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A COMPARISON OF SELF-EFFICACY AND INFORMATIONAL  
CAREER COUNSELING WITH UNDECIDED HIGH SCHOOL SENIORS

by  
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## DEDICATION

This work is dedicated with love to my daughter Hayly, as an enduring example of accomplishment through perserverance. It is also dedicated to the loving memory of my own mother who taught me all things were within my reach.

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## Abstract

The purpose of this study was to compare the effects of two career counseling interventions upon the career decision-making self-efficacy of two groups of undecided high school seniors. The setting of the study was a large public high school in a metropolitan area in the Southeastern region of the United States. In order to identify students' initial levels of confidence and certainty for making career and educational plans, a brief self-report survey was administered to seniors. Seniors appearing to possess low levels of confidence and certainty were given the Career Decision-Making Self-Efficacy Scale (CDMSES) as a diagnostic screening measure. Forty-eight potential subjects were invited to take part in career counseling groups. Thirty-one of the 48 seniors elected to join a group. The participants were randomly assigned to an Information Treatment (IT) group or to a Self-Efficacy Plus Information Treatment (SEIT) group. The Career Decision-Making Self-Efficacy Scale, My Vocational Situation, and the Goal Instability Scale were given as outcome measures following the three 45-minute sessions of treatment which took place over a one month period of time. A Posttest-Only Design was used for the study. The three hypotheses indicated that participants receiving the SEIT treatment would have significantly higher levels of self-efficacy and vocational identity, and lower levels of goal instability than the

IT subjects. A series of t tests, MANOVA, and ANOVA procedures were used to analyze the data for significant differences. The three hypotheses for the study were rejected with no differences being found. Two areas of statistical significance were discovered in the data. First, goal instability proved to be significantly less for the group receiving the IT treatment. Second, the IT and SEIT groups experienced large gains on the CDMSES from the initial screening to the posttest. A 2 x 2 ANOVA showed the pretest to posttest gains on the CDMSES of the groups to be significant at the  $p < .0001$  level. The self-efficacy treatment as offered in this particular study did not prove to be a superior approach to the informational treatment. However, one may speculate from this study that career counseling for undecided high school seniors in small groups with an interactional format is highly productive for improving career decision-making self-efficacy and may reduce goal instability as well.

## CHAPTER 1

### Introduction

What is career decision-making and why should society be concerned about young people who experience difficulty in this area of their lives? Career decision-making is the process of selecting an occupation for oneself. When students defer career planning and decision-making, they create circumstances which may become problematic for themselves and their families.

Young people who are not able to effect a career choice still require resources to live, whether derived from family income or otherwise. They may drift from part-time job to part-time job, or worse yet, be unemployed. Individuals who are not self-supporting may develop a poor self-image. Isaacson (1985) emphasizes that "unemployment, underemployment, or misemployment carry psychological costs borne by the individual in dissatisfaction, alienation, and lack of self-esteem, and by society as it is affected by those characteristics" (pp. 31-32). Society ultimately bears the cost of youth who are not properly integrated into the workforce.

Career guidance is a vital link to the career decision-making process for youth. Counseling individuals about career choices may be viewed as antecedent to their successful integration into the workforce. Offered as part of public education, it consists of services and activities designed to help students learn about themselves and the

world of work. These services and activities are generally referred to as career counseling programs.

### The Emergence of Career Guidance in Schools

Understanding the current status of career guidance involves being cognizant of some important facts about its past. At the turn of the century there were only a few public schools with programs offering career guidance (Zunker, 1990). Frank Parsons' book, Choosing a Vocation, published in 1909, prompted educators to consider the possibility of using vocational guidance as a systematic way to assist individuals in career decision-making.

Endorsing Parsons' vision of making vocational guidance available to all, the President of Harvard University underscored the need for school guidance personnel at the first national vocational guidance conference held in Boston in 1910. By 1913, the National Vocational Guidance Association was organized for the purpose of promoting career guidance (Zunker, 1990).

Likewise, the federal government recognized the wisdom of supporting career education and guidance. Congress initiated funding for career guidance and vocational education in the public schools as a means of ensuring the preparedness of our youth for national defense and as a sound investment for developing our human resources for the workforce. The Smith-Hughes Act of 1917 established a pattern of federal funding for vocational

educational programs and career counseling in the public schools (Zunker, 1990).

Federal legislation has continued to support vocational education and career guidance programs. The National Defense Education Act of 1958 is a prime example of an attempt to bolster our national interests through educational programs. Aimed at attracting our youth into the math and science fields and supported by the military-industrial complex, the government made massive amounts of money available to the schools (Spring, 1982). The most recent example of support is the huge Congressional appropriation to fund the Carl D. Perkins Vocational and Applied Technology Education Act of 1990.

#### Continuing Need for Career Guidance in Schools

The need for carefully planned and managed career counseling programs in the public schools is more pronounced than ever due to disturbing conditions affecting our society's youth. The United States government has estimated that "10 to 15 percent of our 16-to-19 year-olds are at-risk of not successfully making the transition into productive and responsible adulthood" (Count Me In: Youth 2000, p. 2). Many children reside in single-parent homes with household incomes in the poverty range. These disadvantaged youth are particularly in danger of becoming high school drop-outs when "for the first time in history a majority of all new jobs will require postsecondary education" (Workforce 2000, p. xxvii).

America's young people are confronted with a unique set of challenges at a time when societal conditions are intensely stressful. Modern life makes career decision-making complicated. Ginzberg (1971) comments, "people need help in learning to negotiate complex and changing institutions- the educational system, the Armed Forces, [and] the labor market" (Isaacson, 1985, p. 31). Each of these institutions is experiencing major transformations. Evidence of transformation may be seen in educational reform, military cutbacks, and higher technical skills being required of the workforce.

Additionally, the composition of the U.S. workforce is being altered rapidly. Non-whites, women, and immigrants will make up five-sixths of the new additions to the future workforce according to projections by the United States Department of Labor (Workforce 2000). Two-thirds of the new entrants will be female.

Immigrants will represent the largest share of the increase in the workforce since the first World War (Workforce 2000). This parallels an earlier time in the century when our schools dealt with huge numbers of immigrants needing education and integration into the workforce. Career guidance can be an instrument for societal change, as education and vocation have often been the means to upward social mobility for diverse ethnic groups in the United States. Frank Parsons, the founder of the career guidance movement, viewed vocational choice as a

way to achieve equality (Zunker, 1990). We are reminded that "counselors today have a body of knowledge that underlines the impact of race, gender, and class on the behavior of both students and counselors" (Hawks & Muha, 1991, p. 253). School counselors should be using that knowledge as they go about the business of career guidance in the public school.

#### Legislative Mandates for Career Guidance

It is essential that America's young people be ready to take part in a technologically advanced workforce which must compete in a global economy. As the public's expectation has risen regarding what schools could and should accomplish toward that goal with taxpayers' dollars, government agencies and legislative bodies have established written guidelines with specific standards for public education, including career guidance. The directives for career guidance adopted by Virginia mirrors national educational reform movements and are similar to those of other states.

The Guidance and Counseling Standards of Learning Objectives, Secondary School Level (Virginia Department of Education, 1984) lists five objectives for the Career Development Domain. They are:

1. The student will become aware of and knowledgeable about the world of work and careers.
2. The student will acquire information about

education and vocational/training opportunities within and beyond school.

3. The student will relate knowledge of self to programs of study for education and career planning.
4. The student will establish some tentative career objectives.
5. The student will begin and continue preparation for education and employment. (p. II-6)

The Standards of Accrediting Public Schools in Virginia, adopted by the Board of Education on June 19, 1987, says that "each school shall implement career education which promotes students' awareness and/or knowledge of careers and the consequences and implications of leaving school without a marketable skill" (Standard C, Instructional Program, 16, p. 10). In addition, guidance and counseling in schools will "Provide opportunities for parents, teachers, and other adults to participate in planned activities that encourage the personal, social, educational, and career development of students" (Standard E, Delivery of Instruction, (b), p. 16). To assist with the transition of students after high school "employment counseling and placement services to furnish information about employment opportunities available to students graduating from or leaving school" must be provided to them (Standard E, Delivery of Instruction, (c), p. 16).

As recently as spring of 1992, the Virginia



Department of Education in line with President Bush's "America 2000" initiative has called for proposals to develop a framework for a "Virginia Common Core of Learning" to prepare students to function in a global society. One of the proposed competencies is that students will be able to "Develop long term personal, educational, and career plans" (Framework for the Virginia CCL, Working Paper #2, Section I, p. 6).

#### Career Guidance Programs in the Public Schools

Career guidance remains a component of public education because there is a need for it. Young people have expressed a strong interest in receiving career guidance. Hutchinson and Bottorff (1986) found in a study of college students that 89% of them desired career counseling services as high school students. Unfortunately, that same study showed that only 40% of them reported having received such services.

Surveys of school counselors yield similar information about the perception of the importance of career counseling services and evidence of problems in the delivery of services. Tennyson, Miller, Skovholt, and Williams (1989) surveyed secondary school counselors in Minnesota. The Minnesota counselors who responded listed developmental and career guidance as their least frequently performed service, despite the fact they ranked it as the third most important of six counseling services.

School counselors are directly responsible for

implementing career guidance in the public school. In determining how counselors go about fulfilling this role and what their primary strategies have been, Tennyson, Miller, Skovholt, and Williams (1989) found that one-half of the counselors surveyed seldom used career and vocational assessment information in counseling, one-third only occasionally to rarely used groups for giving educational and occupational information, and 40% said they rarely or never used the computer for career information. Tennyson et al. concluded their data raised serious questions "about both the efficiency and effectiveness of the methods" (p. 256) used by school counselors to do career planning with students.

Given the challenges facing youth in our society, and the role of the school counselor in assisting students with personal and career decision-making, the time has arrived to pay increasing attention to the methods being used in career guidance. Practitioners need to be certain the methods being used to deliver career guidance accommodate the diversity among their students. To expect public high school students with so many differing attributes to benefit equally when given uniform career counseling treatments is not reasonable.

#### Problem Statement

School counselors recognize that the formulation of career and educational plans by students is essential for a smooth transition from high school into a work or

educational setting. However, school counselors, often lacking in time to complete their myriad duties, seldom pause to consider the methodologies they use in working with students.

The quality of career guidance depends on both the time allocated for career counseling, and the methods counselors choose for delivering services. Practitioners rarely assess these variables to determine what impact they have on the students being served.

Students throughout the public high school typically receive the same career guidance program. School counselors have relied primarily on information-oriented approaches in assisting all students to arrive at postsecondary career and educational decisions. Very little research has been done on matching appropriate methodologies to client attributes in the secondary public school. This uniform approach to career guidance by school counselors may be due to the fact that Frank Parsons, the first educator to establish a systematic plan for career guidance, outlined a rational, counselor-directed process for helping individuals select an occupation. Counselors seem to have adopted that approach as a matter of standard practice.

#### Information Approaches

Parsons' process, based upon gathering information about oneself and occupations, could be summarized as (1) know yourself, (2) know the job, and (3) analyze the

relationship between those two groups of facts. Parsons' approach was the basis for the trait-factor theory used in counseling over a significant period of time and is still in evidence today.

Information approaches are popular with school counselors because they are straightforward and simple to use. They lend themselves to the classroom or office setting and require a modest amount of time. Unfortunately, information approaches tend to promote uniformity in the way students are counseled. A typical approach to career guidance by school counselors would ideally include making information from interest inventories, aptitude tests, and achievement tests available to students. To complement assessment, guidance offices are usually equipped with reference materials, information databases, and computers for student use.

Information approaches, which are cognitively oriented, seldom deal with students' attitudes and beliefs. Downing and Dowd (1988) cautioned, "Although accurate information is the foundation of all good decisions, it may be that information for clients who are having difficulty in making a decision is not as critical as we once assumed" (p. 149). Information-giving is but one part of the career guidance process.

Whether or not students internalize career information once they receive it is another concern. The effects of information on older adolescents in the career development

process are a matter of speculation. An understanding of some of the theories of career development in adolescents is helpful, and may explain why information by itself is not adequate to stimulate career decision-making for some students.

### Career Development in Adolescents

Various theories have been offered to explain how career development may occur in adolescents. Several of these theories are especially applicable to this study because they deal with students' internal belief systems.

Tiedeman and O'Hara (1963) focus on one's ego-identity as a mediator of career development. They believe the total cognitive development of a person is imperative to career decision-making. Their concept of the path to career development is based on the resolving of the psychosocial stages delineated by Erikson (1950).

Tiedeman and Miller-Tiedeman (1984) espouse that understanding one's belief system is a fundamental aspect of the career decision-making process.

Super's (1951) research offers another broad concept of what may occur in the process of career development in adolescents. According to Zunker (1990), Super has predicated the development of the vocational self-concept of students on the following:

physical and mental growth, observations of work, identification with working adults, general environment, and general experiences. . . . Although

the vocational self-concept is only a part of the total self-concept, it is the driving force that establishes a career pattern one will follow throughout life. (p. 25)

Super describes an "exploratory" developmental stage in adolescents which lasts from approximately age 15 to 24, when students' choices are narrowed but not finalized. High school students would normally be expected to move from the developmental task of crystallization (formulating a general vocational goal) into the specification phase (stating a specific vocational preference) during this period (Zunker, 1990, p. 25). The narrowing process for seniors confronted with ending their high school experience must include decisions about the type of educational and vocational activities they will engage in following graduation or termination of high school.

#### Types of Career Indecision

There are differing opinions on whether high school seniors should be considered undecided or indecisive if they are unable to make career decisions based on career information. Students experiencing difficulty with career decision-making have been classified by different researchers according to various characteristics.

Hartman, Fuqua, Blum, and Hartman (1985) use the terms "developmentally undecided" and "chronically undecided" to distinguish between types of undecided students. These authors suggest information will assist

students who are developmentally undecided, but may not assist those students with chronic indecision due to emotional and attitudinal needs.

Holland and Holland (1977) surmise that so-called indecisive students are young people who may be predisposed to continual difficulties with transitions in their life without appropriate identification and intervention. They suggest that "the personal histories of undecided students with special problems should be characterized by a general failure to make decisions at culturally approved times" (p. 413).

Salomone (1982) believes indecisive is a term that should be reserved for individuals over the age of 25. Holland and Holland (1977) speculate that "only a very small percentage [of the students they examined who were under 25] could be expected to have such characteristics to an incapacitating degree" (p. 413).

Examining the attributes of undecided clients in various categories of career indecision may help researchers understand causes and plan subsequent treatments for career indecision. Researchers like Fretz (1981), Oliver and Spokane (1988), and McAuliffe (1991) propose that in order for certain clients to benefit from career counseling programs, it is necessary to assess client attributes, then select appropriate treatment methods.

### Barriers to Career Decision-Making

Researchers studying the attributes of undecided students have discovered characteristics that act as personal-emotional barriers to the career decision-making process. McAuliffe (1991) has reviewed types of personal-emotional barriers students may experience. Some of the barriers he discusses include: (a) problems with self-efficacy (Taylor & Betz, 1983), (b) goal instability (Robbins & Patton, 1985), (c) dysfunctional career beliefs (Krumboltz, 1990), (d) lack of vocational identity (Holland, Daiger, & Power, 1980), and (e) generalized indecision (Chartrand & Robbins, 1990).

Self-efficacy as a barrier to career decision-making is the focus of this career indecision study. Self-efficacy is defined as one's beliefs about his/her ability to "successfully execute the behaviors required to produce an outcome" (Bandura, 1977, p. 193). A strong relationship was reported between low self-efficacy and career indecision by Taylor and Betz (1983, p. 65). Self-efficacy theory has been widely researched and reported in the literature. Betz (1992) says "the particular usefulness of Bandura's original self-efficacy model is that the elements for treatment were explicitly contained in the theory" (p. 24).

Self-efficacy is congruous with developmental theories of the career decision-making process. It is



consistent both from the standpoint of the evolving self-concept emphasized by Super, and the understanding of one's belief system espoused by the Tiedemans.

Two terms used when applying self-efficacy concepts to career behavior are career self-efficacy, and career decision-making self-efficacy. Betz and Hackett (1986) introduced the term career self-efficacy to represent "judgements of personal efficacy in relation to the wide range of behavior involved in career choice and adjustment" (Lent & Hackett, 1987, p. 349). Career decision-making self-efficacy is a more specific term which "refers to the expectancies of individuals regarding their ability to perform particular tasks that are important to effective career decision-making" (Betz & Hackett, 1986, p. 286).

Career decision-making self-efficacy has been shown to relate to various career behaviors such as career entry, occupational choice, career indecision, educational performance, and career adjustment (Lent & Hackett, 1987). However, the bulk of the research on these topics has involved college students. Betz and Hackett (1986) state "samples other than college students should be studied" (p. 287). The study presented in this dissertation uses a sample of high school seniors in a public school setting.

Another important dimension of this study is that it focuses on intervention strategies. Betz and Hackett (1986) propose "the most important test of the career

self-efficacy construct will come in studies investigating the effectiveness of theory-based interventions" (p. 287). A 1987 review of the published literature in the field by Hackett and Lent states, "to our knowledge, no published research has yet investigated the effects of counseling interventions on career self-efficacy" (p. 350).

Additional research utilizing career counseling interventions is needed to obtain data on the impact of a self-efficacy approach to career decision-making with high school students. Fretz (1981) writes, "it can be argued that the task of the counselor, teacher, or therapist is to find more effective treatments for those clients or students whose attributes predict that they will gain less from a given treatment" (p. 80).

Students who possess the attribute of low career decision-making self-efficacy, and experience career indecision, may not be best served by the standard information-oriented methods used in the career counseling programs of most public high schools. Such students may also experience goal instability, low vocational identity, or other personal-emotional barriers to decision-making. Information-oriented methods do not take into account students' personal-emotional barriers to career decision-making.

#### Purpose

The purpose of this study was to compare the effects of two career counseling interventions upon the career

decision-making self-efficacy of two groups of undecided high school seniors. The intent was to provide data on career counseling methods that may be appropriate for undecided seniors with low self-efficacy.

#### Definition of Terms

A summary of the key terms which have been defined in other portions of Chapters 1 and 2 are presented here for the convenience of the reader.

1. Career indecision--is not being committed to any occupational direction (Kaplan & Brown, 1987)
2. Self-efficacy--is defined as one's beliefs about his/her ability to successfully execute the behaviors required to produce an outcome (Bandura, 1977).
3. Career self-efficacy--deals with personal efficacy as it relates to career behaviors (Betz & Hackett, 1986).
4. Career decision-making self-efficacy--describes one's beliefs about his/her ability to make career decisions (Taylor & Betz, 1983).
5. Vocational identity--means possessing a developed sense of one's goals, interests, and talents (Holland, Gottfredson, & Power, 1980).
6. Goal instability--involves the lack of a firm set of goals for one's life (Robbins & Patton, 1985).

## CHAPTER 2

### Review of Related Literature

This study is based on literature from four areas: career indecision, self-efficacy, career self-efficacy, and career decision-making self-efficacy. Two collateral constructs, goal instability and vocational identity, were included in the review of literature because they have been shown to be associated with career decision-making self-efficacy and are used as outcome measures along with career decision-making self-efficacy.

#### Career Indecision

A number of studies have been conducted on career decision-making as counselors have sought to understand the role of various psychological and cognitive factors in the career decision-making process. An important subset of career decision-making studies focuses on exploring the problems of individuals who experience difficulty in making a career decision. A term describing this condition is career indecision. Kaplan and Brown (1987) define career indecision as being uncommitted to an occupational direction. Two other terms often used interchangeably in the literature for career indecision are vocational indecision and career undecidedness.

The literature addressing career indecision as a specific problem appears to have emerged as a result of Tyler's (1961) research. She attempted to delineate career indecision as a distinct problem, which may or may not

signal a general inability of the client to make decisions. Goodstein (1965) is credited with describing two types of career indecision by citing case studies of his clients. Next, Crites (1965) elaborated on postulations of both Tyler and Goodstein. Various other researchers over the next several years have investigated career indecision with differing results.

Osipow, Carney, Winer, Yanico, and Koschier (1976) made it possible to extend research efforts in career indecision by their development of the Career Decision Scale (CDS). This instrument is used to assess career indecision in high school and college students. The CDS may also be given to measure change in career indecision over a period of time or after an intervention.

Another substantial contribution in career indecision research came from a study done by Holland and Holland (1977) on career decidedness. A comparison was made between decided and undecided participants on a number of measures given to a sample of over 1500 high school and college juniors. Holland and Holland discovered that undecided students possessed significantly lower amounts of vocational identity and maturity.

After assessing the characteristics of those students who were undecided, Holland and Holland (1977) proposed three general categories into which students might be grouped: (a) those who postpone a career decision because they do not have to decide at the time;

(b) those who delay a decision due to mild anxiety or immaturity; and (c) those who are very immature, anxious or otherwise troubled. This substantiated Crites' (1969) suggestion that there are multiple types of career indecision.

Holland and Holland (1977) discovered a small but significant group who were theorized to possess an "indecisive" disposition. Holland and Holland reasoned that traditional information-oriented approaches would not help this group who had "a complex cluster of maladaptive attitudes and coping behaviors that are probably not amenable to brief vocationally-oriented treatments" (p. 413).

Salomone (1982) further delineated the concept of career indecisiveness. He states that "indecisive persons fail to make important decisions, not because they lack sufficient information, but because they have personal qualities that will not allow them to reach a decisional state of mind and take a course of action" (p. 497). Salomone suggests two separate continua be used to differentiate between types of career indecision, with one representing decidedness-undecidedness and the other decisiveness-indecisiveness. He describes the decisiveness continuum as having an emotional-psychological dimension.

Salomone's dual model of indecision is paralleled by Van Matre and Cooper (1984), who propose a diagnostic framework employing orthogonal axes to depict a

student's position in reference to career decision-making ability. A decided-undecided state forms one axis with the other representing a decisiveness-indecisiveness trait. This diagram results in four separate categories with each having a recommended treatment. The categories are: (a) decided-decisive, (b) undecided-decisive, (c) decided-indecisive, and (d) undecided-indecisive.

Other researchers like Hartman, Fuqua, and Hartman (1983) investigated whether the Career Decision Scale could detect chronic career indecision in high school seniors. They did an initial study with high school seniors and then a follow-up study with the same sample (Hartman, Fuqua, Blum, & Hartman, 1985). A three-group typology was proposed for career indecision from the follow-up study which surveyed the participants' career decisions over a four year period. The authors suggest students may be classified the following way: (a) students who have no change in career plans are "decided," (b) students who change their decisions once or twice are "developmentally undecided," and (c) students who changed their plans three or more times are "chronically undecided."

Hartman et al. (1985) sought to develop ways to predict, assess, and design interventions appropriate for differing types of career indecision. Hartman, Fuqua, and Jenkins (1986) emphasize as a result of testing the stability of career indecision among groups "evidence is

accumulating to indicate that career indecision is a complex, multidimensional construct" (p. 147).

Downing and Dowd (1988) provide a functional framework for analyzing research on the causes of career indecision. Based on their review of the literature they propose four broad categories in which causes of career indecision may be clustered. These categories are: (a) demographic characteristics, (b) psychological traits, (c) social learning experiences, and (d) personal characteristics. Each category contains a list of major theories. The list of theories is not comprehensive, but it is useful. The reader is given another perspective to process some of the diverse concepts on the nature of career indecision.

Newman, Fuqua, and Minger (1990) state that research on the identification of types of career indecision is still in a preliminary stage. They discovered in an exploratory study of characteristics of decided and undecided students that both groups of subjects are heterogeneous. This implies that researchers need be cognizant of differences within groups, both decided and undecided, rather than focus only on differences between groups in a study.

Vondracek, Hostetler, Schulenberg, and Shimizu (1990) refined the concept of career indecision further in a study to ascertain the feasibility of using four subscales to identify subtypes of career indecision with



the Career Decision Scale (CDS). They found evidence that the subscales are an objective means of differentiating between types of undecided and decided clients. Though Vondracek et al. are satisfied that the subscales can identify differences between types of career indecision, they speculate that "Further research is needed to discover and define other types of indecision, so that treatment can be even more individualistic" (Vondracek, et al., p. 105).

Many types of career indecision may still be unidentified. The direction of future research in the career indecision field seems to be moving toward clearer identification and definition of types of indecision in order to design more appropriate treatments for clients. New models to explain career indecision and instruments for its assessment will emerge, but research using treatment approaches must begin. Practitioners in the field have a need for current information on treatment strategies for career indecision.

#### Self-Efficacy

One widely researched construct which has shown promise as a treatment strategy for career undecided individuals is self-efficacy. Self-efficacy theory was introduced by Bandura (1977). Bandura developed self-efficacy theory as a sub-component of his work on behavior and the role of cognitive processing in social learning theory. He defined self-efficacy as "one's belief that he or she can successfully execute the

behaviors required to produce specific outcomes" (p. 193). One's self-efficacy beliefs are presumed to affect the choice of activities a person will attempt, to determine in which settings those activities will occur, and to affect the length of time in those activities one will persist.

Bandura (1977) reasoned that self-efficacy beliefs differed in terms of magnitude, strength and generality. Magnitude is the amount of difficulty one associates with a specific task. A series of tasks can be rank ordered by difficulty. Strength describes the intensity of one's expectancy beliefs about accomplishing a task. Generality refers to a level of confidence resulting from mastering specific tasks that promotes a feeling of confidence about being able to achieve other tasks.

Bandura (1977) theorized that one's personal efficacy expectations were acquired through four sources: (a) performance accomplishments, (b) vicarious experiments, (c) verbal persuasion, (d) and emotional arousal. These sources of efficacy expectations are the key to successful treatment approaches. Each of the four categories above has specific modes of treatment associated with it, which have been found by Bandura (1977) to have varying impact on self-efficacy expectations and behavior. Some of the treatment approaches include participant modeling, performance exposure, suggestion, exhortation, relaxation, biofeedback, and desensitization ( Bandura, 1977, p. 195).

In a series of experiments with six snake phobics Bandura (1977) found a strong, positive correlation between subjects' self-efficacy beliefs and their levels of performance. Self-efficacy beliefs are shown to predict the likelihood of an individual's initiating and persisting in specific behaviors.

Bandura and Adams (1977) reported on additional research which they did to investigate which methods of treatment appeared to have the most impact on one's self-efficacy beliefs. They confirm that treatments based on performance accomplishments through "participant modeling produce higher, stronger, and more generalized expectations than do vicarious experiences alone" (p. 288). However, Bandura and Adams (1977) conclude that "efficacy expectations predict with considerable accuracy the level of performance regardless of whether self-efficacy is changed through enactive mastery, vicarious experience, or extinction of anxiety arousal by systematic desensitization" (pp. 303-304).

Bandura and Adams (1977) caution "to the extent that people differ in how they judge the many factors bearing on their performance, their percepts of self-efficacy will vary to some degree" (p. 304) regardless of which treatment is used to alter their self-efficacy. Individuals tend to filter their new perceptions through the lenses of past experiences.

Bandura (1982) elaborates on self-efficacy by

depicting self-efficacy as a mechanism that determines behavior in people through a personal sense of being able "to produce and to regulate events in their lives" (p. 122). He analyzes the base of support for self-efficacy theory by citing its diverse applications to a range of human behavioral processes. He describes the implications for communities, nations, and the international scene when people collectively possess self-inefficacious beliefs.

Goldfried and Robins (1982) view the self-efficacy goal of achieving perceived control or mastery as one shared with various psychotherapies including cognitive therapy and behavioral therapy. They propose clinical guidelines for facilitating the cognitive processing of information that relates to clients' self-efficacy beliefs. Goldfried and Robins suggest that the practitioner assist individuals to incorporate appropriate information about successful encounters through techniques like discriminating between past and present behaviors, assessing changes objectively and subjectively, retrieving positive experiences, and aligning clients' emotional schemata with self-evaluations (p. 367).

Goldfried and Robins also support Bandura's conceptualization of one's self-efficacy beliefs being distinct from one's outcome expectations for a behavior. Bandura explained (1984) that believing an outcome is the product of a specific action is different than believing an

individual may accomplish that action. Eastman and Marzillier (1984) did not agree that a distinction could be made between outcome and efficacy expectancies. They did concede that self-efficacy was a highly promising concept because it focused on cognitive processes as antecedents to behavioral change. Bandura (1984) was quick to respond to Eastman and Marzillier's criticisms with a variety of counterpoints.

In a special issue on self-efficacy in the Journal of Social and Clinical Psychology, Bandura asserts that divergent research shows convergent evidence "that postulated determinants alter self-percepts of efficacy: and self-percepts of efficacy, in turn, affect motivation and action" (1986, p. 360). Bandura describes how self-efficacy functions as a mechanism and how it fits into the broader construct of social cognitive theory.

Maddux, Stanley, and Manning (1987) provide a summary of research on self-efficacy theory with suggestions for applications in the practice of clinical and counseling psychology. Their summary was based on a review of selected studies on self-efficacy and included some criticisms of the theoretical model.

The clinical and counseling psychology community clearly recognized self-efficacy theory as a promising approach by the latter 1980s. The selection of self-efficacy as a topic for special feature in a prestigious journal, and the scope of research applying

self-efficacy to a variety of behaviors, was evidence of its general acceptance by theorists and practitioners.

### Career Self-Efficacy

Career self-efficacy is defined "as a generic label encompassing judgements of personal efficacy in relation to the wide range of behavior involved in career choice and adjustment" (Lent & Hackett, 1986, p. 349). Hackett and Betz (1981) were the first researchers to apply self-efficacy theory to the career domain. They were especially interested in self-efficacy as a factor in explaining female reluctance to pursue male-dominated fields of study such as math and science in college.

Hackett and Betz (1981) view the "lack of strong expectations of personal efficacy in relation to career-related behaviors" (p. 329) as an internal barrier for women. Consistent with Bandura's model, Hackett and Betz surmise the self-efficacy beliefs of females about potential occupations from which they could choose are acquired in their interactions with society through the social learning modes of performance accomplishments, vicarious experiments, verbal persuasion, and emotional arousal. Perceptions of females regarding their career choices are affected by a lack of exposure to a different set of career-related experiences, by a lack of role models, and by a lack of verbal encouragement to pursue male-dominated careers. Females develop self-efficacy

beliefs which reflect the society's stereotypical ideas about male versus female qualities.

Assessment is viewed by Hackett and Betz (1981) as an integral part of the self-efficacy approach to understanding the career choices of women. They considered the development of measures of self-efficacy to be "a necessary first step in investigations of the relationship of efficacy expectations to vocational behavior" (p. 334). Hackett and Betz outline recommendations for future investigations of the ways efficacy expectations may affect an individual's range of perceived career options, decision-making, and pursuit of career plans (p. 335).

#### Career Decision-Making Self-Efficacy

A specific area of career self-efficacy deals with the decision-making domain which involves behaviors required to choose an occupation. Taylor and Betz (1983) took a major step forward by investigating the concept of career decision-making self-efficacy as it relates to career indecision. They collected data from a sample of 346 college students using several instruments including the Career Decision Scale (CDS). Taylor and Betz came to the following conclusions: (a) college students who were in the study had considerable confidence in their ability to make career decisions; (b) a strong negative correlation existed between students' career decision-making self-efficacy expectations and their

overall level of career indecision; and (c) lack of confidence and structure had the strongest relationship to career indecision.

One of Taylor and Betz's goals for this study was to gather enough data to develop the Career Decision-Making Self-Efficacy Scale (CDMSES). The CDMSES as designed and administered by Taylor and Betz was based on Crites' five Career Choice Competencies (1961, 1965, 1973). The CDMSES was found not only to be a "reliable measure of self-efficacy expectations with respect to the tasks required in career decision-making" (Taylor & Betz, 1983, p. 78), but also to "provide a structure for interventions..." (p. 80). Moreover, "the results of this study provide a conceptual framework and methodology for both assessment and intervention with respect to problems in career decision-making" (pp. 80-81). Taylor and Betz suggest that future research should explore the role of cognitive-mediational factors like self-efficacy in vocational behavior.

Robbins (1985) conducted a follow-up study to test the construct validity of the Career Decision-Making Self-Efficacy Scale (CDMSES). Robbins questioned Taylor and Betz's (1983) evidence that indicated the presence of an "overall factor" of career decision-making self-efficacy. He viewed their findings as conflicting with Bandura's concept of task specific behaviors normally associated with self-efficacy. Robbins obtained concurrent



validity estimates by comparing the CDMSES scores to two criterion variables, confidence and the readiness to engage in career decision-making behavior. One of the measures of readiness Robbins selected was vocational identity (Holland, Gottfredson, & Power, 1980).

Robbins (1985) concluded from his study that the CDMSES was in fact a measure of generalized self-efficacy rather than a "measure of self-efficacy expectations for specific career decision-making skills" (p. 70). Nonetheless, he describes the "CDMSES as an important first step in attempting to use and measure constructs derived from a perspective of social learning theory" (p. 71).

Betz and Hackett (1986) summarized the major findings regarding career self-efficacy up to that period and outlined what they considered to be the greatest needs for future research on the topic. They call for more attention to the measurement of self-efficacy and to the expansion of studies into a wider variety of career behaviors. Most importantly, Betz and Hackett identify the need for theory-based interventions to provide new data.

A monograph on the status of self-efficacy was prepared by Lent and Hackett (1987). They enumerate a number of possibilities for future investigations of career self-efficacy based on past research. Lent and Hackett encourage researchers to examine the adequacy of psychometric instruments for assessment, to pinpoint the level of specificity needed for accurate measurement, to

assess the impact of environmental variables, and to determine the possible presence of gender differences for future studies.

Lent and Hackett (1987) perceive other needs in self-efficacy research which would expand theoretical perspectives such as (a) the need to extend the research model to include more diverse populations (particularly special populations), (b) the need to study the relationship of self-efficacy to other career behavior constructs and theories, and (c) the need to explore whether causality between self-efficacy and career behavior can be established through intervention studies. Lent and Hackett (1987) state that self-efficacy should be the target of treatment in future studies.

Taylor and Popma (1990), concerned about the assessment qualities of the CDMSES, and in response to Robbins' study, replicated Taylor and Betz's 1983 study. They hoped to determine more fully what the CDMSES measured in terms of general career decision-making self-efficacy and to explore the relationship between career decision-making self-efficacy and vocational indecision along with several other factors. The study involved administering several instruments including the CDMSES to 407 subjects. The data showed that the CDMSES did assess more specific factors in its subscales than the 1983 study had shown. A moderate negative relationship between career decision-making self-efficacy and vocational

indecision was confirmed. Their findings demonstrate "that levels of self-efficacy are significantly predictive of career indecision" (p. 29).

#### Additional Career Self-Efficacy Studies

There are a number of career self-efficacy studies that relate indirectly to this study. Such studies can give the reader a background on the diverse nature of self-efficacy research and on how self-efficacy has been shown to affect vocational and academic behaviors. A brief description of some of these studies is included as part of the literature review.

Lent, Larkin, and Brown (1984, 1986) investigated the effects of self-efficacy on academic achievement, persistence, and occupational choice among college students interested in the science and engineering fields. The researchers found self-efficacy to be a distinct factor to be considered with regard to career relevant behaviors.

Post-Kammer and Smith (1986) conducted a follow-up study with disadvantaged high school students who had taken part in a pre-college program to promote math and science careers. Significant gender differences did exist based on the relationship between the subjects' self-efficacy beliefs and their selection of non-traditional math and science careers.

Hackett and Campbell (1986) proved in their study that task performance "significantly and strongly influenced ratings of task self-efficacy, task interest, and global

ability ratings" (p. 160). Conclusive evidence shows that one's efficacy expectations can be modified by an individual's success or failure on specific tasks.

A series of career self-efficacy studies were reported in the literature in close proximity to the Lent, et al. monograph (1987). Most of these studies investigated the role of self-efficacy in conjunction with some other aspect of career behavior.

Rotberg, Brown, and Ware (1987) sought to clarify the relationship between socioeconomic status, race, gender, career self-efficacy, career interests, and sex-role orientation to career-choice range. Their conclusion was "career choice is influenced by both career interest and career self-efficacy expectations which are modified by gender and sex role orientation" (p. 169).

Lent, Brown, and Larkin (1987) looked at self-efficacy, interest congruence, and consequence thinking in the career and academic behaviors of college students interested in science and math careers. Self-efficacy appears to be the most useful of the three variables in predicting academic achievement and persistence.

Hackett and Campbell (1987) wanted to determine if the effects of gender on task self-efficacy would be the same when males and females were asked to rate their ability to perform a gender neutral task. No significant differences attributable to gender were found. Task

performance did strongly and significantly effect performance evaluations. Therefore, educators need to be mindful to include performance accomplishments to offset the effects of gender for educational tasks perceived to be more stereotypically male or female.

Betz and Hackett (1987) studied the impact of self-efficacy on the development of personal agency in career development. Agency is defined as one's tendency to actively promote oneself so as to increase one's career opportunities. The researchers assessed this factor along with the students' level of self-efficacy. Betz and Hackett designed an assessment to measure competence in agentic behavior based on one's self-efficacy beliefs. Self-efficacy was positively related to agentic behavior but gender was not.

Stumpf, Brief, and Hartman (1987) used the job interview situation as a task-specific behavior to analyze the relationship between self-efficacy perceptions and coping under stressful circumstances. Self-efficacy perceptions had an indirect effect upon the subjects' psychological well-being, indicating that individuals with low self-efficacy are more likely to rely on emotional mechanisms to cope with stress related to career behaviors.

Females if employed in the more prestigious institutions of higher learning are more likely to be found in the lower ranks of their profession. Schoen

and Winocur (1988) studied the relationship between gender and self-efficacy among professors in a large university. Female faculty in the study spent less time in research-related tasks and had higher self-efficacy beliefs regarding their teaching responsibilities than their male colleagues, which in turn, could be presumed to affect their career advancement.

Self-efficacy proved to be a factor in female lack of preference for math and science related careers as measured on the Strong-Campbell Interest Inventory according to Lapan, Boggs, and Merrill (1989). This study supports the connections suggested between interests, self-efficacy, and career preferences.

Studies of self-efficacy beliefs among females in other cultures show the same patterns of gender differences often found in studies done in the U.S. Matsui, Ikeda, and Ohnishi (1989) conducted a study of Japanese college students to determine if self-efficacy differences based on gender affected the selection of traditionally male and female-dominated careers. Female college students in the sample possessed low self-efficacy for male-dominated careers. The absence of female role models for those careers was suggested as a partial explanation since vicarious acquisition of self-efficacy could not take place.

Pond and Hay (1989) explored how one's self-efficacy might alter task performance when task preview information

was given to an individual. Task performance was negatively impacted for participants with low self-efficacy and positively affected for those with higher self-efficacy when task preview information was presented.

The relationship between career self-efficacy and vocational interests has been studied by Lent, Larkin, and Brown (1989) who found moderately positive correlations between students' vocational interests as measured on subscales of the Strong-Campbell Interest Inventory and their self-efficacy beliefs.

Hackett, Betz, O'Halloran, and Romac (1990) experimented with college students to ascertain the effects of task success or failure upon self-efficacy. Verbal and math tasks were developed. The task performance of subjects did significantly and strongly affect their task self-efficacy. Task interests were affected to a lesser degree. The researchers did not generalize their results to career self-efficacy because career tasks were not given.

Career self-efficacy was studied by Bores-Rangel, Church, Szendre, and Reeves (1990) with a group of seasonal farmworkers seeking to earn their General Equivalency Diploma (GED) through a university program. Testing a number of hypotheses, the researchers examined the relationship of career self-efficacy to other variables including the extent of consideration for occupations and educational programs, interest, incentives satisfaction,

and the level of education for 69 occupational activities. Occupational consideration was positively correlated to the predictor variables. A strong relationship was not present between career self-efficacy and the educational level of occupations considered. The researchers suggest that the general self-efficacy of an individual may be a variable that explains some of the unanticipated results of the study.

### Vocational Identity

Erikson (1956) postulated that the search for identity in adolescence was a major developmental task. Galinsky and Fast (1966) applied that concept to career choice by exploring how identity issues affect vocational choice. Galinsky and Fast view career decision-making as "one of the most clear-cut avenues through which identity concerns are expressed" (p. 89), and they present a series of three case studies that supported their beliefs.

Marcia (1966), delving into how adolescents resolve identity issues, proposes four ways adolescents approach career decision-making. These approaches in adolescents parallel and reflect the overall development of their identity status and are labeled by Marcia as moratorium, identity achievement, diffusion, and foreclosure. Erikson (1968) refined the role of identity in career decision-making by proposing that "determining an occupational identity represents one of the central challenges of the identity formation process in late



adolescence" (Blustein, Devenis, & Kidney, 1989, p. 197).

Holland, Gottfredson, and Nafziger (1975) developed an Identity Scale based on the work of Greenberger, Josselson, Knerr, and Knerr (1975). Using the Identity Scale with a number of other assessment instruments, Holland and Holland (1977) found significant differences in vocational identity between students in an extensive study of high school and college juniors who characterized themselves as decided or undecided. Vocational identity is defined as "the possession of a clear and stable picture of one's goals, interests, and talents" (Holland, Gottfredson, & Power, 1980, p. 1191). Holland and Holland (1977) conclude that "undecided students lack a clear sense of identity . . . [and] express a shifting self-picture and an inability to assess oneself accurately or to relate personal characteristics to occupational possibilities" (p. 405).

Holland, Gottfredson, and Power (1980) speculate that career decision-making difficulties could be categorized into one of three areas: (a) the lack of information/training, (b) problems of vocational identity, and (c) the perception of barriers (either environmental or personal). Holland, Daiger, and Power (1980) designed a diagnostic instrument based on this assumption of three broad types of difficulties. The instrument, a questionnaire called My Vocation Situation, incorporates earlier versions of the Identity Scale (Holland,

Gottfredson, & Nafziger, 1975) and the Vocational Decision-Making Difficulty Scale (Holland & Holland, 1977). My Vocational Situation It has three subscales: (a) an 18 item Vocational Identity Scale, (b) a four item Occupational Information Scale, and (c) a four item Barriers Scale.

My Vocational Situation was normed with a sample of 824 individuals from high schools, colleges, and businesses. The authors advocate its use as a diagnostic tool to identify individual treatment needs (Holland, Gottfredson, & Power, 1980, p. 1192).

Vocational identity is a relevant measure because it has been shown to have a strong negative relationship to career indecision (Taylor & Betz, 1983). Additionally, Holland and Holland (1977) found significant differences in vocational identity between decided and undecided high students.

Blustein, Devenis, and Kidney (1989) have investigated the relationship between identity formation and career development. These processes appear to share a linear corresponding relationship. Blustein et al. (1989) recommend assessing the relationships between ego identity statuses and self-efficacy beliefs (p. 201).

Blustein et al. (1989) advise that integrative interventions be used which help adolescents "explore the vocational and nonvocational realms of their identities" (p. 201) and combine career counseling and developmental or

psychoeducational strategies. Vocational identity is an example of a construct that lends itself to an integrative intervention. Blustein et al. believe their findings support an "emerging rationale for integrating career development into the mainstream of contemporary developmental psychology" (p. 200).

Vocational identity has been shown to be responsive to change in measuring the effects of interventions. According to Slaney (1988), "results suggest that the V.I. and the O.I. scales are sensitive to treatment effects and may be useful for measuring changes" (p. 57).

#### Goal Instability

Goal instability is associated with "the absence in the person of a firm set of goal-setting ideals" (Robbins & Patton, 1985, p. 229). The construct has its roots in the work of Heinz Kohut's self-psychology. Self-psychology, a psychoanalytic theory, has been applied to the field of career development by Robbins and Patton (1985). According to Robbins and Patton, the self as conceptualized by Kohut develops as the result of two processes, grandiosity and idealization, that take place during childhood. If either of these processes is impeded, the child may not develop healthy self-esteem and the ability to set goals.

Robbins and Patton (1985) further speculate that the "absence of a system of goals will result in indecisiveness about a career choice" (p. 223). In order to test their

ideas, they constructed the Goal Instability Scale (measuring idealization) and the Superiority Scale (measuring grandiosity), which were used to determine the predictive value of these measures as related to career decision-making in a study of college students. Robbins and Patton's findings indicate that the scales were highly reliable and unidimensional, although construct validity was not as clearcut.

Robbins and Patton (1985) applying Kohut's theory to career development surmise that at late adolescence, middle age, or retirement, stresses reactivate childhood fears of fragmentation. At these times, the self may undergo a decrease in the maturity of the idealizing and grandiose portions as a new self is firmly established (p. 222).

Blustein (1989) investigated the effects of self-efficacy and goal instability upon students' career exploration process. He believes that both career self-efficacy and goal instability are reflections of the inner self, and as such, may affect the individual's motivation to undertake career decision-making. By administering the GIS, the CDMSES, and several other measures to 106 college students, he found that "career decision-making self-efficacy emerged as the most prominent predictor of exploratory activity" (p. 201). Blustein speculated career decision-making self-efficacy was the stronger predictor because self-efficacy is more task

specific to the domain of career exploration than goal instability.

Because a strong relationship was found between career decision-making self-efficacy and goal instability, Blustein (1989) speculates that "individuals who have internalized goals and values may find it possible to experience the confidence that fosters an active approach to career decision-making and exploration" (p. 201). He recommends more research be done into the nature of the relationship between career self-efficacy and goal instability. Goal instability is a logical choice for a third outcome measure for this study.

#### Overview

Low self-efficacy is recognized as a barrier to career decision-making. Furthermore, the literature on career indecision has demonstrated that a significant relationship exists between self-efficacy and career decision-making.

Career self-efficacy and specifically career decision-making self-efficacy are particularly promising constructs for an intervention study because the Career Decision-Making Self-Efficacy Scale enables the researcher to identify problem areas for a subject and then design an intervention using that information. An important next step is to expand the information on career decision-making self-efficacy by conducting an intervention study as suggested by Taylor and Betz (1983) and Lent and Hackett

(1987) .

There are a percentage of high school students who experience career indecision due to personal and emotional barriers. The need for an intervention study with undecided high school students is augmented by conditions affecting youth in society.

The literature reviewed indicates that a study using a career decision-making self-efficacy intervention with an undecided high school population is both timely and necessary for examining new approaches to career counseling in the public high school. By including vocational identity and goal instability as additional outcome measures, data may be gathered which could clarify the relationship between career decision-making self-efficacy and other barriers to career decision-making.

### Hypotheses

Therefore, in order to ascertain the effects of a career decision-making self-efficacy approach with undecided high school seniors an intervention study has been designed with the following hypotheses:

1. Undecided high school seniors possessing below average self-efficacy who receive a Self-Efficacy Plus Information Treatment (SEIT) will score significantly higher on a post-treatment career decision-making self-efficacy measure than undecided high school seniors with below average self-efficacy who receive an Information Treatment (IT).

2. Undecided high school seniors possessing below average self-efficacy who receive the Self-Efficacy Plus Information Treatment (SEIT) will score significantly higher on a post-treatment measure of vocational identity than undecided high school seniors with below average self-efficacy who receive the Information Treatment (IT).

3. Undecided high school seniors possessing below average self-efficacy who receive the Self-Efficacy Plus Information Treatment (SEIT) will score significantly lower on a post-treatment measure of goal instability than undecided high school seniors with below average self-efficacy who receive the Information Treatment (IT).

## CHAPTER 3

### Methodology

#### Population

Five hundred seniors in a large public high school of seventeen hundred students, grades 10-12, in the Southeastern United States served as the initial pool for selecting subjects for the study. They reside in a middle class community in a large metropolitan area of more than a million people.

All seniors present during a fall orientation to guidance services were given a four item survey. They were asked to assess their confidence and certainty in their ability to make postsecondary career and educational plans, as these characteristics are known to relate to one's career decision-making skills and self-efficacy levels. The seniors were told that the information from the survey would be used to facilitate program planning for vocational counseling services.

A Likert-type rating system of 1 to 5 was used for responses to the four-question survey, with a (1) indicating not at all confident or certain, and a (5) indicating completely confident or certain about their plans. The survey was completed by 470 seniors in the high school. A copy of the survey is found in Appendix A.

A mean and a standard deviation were calculated from the responses for each of the four questions. This data was used to establish an average for levels of



certainty and confidence among seniors in this public school regarding their career and educational plans. The results of the survey are shown in Table 1.

Table 1

Descriptive Data on Senior Confidence and Certainty Levels  
For Career and Educational Planning, Fall, 1990

Survey Questions	Mean	Standard Deviation
Confidence/Career	3.62	1.03
Confidence/Education	3.68	.95
Certainty/Career	3.72	.85
Certainty/Education	3.98	.92

Because a "3" was below the calculated mean response on each question, seniors who responded with "3" or below on all of the four questions were considered to display a moderately greater uncertainty about their plans and less confidence in their career decision-making skills than their peers. A scan of the surveys revealed 111 of the 413 seniors scored in this range. These 111 seniors were listed as potential subjects needing further assessment.

Further assessment was deemed important to ensure that only seniors who were low in career decision-making self-efficacy be involved in the study. This approach is

supported by Oliver and Spokane (1988). They found in their meta-analytic study of 58 career interventions none of the studies involved a pre-treatment screening procedure. Oliver and Spokane advise the use of diagnostic procedures prior to designing career counseling interventions as a quality control measure.

Subsequently, the 111 comprising the remaining pool of possible subjects were given the Career Decision-Making Self-Efficacy Scale (CDMSES) during the winter as a screening and diagnostic device. The English teachers of these students assisted by distributing and collecting the CDMSES questionnaires for their students.

An information sheet attached to the questionnaire explained to the 111 seniors that their initial responses on the fall survey had indicated they may be experiencing some indecision about career and educational plans. By completing the assessment it was possible to learn more about their current status. They were directed to complete the questionnaire and return it to their English teacher, who would give it to the Vocational Career Counselor.

CDMSES questionnaires were returned for 93 of the 111 seniors. A total score for each subject was calculated by combining numbers from 0 to 9 for each of the 52 items, with 468 being the highest score possible on the CDMSES. A mean and standard deviation was then computed for the 93 scores on the CDMSES. The results

appear in Table 2.

Table 2

CDMSES Data for Potential Senior Subjects, Fall, 1990

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CDMSES Scores	Mean	Standard Deviation
	309	66.53

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Labels over the numbered Likert-type responses in the CDMSES correspond to categories with (0) and (1) representing no confidence at all, and (8) and (9) representing complete confidence. For the purpose of this study, students whose overall totals fell within the "no confidence" (0-52), "very little confidence" (104-156), and "some confidence" (208-311) ranges were considered to be both undecided and to possess lower than average career self-efficacy decision-making skills making them eligible for the study. Forty-eight seniors met that criteria.

Subjects

The participants were high school students who reported a moderate degree of indecision in formulating plans for postsecondary employment or education, and who possessed below average levels of career decision-making self-efficacy. For the purposes of this study, second semester seniors who were ambivalent about selecting a

primary activity after high school and who possessed lower than average confidence in their ability to make decisions were classified as undecided. Their career indecision may not necessarily be attributable to their age.

In summary, the subjects of this study were seniors who initially reported low levels of confidence and certainty about their ability to make career and educational plans for their future and whose scores on the CDMSES assessment reflected their possession of lower than average levels of career decision-making self-efficacy skills. These 48 seniors were then randomly assigned to one of two groups, with each group receiving 24 subjects.

An individual meeting was held with each potential subject to invite them to participate in small-group career counseling sessions. Students were asked to sign a form to indicate their decision to participate (see Appendix B). If they did not indicate a willingness to participate, they were dropped from the subject list at this point. Of the 48 potential subjects, 11 declined to take part, one withdrew from school, four could not take part due to excessive absenteeism, one could not be identified by name to invite. Thirty-one seniors completed the sessions.

The participants included 18 boys and 13 girls. Four participants were African-American, two were

Hispanic, and the rest were Caucasian. This demographic distribution is consistent with that of the school population.

### Design

The design for the career intervention study was an experimental one labeled by Stanley and Campbell (1963, p. 16) as the Posttest-Only Control Group Design. Two treatment groups were formed using random assignment of subjects. One treatment group received the standard career counseling approach while the other career counseling group received a different intervention treatment. Posttest measures were given to determine the effects of the interventions on the outcome variables of career self-efficacy skills, goal instability, and vocational identity.

### Independent Variable

The independent variable of the study was the treatment program. There were two levels of treatment. An Information Treatment (IT) was given to one group. A Self-Efficacy Plus Information Treatment (SEIT) was used with the other. Outlines of the treatment plans for each session can be found in Appendix C and Appendix D.

The Information Treatment consisted of a review of postsecondary options and information from the career resources available for their use. The goal of this treatment was to enhance the subjects' career decision-making skills by improving their knowledge of

career information. It was designed to closely approximate what appears to be the most usual approach of career counseling given in public high school settings.

A Self-Efficacy Plus Information Treatment was given to the other group. The SEIT treatment focused on participants' career self-efficacy beliefs as revealed by portions of the CDMSES and from dialogue with the group. Modeling, verbal persuasion, and performance accomplishments are social learning techniques which were incorporated into the treatment plan. The goal of this counseling process was to alter or enhance the students' perception of their ability to carry out certain behaviors, such as career and educational planning.

#### Dependent Variables

The dependent variables or outcome measures were: (a) career decision-making self-efficacy, (b) vocational identity, and (c) goal instability. Fretz (1981) suggests the use of multiple measures to evaluate the effects of career counseling interventions when feasible. The multiple outcome measures selected for this study are related to effective career decision-making. These measures are reported to be sensitive to changes resulting from the interventions.

#### Procedure

Participants were told that the purpose of the career counseling groups would be to improve their career

and educational planning, and to improve decision-making skills, and that the results would be monitored by an evaluation at the end. Participants were also informed that the data would be used to determine if these groups had been helpful and if similar groups should be offered in the future.

The participants within both the IT and the SEIT group were further assigned at random to eight subgroups. There were four IT subgroups and four SEIT subgroups. The size of the subgroups varied from three to five members depending on factors such as subjects' school attendance and conflicting events. A total of 15 subjects finished all sessions in the IT groups and 16 finished in the SEIT groups.

#### Group Facilitators

Four professional career counselors conducted the groups. The career counselors were experienced in the field and were employed as vocational career counselors within the same public school system at different high schools. They all held masters degrees with one of them having earned a doctorate. They were all female.

The facilitators received an orientation prior to the the study with instructions for running the groups (see Appendix E). They were given a packet with the names of their subgroup members and outlines for all treatment sessions. Each counselor conducted an IT and an SEIT treatment subgroup.

### Intervention

Each counselor worked with one IT and one SEIT subgroup in order to minimize the threat of tester bias. The treatments were given during three sessions with each session lasting approximately 45 minutes. IT and SEIT subgroup sessions were scheduled simultaneously in different locations during two consecutive periods, with a total of four subgroups meeting each day. This was done two days in a row, so that all eight subgroups received the treatment not more than one day apart. This was done on three separate occasions, at intervals spaced a week and one-half apart. The sessions were completed in a period of approximately five weeks.

The treatments were highly structured to ensure that the same activities were done in each group. The group sessions were held in two locations. Both a large conference room and a career resource center were used. Both IT and SEIT groups met in each setting at least once during the sessions.

### Data Collection

The data collection was conducted at the conclusion of the third session. Participants were never informed that different activities were used between the groups. Participants were told they could complete an evaluation packet containing several questionnaires at that time, or they could take the packet with them and return it by the next day. The majority of the participants chose to



complete the packet before returning to their regular classes. The packets took approximately twenty minutes to complete. Copies of the instruments are found in Appendixes F-I.

The group facilitator was available to answer questions regarding the instructions for completing the packet, but did not discuss or direct the participants on how to respond to the questions on the instruments.

### Instruments

The following instruments were used in order to collect data on the outcome measures:

1. Career Decision-Making Self-Efficacy Scale - (CDMSES)

This is a 52 item scale designed by Taylor & Betz (1983) to measure self-efficacy expectations with regard to career decision-making tasks. Students are asked to respond using a 10-point scale ranging from no confidence at all (0) to complete confidence (9). It has been reported as having a high internal consistency reliability (coefficient alpha =.97) and high item/total score correlation (86% of the items ranged from .50 to .80. Validity was established by comparing self-efficacy scores to career indecision scores as measured by the Career Decision Scale (Osipow, Carney, Winer, Yanico, & Koschier, 1986).

2. My Vocational Situation Scale - (MVS) The Vocational Identity Scale of the MVS was used. This is an 18 item survey requiring respondents to make a True/False

answer to the questions. It was developed by Holland, Daiger, & Power (1980). The goal of this scale is to diagnose students possessing a weak vocational identity as a way to design possible interventions. The reported reliability was a KR-20 ranging from .86 to .89. Validity was established through a series of correlations to other variables and ranged from .06 to .32.

3. Goal Instability Scale - (GIS)

This is a 10 item scale with a 6-point Likert response format. The GIS is designed to measure individuals' variation in goal-directedness. Blustein (1987) notes that "high scores on the GIS indicate a greater level of goal-directedness" (p. 197). Robbins and Patton (1985) report internal reliability estimates of  $\alpha = .81$  and  $r = .76$  for retest data. Convergent validity for the GIS has been demonstrated by correlation to low self-esteem and a lack of ambition and goals.

## CHAPTER 4

## Presentation and Analysis of Data

The purpose of this study was to compare the effects of two career counseling interventions upon the career decision-making self-efficacy of two groups of undecided high school seniors. The setting of the study was a large public high school in a metropolitan area in the Southeastern region of the United States.

The subjects of this study were seniors who reported lower than average levels of confidence and certainty (as compared to their peers) when asked to rate their ability to make career and educational plans for their future. Subjects' scores on the CDMSES assessment ranged from "very little" to "some" confidence in their career decision-making self-efficacy before the intervention.

The participants were randomly assigned to an IT or an SEIT group to receive different career counseling interventions. An experimental Posttest-Only Control-Group design was used for the study.

An analysis of data available prior to treatment confirmed that differences between the groups were minimized by random assignment. The cumulative grade point averages of the subjects, an indicator of overall achievement and academic functioning, and subjects' initial CDMSES score, an index of the amount of career decision-making self-efficacy present prior to the

treatment were compared. A univariate t test revealed no significant differences existed at the  $p < .05$  level between the IT and the SEIT groups on either of these variables at the onset of the study. The results appear in Tables 3 and 4.

Table 3

Comparison of the Cumulative Averages of Subjects' Grades

Group	<u>M</u>	<u>SD</u>	Prob>T
IT	2.11	.50	
SEIT	2.01	.29	.53

\*Based on a 4.0 grading scale

Table 4

Comparison of Subjects' Scores on the Initial CDMSES

Group	<u>M</u>	<u>SD</u>	Prob>T
IT	267	36.8	
SEIT	269	40.5	.91

The intervention was administered to both groups and data collected to determine if the directional hypotheses of the study would be supported or rejected. The hypotheses for the study were:

1. Undecided high school seniors possessing below average self-efficacy who receive the Self-Efficacy Plus Information Treatment (SEIT) will score significantly higher on a post-intervention career decision-making self-efficacy measure than undecided high school seniors with below average self-efficacy who receive the Information Treatment (IT).
2. Undecided high school seniors possessing below average self-efficacy who receive the SEIT intervention will score significantly higher on a post-intervention measure of vocational identity than undecided high school seniors with below average self-efficacy who receive the IT intervention.
3. Undecided high school seniors possessing below average self-efficacy who receive the SEIT intervention will score significantly lower on a post-intervention measure of goal instability than undecided high school seniors with below average self-efficacy who receive the IT intervention.

#### Analysis of the Relationship Between Outcome Measures

The reliability of the outcome measures was determined using Cronbach's Coefficient Alpha for assessing internal consistency. An overall Cronbach Coefficient

Alpha for the raw variables using the combined group scores was .64 and for the standardized variables was .73. The results for the individual measures are reported in Table 5.

Table 5

Cronbach's Coefficient Alpha of Outcome Measures for Both Groups

Deleted Variable	Raw Variables Alpha	Standard Variables Alpha
CDMSE 2	0.49	0.66
GIS	0.65	0.68
MVS	0.67	0.73

Career decision-making self-efficacy, goal instability, and vocational identity have been shown to be related in previous studies (Blustein, 1989; Blustein, Devenis, & Kidney, 1989). In order to determine the degree of relationship that might be present from the data collected in this study, Pearson correlation coefficients were obtained. These appear in Table 6.

Table 6

Pearson Correlation Coefficient Matrix for Variables


---

Measure	CDMSE 2	GOAL	MVS	N=31
<hr/>				
CDMSE 2	—	.31	.15	
GOAL	.31	—	.58	
			0.00 **	
MVS	.15	.58	—	

---

\*\*Significant at the  $p < .01$  level

---

The Alpha coefficients indicate there is an acceptable level of reliability demonstrating some consistency for the outcome measures. The Pearson correlation coefficients support a moderate degree of overlap or interrelatedness among the scales. Goal instability and vocational identity also had a moderate degree of correlation between them with a .58 coefficient which was significant at the  $p < .01$  level.

Career decision-making self-efficacy assesses students' confidence in undertaking career decision-making tasks. Vocational identity determines if the subjects' have a clear picture of goals for career decision-making. Goal instability measures the absence of orienting goals

for career decision-making. Goal instability and vocational identity in this study were more highly correlated to each other than either was to career decision-making self-efficacy.

To simultaneously test for significant differences between the means of the treatment groups, a MANOVA was run on the three outcome measures. The results are shown in Table 7.

Table 7

Multivariate Analyses of Variance for Outcome Measures

---

Statistic	Value	F	Num DF	Den DF	Pr> F
<hr/>					
Wilks' Lambda	0.784	3.85	2	28	.033*

---

\*Significant at the  $p < .05$  level.

---

The next statistical procedure was to run a series of  $t$  tests on the data from the outcome measures. These results appear under the section relating to each hypothesis.

Statistical Analysis: Hypothesis 1

Hypothesis 1 stated that subjects receiving the SEIT intervention would score significantly higher on post-intervention measures of career decision-making self-efficacy than subjects receiving the IT intervention.



A t test was done to determine if the means of the two groups differed significantly on this variable. No statistical significance was found at the  $p < .05$  level and therefore the hypothesis was rejected. The results are shown in Table 8.

Table 8

Outcome Data on Career Decision-Making Self-Efficacy

Group	<u>N</u>	<u>M</u>	<u>SD</u>	Prob> T
IT	15	325.86	50.05	
SEIT	16	319.25	59.45	.74

Not significant at the  $p < .05$  level.

Statistical Analysis: Hypothesis 2

Hypothesis 2 stated that subjects receiving the SEIT intervention would score significantly higher on post-intervention measures of vocational identity than subjects receiving the IT intervention. A t test procedure showed no statistical significance at the  $p < .05$  level between the means of the two groups on this variable. Hypothesis 2 was rejected. The results are reported in Table 9.

Table 9

Outcome Data for Vocational Identity


---

Group	<u>N</u>	<u>M</u>	<u>SD</u>	Prob> T
<hr/>				
IT	15	10.86	5.08	
SEIT	16	10.12	3.42	.63

---

Not significant at  $p < .05$  level.

---

Statistical Analysis: Hypothesis 3

Hypothesis 3 theorized that subjects receiving the SEIT intervention would score significantly lower on a post-intervention measure of goal instability. A  $t$  test computed on the data showed statistical significance at the  $p < .01$  level. Surprisingly, the group which received the IT intervention scored much lower on goal instability than did the SEIT group. Hypothesis 3 must be rejected and further consideration given to the fact that statistical significance was found to support a hypothesis in the opposite direction. The results appear in Table 10.

Table 10

Outcome Data for Goal Instability


---

Group	<u>N</u>	<u>M</u>	<u>SD</u>	Prob> T
<hr/>				
IT	15	44.46	6.82	
SEIT	16	38.68	5.87	.01*

---

\*Significant at the  $p < .01$  level.

---

Finally, a table has been included to show a comparison of overall gains for both groups on the CDMSES. This data is available because the CDMSES was used as a screening device and also as an outcome measure and is shown in Table 11.

Table 11

Comparison of CDMSES Gains for Groups


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		CDMSE 1		CDMSES 2	
Group	<u>N</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
<hr/>					
IT	15	267	36.80	325	50.05
SEIT	16	269	40.50	319	59.45

---

The data was analyzed with a 2 x 2 ANOVA with repeated measures to determine if significant differences existed between the CDMSES scores obtained from the initial screening and the final evaluation. The gains for both groups on the CDMSES were sizable and proved to be highly significant. See Table 12 for this data. No other significant interaction between the groups or treatments was found with this procedure.

Table 12

Analysis of Variance of CDMSES Gains for Groups

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Source	Df	Anova SS	Mean Square	F Value	Pr> F
<hr/>					
Test	1	45306.06	45306.06	32.38	0.0001***

---

\*\*\*Significant at the  $p < .001$  level.

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## CHAPTER 5

## Discussion

Summary of Results

The purpose of the study was to compare the effects of two career counseling interventions upon the career decision-making self-efficacy of two groups of undecided high school seniors. There were three hypotheses for the study.

Hypothesis 1 theorized that the group receiving the Self-Efficacy Plus Information Treatment (SEIT) would score significantly higher on a post-intervention measure of career decision-making self-efficacy than the group receiving the Information Treatment (IT). This hypothesis was not supported by the data.

Hypothesis 2 theorized that the group receiving the SEIT intervention would score significantly higher on a post-intervention measure of vocational identity than the group who received the IT intervention. This hypothesis was also rejected.

Hypothesis 3 theorized that the group receiving the SEIT intervention would score significantly lower on a post-intervention measure of goal instability than the group given the IT intervention. Data analysis revealed a significant difference at the  $p < .01$  level between the groups on this variable. The students who received the SEIT treatment had a significantly higher level of goal instability. The hypothesis as stated must be rejected

because the data showed significance in the opposite direction than anticipated. This was an unexpected finding.

No pretest measures of goal instability were used. There is a possibility that the difference in goal instability between the groups already existed and should not be attributed to the interventions. While randomization was used with the expectation that differences between the groups would be equally distributed, there was a relatively small number of subjects participating in the study. An analysis of the cumulative grade point averages and initial career decision-making self-efficacy scores of the subjects appears to indicate that randomization minimized differences as anticipated.

Certain factors need to be considered when interpreting the results. These factors are possible limitations of the study.

A relatively small number of subjects received the treatments because a screening process was used to ensure that only students who met specific criteria for low self-efficacy were involved. This diagnostic approach has been highly recommended by Spokane and Oliver (1988). During the initial screening, only a portion of seniors classified themselves as undecided. Fewer still of those who reported career indecision rated their career decision-making self-efficacy low enough to be eligible to

be a participant in the study.

The screening and data collection process relied on self-report measures. Self-report measures were appropriate for the study because the topic focused on subjects' attitudes and perceptions about themselves. These measures are subjective by nature even when assigned quantitative values.

A modest Cronbach Coefficient Alpha was obtained for the CDMSES. The CDMSES measured participants' gains in career decision-making self-efficacy. The CDMSES has been shown to have high reliability in other studies. The lower than anticipated Cronbach Coefficient Alpha raises the question of the reliability of the instrument in this particular study. The CDMSES has also been characterized at times as a better global measure of general self-efficacy than a measure of domain-specific tasks like career decision-making.

Having to conduct the study within the operational context of the public school system was another limitation which required the researcher to balance experimental procedure with school policies and protocol. For example, the school system's "30 day absence/loss of credit" classroom attendance rule served to restrict the amount of time subjects had available for treatment sessions aside from their regular classes. To minimize the consequences of class absences for the participants the interventions were limited to three 45-minute sessions.

Oliver and Spokane (1988) found that intensity of treatment (number of hours/number of sessions) is associated with positive counseling outcomes. They report that "increasing the number of hours or of sessions for an intervention increases the favorability of the outcome" (p. 459). One may speculate that had the sessions been longer and/or greater in number that different outcomes may have been obtained, especially for the SEIT group. If more time had been available, a wider variety of activities including increased participant modeling could have been used for the SEIT sessions.

The researcher designed the activities for the intervention sessions. The option to include more activities allowing for performance accomplishments by the subjects in the SEIT group should be considered if this study were replicated.

#### Implications for Theory

There does not appear to have been a significant interaction between the treatments and career decision-making self-efficacy or vocational identity. In contrast, goal instability appears to have been differentially affected during the intervention.

In an earlier study of college students and goal instability, Robbins and Tucker (1986) compared the effects of a career information workshop without leader interaction to a career information workshop with leader



interaction. Leader interaction in the Robbins and Tucker study was defined as supportive remarks and self-disclosing statements by the instructor to participants. Subjects in that group were asked to keep journals and were made to believe that they were responsible for how much they gained from the workshop. According to Robbins (1987), they found students with high goal instability performed better "when provided the support and encouragement of others in the interactional career development workshops" (p. 289).

While the Robbins & Tucker (1986) study offers relevant information which is helpful to interpreting the findings of this study, there are some important differences between the studies. Table 13 shows a comparison of this study to the Robbins and Tucker study on the effects of interactional career workshops on goal instability.

Table 13

Comparison of Two Studies of Goal Instability Utilizing  
Groups for Career Counseling Interventions

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Robbins and Tucker, 1986

<u>Group 1</u>	<u>Group 2</u>
Self-directed learning	Leader-directed learning
No interaction	Interaction
Journals required	No journals
Content the same	Content the same

Bangley, 1992

<u>Group 1</u>	<u>Group 2</u>
IT	SEIT
Leader-directed	Leader-directed
Leader interaction	Peer interaction
Career-information	Self-information

---

Treatment conditions may have substantially modified goal instability for one group and not the other. However, without the use of a pretest measure of goal instability for the groups, it is impossible to definitively attribute this outcome to treatment conditions.

One may speculate on certain factors which could have contributed to the significant difference found between the groups on goal instability. The variable being manipulated was the content of the intervention. The IT groups focused on career information while the SEIT groups focused on self information. In order to accomplish the manipulation, the facilitators assumed differing roles in the treatments.

The facilitators of the Information Treatment groups were assigned a directive role with all three sessions structured to give specific career information. Although both interventions allowed for substantial interaction between the adult facilitator and other group members, the Information Treatment groups interacted most directly with their facilitator leaders.

In contrast, the role of the facilitators in the Self-Efficacy Plus Information Treatment groups was less directive and more informal. The groups were designed to concentrate on the discussion of personal concerns related to their confidence about career decision-making, with only one of three SEIT sessions focusing on career information. The SEIT groups had greater opportunity to interact with their peers.

In summary, the Information Treatment groups received a greater amount of information, were given stronger direction from the facilitators, and had more highly structured sessions than the Self-Efficacy Plus Information Groups. The intensity of the facilitator role and the quantity/type of information in the Information Treatment could have been key factors in producing to the significant difference in goal instability discovered in this study.

This conclusion parallels Robbins and Patton's (1985) findings that individuals with high goal instability "need a career program that supplies a highly supportive, leader-directed group, because of their need for external support and structure" (p. 230) which reinforces the idealizing sector of the personality. The small-group, interactional, information-oriented intervention with strong leader facilitation appears to provide a favorable vehicle for reducing goal instability among undecided high school seniors who experience low

self-efficacy in career decision-making.

### Implications for Practice

There are several important dimensions to be considered when interpreting the findings of this study. While the data collected in this study does not show a self-efficacy intervention to be superior to an information one for career counseling with undecided high school seniors, the data does show a dramatic increase in the career decision-making self-efficacy scores for both groups. Significant differences were found at the  $p < .0001$  level for the gains observed between the CDMSES diagnostic screening and the CDMSES posttest.

Betz (1992), commenting on Bandura's self-efficacy model, has said "because it is a social learning model, the causes of the problem, that is deficits in the information needed to develop strong expectations of personal efficacy, are also the means for the 'cure' " (p. 24). The emphasis for the SEIT group was subjective self-information related to career choice, while the format of the IT group emphasized objective career information. Both approaches could be expected to have increased the participants' level of information but in different ways. The likelihood that different kinds of information could have resulted in similar changes in participants' self-efficacy is not probable. However, it is reasonable to suspect that some other factor or factors may have affected both groups' career decision-making

self-efficacy by mediating the differences in the amount and type of information received by the participants.

It is possible that this common mediating factor was the small group structure. For practitioners who wish to alter student's attitudes and beliefs, the pivotal issue suggested by the findings in this study may be the unit of delivery (small group) rather than the model of delivery (self-efficacy).

Researchers such as Blustein, Devenis, and Kidney (1989) have found a close connection between career development and identity formation in adolescents and endorse the development of career interventions "that simultaneously help adolescents explore both the vocational and non-vocational realms of their identities" (p. 201). They encourage counselors to consider the application of integrative interventions that incorporate developmental or psychoeducational theories into treatment.

Kohut's self-psychology is an example of a concept that may provide counselors with a context to better understand adolescents who must contend with various developmental issues as well as career decision-making tasks. Bandura's self-efficacy construct is another approach that gives counselors a framework from which to deal with students' self-perceptions which could be incorporated when delivering career services to undecided high school students.

### Recommendations for Further Research

There is a need to extend research into career counseling methods used in the public schools. School practitioners should be involved in this research to learn more about how their services impact on the populations they serve.

It is important to conduct additional studies of career counseling interventions with high school populations. Career counseling research, especially with undecided high school seniors, appears to have been seldom undertaken or reported in the literature. Because high schools students are faced with a major life transition, more attention should be given to studying how to influence their ability to make career and educational plans.

Replicating this study and increasing the number of sessions and/or the number of participants would be important in establishing the validity of the findings reported here. Conducting research into the relationship between the various traits of undecided high school seniors would be useful, particularly to examine how the traits may interact when studied in the context of an intervention.

Blustein (1989) recommends more studies be done to better understand the specific relationship between self-efficacy and goal instability. The results of this study suggest a need to do more research in order to clarify the relationship between these variables.

Based on the findings in this study one may speculate

that career counseling for undecided high school seniors in small groups with an interactional format is highly conducive to improving students' career decision-making self-efficacy, and perhaps reducing goal instability. It would be important for other studies to be conducted to determine if similar results can be obtained.

### Conclusion

This career intervention study should stimulate additional studies in the field of high school career counseling. Traditional approaches are not enough to meet the needs of a diverse population. Students and their counselors face greater challenges than ever before. Stricter budget allocations, weaker family support systems, and a society of youth with great cultural diversity define the tasks shared by career counselors of the 1990s.

Students' attitudes affect their career decision-making. If students are to attain their maximum potential in school and subsequently the workplace, often in spite of their socioeconomic situation, ways to alter student attitudes need to be incorporated into counseling programs. School counselors delivering career guidance should explore a variety of approaches which might be effective for many types of students, particularly the undecided high school senior.

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## Appendix A

Career and Educational Plans Questionnaire

This survey is designed to help determine where you are in the planning process for education and work after high school. Take time to consider how you feel about these issues before marking a response. The Vocational Career Counselor will use this information to plan counseling activities, programs, and strategies that may assist you in making decisions about the future.

After High School Plan

Please mark the option you have tentatively planned as a full time activity for next year.

- ☐ A. Full-time employment.
- ☐ B. Full-time college student-four year institution.
- ☐ C. Full-time community college student.
- ☐ D. Armed services for employment and training.
- ☐ E. Registered apprenticeship for employment and training.

Please mark the response that best describes your feelings as follows:

- (1) represents "not confident at all."
- (2) represents "somewhat confident."
- (3) represents "confident."
- (4) represents "very confident."
- (5) represents "completely confident."

1. How confident are you that you could make an appropriate career decision and pursue work in that field?  

1   2   3   4   5
2. How confident are you that you could make and carry out appropriate education plans for yourself?  

1   2   3   4   5
3. Are you certain about your occupational plans?  

1   2   3   4   5
4. Are you certain about your educational plans?  

1   2   3   4   5

Appendix B  
Student Consent Form

Dear (Student name) :

Come on down! You have been selected to participate in one of several small career counseling groups. The purpose is to improve your ability to make choices about your education and career plans. The survey you recently completed shows some ways we can assist you. This is designed to be enjoyable and informative. Your participation is also very important to helping us learn more about methods of career counseling to share with other counselors. The groups will meet for three sessions over May, and will rotate between 1st, 2nd, and 3rd bells, so you will only miss one absence from any of those classes. These absences are excused, and I will contact your teachers to facilitate any difficulty with make-up work, should that arise any session. Though this is optional, remember your future begins NOW!

Join us!

Yes\_\_ I will participate    Signature\_\_\_\_\_

Homeroom Teacher:                      Room Number:

Schedule:    Group\_\_\_\_\_

Days\_\_\_\_\_

Location:    Career & College Room in Guidance

## Appendix C

Self-Efficacy Information Treatment

## Session 1

## Location - Conference Room

1. Have each student get comfortable and introduce themselves; have them tell one or two things about themselves to build group rapport.
2. Return their survey and give them a few minutes to look it over.
3. Tell them the purpose of these sessions is to improve their confidence in their ability to make career and educational plans.
4. Next ask them to write down three things in which they want to improve their confidence in from the survey--no name required and pass it in to you. Then go over the items with the group. Tell the subjects the items from their list will be used to plan for the next session.
5. Then present the Self-Directed Search (SDS). Explain Holland types as related to personality and occupational choice concept.
6. Next distribute the SDS booklets and have subjects complete them. Taking the SDS should finish most of the remaining time.
7. During the last 5 minutes do a wrap-up bringing to closure Session 1, and setting stage for Session 2. I will have the date and location to give them for the next meeting.

## Self-Efficacy Information Treatment

### Session 2

1. Remind students the purpose of this counseling group is to improve their career and educational planning and decision-making skills through greater awareness of self.
2. Start with giving back SDS booklets - have them pick up their place - transfer information and get profile; hand them their copy of SDS - booklet - explaining concepts.
3. Give out the Occupations Finder and have them write down any occupations they like under their profile. They will use these in Session 3 with the Choices program.
4. Review the group consensus of concerns: (summary below of items that appeared most often).
  - A. How to assess their abilities.
  - B. Plan goals.
  - C. Cope with change/failure.
  - D. Make decisions and not worry.
  - E. Deal with getting approval of parents, and others.
  - F. Find specific information.
5. Let's start with a model for decision-making - Get a group member to write this on the blackboard.  
"4-Step Model of Decision-Making"
  - A. State your goal

- B. Gather information/reliable sources
- C. Brainstorm all options - List them
- D. Evaluate pro's and con's of each and pick  
one to make a plan

Do a group example applying the model.

i.e. Pick an example - sample career:

Use the Occupational Outlook Handbook (OOH) to  
get information on options for training or entry

Ex. Goal - work as an accountant

Information - Use Va. View/Choices to find out  
data or talk to an accountant.

Brainstorm - discuss options for classes;  
\*full/part time; day/night, etc.

\*work in an office of an accountant

\*Evaluate - make a decision

- 6. What is a goal? Discuss their ideas on goals.
  - a. Long term - over one or more years
  - b. Short term - more immediate; six months-one year
- 7. Have subjects write a short term career goal and a long  
term one to share with the group.
- 8. Discuss the nature of decisions.
  - \* decisions can be modified - Don't let "fear" of  
incorrect decision delay you.
  - \* decisions not usually permanent.
  - \* can modify course of action.
  - \* what are the consequences of a wrong decision?
  - \*are consequences reversible?



### Self-Efficacy Information Treatment

#### Session 3

1. \*Make sure all group members have kept their SDS materials.
2. Begin at the point of discussing long term and short terms goals. Each member should be able to write at least one long term and three short term career or educational goals. Ask for volunteers to share their list.
3. Next, remind students of some of the other group concerns which were raised in the first session such as:
  - \* others' approval of their decisions;
  - \* being afraid of making the wrong decision;
  - \* being able to assess their abilities;
  - \* being able to access specific information.
4. At this point the focus will be on getting them to complete the handout with eight items.

#### Handout-Review checklist (Yes/No)

1. I feel confident that when making a decision I understand the 4-Step Model presented in the group and can apply it to my own decision-making.
2. I have a better understanding of my personality traits as they relate to my occupational choices. I identify with my Holland code.
3. I am aware of some occupational titles that may be suited to my interests and personality.

Handout-Discussion questions for the session

(Agree/Disagree)

1. I believe that it is important to win the approval of significant others for major goals and directions.
2. Decisions in life should be consistent with your personal goals, both short and long term.
3. Big decisions should not or cannot be modified at a later point in your life.
4. There can be more than one satisfactory or right decision for achieving a specific goal.
5. I am able to list one or more long term goals for myself and several short term ones.
5. Try to get them to discuss whether they agree or disagree on points 1-5.
6. Mention ways to assess their abilities: Check cumulative folder, aptitude tests, past academic performance, placement tests, etc.
7. The remainder of this session will focus on assessing and accessing information through Choices.  
Look at Choices booklet.  
Choices: emphasize 2 files: education, occupational; can be explore or specific, or compare options; national data base.
8. Introduce Va. View if there is any time left over; state facts; discuss the multiple files; show index; and let them get printout of information time allows.

Appendix D  
Information Treatment

Session 1

Location: Career and College Room

1. Have students get comfortable and introduce themselves; tell one or two things about themselves to build group rapport.
2. Tell them the purpose of these sessions is to improve their ability to make career and educational plans. Making decisions based on information is the goal for this group.
3. Give each student the Occupational Outlook Handbook (OOH). Explain what it is--turn to pp. viii, ix, x. Have them write down an occupation they want to know more about.  
  
\*Then have them select an occupation and find it in the OOH - Explain how the data is organized under sections like the "Nature of the Work", "Working Conditions", etc.
4. Next cover state and local occupational data in the Virginia View system.
  - Display the index to Va. View and distribute copies to everyone.
  - Explain the index and bring up Va. View on the computer, with them observing. Describe the various files of information they can access.
  - Pull up an occupation from the Viewscript files and

print it out. Do one for each of them. When each person has their printout, have them review the format of the information.

- At this point a wrap-up for Session 1 should be done. You may ask them to tell you some areas of special interest if they have any for next session and that the date and location for the next session will be announced later.

## Information Treatment

### Session 2

1. Remind them the OOH is a quick resource for national data.

Review Va. View. Go over the files for schools and index. If anyone wants a printout for a school, you may run one.

2. Go to Choices. Demonstrate the program. Start by showing the reference manual.
  - 2 Alphabetic lists.
  - Have each run a printout on occupation.
  - See if anyone wants a school printout.
3. Show and discuss the Chronicle Guide to Four Year Schools, Chronicle Guide to Two Year Schools, and the Chronicle Vocational School Manual.
4. Show and discuss the 5 binders of Chronicle Occupational Briefs.
5. Show and discuss the Encyclopedia of Careers.

Information Treatment

## Session 3

1. Demonstrate the Chronicle Series
  - Show the ring binder sets. Tell how the material is organized for use.
2. Encyclopedia of Careers
3. Dictionary of Occupational Titles
4. Virginia View Career Hunt magazines
5. Introduce the Tidewater Community College Catalog to the students. Explain the usefulness of the catalog for getting information on the following:
  - Degrees
  - Programs of study
  - Semesters hours/credits, etc.
6. Employment and Information -List the major types of employability skills one may develop.
7. High light Virginia View Career Hunt material.
  - Job Search
  - Letter of Application
  - Application
  - Resume
  - Interview
  - Follow up.
8. Tell them about SDS - can pick one up.

## Appendix E

Facilitator Instructions

1. The purpose of the groups is to improve students career and educational planning and decision-making skills.
2. Do not reveal this is a study. I have explained that this is a pilot program for career counseling groups, and that at the end we will ask them to evaluate and to decide the worthiness of the program.
3. Be sure to follow the outlines of the sessions so that the groups are in fact getting different treatments.
4. You are fantastic for helping--what more can I say!

## Appendix F

Instructions for Evaluation

Please put your name on the top page of each evaluation survey and complete them in this order: (1) Evaluation below, (2) Original survey, (3) My Vocational Situation, and (4) Self-Expression survey. Read each item before you mark your answer. Your answers collectively are very important in determining whether career counseling groups are helpful. By answering all the evaluations in your packet valuable data on which kinds of career counseling may be most likely to improve certain skills can be obtained. Thanks for your cooperation and participation in this endeavor. I have enjoyed talking and meeting each of you. Don't hesitate to see me for further assistance or information this year.

## Evaluation 1

1. Did you find being in a career counseling group helpful?  
☐ Yes    ☐ No
2. In your opinion should this type of career counseling group be offered next year?  
☐ Yes    ☐ No
3. Would you recommend any changes in the format or content of the group session?  
☐ Yes    ☐ No
4. Comments or suggestions:



## Appendix G

My Vocational Situation

Try to answer all the following statements as mostly TRUE or mostly FALSE. Circle the answer that best represents your present opinion.

In thinking about your present job or in planning for an occupation or career:

- |  |   |   |
|--|---|---|
| 1. I need reassurance that I have made the right choice of occupation.                       | T | F |
| 2. I am concerned that my present interests may change over the years.                       | T | F |
| 3. I am uncertain about the occupations I could perform well.                                | T | F |
| 4. I don't know what my major strengths and weaknesses are.                                  | T | F |
| 5. The jobs I can do may not pay enough to live the kind of life I want.                     | T | F |
| 6. If I had to make an occupational choice right now, I am afraid I would make a bad choice. | T | F |
| 7. I need to find out what kind of career I should follow.                                   | T | F |
| 8. Making up my mind about a career has been a long and difficult problem for me.            | T | F |
| 9. I am confused about the whole problem of deciding on a career.                            | T | F |

- |  |   |   |
|--|---|---|
| 10. I am not sure that my present occupational choice or job is right for me.    | T | F |
| 11. I don't know enough about what workers do in various occupations.            | T | F |
| 12. No single occupation appeals strongly to me.                                 | T | F |
| 13. I am uncertain about which occupation I would enjoy.                         | T | F |
| 14. I would like to increase the number of occupations I could consider.         | T | F |
| 15. My estimates of my abilities and talents vary a lot from year to year.       | T | F |
| 16. I am not sure of myself in many areas of life.                               | T | F |
| 17. I have known what occupation I want to follow for less than one year.        | T | F |
| 18. I can't understand how some people can be so set about what they want to do. | T | F |

## Appendix H

Goal Instability Scale

Directions: Following are a number of statements that reflect various ways in which we can describe ourselves. After reading each statement, one at a time, fill in the number in pencil on the separate answer sheet, along the scale which ranges from 1, "Strongly Agree", to 6, "Strongly Disagree." There are no right or wrong answers, so please just make your best judgement. Simply try to rate the extent to which you agree with each statement. Do not spend too much time with any one statement. Fill in the number which best fits for each statement and do not leave any unanswered.

Please fill in a Number for each Statement, along:

Strongly Agree	Moderately Agree	Slightly Agree	Slightly Disagree	Moderately Disagree	Strongly Disagree
1	2	3	4	5	6

---

	<u>Agree</u>		<u>Disagree</u>	
1. It's hard to find a reason for working.....	1	2	3	4 5 6
2. I don't seem to make decisions by myself.....	1	2	3	4 5 6
3. I have confusion about who I am.....	1	2	3	4 5 6

- |     |                                |   |   |   |   |   |
|-----|--------------------------------|---|---|---|---|---|
| 4.  | I have more ideas than         |   |   |   |   |   |
|     | energy.....1                   | 2 | 3 | 4 | 5 | 6 |
| 5.  | I lose my sense of             |   |   |   |   |   |
|     | direction.....1                | 2 | 3 | 4 | 5 | 6 |
| 6.  | It's easier for me to          |   |   |   |   |   |
|     | start than to finish           |   |   |   |   |   |
|     | projects.....1                 | 2 | 3 | 4 | 5 | 6 |
| 7.  | I don't seem to get going      |   |   |   |   |   |
|     | on anything important.....1    | 2 | 3 | 4 | 5 | 6 |
| 8.  | I wonder where my life         |   |   |   |   |   |
|     | is headed.....1                | 2 | 3 | 4 | 5 | 6 |
| 9.  | I don't seem to have the       |   |   |   |   |   |
|     | drive to get my work done....1 | 2 | 3 | 4 | 5 | 6 |
| 10. | After a while I lose           |   |   |   |   |   |
|     | sight of my goals.....1        | 2 | 3 | 4 | 5 | 6 |

## Appendix I

The Career Decision-Making Self-Efficacy Scales

For each statement below, please read carefully and indicate how much confidence you have that you could accomplish each of these tasks by marking your answer according to the following 10-point continuum.

No Confidence	Very Little Confidence	Some Confidence	Much Confidence	Complete Confidence
0	1 2 3	4 5	6 7	8 9

Example: How much confidence do you have that you could:

A. Summarize the skills you have developed in the jobs you have held.

If your response on the 10-point continuum was 5, "some confidence," you would circle the number 5 in the right hand column as follows: 0 1 2 3 4 5 6 7 8 9

HOW MUCH CONFIDENCE DO YOU HAVE THAT YOU COULD:

1. List several majors that you are interested in.

0 1 2 3 4 5 6 7 8 9

2. Find information in the library about occupations you are interested in.

0 1 2 3 4 5 6 7 8 9

3. Select one major from a list of potential majors  
you are considering.  
0 1 2 3 4 5 6 7 8 9
4. Make a plan of your goals for the next five years.  
0 1 2 3 4 5 6 7 8 9
5. Determine the steps to take if you are having academic  
trouble with an aspect of your chosen major.  
0 1 2 3 4 5 6 7 8 9
6. Accurately assess your abilities.  
0 1 2 3 4 5 6 7 8 9
7. Find information about companies who employ people with  
college majors in English.  
0 1 2 3 4 5 6 7 8 9
8. Select one occupation from a list of potential  
occupations you are considering.  
0 1 2 3 4 5 6 7 8 9
9. Determine the steps you need to take to successfully  
complete your chosen major.  
0 1 2 3 4 5 6 7 8 9
10. Persistently work at your major or career  
goal even when you get frustrated.  
0 1 2 3 4 5 6 7 8 9
11. List several occupations that you are interested in.  
0 1 2 3 4 5 6 7 8 9
12. Find information about educational programs in  
engineering.  
0 1 2 3 4 5 6 7 8 9

13. Choose a career that will fit your preferred lifestyle.  
0 1 2 3 4 5 6 7 8 9
14. Prepare a good resume.  
0 1 2 3 4 5 6 7 8 9
15. Change majors if you did not like your first choice.  
0 1 2 3 4 5 6 7 8 9
16. Determine what your ideal job would be.  
0 1 2 3 4 5 6 7 8 9
17. Talk to a faculty member in a department you are considering for a major.  
0 1 2 3 4 5 6 7 8 9
18. Make a career decision and then not worry about whether it was right or wrong.  
0 1 2 3 4 5 6 7 8 9
19. Get letters of recommendation from your professors.  
0 1 2 3 4 5 6 7 8 9
20. Change occupations if you are not satisfied with the one you enter.  
0 1 2 3 4 5 6 7 8 9
21. Decide what you value most in an occupation.  
0 1 2 3 4 5 6 7 8 9
22. Ask a faculty member about graduate schools and job opportunities in your major.  
0 1 2 3 4 5 6 7 8 9

23. Choose a major or career that your parents do not approve of.
- 0 1 2 3 4 5 6 7 8 9
24. Get involved in work experience relevant to your future goals.
- 0 1 2 3 4 5 6 7 8 9
25. Resist attempts of parents or friends to push you into a career or major you believe is beyond your abilities.
- 0 1 2 3 4 5 6 7 8 9
26. Figure out whether you have the ability to successfully take math courses.
- 0 1 2 3 4 5 6 7 8 9
27. Describe the job duties of the career/occupation you would like to pursue.
- 0 1 2 3 4 5 6 7 8 9
28. Choose a career in which most workers are the opposite sex.
- 0 1 2 3 4 5 6 7 8 9
29. Find and use the Placement Office on campus.
- 0 1 2 3 4 5 6 7 8 9
30. Move to another city to get the kind of job you really would like.
- 0 1 2 3 4 5 6 7 8 9
31. Determine the academic subject you have the most ability in.
- 0 1 2 3 4 5 6 7 8 9



32. Find out the employment trends for an occupation in the 1980s.

0 1 2 3 4 5 6 7 8 9

33. Choose a major or career that will fit your interests.

0 1 2 3 4 5 6 7 8 9

34. Decide whether or not you will need to attend graduate or professional school to achieve your goals.

0 1 2 3 4 5 6 7 8 9

35. Apply again to graduate schools after being rejected the first time.

0 1 2 3 4 5 6 7 8 9

36. Determine whether you would rather work primarily with people or with information.

0 1 2 3 4 5 6 7 8 9

37. Find out about the average yearly earnings of people in an occupation.

0 1 2 3 4 5 6 7 8 9

38. Choose a major or career that will suit your abilities.

0 1 2 3 4 5 6 7 8 9

39. Plan course work outside of your major that will help you in your future career.

0 1 2 3 4 5 6 7 8 9

40. Identify some reasonable major or career alternatives if you are unable to get your first choice.

0 1 2 3 4 5 6 7 8 9

41. Figure out what you are and are not ready to sacrifice to achieve your career goals.

0 1 2 3 4 5 6 7 8 9

42. Talk with a person already employed in the field you are interested in.

0 1 2 3 4 5 6 7 8 9

43. Choose the best major for you even if it took longer to finish your college degree.

0 1 2 3 4 5 6 7 8 9

44. Identify employers, firms, and institutions relevant to your career possibilities.

0 1 2 3 4 5 6 7 8 9

45. Go back to school to get a graduate degree after being out of school 5-10 years.

0 1 2 3 4 5 6 7 8 9

46. Define the type of lifestyle you would like to live.

0 1 2 3 4 5 6 7 8 9

47. Find information about graduate or professional schools.

0 1 2 3 4 5 6 7 8 9

48. Choose the major you want even though the job market is declining with opportunities in this field.

0 1 2 3 4 5 6 7 8 9

49. Successfully manage the job interview process.

0 1 2 3 4 5 6 7 8 9

50. Come up with a strategy to deal with flunking out of college.

0 1 2 3 4 5 6 7 8 9

51. I believe that I can successfully decide on a major and feel comfortable with it.

0 1 2 3 4 5 6 7 8 9

52. I believe that I can successfully decide on a career and feel comfortable with it.

0 1 2 3 4 5 6 7 8 9