective than the non-treatment control group for locus of control was determined by using a two (group X school) factor analysis of variance (ANOVA). The results for the ANOVA are presented in Table 4-3.
Table 4-3. Summary Table for Analysis of Variance for the NSLOC Scale by Group and School (N=62)

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>df</th>
<th>SS</th>
<th>Mean Square</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
<td>1</td>
<td>.636</td>
<td>.636</td>
<td>.063</td>
<td>.80</td>
</tr>
<tr>
<td>School</td>
<td>3</td>
<td>5.426</td>
<td>1.809</td>
<td>.179</td>
<td>.91</td>
</tr>
<tr>
<td>Group*School</td>
<td>3</td>
<td>28.773</td>
<td>9.591</td>
<td>.948</td>
<td>.42</td>
</tr>
<tr>
<td>Error</td>
<td>54</td>
<td>546.595</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The results were employed to test the following hypotheses: HO4: There will be no significant interaction between the treatment group (experimental and control) and schools in locus of control, measured by the Nowicki-Strickland Locus of Control Scale for Children. HO5: There will be no significant difference in locus of control, measured by the Nowicki-Strickland Locus of Control Scale for Children, between the experimental and control groups. HO6: There will be no significant difference in locus of control, measured by the Nowicki-Strickland Locus of Control Scale for Children, between schools. As noted in Table 4-3 the F test for group and school interaction was not significant (F=.948, df=3, P=.42). The F test for main effects for groups was not significant (F=.063, df=1, P=.80), and the F test for main effects for schools was not significant (F=.179, df=3, P=.91).

There was a no statistically significant interaction between the treatment group and schools in locus of control; therefore, the null hypothesis (HO4) was not rejected. There was no statistically significant difference in locus of control between the experimental and control groups; therefore, the null hypothesis (HO5) was not rejected. There were no
statistically significant differences in locus of control between schools; therefore, the null hypothesis (HO₆) was not rejected.

Career Self-Efficacy

The OSES can be measured on a full or subscale level. Based on the nature of this study the decision was made to examine the hypotheses using the more detailed subscales in order to gather more specific data. The answer to the question of whether the experimental treatment was more effective than the non-treatment control group career self-efficacy, specifically traditional education was determined by using a two (group X school) factor analysis of variance (ANOVA). The results for the ANOVA are presented in Table 4-4.

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>df</th>
<th>SS</th>
<th>Mean Square</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
<td>1</td>
<td>2.752</td>
<td>2.752</td>
<td>1.119</td>
<td>.30</td>
</tr>
<tr>
<td>School</td>
<td>3</td>
<td>6.691</td>
<td>2.230</td>
<td>.906</td>
<td>.44</td>
</tr>
<tr>
<td>Group*School</td>
<td>3</td>
<td>12.237</td>
<td>4.079</td>
<td>1.658</td>
<td>.19</td>
</tr>
<tr>
<td>Error</td>
<td>54</td>
<td>132.865</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The results were employed to test the following hypotheses: HO₇: There will be no significant interaction between the treatment group (experimental and control) and schools in career self-efficacy, measured by the Occupational Self-efficacy Scale. HO₈: There will be no significant difference in career self-efficacy, measured by the Occupational Self-Efficacy Scale, between the experimental and control groups. HO₉: There will be no significant difference in career self-efficacy, measured by the Occupational Self-Efficacy Scale, between schools. As noted in Table 4-4 the F test for
group and school interaction was not significant \( (F=1.658, df=3, P=.19) \). The \( F \) test for main effects for groups was not significant \( (F=1.119, df=1, P=.30) \) and the \( F \) test for main effects for schools was not significant \( (F=6.691, df=3, P=.44) \).

There was no statistically significant difference in career self-efficacy for traditional education between treatment groups, between the treatment groups (experimental and control) and schools, and there was no significant interaction between treatment groups and schools; therefore, the null hypotheses \( (HO_7, HO_8, HO_9) \) were not rejected.

The answer to the question of whether the experimental treatment was more effective than the non-treatment control group career self-efficacy, specifically traditional job duty performance, was determined by using a two (group X school) factor analysis of variance (ANOVA). The results for the ANOVA are presented in Table 4-5.

Table 4-5. Summary Table for Analysis of Variance for the OSES for Traditional Job Duty by Group and School (N=62)

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>df</th>
<th>SS</th>
<th>Mean Square</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
<td>1</td>
<td>.387</td>
<td>.387</td>
<td>.147</td>
<td>.70</td>
</tr>
<tr>
<td>School</td>
<td>3</td>
<td>3.228</td>
<td>1.076</td>
<td>.408</td>
<td>.75</td>
</tr>
<tr>
<td>Group*School</td>
<td>3</td>
<td>12.913</td>
<td>4.304</td>
<td>1.631</td>
<td>.19</td>
</tr>
<tr>
<td>Error</td>
<td>54</td>
<td>142.523</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The results were employed to test the following hypotheses: \( HO_7 \): There will be no significant interaction between the treatment group (experimental and control) and schools in career self-efficacy, measured by the Occupational Self-efficacy Scale. \( HO_8 \): There will be no significant difference in career self-efficacy, measured by the
Occupational Self-Efficacy Scale, between the experimental and control groups. HO₉: There will be no significant difference in career self-efficacy, measured by the Occupational Self-Efficacy Scale, between schools. As noted in Table 4-5 the F test for group and school interaction was not significant (F=1.631, df=3, P=.19). The F test for main effects for groups was not significant (F=.147, df=1, P=.70) and the F test for main effects for schools was not significant (F=.408, df=3, P=.75).

There was no significant interaction between treatment groups and school, there was no statistically significant difference in career self-efficacy for traditional job duty performance, the between treatment groups (experimental and control) and between schools; therefore, the null hypotheses (HO₇, HO₈, HO₉) were not rejected.

The answer to the question of whether the experimental treatment was more effective than the non-treatment control group for career self-efficacy, specifically nontraditional education, was determined by using a two (group X school) factor analysis of variance (ANOVA). The results for the ANOVA are presented in Table 4-6.

Table 4-6. Summary Table for Analysis of Variance for the OSES for Nontraditional Education by Group and School (N=62)

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>df</th>
<th>SS</th>
<th>Mean Square</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
<td>1</td>
<td>6.872</td>
<td>6.87</td>
<td>3.37</td>
<td>.07</td>
</tr>
<tr>
<td>School</td>
<td>3</td>
<td>26.196</td>
<td>8.73</td>
<td>4.28</td>
<td>.01</td>
</tr>
<tr>
<td>Group*School</td>
<td>3</td>
<td>25.962</td>
<td>8.65</td>
<td>4.24</td>
<td>.01</td>
</tr>
<tr>
<td>Error</td>
<td>54</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The results were employed to test the following hypotheses: HO₇: There will be no significant interaction between the treatment group (experimental and control) and schools in career self-efficacy, measured by the Occupational Self-efficacy Scale. HO₈:
There will be no significant difference in career self-efficacy, measured by the Occupational Self-Efficacy Scale, between the experimental and control groups. HO₀:

There will be no significant difference in career self-efficacy, measured by the Occupational Self-Efficacy Scale, between schools. As noted in Table 4-6 the $F$ test for group and school interaction was significant ($F=4.24$, df=3, $P=.01$). The $F$ test for main effects for groups was not significant ($F=3.37$, df=1, $P=.07$) and the $F$ test for main effects for schools was significant ($F=4.28$, df=3, $P=.01$).

It is important to note the Levene’s test of equality of error variance was significant at .050 and indicated a violation of homogeneity across groups. Additional post hoc analyses were run to determine where the significance occurred. Post hoc comparisons are used to discover where the difference or differences lie when the overall $F$ is significant (Shavelson, 1996). The results from the Games-Howell, Tamhane, Dunnetts T3 and Dunnetts C (all post hoc tests used when groups are unequal) did not reveal significant differences in the multiple comparisons. However, the results from the $F$ test remained the same (see Table 4-6) at all levels. The $F$ test for group and school interaction was significant ($F=4.24$, df=3, $P=.01$) and the main effect for school was significant ($F=4.28$, df=3, $P=.01$). The main effect for groups was not significant ($F=3.37$, df=1, $P=.07$), These results are believed to be due to the unequal variance and the small sample size. The failure to identify difference between specific groups may also be due to the magnitude of the group treatment effect.

There was a statistically significant interaction for career self-efficacy (nontraditional education) between the treatment groups (experimental and control) and schools, and a significant difference between and schools; therefore, the null hypotheses
(HO₇, HO₉) were rejected. There was a no statistically significant difference for career self-efficacy (nontraditional education) between treatment groups; therefore, the null hypothesis (HO₈) was not rejected.

The answer to the question of whether the experimental treatment was more effective than the non-treatment control group for career self-efficacy, specifically nontraditional job duty performance, was determined by using a two (groups X school) factor analysis of variance (ANOVA). The results for the ANOVA are presented in Table 4-7.

Table 4-7. Summary Table for Analysis of Variance for the OSES for Nontraditional Job Duty by Group (N=62)

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>df</th>
<th>SS</th>
<th>Mean Square</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
<td>1</td>
<td>6.872</td>
<td>6.872</td>
<td>3.366</td>
<td>.07</td>
</tr>
<tr>
<td>School</td>
<td>3</td>
<td>26.196</td>
<td>8.732</td>
<td>4.277</td>
<td>.01</td>
</tr>
<tr>
<td>Group*School</td>
<td>3</td>
<td>25.962</td>
<td>8.654</td>
<td>4.239</td>
<td>.01</td>
</tr>
<tr>
<td>Error</td>
<td>54</td>
<td>110.253</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The results were employed to test the following hypotheses: HO₇: There will be no significant interaction between the treatment group (experimental and control) and schools in career self-efficacy, measured by the Occupational Self-efficacy Scale. HO₈: There will be no significant difference in career self-efficacy, measured by the Occupational Self-Efficacy Scale, between the experimental and control groups. HO₉: There will be no significant difference in career self-efficacy, measured by the Occupational Self-Efficacy Scale, between schools. As noted in Table 4-7 the F test for group and school interaction was significant (F=4.239, df=3, P=.01). The F test for main
effects for groups was not-significant (F=3.366, df=1, P=.07) and the F test for school difference was significant (F=4.277, df=3, P=.01)

It is important to note the Levene’s test of equality of error variance was significant at .050 and indicated a violation of homogeneity across groups. Post hoc tests were run to determine where the significance occurred and the Games-Howell, Tamhane, Dunnetts T3 and Dunnetts C post hoc tests were run because of the unequal groups. Results from the Games-Howell are presented in Table 4-8.

<table>
<thead>
<tr>
<th>School</th>
<th>School</th>
<th>Mean Difference</th>
<th>Std. Error</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hawthorne</td>
<td>Newberry</td>
<td>-1.36</td>
<td>.567</td>
<td>.10</td>
</tr>
<tr>
<td></td>
<td>Gainesville</td>
<td>.30</td>
<td>.408</td>
<td>.89</td>
</tr>
<tr>
<td></td>
<td>Santa Fe</td>
<td>-.45</td>
<td>.422</td>
<td>.71</td>
</tr>
<tr>
<td>Newberry</td>
<td>Hawthorne</td>
<td>1.36</td>
<td>.567</td>
<td>.10</td>
</tr>
<tr>
<td></td>
<td>Gainesville</td>
<td>1.65</td>
<td>.574</td>
<td>.03</td>
</tr>
<tr>
<td></td>
<td>Santa Fe</td>
<td>.90</td>
<td>.584</td>
<td>.42</td>
</tr>
<tr>
<td>Gainesville</td>
<td>Hawthorne</td>
<td>-.30</td>
<td>.408</td>
<td>.89</td>
</tr>
<tr>
<td></td>
<td>Newberry</td>
<td>-1.65</td>
<td>.574</td>
<td>.03</td>
</tr>
<tr>
<td></td>
<td>Santa Fe</td>
<td>-.75</td>
<td>.432</td>
<td>.33</td>
</tr>
<tr>
<td>Santa Fe</td>
<td>Hawthorne</td>
<td>.45</td>
<td>.422</td>
<td>.71</td>
</tr>
<tr>
<td></td>
<td>Newberry</td>
<td>-.90</td>
<td>.584</td>
<td>.42</td>
</tr>
<tr>
<td></td>
<td>Gainesville</td>
<td>.75</td>
<td>.432</td>
<td>.33</td>
</tr>
</tbody>
</table>

The results from the Tamhane, Dunnetts T3 and Games-Howell revealed significant differences between Newberry High School and Gainesville High School in the multiple comparisons and the results from the F test presented in Table 4-7 were upheld. The F test for group and school interaction was significant (F=4.239, df=3, P=.01). The F test for main effects for groups was not significant (F=3.366, df=1, P=.07) and the F test for main effects for schools was significant (F=4.277, df=3, P=.01).
There was a statistically significant interaction between treatment groups and schools in career self-efficacy for nontraditional job duty performance and difference between the treatment groups (experimental and control) and schools; therefore, the null hypotheses (HO7, HO9) were rejected. There was no statistically significant difference in career self-efficacy for nontraditional job duty performance between treatment groups; therefore, the null hypothesis (HO8) was not rejected.

Summary

- HO1: There will be no significant interaction between the treatment group (experimental and control) and schools in self-esteem, measured by the Rosenberg Self-Esteem scale.

  There was a statistically significant interaction between the treatment group and schools in self-esteem; therefore, the null hypothesis was rejected.

- HO2: There will be no significant difference in self-esteem, measured by the Rosenberg Self-Esteem scale, between the experimental and control groups.

  There were no statistically significant differences in self-esteem between the experimental and control groups; therefore, the null hypothesis was not rejected.

- HO3: There will be no significant difference in self-esteem, measured by the Rosenberg Self-Esteem scale, between the schools.

  There were statistically significant differences in self-esteem between schools; therefore, the null hypothesis was rejected.

- HO4: There will be no significant interaction between the treatment groups (experimental and control) and schools in locus of control, measured by the Nowicki-Strickland Locus of Control Scale for Children.

  There was no statistically significant interaction between the treatment groups and schools in locus of control; therefore, the null hypothesis was not rejected.

- HO5: There will be no significant difference in locus of control, measured by the Nowicki-Strickland Locus of Control Scale for Children, between the experimental and control groups.
There was no statistically significant difference in locus of control between the experimental and control groups; therefore, the null hypothesis was not rejected.

- **H06**: There will be no significant difference in locus of control, measured by the Nowicki-Strickland Locus of Control Scale for Children, between schools.

There were no statistically significant differences in locus of control between schools; therefore, the null hypothesis was not rejected.

- **H07**: There will be no significant interaction between the treatment group (experimental and control) and schools in career self-efficacy, measured by the Occupational Self-efficacy Scale.

There were no statistically significant interaction between the treatment groups and schools in career self-efficacy for traditional education, traditional job duty performance; therefore, the null hypothesis was not rejected. However, there was a statistical interaction between the treatment groups and two schools for nontraditional education and nontraditional job duty performance; therefore, an alternative null hypothesis was rejected.

- **H08**: There will be no statistically significant difference in career self-efficacy, measured by the Occupational Self-Efficacy Scale, between the experimental and control groups.

There was no statistically significant difference in career self-efficacy for traditional education, traditional job duty performance, nontraditional education and nontraditional job duty performance; therefore, the null hypothesis was not rejected.

- **H09**: There will be no significant difference in career self-efficacy, measured by the Occupational Self-Efficacy Scale, between schools.

There were no statistically significant difference in career self-efficacy for traditional education, traditional job duty performance, therefore, the null hypothesis was rejected. However, there was a statistical difference between two schools for nontraditional education and nontraditional job duty performance; therefore, an alternative the null hypothesis was rejected.
CHAPTER 5
SUMMARY, CONCLUSIONS, LIMITATIONS, IMPLICATIONS, AND RECOMMENDATIONS

The purpose of this study was to determine the effectiveness of a theory-based career counseling unit, delivered through small group counseling and designed to promote the academically able ninth grade participant’s self-esteem, career self-efficacy, and locus of control. Differences between the experimental, control groups, and school setting were examined. All hypotheses were tested at the .05 level of significance.

After the approval from the University of Florida Institutional Review Board and the doctoral committee, the application for research was submitted to the School Board of Alachua County for each high school principal’s approval. The principal researcher was given permission by the Alachua County Supervisor of Guidance Services to recruit school guidance counselors’ assistance at a high school guidance counselors meeting one month before implementation. Of the six high schools in the district, the largest high schools immediately declined the invitation to participate in the study. A second high school, withdrew from the study because of lack of student interest. The following high schools approved and participated the study: Hawthorne High School, Newberry High School, Gainesville High School and Santa Fe High School. All participating school guidance counselors volunteered and attended a one-hour training session conducted by the researcher. Each counselor was given identical presentation manuals and materials.

Two weeks before the beginning of the first session, each participating school guidance counselor sent letters of consent forms to the parents and participants to every
eligible female ninth grade student at their respective schools via classroom teachers. Twelve students from Hawthorne High School, 28 students from Newberry High School, 83 students from Santa Fe High School and 114 students from Gainesville High School met the eligibility requirements of a 2.5 GPA, passed the eighth grade FCAT Reading or Math exams and received an invitation to participate from each participate in the study. Students were asked to return their signed consent forms to the guidance office.

In addition to the general invitation to participate, school guidance counselors randomly identified students from the list of potential participants and personally inviting them to participate in the study and answered questions about the study. Morning and afternoon announcements were used to remind the students to returned their signed forms to the guidance office. After the two-week recruitment period, students who had returned their signed consent forms were then randomly assigned to the experimental and control groups.

Sixty-two ninth grade girls participated in the present study. Twenty-one students (34% of the total) were from Newberry High School, 11 students (18% of the total) were from Hawthorne High School, 16 (26% of the total) were from Gainesville High School, and 14 students (22% of the total) were from Santa Fe High School. There were 32 students in the experimental groups and 30 students in the control groups.

The “Career Counseling for Teenage Girls” unit, a theoretically based career counseling unit, specifically aimed at increasing the participants levels of self-esteem, self-efficacy and locus of control was developed by the principal researcher. The career counseling unit consisted of six sessions and was delivered over a period of three weeks
with each session lasting approximately 50 minutes. Counselors followed the session guidelines and implemented the activities in sequential order as described in the manual.

The experimental group participated in a small group counseling sessions facilitated by a Florida Certified School Guidance Counselor. With the experimental group, counselors initially helped the participants become acquainted, clarified their reasons for being in the group, began building rapport with the students in an introductory activity and administered all the pretest instruments. The following sessions featured activities and discussions that helped participants identify their perceptions about the world of work, levels of self-esteem and locus of control, and build on their knowledge of the careers and future opportunities.

At the end of each session, participants were given the opportunity to practice and/or reinforce what they learned in the session. For example, students were asked to interview a male and female role model in their life and ask questions about their career development. Students also examined their own classroom environments for differences in ways the males and females were treated. In general, each session was aimed at preparing the young women to make informed career decisions about traditional and nontraditional occupations; examined social expectations, gender stereotypes, personal relationships, empowerment and their implications on career choices.

The control group, led by a Florida Certified School Guidance Counselor, completed three Internet exploratory activities. At the end of each session, students provided feedback to the counselor by listing three things they learned in the session. Students in the control group met in the computer labs at their respective schools and the
counselor was available to lead them through the sequence of activities and answer questions.

Before the beginning of the first session, the participating students completed the following pretest measures: the Rosenberg Self-Esteem Scale (RSE), the Occupational Self-Efficacy Scale (OSES), and the Nowicki-Strickland Locus of Control Scale for Children (NSLOC). The intervention lasted for a three-week duration and students met one day per week for two class periods. In order to be considered in the data the students in experimental groups and control groups were required to attend the six, 50-minutes sessions. At the conclusion of the intervention the students completed the Rosenberg Self-Esteem Scale (RSE), the Occupational Self-Efficacy Scale (OSES), and the Nowicki-Strickland Locus of Control Scale for Children (NSLOC) as posttest measures.

**Conclusions and Discussion**

The purpose of this study was to determine the effectiveness of a theory-based career counseling unit, delivered through small group counseling and designed to promote the academically able ninth grade participant’s self-esteem, career self-efficacy, and locus of control. An analysis of variance (ANOVA) was used to test for differences of growth from pretest to posttest between the experimental and control groups, among schools and for interactions between groups and schools. Post hoc tests were run as additional analyses when significance was found on an $F$ test. The alpha level was set at .05 for all tests. The results from the ANOVA were used to answer three research questions.

1. When working with academically able ninth grade girls, who are enrolled in different schools, is it possible to exert a positive influence on their self-esteem by engaging them in a theory-based career development unit?
Three research hypotheses were established for purposes of answering the first research question. HO1: There will be no significant interaction between the treatment group (experimental and control) and schools in self-esteem, measured by the Rosenberg Self-esteem scale. HO2: There will be no significant difference in self-esteem, measured by the Rosenberg Self-Esteem scale, between the experimental and control groups. HO3: There will be no significant difference in self-esteem, measured by the Rosenberg Self-Esteem scale, between the schools.

Results from the ANOVA indicated that there was an interaction effect when the scores from the treatment groups at Newberry and Gainesville High Schools when combined and compared to the combined scores from the students at Hawthorne and Santa Fe High Schools. The combining of scores for schools was necessary because the Levene’s test of equality of error variance was significant, indicating the between group variance was not homogeneous. The students engaged in the theory-based career development unit (experimental group) experienced no main effect for growth in terms of self-esteem as compared to the students who completed the Internet based exploratory activities (control group). In contrast, a difference in scores between schools was observed. Specifically, students at Newberry and Gainesville High Schools experienced more growth in terms of self-esteem as compared to the students at Hawthorne and Santa Fe High Schools. Based on the main effects for school and treatment and school interactions null hypotheses HO1 and HO3 were rejected. Null hypothesis HO2 was not rejected.

Given the results of the hypotheses under certain conditions academically able girls who participated in the experimental group, led by a female guidance counselor, are more
likely to experience an increase in self-esteem. While some members of the control
groups experienced change in self-esteem these changes were not consistent with the
increases of the experimental group at Newberry and Gainesville High Schools.

2. When working with academically able ninth grade girls, who are enrolled in
different schools, is it possible to exert a positive influence on their locus of control
by engaging them in a theory-based career development unit?

Three research hypotheses were established for purposes of answering the second
research question. HO4: There will be no significant interaction between the treatment
group (experimental and control) and schools in locus of control, measured by the
Nowicki-Strickland Locus of Control Scale for Children. HO5: There will be no
significant difference in locus of control, measured by the Nowicki-Strickland Locus of
Control Scale for Children, between the experimental and control groups. HO6: There
will be no significant difference in locus of control, measured by the Nowicki-Strickland
Locus of Control Scale for Children, between schools.

Results from the ANOVA indicated there were no statistically significant
interaction effect in terms of locus of control between the treatment groups and the
schools. There was no significant main effect between the students engaged in the theory-
based career development unit (experimental group) for growth in terms of locus of
control as compared to the students who participated in the Internet exploratory activities
(control group). There were no significant differences for growth in terms of locus
control from students at the four high schools. Null hypotheses HO4, HO5 and HO6 were
not rejected.

Given the results of this study the treatment did not have a positive influence on the
academically able ninth grade girls’ locus of control. One can conclude that the
participants can experience a similar change in locus of control in either treatment group or school. Changes in locus of control were not directly related to the experimental treatment.

3. When working with academically able ninth grade girls, who are enrolled in different schools, is it possible to influence their career self-efficacy by engaging them in a theory-based career development unit?

Three research hypotheses were established for purposes of answering the third research question. HO7: There will be no significant interaction between the treatment group (experimental and control) and schools in career self-efficacy, measured by the Occupational Self-efficacy Scale. HO8: There will be no significant difference in career self-efficacy, measured by the Occupational Self-Efficacy Scale, between the experimental and control groups. HO9: There will be no significant difference in career self-efficacy, measured by the Occupational Self-Efficacy Scale, between schools.

Results from the ANOVA that examined differences for career self-efficacy for traditional education and traditional job duty performance indicated that there were no statistically significant interaction effect between treatment groups and school. Students engaged in a theory-based career development unit (experimental group) experienced no statistically significant main effect for growth in terms of career self-efficacy for mastering traditional education and traditional job duty performance for 20 occupations as compared to the students who participated in the Internet exploratory activities (control group). There were no statistically significant main effects for growth in terms of career self-efficacy for mastering traditional education and traditional job duty performance for 20 occupations from the students at the four high schools. The null hypotheses HO7, HO8 and HO9 were not rejected.
Results from the ANOVA for career self-efficacy for nontraditional education and nontraditional job duty performance indicated that there was a interaction effect between the treatment groups and schools at Newberry and Gainesville High Schools for mastering nontraditional education and nontraditional job duty performance for 20 occupations listed on the OSES. In addition, there was a significant main effect in terms of career self-efficacy for mastering nontraditional education and nontraditional job duty performance for students at the four high schools. The null hypotheses $H_{O7}$ and $H_{O9}$ were rejected.

Students engaged in a theory-based career development unit (experimental group) experienced no statistically significant main effect for growth in terms of career self-efficacy for mastering nontraditional education and nontraditional job duty performance for 20 occupations as compared to the students who participated in the Internet exploratory activities (control group). The null hypothesis $H_{O8}$ was not rejected.

Given the results of the hypotheses under certain conditions when presented with a positive female role model students are more likely to experience a positive change in career self-efficacy in terms of nontraditional education and nontraditional job duty performance. There was no observed difference in terms of career self-efficacy in terms of traditional education and traditional job duty performance between the students in either treatment group or school.

Implications

The theory-based career counseling unit, delivered through small group counseling, was effective in improving experimental group participants’ self-esteem and career self-efficacy particularly in the area of nontraditional education and nontraditional job duty performance when the treatment was delivered by a female guidance counselor. Evidence
of this conclusion is found in the fact that the experimental groups at Newberry and
Gainesville High Schools, both of which were led by a female guidance counselor,
experienced a greater amount of growth than the students at Hawthorne and Santa Fe
High Schools. Several implications can be advanced from the above-mentioned results.

First, the literature suggested that by the time young girls entered high school they
were particularly vulnerable to a decline in self-esteem (AAUW, 1990, 1992; Kleinfeld,
1999; Sadker & Sadker, 1994) and self-efficacy (Betz, 2001; Kraus & Hughey, 1999;
Lapan & Jingeleski, 1992; Sullivan & Mahalik, 2000). Prior researchers suggested that
women continue to struggle with issues related to sex role stereotyping and gender bias
that limit their educational pursuits, career preparation and career decision-making
(Chiwaniak, 1997; Ostling & Urquhart, 1992; Schuster, 1991) as well as the impact
family and parental interactions has on adolescent’s career development (Alliman-
Brissett, 2004; O’Brien, Fiedman, Tipton & Linn, 2000; Rainey and Borders, 1997).
Numerous studies corroborated the notion of female vulnerability and loss of potential
especially in the fields requiring math and science backgrounds (Hollinger, 1985;
Hollinger & Fleming, 1993; Sanders & Peterson, 1999; Trusty, 2002).

By attending to the issues raised in the literature, the female adolescent students
receiving the experimental treatment, one that focused specifically on improving self-
estime and career self-efficacy scored higher than did their counterparts who engaged in
general career development activities. Rooted in Bandura’s model of social learning
(1977) the “Career Counseling for Teenage Girls” unit included specific activities that
engaged the students in performing tasks to increase self-esteem and self-efficacy. For
instance, students examined the ways they receive compliments from others or talked
about their accomplishments. After the discussion, students were instructed to practice
taking credit for their accomplishments and accepting compliments from others for a one-
week period. Students reflected on their experiences through journal writing throughout
the implementation period. The small group sessions were a vehicle for facilitating
students’ vicarious learning and verbal persuasion through encouragement and support
for others in the groups. Students in the small group sessions demonstrated their declining
levels of emotional arousal by examining their personal characteristics, strengthens and
values while increasing self-confidence about their talents and abilities.

The issue of gender bias and sex role stereotyping was addressed by unit activities
that encouraged the girls to examine their current educational and home environments for
ways that male and females were treated differently. Students in the experimental group
discussed the direct and indirect messages that reflect society’s expectations for women.
Similarly, students discussed how these stereotypes are reinforced by teachers who have
different expectations for boys versus girls as mathematics and science learners
(VanLeuvan, 2004). The unit also called for the students to interview their parents about
their career development. Students reflected back on their own experiences and discussed
how others have shaped their beliefs about their abilities and the impact others have
already had on their career aspirations. This was consistent with Ceu Taveira & Moreno
(2003) recommendation of encouraging clients to interview others and pursue activities
that help them deal with their own biases, stereotypes, values and assumptions about the
world of work.

Students in the experimental group also experienced and improvement in self-
esteem and an increased in confidence in expectations of success for nontraditional
education and nontraditional job duty performance. The unit reinforced the ideas presented by prior researchers about the need to increase the young girls perceptions about their abilities in nontraditional fields such as math and science (Betz, 2001; Dads & Daughters, n.d.; VanLeuvan, 2004). Students identified females in the world and their life that had overcome career obstacles and achieved success.

Student reported one activity was particularly helpful in assisting them to prioritize aspects of their life. The card sort activity called for students to stack a set of cards with written phrases on them into three categories: no importance, some importance or great importance based on how important or relevant the phrase was in their own lives. This proved helpful in discussing the ways females must find ways of dealing with multiple roles such as getting married, raising a children and having a career. “Many women find themselves experiencing stress and frustration in attempting to fulfill multiple roles: wife, mother, lover, housekeeper, nurse, provider of transportation, employee, student” (McBride, 1997). This reaction was consistent with the research findings of Miller and Silver (1992) who “found that young women often chose careers in the health professions because they thought that this work would allow them to blend their career and family responsibilities” (as cited in VanLeuvan, 2004).

The results in this study indicated that the experimental treatment was more effective when delivered by a female school guidance counselor. Although, the volunteer guidance counselors had been trained and given a systematic guide for delivering the “Career Counseling of Teenage Girls” unit, the experimental groups at Newberry and Gainesville High Schools, both of which were led by a female guidance counselor, demonstrated the most change. Three possible reasons may explain this unexpected
result. The first is that the female participants responded better to a female school
guidance counselor. The second is that the female school guidance counselor could have
unintentionally introduced experimental bias into the presentation of the sessions because
of shared prospective. The third is the fact that the female guidance counselor, working
with the students at Newberry and Gainesville High School, happened to be the principal
researcher and could have introduced an experimental bias. Considered together these
three points suggest that the principal researcher who is a female guidance counselor may
have inadvertently biased the outcome of the study, even though the results point to a
positive influence on the student’s career development. Alternatively, it could have been
that the participants viewed the female counselor as a role model for their own career
development and responded positively to her interventions. Another alternative
explanation is the possibility of unexamined pre-existing difference between the students
in the rural schools (HHS & SFHS) and urban school (GHS & NHS) settings that may
have contributed to the school interaction effect and group and school main effects.

Programs and foundations such as the Quest Beyond the Pink Collar (n.d.), the
Role Model Project (Women’s Work, 1999), the Sally Ride Science Clubs (Imaginary
Quest, n.d.) actively seek out to create a connection between young girls and professional
women in nontraditional occupation fields. Current research points to a positive effect on
women’s career development, particularly in the math and science fields, when female
role models and mentors are present (McBride, 1997; Warner, n.d.).

Due to limited support from the school district, the principal researcher had to
conduct the two experimental groups. Hawthorne High School had initially decline from
participation however, after the Alachua County Supervisor of Guidance Services discussed the research with the building principal it was agreed that research could be conducted only if the Supervisor of Guidance Services ran the experimental group.

The principal researcher communicated with each counselor every week while he or she was implementing the intervention. Male school guidance counselors led the experimental groups at Hawthorne High School and Santa Fe High School and the principal researcher led the experimental groups at Newberry High School and Gainesville High School. Female school guidance counselors led the control groups at the four participating high schools.

**Limitations**

A number of limitations were encountered when conducting this study. The sample size was reduced by the absence of the two of the three largest high schools in School District of Alachua County and by implementing the study in only one school district. Introducing an additional school district would have enabled the results to be compared to students outside of Alachua County and increased the sample size. The study was limited to female participants who met the inclusion criteria for the study, by broadening the inclusion criteria the potential number of participants would have increased. Student in other academic performance groups would have been given the opportunity to benefit from the study.

Another limitation encountered was by implementing the study at the end of the school year. School guidance counselors and prospective participants could not participate because of scheduling conflict with the Advance Placement (AP) exams and final exams for their academic course work. For example, many of the students at Eastside High school decline the invitation to participate because there were preparing for
their International Baccalaureate exams as well as the AP and final exams. Because school guidance counselors are responsible for the preparation and administration of these end of year exams, the researcher had to conduct two of the experimental treatment groups, possibly introducing the participants to experimental bias. Furthermore, because of time restrictions the researcher did not have the opportunity to observe the experimental and control groups led by the participating Florida certified school counselors. Observations of groups and/or reviewing taped group sessions would have provided the researcher with additional information about the possible differences in the delivery of the intervention.

The “Career Counseling for Teenage Girls” unit had a statistically significant effect in terms of self-esteem and career self-efficacy among participants in the experimental groups that were led by a female guidance counselor. However, it is not possible to identify which activities had the greatest influence on the participants. Having evaluations about the utility of the specific group processes and activities would have allowed the principal researcher to make conclusions about which elements of the intervention were most effective. Likewise, having student evaluations about group leader performance would have been useful in drawing conclusions about the possibility of a female role model effect.

**Recommendations**

The literature suggests that young women can benefit from interventions aimed at improving self-esteem (Street & Isaacs, 1998), career self-efficacy and locus of control (Trusty, 2000). School guidance counselors working with academically able young girls need to encourage females to pursue the most challenging math and science courses.
while in high school (Betz, 1992). Females who take the most rigorous academic subjects improve their chances of completed post secondary education degrees (Betz, 2001).

Over the next ten years, women will be entering the workforce in greater numbers (U.S. Department of Labor, 2001). Young girls need to be prepared for the training necessary to be employed in the higher paying nontraditional fields. Academically able girls are in the best position to compete for the higher paying jobs and need to be prepared to combat the decline in self-esteem, and self-efficacy as she progresses through the school system (AAUW, 2000). Considering this, additional investigations are needed that specifically target the adolescent female’s self-esteem and career self-efficacy.

The literature revealed that young girls are particularly vulnerable to a gender bias and sex role stereotyping (AAUW, 1990, 1992; Sadker & Sadker, 1994). Students with a more internal locus of control experience higher levels of achievement and are engaged in less at-risk behaviors (Mearns, 2003). School guidance counselors can facilitate an increase in self-esteem, career self-efficacy particularly for the nontraditional education and job duty performance by implementing developmental units designed to increase awareness of the effects gender bias, sex role stereotyping and locus of control has on their academic and career aspirations and development. Girls need to identify and overcome obstacles to succeed in their career ambitions and develop the skills necessary to be competitive in the 21st century workplace. Empirical evidence pointing to the effectiveness of career interventions that also reduce at-risk behaviors (King, Vidourek, Davis & McClellan, 2002) both in the academic and personal realms should be the focus of future research.
When possible, future studies should eliminate the researcher from the delivery of the intervention to control for experimental bias effect. Further observations about the impact of the group leader can be made by observing the groups during the implementation of the unit or by taping each session. Furthermore, additional contributing factors on female occupational decision-making such as family influences (Larson, 1995; Schultheiss, Palma, Predroovich & Glasscock, 2002; Young, 1994), parental educational attainment and occupation (Lankard, 1995; O’Brien, Friedman, Tipton & Linn, 2000; Rainey & Borders, 1997), socioeconomic status (Lankard, 1995; Seligman, 1994), and school culture should be taken into consideration and be explored in future studies.

This study was a modest contribution to the research of adolescent females career development. The findings suggest further research into the potential role model effect school counselors have when working with students in developmental small groups counseling interventions. Future investigations should include evaluations of the specific elements of the intervention in order to draw more conclusions about which activities and group processes were most effective. Finally, boarding the inclusion criteria to include students from a variety of academic performance groups would increase the number of potential participants in future studies as well as provide additional information about the effectiveness the “Career Counseling for Teenage Girls” unit.
APPENDIX A
“CAREER COUNSELING FOR TEENAGE GIRLS”: ACTIVITIES

SESSION ONE: “Sex, Dreams & Gender Roles”

GO AROUND ACTIVITY

➢ Say your name and share two things that you have done that make you feel proud.

PROCESSING:

➢ Lead the discussion, allowing the girls to remain in the large group of 10 girls.

Ask questions such as: “How difficult was that for you?” “What made it difficult?” “What made it easy?”

SMALL GROUP ACTIVITY

➢ Name some adjectives that describe what boys are like. How many are true? How many are not?

➢ Name some adjectives that describe what girls are like. How many are true? How many are not?

➢ ‘Starters’ please record your group’s answers.”

PROCESSING:


➢ “How do these messages affect women in the world of work? For example, do bosses expect women to gossip? If a boss is less trusting of women in business, would he be more likely to give a job to a man over a woman?”
➤ Ask: “How was this sharing in the small group different from sharing in the large one? (Possible answers: felt safer, felt less “on the spot”, more comfortable with less attention, didn’t have to speak as loud, less comfortable because you felt more pressure to talk etc.)

PRACTICE:
➤ Try receiving a compliment about your accomplishments in a different way. Respond differently than you usually do. Ask your mother, grandmother, or another woman how they learned to accept compliments.

SESSION TWO: “Women In The World of Work”

ACTIVITY ONE

PARTNER INTERVIEWS
➤ Interviewing a partner, looking at a list of characteristics and (1) Choose three that describe yourself; (2) Choose three that we would like to develop or strengthen. We will then introduce each other to the group, naming one of the characteristics that describes our partner, and one that she would like to develop or strengthen.”

PROCESSING:
➤ Lead a go-around discussion. Ask: What common characteristics did the group share? What steps can you take to bring strengthening a characteristic in yourself? Where did you get the idea a certain characteristic was important?
ACTIVITY TWO

COMPLETE CHARACTERISTIC CHECKLIST

➢ Put ‘M’ beside a characteristic that might be thought of as ‘masculine’.
➢ Put ‘F’ beside a characteristic that might be thought of as ‘feminine’.
➢ Put ‘N’ beside a characteristic that might be thought of as ‘neither’.

COMPLETE BEM’S SEX ROLE STEREOTYPE CHECKLIST

REVIEW TRADITIONAL WOMAN LIST

PRACTICE:

➢ Make observations of people whom you know this week. Keep a journal to record your thoughts and observations, such as: “Is there a difference between how the girls and boys are treated differently in your classes, in your schools, in your home?”

➢ Interview one (1) male and (1) one female role model in your life. Find out how things have changed and how things are the same for men/women growing up. How are the messages about men/ women different and the same? How have opportunities changed and stayed the same in terms of education and the world of work?

SESSION THREE: “Who Are Your Heroes”

SMALL GROUP ACTIVITY

Divide the girls into two groups of five. Allow 5-10 minutes for the group to write and share.

➢ Three names of living people who will make decisions that will have a great impact on the world.
The name of someone whom you admire.

The name of someone who has had a great influence on your life.”

PROCESSING:
Allow individuals to go-around to share the names with the large group. Ask:

- How many were male?”
- How many were female?
- What were some characteristics of these women who were really today’s pioneers?
- Who were the people whom you admire and why?
- Who were the people who have had a great impact on your life?

PRACTICE:
Continue recording in journal your thoughts and observations, such as:

- If you were married, would you support your husband if he wanted to be the homemaker?
- If you decided to remain single, what would your friends and family think of you choosing a non-traditional (male dominated) career?
- What are the differences in both parents’ working, either with or without children?
- What are the difficulties of being single (unmarried/widowed/divorced) with a family and working?

SESSION FOUR: “What a Girl Wants”

GO AROUND ACTIVITY

Lead a go-around discussion and allow each girl to share. Ask:
How were the experiences of the people you interviewed this past week different and the same from your career opportunities?

What recommendations did they make to you today in order to be a success?"

Explore student observations about these positive and negative messages.

What were some of the things you picked up?

What kind of reaction did you have towards the message, or the person/people sending the message?

Were your feelings positive or negative?"

Examine the meaning and influence of Positive and Negative words and behaviors.

Lead a discussion in which the group talks about times when they have had negative thoughts and when they have had positive thoughts. How were these related to actions? Success?

PLAY THE CARD GAME: CHALLENGE ME

PROCESSING:

Discuss the girls’ reactions to the game, looking for attitudes about competition, winning, challenging, etc. Ask:

Can negative statements be used as a motivator?

Can positive statements make a person seem like they are bragging or having false confidence. What’s the difference?

How are negative and positive statements, such as those on the cards, related to success in the world of work?

Getting a job? Going to college? Being successful in school?
PRACTICE:

1. Notice the next time you are around someone who is having difficulty with a task
   or a goal. Do they say, “I can’t”? What do they say to justify their “I can’ts”?

2. Ask someone who you admire about a difficult time or a time when they were
tempted to give up on a dream or goal that they had. Ask what kinds of things
they told themselves.

SESSION FIVE: “Becoming the Girl of Your Dreams”

COMPLETE THE CAREER-O-GRAM HANDOUT

Lead a discussion, allowing the girls to remain in the large group. Ask:

- What kinds of themes are present in your career-o-gram?
- Who in your life has had a considerable influence on your choices?
- How do these people or influences affect your daily life today?
- What messages did you receive about your career ambition?
- Were their particular events or specific things going on in your life when you
  made this choice?
- Was your initial career ambition similar to that of the traditional women?
- How powerful or capable did you consider yourself in making a career decision?

PROCESSING:

Ask:

- What did you learn about yourself today?
- How relevant are these experiences for you now?
- How much in control do you feel today about your life and your career choices
  now?
PRACTICE

Name at least two career interests.

➢ List as many people you know who are currently in that position. Are they mostly male or female?

➢ Write down the characteristics you feel are necessary for attaining that position.

SESSION SIX: “Setting Your Sights on the Future”

CARD SORT ACTIVITY

➢ Students will stack each of the cards into three categories: no importance, some importance or great importance.

PROCESSING:

In a large group, ask:

➢ How difficult was it for you to sort the cards?

➢ What did you find was most important to you?

➢ How difficult or easy will it be for you to make it a reality?

➢ How much control do you have over achieving your most important item?

➢ What sacrifices will you have to make?

➢ What obstacles will you have to overcome?

➢ What was least important for you?”

GUIDED IMAGERY ACTIVITY

After reading the guided imagery handout have students write down a headline or slogan for what they envision their life will be like in five years.
Card Sort

1. Working with people.
2. Working with data.
3. Working with things.
4. Living in a house.
5. Living in an apartment.
7. Living with parents.
8. Getting married.
9. Remaining single.
11. Having no children.
12. Learning a trade.
13. Going to a four-year college.
14. Going to a two-year community college.
15. Going to graduate school.
16. Working in a large company.
17. Working in a small company.
20. Living near family.
21. Living away from family.
22. Owning a boat.
23. Owning an expensive car.
24. Owning an affordable car.
25. Living near a beach.
26. Living in a big city.
27. Living in a small town.
28. Traveling.
29. Working with children.
30. Working with adults.
31. Working with animals.
32. Staying at home to raise children.
33. Supervising others.
34. Working independently.
35. Collaborating with others on projects.
36. Working to meet deadlines.
37. Working without deadlines.
38. Having a fast paced job.
39. Having a slow paced job.
40. Working from home.
41. Working in an office.
42. Working outdoors.
43. Willing to work long hours.
44. Working a 9-5 job.
45. Setting your own schedule.
Guided Imagery

I would like you to close your eyes. Just be aware of your body. Forget about what’s been going on around you...just think about what’s going on inside of you. Think about your breathing...feel the air move in through your nose and mouth, down into your chest-imagine your breathing is like gentle waves lapping on the shore...As each wave rolls in, the more relaxed you feel.

Think about your right arm. Feel it getting heavier and heavier...Feel the heaviness go all the way down the arm, down to your fingertips...Think about your left arm...Feel it getting heavier and heavier...Feel the heaviness go all the way down the arm, down to your fingertips...Think about your legs...Feel it getting heavier and heavier...Feel the heaviness go down, down into your feet. Feel your body relaxing and feeling heavy...

Be aware of your thoughts and the images in your mind...look at them (pause)...now put them into a glass jar and watch them...(PAUSE) examine them. As more thoughts and images come into your mind, put them into the jar too...Find out what you can learn about them...Now take the jar and pour out the thoughts and images; watch as they spill out and disappear (PAUSE)...the jar is empty (PAUSE)

Now, you are walking down a long hallway. Towards the end, you see a frame hanging on the wall...stop, look and enjoy it. (PAUSE) The image leaves you feeling a strong sense of peace and well being flowing through you. Enjoy these positive feeling. You move to the end of the hall and look out a window. The rushing sound of the wind blowing outside is so soothing, allowing you to let go. Take a deep breathe and smell the rich aromas filling the air around you and as you look towards the bright blue sky you
can feel the warmth of the sun touching your face. Outside you can see the intricate patterns of lights as the sun casts its shadows on the earth below. You are filled with a sense of purpose, direction and reverence for all living things.

You turn away from the window, walk back down the hallway…look in front of you and see the soft, comfortable chair go ahead and sit down in it. As you let yourself sink into the comfortable chair take in a deep breath of fresh air and breathe out, finding the subtle smells in the air. Let go of any strains or concerns…allowing the sights, sounds, and smells of this beautiful morning to fill you with a deep sense of peace. (PAUSE) Open your eyes.
APPENDIX B
OVERVIEW: SESSIONS ONE – SIX

Career Counseling for Teenage Girls
A Systematic Guidance Unit

SESSION ONE: “Sex, Dreams & Gender Roles”

Objectives:
- Introduce the unit.
- Students will identify the realities behind sex role stereotyping in career development.
- Students will identify sources of stereotypes and possible obstacles.

SESSION TWO: “Women In The World of Work”

Objectives:
- Students will identify messages that affect career success and choices.
- Students will identify impact of sex role stereotyping in the world of work.

SESSION THREE: “Who Are Your Heroes”

Objectives:
- Students will identify females who have overcome career obstacles.
- Students will identify characteristics necessary to overcome career obstacles.

SESSION FOUR: “What a Girl Wants”

Objectives:
- Students will identify the impact of sex role stereotyping in present life.
- Students will describe the relationship between positive and negative ideas and success in careers.
SESSION FIVE: “Becoming the Girl of Your Dreams”

OBJECTIVES:
- Students will identify relationships that have had an influence on their lives.
- Students will identify the positive and negative messages that have shaped their career interests.

SESSION SIX: “Setting Your Sights on the Future”

OBJECTIVES:
- Students will analyze their own values, abilities, interests and goals.
SESSION ONE: “Sex, Dreams & Gender Roles”

OBJECTIVES:
- Introduce the unit.
- Students will identify the realities behind sex role stereotyping in career development.
- Students will identify sources of stereotypes and possible obstacles.

MATERIALS:
- Notebook paper
- Pencils or pens

PROCEDURES:

Begin by saying:

“This is the first of six sessions that we are going to have together. We will be looking at some important issues facing young women in our society. Some of these concerns will be new to you others will be familiar. However, it’s time to take a look at these issues in a new way, and examine the way they affect us and what we can do about them.”

“We will come together once a week in this same small group to share our ideas, opinions and learn some existing facts about the world of work. In each of our sessions, we will observe the rules of confidentiality. Let me explain. Everything we share in our group will stay in stay in our group. However, if you share that you are being hurt by someone or hurting yourself then I will have to share that information with someone outside our group. Any questions?”

“Now let’s begin. Today there are women entering the work force more than ever before. Women have more educational and career opportunities and can earn more and achieve more than previous generations. There are more choices and decisions to make. In this session, we will learn and discuss some things to make those choices more available.”

“Let’s start by getting to know each other. Take a moment and think of at least two things that you have done that makes you feel proud of yourself. PAUSE for a minute.

Then say:

“Would someone like to start by telling our group your name and two things that you have done that has made you feel proud.”
Allow time for the girls to go around individually, say their name and share their two things.

PROCESSING:

Lead the discussion, allowing the girls to remain in the large group of 10 girls.

Ask questions such as: “How difficult was that for you?” “What made it difficult?” “What made it easy?”

Possible reasons might be: Fear of rejection (being laughed at) or shyness, fear of others’ reactions such as jealously, snubbing, one-upping, taunts, fear of going against the “traditional”, fear of appearing too eager. Accept any contribution.

Continue by saying:

“Did you know that: One way boys and girls have been found to differ is the things they do. Some research shows that girls and women are more likely to respond to a compliment about their accomplishments with something like: ‘Oh, it was just luck’, or ‘I had a lot of help’ or ‘You’d have done much better’. ‘Boys and men are more likely to respond with, ‘Thank you’ or ‘I worked hard on that’, or ‘I was pleased with those results.’ “In fact, as late as 1993, some research showed that boys tended to talk more about their accomplishments than girls”.

Ask: Is this true for you? Would someone like to share your experience with the group?

“Now, let’s move into two smaller groups to discuss your own ideas further.”

1. Divide the group into two equal groups of five girls. Position the groups into two semi-circles, facing the front of the room.
2. One member in each semi-circle group, perhaps the person on the far right, is designated as the “Starter”. When requested, the starter moves her chair in order to open or close the group. This person starts a group task by sharing ideas first in a “go around”,
3. Starters can be appointed or alternated; however, she should open or close the group quickly and with the least amount of disruption.

Say: “Here are your directions: For the next five minutes…

1. Name some adjectives that describe what boys are like. How many are true? How many are not?
2. Name some adjectives that describe what girls are like. How many are true? How many are not?
3. ‘Starters’ please record your group’s answers.”
Allow time for the girls to write down their responses.

Direct the girls to turn their desks to form the large group again. The starters need only turn their desks to face the front.

Lead a discussion.

Ask: “How do the labels and messages that boys and girls receive affect self-esteem? Achievement? Feelings of control? Expectations of success? How do these messages affect choice of career?” (Possible answers: Conflict between wishes for growth and the messages, self-doubt, fear of success, etc.)

“How do these messages affect women in the world of work? For example, do bosses expect women to gossip? If a boss is less trusting of women in business, would he be more likely to give a job to a man over a woman?”

“Did you know that completing one high school mathematics course beyond the Algebra II level more than doubled the likelihood that college students would complete the bachelor's degree (Trusty, 2002). Yet, young women are still not signing up for higher-level math and science courses? Why do you think this is true? What are some of the obstacles for girls in these courses?

Say: “During the course of this unit, we will explore the ways messages like these affect the lives of women.

Ask: “How was this sharing in the small group different from sharing in the large one? (Possible answers: felt safer, felt less “on the spot”, more comfortable with less attention, didn’t have to speak as loud, less comfortable because you felt more pressure to talk etc.)

CLOSURE:

“A lot of thoughts about ourselves are learned through our experiences with others. They are given to us by influences outside of ourselves. Today we learned that boys and girls often get different messages about self-esteem, achievement, and success.” These messages can come from peers, families, school, society and us.

“One thing to realize from this is that some of these differences have also made their way into the world of work. Some of the messages may be true, some not. The more we become aware of those messages, the more we are able to pick and choose which ones we want to listen to and which ones we do not. Messages come to girls about education and careers. This unit is about messages.”
PRACTICE:

Try receiving a compliment about your accomplishments in a different way. Respond differently than you usually do. Ask your mother, grandmother, or another woman how they learned to accept compliments.

SESSION TWO: “Women In The World of Work”

ACTIVITY ONE

OBJECTIVES:
- Students will identify messages that affect career success and choices.
- Students will identify impact of sex role stereotyping in the world of work.

MATERIALS:
- Handouts – Characteristics Checklist (included at the end of the session)
- Pencils or pens

PROCEDURES:

Pass out the “Characteristic Checklist”.

Begin by saying:

“In the last session we discussed some of the messages that can affect how boys and girls feel about themselves and success. Some of the messages are true, and some are not. We found that those messages also have made their way into the world of work.”

“Now we will explore expectations for women in the past in and in the present. We will do this activity in pairs. We will begin by interviewing a partner, looking at a list of characteristics and (1) Choose three that describe yourself; (2) Choose three that we would like to develop or strengthen. We will then introduce each other to the group, naming one of the characteristics that describes our partner, and one that she would like to develop or strengthen.”

➢ Divide the group into pairs by numbering off (1, 2…1,2…etc.). Allow 10 minutes for the girls to get to know each other and to complete the interviews.

PROCESSING:

Meet back in the large circle and do a go-around to allow each girl to introduce her partner and tell the two characteristics.

Ask: What common characteristics did the group share? What steps can you take to bring strengthening a characteristic in yourself? Where did you get the idea a certain characteristic was important?
CLOSURE:

Say: “We have seen a list of characteristics and realized that there are many traits that are necessary and useful both in daily life and in the world of work. If we don’t feel we have a necessary trait, then we can begin to develop needed strengths.”

ACTIVITY TWO

OBJECTIVES:

- Students will identify messages that affect career success and choices.
- Students will identify impact of sex role stereotyping in the world of work.

MATERIALS:

Handouts – Bem Sex Role Stereotype Checklist, The Traditional Woman (included at the end of the session)

PROCEDURE:

Say to the large group:

“Now we will discuss ways boys and girls differ in school, sports, clubs, friendships, and family life. We know that we can’t speak for all boys. That would be a stereotype in itself. Let’s do a go-around to bring up some of the ways you have observed.”

Call on someone to begin. Allow time for everyone to share.

Next, lead an exploration of sex role stereotypes.

Say:

“Look at the Characteristic Checklist. In 1972, Sandra Bem did research to determine which characteristics boys and girls thought of as masculine and which as feminine. Let’s play with this list and see what we can come up with.

1. Put ‘M’ beside a characteristic that might be thought of as ‘masculine’.
2. Put ‘F’ beside a characteristic that might be thought of as ‘feminine’.
3. Put ‘N’ beside a characteristic that might be thought of as ‘neither’.

“These are not necessarily what you believe are masculine, etc., but the way you feel MOST people would classify them.”

Allow 5-10 minutes.
Say:

“Now I will pass out the list that Sandra Bem came up with, the Bem Sex Role Stereotype Checklist, and the more recent, ‘Traditional Woman List’.” Compare your list with the other two. “How did the changes come about? How widespread are the changes? Who would ascribe to them today?”

“Are the traits learned or inborn?” For example, if you wanted to become a leader, or become more reliable, what might you do?” “How have the stereotypes affected women’s career choices and preparations?”

CLOSURE:

Say:

“Later research found that individuals high in both masculine and feminine traits had higher self-esteem and achievement. It is true that options are changing for females in career preparation and in choosing careers once only open to men.”

“However, here’s what is true schools” (1994):

1. Teachers tend to call on boys more than girls.
2. Teachers tend to help boys reason through operating everything from stapler to computers. They tend to do-it-for girls.
3. Teachers tend to give .9 seconds for a response before they go on to the next student or answer the questions themselves. This has been found to limit students, especially girls in math and science classes, where they are already often a minority and feeling unsure.
4. In classes in which the atmosphere is competitive rather than cooperative, or ones in which mistakes are not seen as “okay”, asking questions can be very risky. Girls often feel stress and stop asking questions.
5. Sexual harassment and discrimination by male peers often sets a tone that says boys are dominant and more important, and girls suffer in self-esteem and achievement.
6. Boys’ responses in class are more often questioned and probed to get them to think more. Girls are more often told, “Good”, “Great”, or “Uh-huh”, or their responses are not commented upon at all.”

Ask: How does this research compare to your own experience? What have you noticed about your own classrooms and school? What reasons do you think could explain for the differences between the boys and girls?

PRACTICE:

Make observations of people whom you know this week. Keep a journal to record your thoughts and observations, such as: “Is there a difference between how the girls and boys are treated differently in your classes, in your schools, in your home?”
Interview one (1) male and (1) one female role model in your life. Find out how things have changed and how things are the same for men/women growing up. How are the messages about men/women different and the same? How have opportunities changed and stayed the same in terms of education and the world of work?

### CHARACTERISTIC CHECKLIST

- Self-reliant
- Yielding
- Helpful
- Defends own beliefs
- Cheerful
- Moody
- Independent
- Shy
- Conscientious
- Athletic
- Affectionate
- Theatrical
- Assertive
- Flatterable
- Happy
- Strong personality
- Loyal
- Unpredictable
- Forceful
- Feminine
- Reliable
- Analytical
- Sympathetic
- Jealous
- Has leadership abilities
- Sensitive to other’s needs
- Truthful
- Willing to take risks
- Understanding
- Secretive

- Makes decisions easily
- Compassionate
- Sincere
- Self-sufficient
- Eager to soothe hurt feelings
- Conceited
- Dominant
- Soft-spoken
- Likable
- Masculine
- Warm
- Solemn
- Willing to take a stand
- Tender
- Friendly
- Aggressive
- Gullible
- Inefficient
- Acts as a leader
- Childlike
- Adaptable
- Individualistic
- Does not use harsh language
- Unsystematic
- Competitive
- Loves children
- Tactful
- Ambitious
- Gentle
- Conventional

Source: Bem Sex Role Inventory (Bem & Bem, 1972)
## SEX ROLE STEREOTYPE CHARACTERISTIC LIST

<table>
<thead>
<tr>
<th>Masculine</th>
<th>Feminine</th>
<th>Neutral</th>
</tr>
</thead>
<tbody>
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<td>Conventional</td>
</tr>
</tbody>
</table>

Source: Bem Sex Role Inventory (Bem & Bem, 1972)
THE TRADITIONAL WOMAN

1. Depends on someone else for her primary sense of security
2. Tries to please at all times
3. Tries to avoid all arguments
4. Needs external approval to maintain a sense of worth
5. Tries to maintain harmony at all costs
6. Cannot express anger easily, if at all
7. Can be extremely skilled and competent, but tends to discredit herself
8. Has feelings of guilt which are quickly and often aroused
9. Is quick to assume blame
10. Is other-centered
11. Expresses opinion apologetically
12. Places her own needs second to those of family and others
13. Is nonassertive in many respects
14. Can meet many of her own needs only covertly and deviously
15. Hesitates to accept leadership roles, but will work behind the scenes.

SESSION THREE:  “Who Are Your Heroes”

OBJECTIVES:

- Students will identify females who have overcome career obstacles.
- Students will identify characteristics necessary to overcome career obstacles.

MATERIALS:

- Notebook paper
- Pencils or pens

PROCEDURES:

Say:

“In the last two sessions we learned that girls receive messages that can work against them to achieve success in school and careers. The messages, the options open to women, and the amount of success is changing today. In this session we will learn about models for our own success”.

Then say:

“Think of someone whom you admire. It may be someone you know or have read about, seen on television, or heard about.”

“Write down:

1. Three names of living people who will make decisions that will have a great impact on the world.
2. The name of someone whom you admire.
3. The name of someone who has had a great influence on your life.”

Divide the girls into two groups of five. Allow 5-10 minutes for the group to write and share.

Say:

“Please stop and come together as a large group.” PAUSE.

PROCESSING:

Say:

“Look at your three people. Let’s take a count. Raise your hands. How many were male?” (PAUSE.) “How many were female? (PAUSE.)

Allow individuals to go-around to share the names with the large group.
Then say:

“What were some characteristics of these women who were really today’s pioneers?” (Possible answers might be: Courage, planning, working for a goal, believing in themselves, not letting other discourage them, education, etc.)

“What were the people whom you admire and why?”

Allow the girls to share.

“What were the people who have had a great impact on your life?

Allow the girls to share.

CLOSURE:

Say:

“The women we have named here are all women who have succeed in spite of the messages that were sent to them as children and as young women. The characteristics that they showed allowed them to take control of their lives and achieve at unexpected levels. They made it happen! Young women today do not have to be traditional. The way is open to you today to achieve your dreams.”

PRACTICE:

Continue recording in journal your thoughts and observations, such as:

1. If you were married, would you support your husband if he wanted to be the homemaker?
2. If you decided to remain single, what would your friends and family think of you choosing a non-traditional (male dominated) career?
3. What are the differences in both parents’ working, either with or without children?
4. What are the difficulties of being single (unmarried/widowed/divorced) with a family and working?

SESSION FOUR: “What a Girl Wants”

OBJECTIVES:
- Students will identify the impact of sex role stereotyping in present life.
- Students will describe the relationship between positive and negative ideas and success in careers.

MATERIALS:
- Negative and Positive Posters (included at the end of the session)
- Challenge Me- A card game (included at the end of the session)

PROCEDURES:

Begin by saying to the whole group:

“In our previous sessions we have identified messages that women receive from society, peers, and families about how they are supposed to feel, thing, and act. We also discovered that if we become aware of these influences, then we can decide how to respond. We have seen that many women have succeeded. Sometimes the messages are positive and sometimes they are negative.”

Then say:

“Let’s hear what your interviewee had to share about their experiences going up. How were their experiences different and the same? What recommendations did they make to you today in order to be a success?”

Lead a go-around discussion and allow each girl to share.

Say:

“The messages we receive from our families and society can have a great impact on the choices we make. These messages can be found in magazines, on TV, in movies and in conversations with our parents, peers and friends.” “For the past week, you have been recording your observations about these messages. What were some of the things you picked up? What kind of reaction did you have towards the message, or the person/people sending the message? Were your feelings positive or negative?”

Call on someone to begin. Allow time for everyone who wants to share.

Say:

“Now we will explore how negative and positive thinking affects success. What we think and say can influence how we act. If we say positive things to ourselves, for example, it tends to help us succeed. When we say negative things, we often set
ourselves up for failure and have greater negative results.” “Let’s look at the meaning of
the words ‘positive’ and ‘negative’ (Show posters). By ‘negative’, we mean statements
or thoughts that blame, that express self-doubt, or say that the results are due to luck. By
positive, we mean statements or thoughts that take responsibility, express expectations of
success, and encourage the taking of control. Let’s think of some examples.”

Next: Lead a discussion in which the group talks about times when they have had
negative thoughts and when they have had positive thoughts. How were these related to
actions? Success?

➢ Divide the participants into pairs. Play the card game, Challenge Me. Pass out
the deck of cards to each pair and read the directions:

“The object of the game is to learn to identify statements that are positive and that
put you in control of your life, as well as identifying negatives in which you give your
power away. You win the game by having the most cards when I call, ‘Time!’”

“One of you will deal the cards. There are 20 cards in each deck, so each of you
will be dealt 10 cards face down. Arrange them in one pile or stack in front of you.
Players turn the top card from their piles at the same time and read aloud the statements,
placing them face up. One card is challenging the other. Players decide whether the
statements are negative or positive. The winner is the one with the positive statement
card, who then collects the other player’s negative card. Play continues until all cards
have been turned and a winner determined by who has won the most challenge cards.”

“If both cards are the same (e.g., two negatives), then play continues and the next
turn of the cards determines who wins the tie. If players disagree about whether a
statement is negative or positive, they consult the group leader who refers to the master
list of statements. Any questions? Begin play.”

➢ Move about and help answer questions, using the master list as a reference, and
encourage the fun of the game. Allow about ten minutes, then call “Time!”

PROCESSING:

Discuss the girls’ reactions to the game, looking for attitudes about competition, winning,
challenging, etc. Clarify any statements that may have been challenging. Give additional
examples, relating the negative and lack of control in a situation to chances of success.

Allow ten minutes for discussion.

Ask:

“Can negative statements be used as a motivator? Can positive statements make a
person seem like they are bragging or having false confidence. What’s the difference?
How are negative and positive statements, such as those on the cards, related to success in the world of work? Getting a job? Going to college? Being successful in school?”

CLOSURE:

Say:

“Negative and positive statements can influence success in many places. Taking responsibility, being self-confident, and taking more control in one’s situation and life often leads to more success. Blaming others, relying on luck, and ignoring choices, contributes to failures in school, home, and the world of work.”

PRACTICE:

3. Notice the next time you are around someone who is having difficulty with a task or a goal. Do they say, “I can’t”? What do they say to justify their “I can’ts”?
4. Ask someone who you admire about a difficult time or a time when they were tempted to give up on a dream or goal that they had. Ask what kinds of things they told themselves.

NEGATIVE Statements or thoughts that:

- BLAME
- EXPRESS SELF-DOUBT
- SAY THAT RESULTS ARE DUE TO LUCK
- NEGATIVE JUDGEMENTS
POSITIVE

Statements or thoughts that:

- **TAKE RESPONSIBILITY**
- **EXPRESS EXPECTATIONS OF SUCCESS**
- **ENCOURAGE TAKING CONTROL**
CHALLENGE ME – A Card Game

STATEMENTS:

Even numbers are positive. (Taking control.)

Odd numbers are negative. (Giving away power.)

1. I would have become supervisor, but my boss has a hang-up about women.

2. I didn’t get the job because I didn’t let my boss really know that I could do the job.

3. He keeps sexually harassing me because he is a sexist pig.

4. He harasses me. I’ve been shy about confronting him.

5. That company doesn’t understand women.

6. If I worked for that company I know I would need to be assertive.

7. You can’t get into engineering, that’s a man’s field.

8. If I went into engineering, I would have to have good skills in math.

9. No matter what a woman does, men are going to get the top jobs.

10. Men might have an edge, but there are many things women can do to prepare and be qualified.

11. I feel I won’t have much to say about what I am paid.

12. Working hard and doing the best job can determine what I am paid.

13. If doesn’t make any difference about effort, you get paid what your boss want to pay you.

14. If I learn to negotiate well, I can get what I deserve in terms of salary and benefits.

15. Sometimes you just have to put up with a bunch of people you don’t like.
16. Buy doing a good job, people will respect my work. We do not have to become good friends.

17. It’s useless to try to get my way on a job.

18. If I am assertive and work hard, I will succeed at my job.

19. It doesn’t make a difference. Most kids are born to have certain kinds of jobs.

20. If I plan well, get the proper training, and work hard, I can succeed in my chosen area of work.

21. I probably would get better grades if I hung around with other people.

22. I probably would get better grades if I managed my time better.

23. I don’t care that I didn’t get that job, it’s only for “Dumb and Dumbers”, anyway.

24. If I had submitted a better resume, I would have gotten that job.
SESSION FIVE: “Becoming the Girl of Your Dreams”

OBJECTIVES:
- Students will identify relationships that have had an influence on their lives.
- Students will identify the positive and negative messages that have shaped their career interests.

MATERIALS:
- Career-O-Gram Handout (included at the end of the session)
- Pencils or pens

PROCEDURES:

Begin by saying:

“In the last session we learned how our messages to ourselves can influence success. Negative and positive statements can influence success, especially if they influence the actions we take.” Let’s see how these influences have already begun to share your career interests.

Distribute the Career-O-Gram handout.

Say:

“I am now going to ask you a series of questions intended to help you recall some memories in your life. After each question, I will give you about a minute to think about my questions. There are no right or wrong answers.”

“In the first box, list six adults in your life that you feel have had an impact and their current occupation. In the second box, list five important events you have experienced. In the third box, write down four values you feel are most important.

“For the remaining boxes I am going to ask you to draw symbols of your choice that reflect your own experience. Begin by drawing a symbol that reflects your earliest career ambition. Now write down your age when you developed this goal. Next, place the initials of any important person who encouraged or discouraged you in this pursuit. Now, put down any symbol(s) that reflect the aspects of this career that most appealed to you. Write down a number from 1-10 (ten being the greatest, one being the least) that represents your chances of obtaining this position. Next, draw a symbol depicting what you have to do to attain this goal. Finally, draw a symbol that reflects a reason why this goal has stayed the same or has chanced for you.”

Lead a discussion, allowing the girls to remain in the large group.
Ask:

What kinds of themes are present in your career-o-gram? “Who in your life has had a considerable influence on your choices? How do these people or influences affect your daily life today?

What messages did you receive about your career ambition? Were their particular events or specific things going on in your life when you made this choice? Was your initial career ambition similar to that of the traditional women? How powerful or capable did you consider yourself in making a career decision?

PROCESSING:

Ask:

What did you learn about yourself today? How relevant are these experiences for you now? How much in control do you feel today about your life and your career choices now?

CLOSURE:

Say:

“Everyday experiences shape the way we view ourselves and the world. The messages we receive and the influences people have on our lives change the way we perceive our own abilities and goals. The more we learn about ourselves the better we are able to make choices that lead to our success. The more committed we are towards our goals the harder it is to fail. Being committed to a goal and taking control of our actions can help us in the world of work.

PRACTICE:

1. Name at least two career interests.
2. List as many people you know who are currently in that position. Are they mostly male or female?
3. Write down the characteristics you feel are necessary for attaining that position.
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SESSION SIX: “Setting Your Sights on the Future”

OBJECTIVES:
- Students will analyze their values, abilities, interests and goals.

MATERIALS:
  - Card Sorts (included at the end of the session)
  - Guided Imagery (included at the end of the session)

PROCEDURES:

“In our final session, we will explore more about our strengths and values, possible career interests and goals. We have spent the past three weeks exploring the influences in our lives. Now we are going to focus on categorizing things that you feel are important or relevant not just in the world around you but in your own life.”

Divide the group into pairs by numbering off (1, 2,…1, 2,…etc.). Distribute each pair a set of cards to sort.

Then say:

Each pair has just received a set of cards. Each card has a phrase written on it. For the next five minutes, one of you will stack each of the cards into three categories: no importance, some importance or great importance. When I call time, you will switch with your partner and give her a chance.

Call time after 5 minutes and allow the girls to switch. Move about the room clarifying any of the cards.

PROCESSING:

Direct the girls to come together in a large group.

Ask: “How difficult was it for you to sort the cards? What did you find was most important to you? How difficult or easy will it be for you to make it a reality? How much control do you have over achieving your most important item? What sacrifices will you have to make? What obstacles will you have to overcome? What was least important for you?”

Say:

We are almost to the end of our time together. For our final activity, I am going to ask you to image in your life in six years. When I tell you, you will close your eyes
and I take you on a journey into your imagination. When we are through, I am going to ask you to write down a headline or slogan for what you envision you will become.

Read the guided imagery. Afterwards, allow the girls about 5 minutes to think and write down their headline or slogan then invite the girls to share their headlines or slogans with the group.

CLOSURE:

In this unit, we learned about ourselves and the world of work. We learned about messages and how our feelings and action can help us when we decide whether to accept the messages society gives us or reject them. We learned about our strengths and areas we can improve and develop. We learned that we can and will be successful and we are better prepared to take charge of your lives and achieve our career objectives.
Card Sort

1. Working with people.
2. Working with data.
3. Working with things.
4. Living in a house.
5. Living in an apartment.
7. Living with parents.
8. Getting married.
9. Remaining single.
11. Having no children.
12. Learning a trade.
13. Going to a four-year college.
14. Going to a two-year community college.
15. Going to graduate school.
16. Working in a large company.
17. Working in a small company.
20. Living near family.
21. Living away from family.
22. Owning a boat.
23. Owning an expensive car.
24. Owning an affordable car.
25. Living near a beach.
26. Living in a big city.
27. Living in a small town.
28. Traveling.
29. Working with children.
30. Working with adults.
31. Working with animals.
32. Staying at home to raise children.
33. Supervising others.
34. Working independently.
35. Collaborating with others on projects.
36. Working to meet deadlines.
37. Working without deadlines.
38. Having a fast paced job.
39. Having a slow paced job.
40. Working from home.
41. Working in an office.
42. Working outdoors.
43. Willing to work long hours.
44. Working a 9-5 job.
45. Setting your own schedule.
Guided Imagery

I would like you to close your eyes. Just be aware of your body. Forget about what’s been going on around you…just think about what’s going on inside of you. Think about your breathing…feel the air move in through your nose and mouth, down into your chest-imagine your breathing is like gentle waves lapping on the shore…As each wave rolls in, the more relaxed you feel.

Think about your right arm. Feel it getting heavier and heavier…Feel the heaviness go all the way down the arm, down to your fingertips…Think about your left arm…Feel it getting heavier and heavier…Feel the heaviness go all the way down the arm, down to your fingertips…Think about your legs…Feel it getting heavier and heavier…Feel the heaviness go down, down into your feet. Feel your body relaxing and feeling heavy…

Be aware of your thoughts and the images in your mind…look at them (pause)…now put them into a glass jar and watch them…(PAUSE) examine them. As more thoughts and images come into your mind, put them into the jar too…Find out what you can learn about them…Now take the jar and pour out the thoughts and images; watch as they spill out and disappear (PAUSE)…the jar is empty (PAUSE)

Now, you are walking down a long hallway. Towards the end, you see a frame hanging on the wall…stop, look and enjoy it. (PAUSE) The image leaves you feeling a strong sense of peace and well being flowing through you. Enjoy these positive feeling. You move to the end of the hall and look out a window. The rushing sound of the wind blowing outside is so soothing, allowing you to let go. Take a deep breathe and smell the rich aromas filling the air around you and as you look towards the bright blue sky you
can feel the warmth of the sun touching your face. Outside you can see the intricate patterns of lights as the sun casts its shadows on the earth below. You are filled with a sense of purpose, direction and reverence for all living things.

You turn away from the window, walk back down the hallway…look in front of you and see the soft, comfortable chair go ahead and sit down in it. As you let yourself sink into the comfortable chair take in a deep breath of fresh air and breathe out, finding the subtle smells in the air. Let go of any strains or concerns…allowing the sights, sounds, and smells of this beautiful morning to fill you with a deep sense of peace.

(PAUSE) Open your eyes
APPENDIX C
PARTICIPANT CODING

In order to track pre and posttest measures on each participant and protect each student’s confidentiality the following coding will be used. Letters A – F will be used to designate the student’s school. A one digit even and odd number will designate the student’s group – the number two will be used for students in the control group and the number the will be used for the experimental group. Letters G – K will be used to designate the student’s race, and a specific student will be identified with a two digit number ranging from 01-10.

For example, a ninth participant in the control group at Gainesville High School is Hispanic therefore her code would be A2G09. The fifth participant in the experimental group at Hawthorne High School is African American as a result her code would be B3H05.
APPENDIX D
GROUP MEAN SCORES
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BIOGRAPHICAL SKETCH

Elizabeth Villares was born February 10, 1972, in New Jersey, the third child and only daughter of parents Ramon and Mirta Villares. She received her Bachelor of Arts degree in history from Florida State University in 1994 and in 1997, received her Master of Science degree in social science education from Nova Southeastern University. In 2001, Elizabeth received her Educational Specialist degree in counseling and school guidance from the University of Florida.

Elizabeth began her career as a social science educator at Venice High School in Sarasota County, Florida, where she taught a variety of subjects from 1997-2001. In 2001, Elizabeth moved to Gainesville, Florida, and began her career as a School Guidance Counselor at Newberry High School. She is a Florida Certified School Guidance Counselor and social science teacher.

Over the past two years, Elizabeth has worked with Dr. Sondra Smith at the University of Florida on a federally funded grant entitled Consejeros Levantando el Pueblo (C-LEP). The primary purpose of the grant is to train Hillsborough County school teachers to become school guidance counselors. Elizabeth has served as practicum and internship coordinator and supervisor and assisted with curriculum writing.

Elizabeth is a member of the American Counseling Association, the American School Counseling Association, the Florida School Counseling Association, Chi Sigma Iota Academic and Professional Honor Society International, the Phi Kappa Phi Honorary Society, and the National Career Development Association.