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# The effect of internships on career decision, as explained by social cognitive career theory, identity theory and attribution theory

Laura Lynn Friesenborg  
*Iowa State University*

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**The effect of internships on career decision,  
as explained by social cognitive career theory, identity theory, and attribution theory**

by

**Laura Lynn Friesenborg**

A thesis submitted to the graduate faculty  
in partial fulfillment of the requirements for the degree of  
**MASTER OF SCIENCE**

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Program of Study Committee:  
Kathy Hanisch, Major Professor  
Mack Shelley  
Cindy Anderson

Iowa State University

Ames, Iowa

2002

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Graduate College  
Iowa State University

This is to certify that the master's thesis of  
Laura Lynn Friesenborg  
has met the thesis requirements of Iowa State University

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## ABSTRACT

Exploring career options is a crucial component of the career decision-making process, with the internship experience representing an excellent opportunity to further explore and test students' career choices. This study used a pre-test/post-test design to examine the effect of internships on career decision, from the vantage of three psychological theories.

( The internship significantly increases self-efficacy, fosters realistic outcome expectations, and enhances goal-orientation, the three components of Social Cognitive Career Theory. Throughout the internship, interns experience the reality of work, learning more about their chosen careers and what the profession expects of them. The fear of the unknown is removed, allowing interns to gain confidence in their ability to be successful in a work role, whereby boosting their self-efficacy and promoting realistic expectations, leading students to develop career goals and to strive to achieve them. Through the internship experience, students are able to reevaluate their career choices, enabling career goals to be tested prior to graduation.

The internship also increases career commitment relative to two of the four identity formation statuses outlined by Identity Theory. The internship increases career commitment between-subjects in the identity-achieved and moratorium status groups, demonstrated by varied career commitment levels between participants in each of these two groups. Within-subject differences in career commitment were also significant among those in the moratorium group, meaning that significant pre-post score differences were found among individuals experiencing identity moratorium.

The results relative to Attribution Theory showed that the internship experience significantly increases the tendency for internal loci of causality and controllability. Through the internship, students realize that luck and task difficulty are less related to their success than their abilities and effort. As a result, they feel responsible for taking full advantage of the internship and hold themselves accountable for their career decisions.

The results of this study have important career counseling implications, demonstrating the importance of encouraging students to engage in professional internships, promoting confident, thoughtful career decisions.



## INTRODUCTION

Each year, countless students from colleges and universities nationwide perform internships, applying the theories they have learned in the classroom to a real-world work environment (Eyler, 1993). The value of performing an internship is three-fold: to facilitate career decision through the identification or confirmation of vocational interests and values, to introduce students to real-world work challenges and reduce their apprehension about entering the workforce, and to provide students with a competitive edge in the job market, increasing their job placement opportunities upon graduation (Eyler, 1995; Eyler, 1993). College graduates, who had participated in internships during college, consistently advocate the utility of the internship experience (Eyler, 1995). Even students who rated their internship placement sites as less than optimal reflect on the internship as a positive and necessary learning experience. In addition, some graduates credit the internship as the most important component of their college education (Eyler, 1995).



## LITERATURE REVIEW

In spite of the value and prevalence of internships, little research has examined internship outcomes (Brooks, Cornelius, Greenfield, & Joseph, 1995; Eyler, 1995; Feldman & Weitz, 1990). Furthermore, the value of existing research on the topic is questionable, typically comprised of interns' qualitative self-reports of their experiences, rather than statistically sound empirical studies (Feldman & Weitz, 1990).

Multiple factors work together to impact internship outcomes, and sociocultural and cognitive factors must be considered (Perrone, Perrone, Chan, & Thomas, 2000). No single factor, including interest congruence, predicts a successful internship (Perrone et al., 2000; Tranberg, Slane, & Ekeberg, 1993). However, the internship's degree of utility is largely based on the degree of success in matching an employer's needs with an intern whose knowledge, skills, and abilities enable him or her to fulfill the employer's needs (Feldman & Weitz). Both the employer and the intern have expectations for the internship, and in order for both parties' expectations to be satisfied, there must be a good employer-intern match. Career counselors must facilitate the evaluation of the students' abilities and interests and assist them in seeking internships with employers whose expectations and opportunities result in a good intern-employer fit (Feldman & Weitz, 1990).

Career indecision is marked by the inability to determine the career one wishes to pursue (Leong & Chervinko, 1996). Career counselors promote internships as an excellent method to gain experience and to assist in forming career choices, reducing career indecision (Brooks et al., 1995). The internship experience may either confirm a student's tentative career choice, or the experience may convince the student not to pursue a career in that field (Brooks et al., 1995). Either way, the internship is a valuable tool for reducing career indecision. In fact, in a study by Eyler (1995), 17-percent of graduates, who had completed

an internship while in college, responded that they appreciated the internship experience and its effect on career choice.

This study will examine the effect of internships on career decision, from the vantage of three notable psychological theories: Social Cognitive Career Theory, Attribution Theory, and Identity Theory. For the constructs that comprise each of these three theories, this study will address the perceived career barriers, which perpetuate career indecision. Interventions, methods to reduce career indecision stemming from each construct, will also be suggested. Essentially, the internship experience is expected to impact these theoretical constructs, subsequently affecting the level of career decision.

### **Social Cognitive Career Theory**

Social Cognitive Career Theory (SCCT) was developed by Lent, Brown and Hackett, (1994) as an application of Bandura's (1986) Social Cognitive Theory to the study of career development. Though SCCT is a relatively new career theory, it already has had a strong impact on career development research (Perrone et al., 2000). Like Bandura's (1986, 1989) model, SCCT is characterized by three dimensions: self-efficacy, outcome expectations, and goals, which work together to facilitate human agency (Lent et al., 1994), which states that motivation determines behavior, a key component of Bandura's (1986, 1989) theory.

#### **Self-Efficacy**

In 1918, Woodworth, a pioneer in the field of psychology, proclaimed, "Interests keep pace with human capacities" (in Randahl, 1991, p. 333). This theme persists today in the study of self-efficacy, which was defined by Bandura (1986) as the extent of one's confidence in performing a specific task or behavior. Though the tridimensional SCCT was not fully developed by Lent, Brown and Hackett until 1994, the self-efficacy dimension

included in Bandura's theory was first applied to career development research by Betz and Hackett in 1981. In their pioneer study, Betz and Hackett (1981) found that students' self-reports of their academic and occupational capabilities were significantly associated with the nature and variation in the career options they considered.

### **Applications of triadic reciprocity**

Central to self-efficacy are three dimensions that produce bidirectional effects: individuals' personal attributes (e.g., cognitive, affective, and physical traits), their behavior, and environmental factors. That is, these three dimensions each mutually affect and are affected by the other dimensions. Bandura (1986) identified this relationship as triadic reciprocity.

The triadic reciprocity concept can be directly applied to the process of career decision through internship participation. The internship environment (i.e., the employing organization), the intern's personal attributes, and the intern's behavior each affect each other. For example, the employer's demands and expectations (i.e., factors within the internship environment) challenge the intern's cognitive abilities (i.e., his or her personal attributes), which could, in turn, motivate the intern to expend greater effort to perform at or above the employer's expectations (i.e., the intern's overt behavior).

To demonstrate the bidirectional dimension of triadic reciprocity, let's explore a more specific example. Assume that a college junior majoring in business is contemplating a specialization in either finance or marketing. The student applies for and accepts a finance internship, where she calculates agent commissions for a large insurance company. However, her manager observes that, though the intern has outstanding interpersonal skills, she is less skilled in the finance area (i.e., her personal attributes), and she has made several errors in her commission calculations (i.e., her overt behavior), which frustrates the intern

(reducing her self-efficacy toward finance). As a result, her manager suggests she transfer to an internship in the agent marketing department (i.e., factors within the internship environment). With the intern's strong interpersonal and communication skills (i.e., personal attributes), she excels at the agent marketing internship, effectively providing agents with current product information, as well as promotional materials (i.e., overt behavior), whereby increasing her self-efficacy in marketing. As a result, the internship experience was a valuable tool in the student's decision to major in marketing, rather than finance. Based on this example, clearly the internship experience reduces career indecision through the dynamic role that self-efficacy plays in contributing to internship outcomes (Brooks et al., 1995).

### **Perceived career barriers**

Self-efficacy has useful career development applications because it can predict perceived career barriers (Brown & Lent, 1996), and self-efficacy affects career choice, as well as the degree of effort and perseverance that individuals exhibit when they encounter career barriers (Lent et al., 1994). Recognizing perceived career barriers and providing intervention constitute one of the most useful applications of self-efficacy research because career barriers perpetuate career indecision and inhibit goal-setting (Brown & Lent, 1996). Self-efficacy, coupled with subsequent perceived career barriers, explain why women tend to avoid male-dominated academic majors, such as those in science and math, as well as male-dominated careers (Betz & Hackett, 1981). By explaining this avoidance, career counselors can focus on increasing self-efficacy among female students and students of minority races, in order to reduce perceived career barriers (Brown & Lent, 1996; Hackett & Byars, 1996; Swanson & Woitke, 1997) and, ultimately, to work toward minimizing sex differences in the workplace (Betz & Hackett, 1981). As a result, self-efficacy continues to be the SCCT dimension that receives the most attention in career development research (Lent et al., 1994),

particularly in career decision research (Betz & Luzzo, 1996; Chartrand, Rose, Elliott, Marmarosh, & Caldwell, 1993).

### **Interventions**

Self-efficacy has been found to be the best predictor of career indecision, accounting for 19-percent and 28-percent of the variance in career indecision among women and men, respectively (Betz & Vuyten, 1997). This finding has important implications for career counselors. In order to assist undecided students, counselors must assess the students' self-efficacy by evaluating four factors: students' performance accomplishments, vicarious learning (i.e., the careers modeled to them by others), verbal persuasion and encouragement to pursue a career or to explore careers, and physiological arousal (Bandura, 1986). Intervention to reduce career indecision should focus on increasing students' self-efficacy through these four methods. Intervention-based research has neglected to indicate the sources of self-efficacy that most influence career indecision (Betz & Luzzo, 1996). An internship could potentially affect each of these four factors, whereby reducing career indecision.

**Performance accomplishments.** During the internship experience, students complete projects relevant to their fields of interest, applying theoretical concepts they have learned in the classroom in order to fulfill real-world organizations' initiatives (Eyler, 1995; Eyler, 1993). In doing so, the student experiences performance accomplishments by successfully completing these projects, which leads to a sense of personal achievement and an increase in confidence or self-efficacy and reduced career indecision (Brooks et al, 1995).

**Verbal persuasion and encouragement.** A job well done is recognized and praised by the internship manager, who may verbally persuade and encourage the intern to pursue a position in that field or with that organization after college graduation. This also leads to

increased self-efficacy and reduced career indecision. In contrast, if a student does not believe he or she has the skills expected by the internship employer, his or her self-efficacy decreases, and upon graduation, the student is less likely to pursue a full-time position in that field or with that employer (Feldman & Weitz, 1990).

**Vicarious learning.** During the internship, students have the opportunity to observe successful individuals within the career fields they are considering. This constitutes vicarious learning or modeling, characterized the students learning through observation of successful individuals within the field. Learning from others in the field also fosters self-efficacy and reduces career indecision (Feldman & Weitz, 1990).

**Physiological arousal.** The last factor, physiological arousal, can also be impacted through the internship experience. Types of physiological arousal can vary. Enthusiasm and anxiety are just two examples that may be impacted by the internship. A good internship experience could lead to enthusiasm about that career field, resulting in increased self-efficacy and reduced career indecision. In contrast, anxiety is inversely related to self-efficacy. Through the internship, students gain more information and actually have the opportunity to experience a career field of interest. As a result, students are less intimidated by the world of work, resulting in increased self-efficacy, reduced career indecision, and reduced anxiety (Brooks et al., 1995).

**H<sub>1</sub>:** The internship experience will increase self-efficacy, one factor of the career decision-making process.

### **Outcome Expectations**

The outcome expectations construct of SCCT is defined as the prediction of consequences that will likely occur as a result of a behavior. These consequences could include reinforcement that is either extrinsic or intrinsic in nature. For example, an intrinsic

outcome expectation may be the student's expectation that the internship will foster his or her career decision, or the expectation that, as a result of the internship, his or her future career in that field will bring satisfaction and personal fulfillment. An example of an extrinsic outcome expectation may be the student's expectation that the internship will result in a job offer from the internship employer or that it will result in a high-paying career (Lent et al., 1994).

Career counselors must specifically evaluate the student's outcome expectations with regard to career exploration. That is, counselors should gauge the degree to which each student expects career exploration will result in beneficial career planning outcomes because outcome expectations constitute the best predictor of career exploration intentions. Specifically, outcome expectations account for 25-percent and 29-percent of the variance in exploration intentions among women and men, respectively (Betz & Voyten, 1997).

### **Perceived career barriers**

Perceived failure within a career or committing to a career then regretting it later are two negative outcome expectations that predict career indecision (Leong & Chervinko, 1996). These two outcome expectations are referred to as fear of failure and fear of commitment, anxieties that are often characteristic of perfectionists (Leong & Chervinko, 1996). When failure is the expected outcome, individuals are paralyzed to make a decision, which perpetuates career indecision. Similarly, fear of committing to the wrong career, and subsequently losing out on other career options, is paralyzing and has been found to be a strong predictor of career indecision (Leong & Chervinko, 1996).

### **Interventions**

Recognizing career indecision and its relationship with fear of failure and fear of commitment is important. Once a career counselor recognizes this pattern in a particular

student, the counselor should implement interventions to mediate these fears and build the student's self-efficacy, with the goal of creating more positive outcome expectations (Leong & Chervinko, 1996). Career indecision is caused by both negative affects, such as anxiety, and lack of information (Chartrand et al., 1993; Leong & Cherninko, 1996). Students fear the unknown, and career education often reduces that fear. Career counselors can begin by assisting students in examining their skills, interests, and values, as well as by helping them research numerous career choices and encouraging them to conduct informational interviews with individuals in those careers (Solberg, 1998). Providing students with education about occupations and careers will facilitate career exploration, which will eventually lead to positive outcome expectations and reduced career indecision (Betz & Voyten, 1997; Chartrand et al., 1993).

In addition to outcome expectations for the career exploration process, outcome expectations with regard to the internship are also an important consideration for career counselors. Students with realistic outcome expectations for the internship tend to rate it as a more valuable experience. In a study of factors that influenced post-internship attitudes, Feldman and Weitz (1990) found that realistic expectations were significantly and positively related to job satisfaction, internal motivation, and organizational commitment. As a result, career counselors must discuss students' outcome expectations of their internship and of the careers they are pursuing in order to challenge unrealistic expectations and foster more realistic ones.

**H<sub>2</sub>:** The internship experience will foster more realistic outcome expectations, one factor of the career decision-making process.



### Goal-Orientation

Self-efficacy and outcome expectations affect career choice goals (Gore & Leuwerke, 2000). However, goal-orientation has been the SCCT dimension least examined by researchers. Van Vianen (1999) conducted one of the few studies that examined all three of the SCCT constructs: self-efficacy, outcome expectations, and goals. Despite the lack of attention it receives in the career development literature, goals constitute a critical feature of the social cognitive career theory. Projecting desired future outcomes, goals play an important role in guiding an individual's behavior. Lent et al. (1994) explain, "While environmental events and personal history help shape their behavior, people are seen as more than just mechanical responders to deterministic forces; by setting goals, people help to organize and guide their behavior, to sustain it over long periods of time even in the absence of external reinforcement, and to increase the likelihood that desired outcomes will be attained" (p. 84). Essentially, goals mirror an individual's self-efficacy and outcome expectations. The motivation and effort expended in order to achieve goals leads to skill development and achievement of outcome expectations (Bandura, 1986; Lent et al., 1994).

Examining career-oriented leadership motivation, Van Vianen's (1999) research explored the factors that lead to career advancement to a management position. Career advancement occurs as a function of both internal and external factors. External factors, such as the job market and economic demand for an individual's particular occupation, collectively affect career advancement opportunities. Perhaps more importantly, internal factors, such as management ambition and goal-setting, also play a critical role, providing individuals with some control over advancing their careers (Albert & Luzzo, 1999; Van Vianen, 1999).

Although deciding on a career is of greater concern to college juniors and seniors than career advancement, Van Vianen's (1999) research is relevant to this study because it distinguishes between goals that are motivated by internal and external factors. An intrinsically motivated career goal may be characterized by a student who, for example, excels in advanced math courses and enjoys the field, so she decides to pursue a career in actuarial science. However, just as many students appear to have extrinsically motivated career goals. For example, career counselors often hear statements like, "My cousin is an actuary, and he makes a lot of money, so my dad wants me to be actuary." That may be fine if the student is interested and skilled in math. However, chances are the student does not even know what an actuary actually does. Too often students hurriedly make a career decision, without thoroughly engaging in career exploration, and instead allowing others to make career decisions for them. Career counselors should facilitate the career exploration process among these students.

### **Perceived career barriers**

Career decidedness is a core factor in setting career goals. As a result, career indecision represents a career barrier, both perceived and real. Career indecision inhibits goal-setting and, subsequently, prevents goal achievement. Conversely, high career self-efficacy facilitates positive outcome expectations, which leads to an increased likelihood for setting and achieving career goals. The more self-efficacy, or confidence, an individual has in his or her ability to successfully decide on a career through career exploration, the more likely the individual is to set goals to carry out that behavior (Blustein, Devenis, & Kidney, 1989b; Solberg, 1998).

## **Intervention**

To promote career goals, career counselors must first begin by building students' self-efficacy and facilitating realistic outcome expectations. Once that has been achieved, the career counselor should assist students in developing realistic, attainable career goals (Solberg, 1998). The internship experience is a good intervention method because it tends to build self-efficacy and facilitate realistic outcome expectations. Hence, the internship experience would be valuable in preparing students to set realistic, attainable career goals.

**H<sub>3</sub>:** The internship experience will increase the likelihood for students to set career goals, one factor of the career decision-making process.

## **Identity Theories**

### **Ego Identity Theory**

Researchers from a variety of disciplines, from social psychology to women's studies, have examined identity as an important construct in understanding career development theory, as well as applying the theory in a counseling capacity (Blustein & Noumair, 1996). Notably, in 1950, Erikson (1968) introduced his classic Psychosocial Theory of Development through the lifespan, including its ego identity component. The Psychosocial Theory contains eight stages, spanning from birth through old age. At each developmental stage is a crisis to overcome. Of particular interest to this study is the fifth stage, identity versus identity diffusion, which occurs during adolescence until early adulthood. In this stage, the crisis to overcome is identity diffusion, which refers to absence of a well-defined identity. Erikson (1968) explained:

The wholeness to be achieved at this stage I have called a sense of inner identity. The young person, to experience wholeness, must feel a progressive continuity between that which he has come to be during the long years of

childhood and that which he promises to become in the anticipated future; between that which he conceives himself to be and that which he perceives others to see in him and to expect of him. Individually speaking, identity includes, but is more than, the sum of all the successive identifications of those earlier years when the child wanted to be, and often was forced to become, like the people he depended on. Identity is a unique product, which now meets a crisis to be solved... (p. 87)

Like every stage in Erikson's Psychosocial Theory, identity versus identity diffusion is visualized as a continuum, with the crisis, identity diffusion, positioned at one end, and with the successful outcome, identity achievement, on the other end. Throughout this developmental stage, the individual's position on the continuum will change, with the goal of moving toward successful identity achievement.

"Erickson made many references to the central importance he assigned to the individual's ability to work and to carve out a successful work role within the sociocultural and interpersonal environment" (Vondracek, 1992, p. 132). However, Erickson's focus was primarily on clinical applications, not career development applications, of the ego identity component of his Psychosocial Theory. Identity development has been examined most prevalently by developmental psychologists (Vondracek, 1992), while the majority of vocational psychology research continues to neglect the critical relevance of the identity construct on career development and assessment (Skorikov & Vondracek, 1998). Nevertheless, Erikson's (1968) theory and his writings on ego identity, in particular, have important career development applications.

Based on Erikson's writings on ego identity, Marcia (1966, 1976) identified four types of identity formation statuses: identity achievement, identity diffusion, moratorium, and foreclosure. These four stages each represent a distinct position on the identity versus identity diffusion continuum.

### **Identity achievement**

Located at one end of the continuum, identity achievement refers to an individual who has overcome the identity crisis and now has a well-defined self-concept and a strong commitment to his or her beliefs and values (Marcia, 1966, 1976). Individuals who fit this description tend to recognize the importance of and readily engage in career exploration (Blustein, Devenis, & Kidney, 1989b), resulting in reduced career indecision (Vondracek, Schulenberg, Skorikov, Gillespie, & Wahlheim, 1995).

### **Identity diffusion**

In contrast, at the other end of the continuum is identity diffusion. Individuals who fit this description are often those who have recently entered the identity versus identity diffusion stage of the Psychosocial Model and have not yet developed a self-concept nor a commitment to beliefs and values (Marcia, 1966, 1976). Individuals without a clearly defined self-concept tend to exhibit career indecision. After all, without a well-defined sense of one's beliefs and values, how can he or she possibly decide on a career? As a result, identity diffusion is inversely related to career exploration (Blustein et al., 1989b).

### **Moratorium**

A third position on the identity versus identity diffusion continuum is referred to as moratorium, encompassing the majority of the continuum between identity achievement and identity diffusion (Marcia, 1966, 1976). Before one can attain identity achievement, he or she must first experience the moratorium status, marked by the indecisive struggle to identify one's self-concept and, subsequently, his or her beliefs and values. Individuals classified in the moratorium status tend to exhibit career indecision because, until they attain identity achievement, individuals have difficulty choosing a career path. As a result, while

moratorium is positively related to career exploration, it is inversely related to occupational commitment (Blustein et al, 1989b).

### **Foreclosure**

The fourth position on the identity achievement versus identity diffusion continuum is foreclosure. This status is characterized by individuals who have unquestioningly committed to the identity their parents carved out for them, adopting their parents' beliefs and values without having explored and identified them independently. Therefore, an individual who exhibits foreclosure has an identity that essentially was assigned to him or her by others (Marcia, 1966, 1976). Because foreclosure is marked by individuals whose parents have defined their vocational identities for them, Vondracek et al. (1995) predicted that students in the foreclosure status would have lower career indecision scores than the other groups. However, the foreclosure respondents actually demonstrated career indecision similar to that of individuals in the identity diffusion and moratorium status groups. Therefore, an identity defined by others is not associated with career decidedness (Vondracek et al., 1995).

Decision-making techniques deserve critical consideration when examining career indecision. Methods of decision-making are significantly related to ego identity status; hence, decision-making styles vary across the four identity formation status groups, or across the positions on the identity achievement versus identity diffusion continuum. Specifically, individuals who have achieved a well-defined identity typically engage in logical, systematic decision-making. Individuals whose identity is foreclosed typically rely on others to make decisions, while individuals with a diffused identity typically use either instinctual or spontaneous decision-making, or they depend on others to make decisions. Empirical results found that the moratorium status was not related to decision-making strategies (Blustein & Phillips, 1990).

### **Vocational Identity Theory**

Based largely on Erikson's (1968) theory and Marcia's (1966, 1976) research, some career development studies have begun to examine the importance of the identity construct to career development research. Among the earlier vocational applications of Erikson's ego identity theory was Holland's Theory of Vocational Personalities and Work Environments, developed in the 1980s. Holland (1996) characterized personal identity as well-defined goals, interests, and abilities, theorizing a relationship between vocational identity, consistency of interests, and differentiation of one's interest profile, which collectively shape self-concept. However, empirical findings (e.g., Leung, Conoley, Scheel, & Sonnenberg, 1992; Skorikov & Vondracek, 1998; Vondracek, 1992) refute Holland's theory, finding no significant relationships between vocational identity, consistency, and differentiation.

#### **Perceived career barriers**

Only individuals in the identity-achieved status have been found to demonstrate career decidedness (Vondracek et al., 1995). Conversely, individuals in the identity diffusion, moratorium, and foreclosure status groups experience career indecision, a career barrier that is both perceived and real. Career decidedness cannot be achieved until the individual has established a well-defined self-concept (Vondracek et al., 1995).

Even after an individual has achieved a clear-defined identity, he or she may still encounter identity-related career barriers throughout his or her career. To overcome these career barriers, the individual's identity must be strong and well-defined, in order to adapt to a changing environment. With technology and business changing so rapidly, work tasks that are essential now may eventually become obsolete, creating an unstable job outlook.

Vocational psychology plays an essential role in equipping individuals with the adaptability needed to transition to other careers, as changes in the job market occur (Solberg, 1998).

Emphasizing the importance of identity in adapting to changing work demands, Holland (1996) recommends that "...large proportions of the population must learn to cope with transient and unpredictable work opportunities. Among other things, the need for a sense of personal identity and independent planning" (p. 404).

### **Intervention**

Career exploration and career commitment collectively impact identity formation and career development (Blustein et al., 1989b). As a result, career counselors must facilitate career exploration among identity-achieved individuals in order to reduce career indecision. Among individuals in the identity diffusion, moratorium, and foreclosure statuses, career counselors must facilitate identity formation before they can assist students in these three status groups with career exploration. Until a well-defined self-concept is formed, career indecision will be exhibited among these students.

Brooks et al. (1995) found that the internship experience is associated with increased self-concept crystallization, an identity construct. Therefore, the internship experience may be one way of both facilitating identity formation and reducing career indecision among students.

**H<sub>4</sub>**: The majority of college juniors and seniors will exhibit identity achievement.

**H<sub>5</sub>**: The internship experience will increase career commitment, one factor in the career decision-making process, among identity-achieved students.

**H<sub>6</sub>**: The internship experience will increase career commitment, one factor in the career decision-making process, among students in the identity diffused, moratorium, and foreclosed statuses.



## **Attribution Theory**

The Attribution Theory and the Social Cognitive Career Theory provide overlapping explanations for behavior. Like the Social Cognitive Career Theory, the Attribution Theory has important career development applications. Weiner (1985) identified a tri-dimensional approach to the attribution theory, examining behavior motivation from three aspects: locus of causality, controllability, and stability. This model is considered “more complete than other attributional conceptions” (Graham, 1991, p. 6). Weiner’s (1985) tri-dimensional model has important implications with regard to career decision.

Career selection is considered by most individuals to be an important event, and as such, they tend to apply their attributional styles, in retrospect, to explain the course of career outcomes after they have occurred. That is, they apply their attributional styles to explain past career decisions. With time, these individuals begin to apply their attributional styles in a more proactive manner, using them to make career decisions, rather than simply to reflect on past career outcomes (Luzzo & Jenkins-Smith, 1996).

### **Locus of Causality**

Weiner (1985) identified locus of causality as an individual’s attribution of a behavior or event to either an internal or external cause. An internal locus of causality describes an individuals who attribute both their successes and failures to their abilities, effort, or other internal factors. In contrast, individuals with an external locus of causality attribute their successes and failures to luck or task difficulty. An internal locus of causality is viewed as an optimistic attribution style, while an external locus is viewed as a pessimistic style (Graham, 1991).

### Controllability

Locus of causality leads to behavior affected by controllability. Controllability refers to either external or internal forces that an individual holds accountable for behavioral consequences (Weiner, 1985). Individuals with an internal locus of causality, putting forth effort and diligence to achieve, generally believe they are in control. They hold themselves accountable for the consequences of their behaviors. Applying controllability to career decision, individuals who perceive themselves as having control over their career decisions tend to engage in more career development activities, such as career exploration and planning (Taylor, 1982). In contrast, individuals with an external locus of causality believe most consequences are caused by luck or aptitude, factors out of their control; therefore, these individuals do not hold themselves accountable for the consequences (Graham, 1991).

### Stability

Stability refers to the degree of constancy over time (Weiner, 1985). Factors like ability are stable over time, but factors like effort or mood are dynamic (Graham, 1991). However, the definition of stability, with regard to career decision, deviates from its original definition. With the original definition of stability, constancy is viewed as the more optimistic attribute, while instability is viewed as pessimistic. In contrast, in applying the stability variable to career decision, instability is viewed as the more optimistic attribute because it constitutes the individual's realization that career decision-making is dynamic. Individuals' career decisions evolve over time as they gain work experience. They also recognize that their career decisions must adapt to extrinsic factors, such as job outlook. Stability, therefore, is viewed as the more pessimistic attribute because it constitutes individuals with stagnant career goals, lacking aspirations for career advancement and also lacking adaptability with regard to the changing job market (Luzzo & Jenkins-Smith, 1996).

### **Perceived Career Barriers Related to Attribution**

Locus of causality and control are significantly related to career indecision and fear of success. In fact, external locus of causality and control are suspected to be at the core of career indecision. Perceived career barriers, which are perceived as insurmountable, are experienced by individuals with an external locus of causality and control because they believe that luck or other forces beyond their control determine future outcomes. Therefore, these individuals are not likely to engage in career exploration, perpetuating career indecision (Chartrand et al., 1993; Leong & Chervinko, 1996).

### **Intervention Related to Attribution**

Individuals who attribute career success to internal, dynamic factors tend to experience high performance and confidence in both their academic and career decision-making activities (Healy, 1991, in Luzzo, 2001). In addition, students with high career search self-efficacy begin conducting career exploration early on in college because starting early provides them with a sense of control over the future (Solberg, 1998). Therefore, career counselors may want to focus on building self-efficacy as a means to facilitate an internal locus of causality and control among students. Career counselors must also instill in students the recognition of career decision as unstable and dynamic in order to prepare students to evolve their career decisions throughout their working years, to achieve advancement and to adapt to a changing job market.

**H<sub>7</sub>:** Self-efficacy will be positively related to internal locus of causality and control.

**H<sub>8</sub>:** The internship experience will increase the tendency for an internal locus of causality, one factor in the career decision-making process.

**H<sub>9</sub>:** The internship experience will increase the tendency for an internal locus of control, one factor in the career decision-making process.

**H<sub>10</sub>:** The internship experience will increase the tendency for an unstable (i.e., dynamic) attributional style, one factor in the career decision-making process.

## METHOD

### Design

Some studies have measured the effect of internships on career decision-making by comparing students with internships to a control group of students who did not conduct internships (Brooks et al., 1995). Other studies have measured internship value by retroactively surveying college graduates, who had been in the workforce from one to five years, about the internships they conducted while in college (Eyler, 1995). This study is unique in that it measures the effect of internships on career decision by implementing a pre-test/post-test design.

College juniors and seniors, at the institution where data were collected, were notified of the study and invited to participate. Notification of the study was distributed via both e-mail and campus mail.

### Participants

Participants in this study were 18 juniors and 58 seniors at a Midwestern college, and all engaged in internships. Seventy-six participants completed the pre-test, 72 of whom also completed the post-test. The sample was comprised of 35 males and 41 females with a mean age of 21 and a mean grade point average of 3.32. Sixty-seven participants are United States citizens, while nine are international students. The number of participants by academic major is as follows: 26 business majors, 36 communications majors, 3 computer information systems majors, 4 education majors, and 7 humanities majors. Four participants had changed academic majors twice, and 14 had changed majors once, while 58 had never changed majors.

### Internship Format

Internships include any professional work experience related to the academic major, where the student partners with an organization and performs work that benefits both the student and the organization. A minimum of 8 internship credits, or 200 internship hours, is a graduation requirement at the college where the data were collected. Students collaborate with the college's Career Center to search for internships; however, students are not simply "placed" in internships. Instead, students must proactively reflect on their career interests and pursue potential internship employers, and ultimately, it is the student's responsibility to obtain an internship. All internships must be receive approval from the student's faculty advisor prior to the beginning of the internship, to ensure that the work is related to the student's academic major and that the work will provide him or her with a meaningful, professional experience. If these criteria are not met, the student's faculty advisor will not approve the internship, and the student must obtain another internship, one that meets these criteria, in order to earn the internship credits needed to graduate.

The mean length of the internship was eight and a half weeks, with 51 participants engaging in the internship during the spring, and 25 during the summer. Sixty-four participants completed the pre-test in February, and 12 completed the pre-test in May. Fifty-seven participants completed the post-test in May, and 16 completed the post-test in September. Internships were distributed across the following fields: 5 in management, 15 in finance, 19 in public relations or marketing, 15 in electronic media, 5 in print media, 3 in computer information systems, 4 in education, and 6 in humanities. Forty-three participants had unpaid internships. Of the 29 participants with paid internships, the mean hourly pay was \$7.23.

### Pre-test

For participants bound for spring internships, data collection occurred at the beginning of February. For participants bound for summer internships, data collection occurred at the end of May. Individuals who elected to participate in the study chose to attend one of three pre-test data collection sessions, which were held on different days and at different times in order to allow participants to select the session that best fit their schedules. At the beginning of each data collection session, participants were informed of the purpose of the study (refer to Appendix A). They were also informed that their responses were completely confidential. Participants were reminded of the incentive for participating (refer to inducement section below). They were instructed that their participation was voluntary and that they could withdraw at any time.

At the data collection sessions, participants completed: a consent form (refer to Appendix B), the pre-test demographic questionnaire (refer to Appendix C), the Pre-test Internship subscale (refer to Appendix D), the Vocational Exploration and Commitment Scale (refer to Appendix E), the Career Decision-Making Self-Efficacy Scale (refer to Appendix F), the Occupational Identity subscale of the Extended Objective Measure of Ego Identity Status (refer to Appendix G), and the Assessment for Attributions in Career Decision-Making (refer to Appendix H). The consent forms were distributed and collected prior to the distribution of the measurements. The pre-test measures collectively required approximately 30 minutes to complete. Participants indicated the last four digits of their social security numbers as personal identifiers, in order for the principal investigator to match the pre-test and post-test for each participant.

### **Post-test**

At the beginning of May, participants who engaged in internships spring semester were invited to complete the post-test in early or mid-May. At the beginning of September, participants who engaged in internships during summer semester were invited to complete the post-test in mid-September. Individuals who elected to participate in the study chose to attend one of three post-test data collection sessions, which were held on different days and at different times in order to allow participants to select the session that best fit their schedules. At the beginning of each data collection session, the participants were reminded of the purpose of the study (refer to Appendix A). They were also reminded that their responses were completely confidential. Participants were reminded of the incentive for participating (see inducements section below). They were instructed that their participation was voluntary and that they could withdraw from participation at any time.

At the data collection sessions, participants completed: a consent form (refer to Appendix B), the Post-test Internship subscale (refer to Appendix I), the Vocational Exploration and Commitment Scale (refer to Appendix E), the Career Decision-Making Self-Efficacy Scale (refer to Appendix F), the Occupational Identity Subscale of the Extended Objective Measure of Ego Identity Status (refer to Appendix G), and the Assessment of Attributions for Career Decision-Making (refer to Appendix H). The consent forms were distributed and collected prior to the distribution of the measurements. The post-test measures collectively required approximately 30 minutes to complete.

### **Inducements**

Inducements included a drawing among participants, in which gift certificates to the college bookstore were awarded. After the pre-test, a drawing was held, in which two \$10



gift certificates were awarded. Participants were eligible for the drawing simply by coming to a pre-test session. Even if participants withdrew from the study and did not complete the pre-test, they were still eligible for the drawing. The second drawing occurred after the post-test, when two \$10 gift certificates to the college bookstore were awarded. Participants were eligible for the drawing simply by coming to a post-test session. Even if participants withdrew from the study and did not complete the post-test, they were still eligible for the drawing. The third drawing occurred following the post-test, when one \$30 gift certificate to the college bookstore was awarded. Participants were eligible for the third drawing by attending both the pre-test and post-test sessions. Even if participants withdrew from the study and did not complete the pre-test and post-test, they were still eligible for the drawing by simply coming to both sessions.

### **Debriefing**

Debriefing information was distributed to participants at the data collection sessions (refer to Appendix J). Participants were informed that they could review a summary of the research project's results, beginning December 2002, by visiting the college intranet site. The principal investigator will provide a summary of this study's results to administrators at the college where the data were collected. The summary will also be distributed by mail to any participant, at his or her request.

### **Instruments**

Participants completed the following measures at both the pre- and post-tests: the Vocational and Exploration Commitment Scale (refer to Appendix E), the Career Decision-Making Self-Efficacy Scale (refer to Appendix F), the Occupational Identity Subscale of the

Extended Objective Measure of Ego Identity Status (refer to Appendix G), and the Assessments of Attributions for Career Decision-Making (refer to Appendix H). Participants also completed a Pre-test Internship subscale (refer to Appendix D) and a Post-test Internship subscale (refer to Appendix I). In addition, a pre-test demographic questionnaire (refer to Appendix C) was administered, consisting of items regarding age, gender, citizenship, academic major, the number of times they have changed academic majors, academic year, grade point average, internship field, semester of the internship, number of weeks at the internship, and hourly pay.

### Internship Scale

The Internship Scale was developed for this study. It consists of two subscales, the Pre-Test Internship subscale (refer to Appendix D) and the Post-Test Internship subscale, which included items regarding internship field and hourly pay (refer to Appendix I).

### Test items

Of the internship items that were administered, two items were selected from each scale to measure participant expectations of the usefulness of the internship experience. Each pre-test item pairs with a post-test item, with the pre-test items assessing participants' internship expectations, and the post-test items measuring their evaluations of the internship experience. The pre-internship expectations are then compared to the post-internship evaluations to determine if they match (i.e., to determine if the expectations were realistic). Specifically, pre-test Item # 12 is paired with post-test Item #1, and pre-test Item #15 is paired with Item #4.

The Pre-Test Internship subscale consists of Items #12 and 15. Item #12 states, "I expect my internship will be one of the most useful aspects of my college experience." Item #15 states, "I expect my internship will help me decide which career to pursue."

The Post-Test Internship subscale contains Items #1 and 4. Item #1 states, “My internship was one of the most useful aspects of my college experience.” Item #4 states, “My internship has helped me decide which career to pursue.”

### **Responses and scoring**

On both the Pre-Test Internship subscale and the Post-Test Internship subscale, respondents rated the degree to which they agreed or disagreed with each statement. A five-point Likert scale was used, with responses ranging from completely disagree (1) to completely agree (5). Scores on each subscale ranged from 2 to 10.

### **Psychometric properties**

Because the Pre-Test and Post-Test Internship Scales were newly developed for this study, normative internal reliabilities were not available. This study’s internal reliabilities are: .59 for the Pre-Test Internship subscale and .50 for the Post-Test Internship subscale.

### **Vocational Exploration and Commitment Scale (VECS)**

The degree to which an individual engages in career exploration and achieves occupational commitment is related to the degree to which he or she engages in identity exploration and achieved ego identity commitment during late adolescence (Blustein, et al., 1989a). Previous studies (e.g., Blustein et al., 1989a; Brooks et al., 1995) have utilized the Commitment to Career Choices Scale, which is comprised by two subscales, the Vocational Exploration and Commitment Scale and the Tendency to Foreclose Scale. Both subscales were administered in this study, but only the VECS (refer to Appendix E) was used to measure career commitment.

### **Test items**

The VECS contains 19 items, all of which tap into the commitment to explore and select a career. An example of an item is, “The chances are excellent that I will actually end up doing the kind of work that I most want to do.”

### **Responses and scoring**

Participants are asked to rate each item using a 7-point Likert scale, with responses ranging from never true about me (1) to always true about me (7). Scores range from 19 to 133. Scoring is inversely related to the level of commitment. That is, high scores represent a lack of commitment to career choices, while low scores represent a high level of commitment to career choices (Blustein et al., 1989a).

### **Psychometric properties**

Testing multiple samples, normative internal reliabilities ranged between .84 and .92 (Blustein et al., 1989a). This study’s internal consistency for the pre-test was .90, and the internal consistency of the post-test was .89. In addition to reliability, Blustein et al. (1989a) found the VECS to have demonstrated construct validity.

### **Career Decision-Making Self-Efficacy Scale – Short Form (CDMSE)**

Developed by Taylor and Betz (1983), the CDMSE (refer to Appendix F) has been used by several researchers (e.g, Betz, Klein, & Taylor, 1996; Betz & Luzzo, 1996; Betz & Voyten, 1997; Leong & Chervinko, 1996; Solberg, 1998) to examine an individual’s level of confidence to successfully make a career decision.

### **Test items**

The CDMSE – Short Form is a 25-item test with five subscales, based on the five career choice competencies identified by Crites (1978, in Betz & Taylor, 2001). The five subscales are: Self-Appraisal, Occupational Information, Problem-Solving, Goal Selection,

and Planning. Each subscale contains five items. Participants rate each item on the degree of confidence that they could successfully accomplish a specific career development task. Examples of test items in the Self-Appraisal subscale ask participants to rate their confidence in accomplishing a task like, “Determine what your ideal job would be.” Examples of test items in the Occupational Information subscale ask participants to rate their confidence in accomplishing a task like, “Find out about the average yearly earnings of people in an occupation.” For the Problem-Solving subscale, participants are asked to rate their confidence in accomplishing tasks like, “Change occupations if you are not satisfied with the one you enter.” For the Goals Selection subscale, participants are asked to rate their confidence in accomplishing tasks like, “Select one major from a list of potential majors you are considering.” An example of an item in the Planning subscale asks participants to rate their confidence in accomplishing the task, “Make a plan of your goals for the next five years” (Betz & Taylor, 2001).

### **Responses and scoring**

Participants rate each item on a five-point Likert scale, based on the degree to which they have confidence in their ability to accomplish a given career development task. Rating options range from no confidence at all (1) to complete confidence (5). Scores on each of the subscales range from 5 to 25. High scores indicate that the participant has a high degree of confidence in his or her ability to successfully accomplish career development activities (Betz & Taylor, 2001).

### **Psychometric properties**

Normative internal reliabilities among the CDMSE subscales range from .73 (Self-Appraisal subscale) to .83 (Goal Selection subscale; Betz, Klein, & Taylor, 1996). This study demonstrated the following internal reliabilities on the pre-test: .79 for the Self-

Appraisal Subscale, .77 for Occupational Information, .75 for Problem-Solving, .67 for Planning, and .67 for Goal Selection. This study's post-test reliabilities were as follows: .75 for the Self-Appraisal subscale, .73 for Occupational Information, .76 for Problem-Solving, .75 for Planning, and .76 for Goal Selection. In addition to its reliability, the CDMSE has demonstrated both construct and criterion-related validity (Betz & Luzzo, 1996; Solberg, 1998).

### **Occupational Identity Subscale of the EOM-EIS**

Developed by Holland, Daiger, and Power, the My Vocational Situation (MVS) scale is the principle measure, to date, of vocational identity. However, several authors (Leung et al., 1992; Skorikov & Vondracek, 1998; Vondracek, 1992) refute the value of the MVS, citing that it fails to account for the developmental dimension of the identity construct, which is central to Erikson's original theory. As a result, this study used the Occupational Identity subscale of the EOM-EIS (refer to Appendix G; Bennion & Adams, 1986), which measures the four ego identity statuses operationalized by Marcia (1966, 1976), based on Erickson's (1968) theory. Multiple studies (e.g., Blustein et al., 1989b; Blustein & Phillips, 1990; Skorikov & Vondracek, 1998; Vondracek et al., 1995) have utilized the EOM-EIS to measure identity status.

### **Test items**

The Occupational Identity subscale of the EOM-EIS has 8-items, with two items corresponding to each of the four statuses of identity formation: identity achievement, diffusion, moratorium, and foreclosure (Adams et al., 1987; Bennion & Adams, 1986).

An example of an item that assesses occupational identity at the moratorium identity formation status is, "I just can't decide what to do for an occupation. There are so many possibilities." An item that assesses identity diffusion is, "I haven't chosen the occupation I

really want to get into, and I'm just working at what is available until something better comes along." Identity foreclosure is measured by items such as, "My parents decided a long time ago what I should go into for employment, and I'm following through with their plans." An item that assesses identity achievement states, "It took me a long time to decide, but now I know for sure what direction to move in for a career" (Adams, 1998).

### **Responses and scoring**

Participants rate each item on a six-point Likert scale, based on the degree to which they agree with the statement. Response options range from A to F, from strongly agree (A) to strongly disagree (F). Ratings of strongly disagree (F) receive a score of 1, while ratings of strongly agree (A) receive a score of 6. Each of the four identity statuses is measured separately, with participants receiving scores for each of the four status groups. For each identity formation status, scores range from 2 to 12. A high score indicates that the subject identifies with that particular identity formation status group. Composite scores are not computed, as identity is a nominal variable, not a continuous variable (Adams, 1998).

### **Psychometric properties**

While normative reliabilities (Adams, Abraham, & Markstorm, 1987) and validity (Vondracek et al., 1995) were available for the 64-item EOM-EIS as a whole, this study used just the Occupational Identity subscale, and normative reliabilities were not available for the subscales individually (Adams et al., 1987). This study's internal reliabilities on the pre-test were as follows: .59 for diffusion, .79 for moratorium, .82 for foreclosure, and .63 for identity achievement. Post-reliabilities are: .66 for diffusion, .73 for moratorium, .87 for foreclosure, and .81 for identity achievement.

### **The Assessment of Attributions for Career Decision-Making (AACDM)**

Past attribution measures have assessed only the controllability dimension of attribution. A relatively new measure, the AACDM (refer to Appendix H) has already demonstrated respectable psychometric properties in evaluating all three dimensions of attribution (i.e., locus of causality, controllability, and stability; Luzzo, 2001; Luzzo & Jenkins-Smith, 1998). The AACDM is attractive because it measures attributional style specific to career decision (Luzzo & Jenkins-Smith, 1998). Luzzo (2001) states, “The AACDM also is helpful as a pre-post assessment tool in studies designed to evaluate various strategies...for altering one’s attributions for career decision-making tasks” (p. 8). This study will utilize the AACDM to examine the internship as a mediating factor affecting career decision and locus of causality, controllability, and stability.

#### **Test items**

The AACDM is a 9-item test, with three questions examining each of the three attribution dimensions. Items that evaluate the causality dimension examine the extent to which the individual believes that he or she is accountable for career decision outcomes, with questions such as, “If my career decisions lead to success, it will be because of my skills and abilities.” Items that assess the controllability dimension examine the extent to which the individual believes he or she has control over the career decision process, with statements such as, “The decisions I make are under my control.” The third dimension, stability, is evaluated with items that measure the extent to which the individual believes that career decisions are unstable, changing over time, with items such as, “The recent career decisions I have been making are the same kinds of career decisions I have made in the past” (Luzzo, 2001).



### **Responses and scoring**

Participants rate each item on a five-point Likert scale, based on the degree to which they agree with the statement. Rating options range from strongly disagree (1) to strongly agree (5). Scores from each dimension range from 3 to 15. High scores indicate an optimistic attributional style for career decision-making, signifying internal locus of causality, internal locus of controllability, and instability of career decisions (i.e., the recognition of career decisions as dynamic, rather than stagnant; Luzzo, 2001).

### **Psychometric properties**

The AACDM has demonstrated internal consistency with Cronbach alphas of .89 for the causality dimension, .84 for the controllability dimension, and .64 for the stability dimension (Luzzo, 2001). This study's internal reliabilities on the pre-test were as follows: .70 for causality, .85 for controllability, and .78 for stability. This study's internal consistency on the post-test includes the following reliabilites: .64 for causality, .79 for controllability, and .75 for stability. Construct validity (Luzzo, 2001), as well as criterion-related and incremental validity (Luzzo & Jenkins-Smith, 1998), have been demonstrated by the AACDM.

### **Analyses**

Paired sample t-tests were conducted to analyze  $H_1$ ,  $H_2$ ,  $H_3$ ,  $H_8$ ,  $H_9$ , and  $H_{10}$ . Each of these hypotheses compared the paired pre-test and post-test scores to measure the extent to which the scores changed over time. The t-test is the optimal data analysis method to compare the means of paired samples, such as those of the pre- and post-tests. The t-statistic is recommended over the z-statistic when the sample size is somewhat small ( $n \geq 30$ ). In

analyzing these hypotheses, the post-test score was subtracted from the pre-test score, with a negative number reflecting an increase on the post-test.

A percentage was calculated to address H<sub>4</sub>. This hypothesis predicts that the variable would be exhibited by the majority of participants. As a result, a simple percentage, or proportion, was the method that would best address the hypothesis.

A Pearson correlation was performed to analyze H<sub>7</sub>. This hypothesis predicted relationships between several variables being examined. The Pearson r-statistic is a good measure of positive or negative (i.e., inverse) relationships, which are not causal in nature.

A repeated measures ANOVA was conducted to analyze H<sub>5</sub> and H<sub>6</sub>. These hypotheses predicted that the internship experience would significantly increase career commitment among the four statuses of identity formation. A repeated measures ANOVA was ideal because numerous variables were involved: both pre- and post-test scores for career commitment and both pre- and post-test scores for each of the four identity formation statuses. First, to analyze these hypotheses, the pre- and post-test scores of the four identity formation statuses were examined to create one pre-post rating. This was necessary to reduce the number of variables, making the analysis manageable. On both the pre- and post-tests, participants rated each of the four identity formation statuses, using a six-point Likert scale. Mean scores of four and above indicated that the participant identified with that particular identity formation status.

As a result, participants received one pre-post rating for each of the four identity formation statuses. A zero-rating indicated that the participant identified with that category on neither the pre-test nor the post-test (refer to Table 1 below). A one-rating indicated that the participant did not identify with that category on the pre-test but did identify with it on the post-test. A two-rating indicated that the participant identified with that category on both

the pre-and post-tests. A three-rating indicated that the participant identified with that category on the pre-test but did not identify with that category on the post-test. Therefore, each participant received one pre-post rating for each of the four identity formation statuses. These ratings were then analyzed in conjunction with pre- and post-test means of career commitment. Within-subject and between-subject effects were both measured.

**Table 1: Defining Pre-Post Ratings for Each of Four Identity Formation Status Groups**

Pre-Post Rating	Pre-Test Response	Post-Test Response
0	Did not identify	Did not identify
1	Did not identify	Identified
2	Identified	Identified
3	Identified	Did not identify

## RESULTS

For correlation tables of all the pre-test and post-test variables, refer to Appendix K.

### H<sub>1</sub>: Self-Efficacy

**H<sub>1</sub>:** The internship experience will increase self-efficacy, one factor of the career decision-making process.

This study's findings support the prediction that the internship experience increases self-efficacy. This hypothesis was evaluated by performing a paired t-test, subtracting the post-test means from the pre-test means of the Self-Appraisal, Occupational Information, and Problem-Solving subscales of the Career Decision-Making Self-Efficacy Scale (CDMSE; refer to Appendix F). The Self-Appraisal means were 3.96 for the pre-test and 4.39 for the post-test ( $t = -6.83$ ,  $p < .001$ ; refer to Table 2 below). The Occupational Information means were 3.87 for the pre-test and 4.19 for the post-test ( $t = -5.19$ ,  $p < .001$ ). The Problem-Solving means were 3.80 for the pre-test and 4.09 for the post-test ( $t = -4.65$ ,  $p < .001$ ). In each of these three paired t-tests, the post-test means were all higher than the pre-test means of these three subscales. Furthermore, all three measures were statistically significant. As a result, the null hypothesis was rejected, and the alternative hypothesis was supported.

**Table 2: Self-Efficacy Means, Before and After the Internship**

Subscale	Pre-Test Means	Post-Test Means	Pre-Test / Post-Test Mean Differences	t-score
Self-Appraisal	3.96	4.39	-.44	-6.83*
Occupational Information	3.87	4.19	-.32	-5.19*
Problem-Solving	3.80	4.09	-.28	-4.65*

\* All mean differences are statistically significant ( $p < .001$ ).

## H<sub>2</sub>: Outcome Expectations

**H<sub>2</sub>:** The internship experience will foster more realistic outcome expectations, one factor of the career decision-making process.

The results of this study support the hypothesis that the internship will foster realistic outcome expectations regarding careers (refer to Table 3 below). This hypothesis was evaluated by performing a paired t-test, subtracting the means of the Post-Test Internship subscale ( $x = 4.24$ ; refer to Appendix I) from the means of the Pre-Test Internship subscale ( $x = 4.22$ ; refer to Appendix D). The analysis resulted in a mean difference of  $-.02$  ( $t = -.146$ , ns). Therefore, this hypothesis, a null hypothesis, stating that the outcome expectations would be realistic (i.e., there would be no significant differences between the pre- and post-tests on this construct), was supported. The alternative hypothesis was rejected. The small mean difference and the lack of significance are important. It means that there is little difference between the pre-internship expectations of how useful the internship will be and the evaluation of its usefulness following the internship. Because the pre-internship expectations match the post-internship evaluations of the internship's usefulness, we can conclude that the pre-internship expectations were similar to the outcomes; hence, the pre-internship expectations were realistic.

**Table 3: Outcome Expectation Means, Before and After the Internship**

Scale	Pre-Test Items	Post-Test Items	Pre-Test Means	Post-Test Means	Mean Differences	t-score	Significance
Internship Scale	12, 15	1, 4	4.22	4.24	-.02	-.146	ns

### H<sub>3</sub>: Goal-Orientation

**H<sub>3</sub>:** The internship experience will increase the likelihood for students to set career goals, one factor of the career decision-making process.

This study supports the prediction that the internship experience increases the likelihood for students to set career goals. This hypothesis was evaluated by performing a paired t-test, subtracting the post-test means from the pre-test means of the Planning and Goal Selection subscales of the Career Decision-Making Self-Efficacy Scale (CDMSE; refer to Table 4 below). The Planning means were 3.91 on the pre-test and 4.34 on the post-test ( $t = -7.54, p < .001$ ). The Goal Selection means were 3.88 on the pre-test and 4.32 on the post-test ( $t = -7.74, p < .001$ ). In both of these two paired t-tests, the post-test means of the Planning and Goal Selection subscales were higher than the pre-test means of these two subscales. Both results were statistically significant. Therefore, the null hypothesis was rejected, and the alternative hypothesis was supported.

**Table 4: Goal-Orientation Means, Before and After the Internship**

Subscale	Pre-Test Means	Post-Test Means	Pre-Test / Post-Test Mean Differences	t-score
Planning	3.91	4.34	-.43	-7.54*
Goal Selection	3.88	4.32	-.43	-7.74*

\* All mean differences are statistically significant ( $p < .001$ ).

#### **H<sub>4</sub>: Identity Achievement and Academic Year**

**H<sub>4</sub>:** The majority of college juniors and seniors will exhibit identity achievement.

This study's findings supported the hypothesis. On the pre-test, 58-percent of the participants indicated that they identified with identity achievement. On the post-test, 81-percent indicated that they identified with identity achievement. As a result, the null hypothesis was rejected, and the alternative hypothesis was supported.

#### **H<sub>5</sub>: Career Commitment among Identity-Achieved Status**

**H<sub>5</sub>:** The internship experience will increase career commitment, one factor in the career decision-making process, among identity-achieved students.

In examining between-subjects differences, significant results were found between-subjects for the identity-achieved status. Tests of between-subjects effects showed mean squares of 1.66 ( $F = 2.96, p < .05$ ) for pre- and post-test scores of career commitment among the identity achievement status. Based on the combination of participants' pre- and post-test responses, they were grouped into four categories, ranging from a zero-rating to a three-rating (refer to Table 1 in the analyses section). Participants received a rating for each of the four identity formation statuses. A zero-rating indicated that the participant identified with that category on neither the pre-test nor the post-test. A one-rating indicated that the participant did not identify with that category on the pre-test but did identify with it on the post-test. A two-rating indicated that the participant identified with that category on both the pre-and post-tests. A three-rating indicated that the participant identified with that category on the pre-test but not on the post-test. Therefore, each participant received one rating for each of the four identity formation statuses. These ratings were then analyzed in conjunction

with pre- and post-test means of career commitment, and mean differences of career commitment were found between these groups.

The results for the zero-rating group showed a mean career commitment score of 3.40 (std. error = .29). The one-rating group had a mean career commitment score of 3.74 (std. error = .26). The two-rating group had a mean score of 3.62 (std. error = .26). Only one participant fit the three-rating category, and in order to run the analysis, this participant's responses were not included, as "groups" with just one participant cannot be analyzed.

The LSD post-hoc tests revealed significant between-subject differences (refer to Table 5 below). The one-rating category's change in career commitment from the pre- to post-test was subtracted from the zero-rating category's change in career commitment to arrive at a mean difference of  $-.63$  ( $p < .05$ ) in career commitment between the one-rating category and the zero-rating category. Similarly, the two-rating category's change in career commitment was subtracted from the zero-rating's change in career commitment to arrive at a mean difference of  $-1.14$  ( $p < .001$ ) in career commitment between the two-rating and zero-rating categories. Therefore, the null hypothesis was rejected between-subjects, and the alternative hypothesis was supported. No significant results were found within-subjects for the identity-achieved formation status.

**Table 5: Mean Differences in Career Commitment among the Zero-, One-, Two-, and Three-Rating Categories of the Identity Achievement Status**

(I) Identity Achievement Rating Category	(J) Identity Achievement Rating Category	Mean Difference (I – J)	Significance
0	1	-.63	$p < .05$
0	2	-1.14	$p < .001$



### **H<sub>6</sub>: Career Commitment among Diffused, Foreclosed, and Moratorium Statuses**

**H<sub>6</sub>:** The internship experience will increase career commitment, one factor in the career decision-making process, among students in the identity diffused, moratorium, and foreclosed statuses.

Both within-subject and between-subject differences were significant for the moratorium status group. The results for the zero-rating group showed a mean career commitment score of 3.07 (std. error = .25). The one-rating group had a mean career commitment score of 3.74 (std. error = .37). The two-rating group had a mean score of 4.18 (std. error = .28). The three-rating group had a mean score of 3.33 (std. error = .26).

In examining within-subject differences for the moratorium identity formation status, a multivariate test resulted in a Pillai's Trace value of .16 ( $F = 3.865$ ,  $p < .05$ ). That is, 16-percent of the variation of pre- to post-test scores, from student to student, is explained by career commitment. Therefore, the null hypothesis was rejected, and the alternative hypothesis was supported within-subjects for the moratorium identity formation status. No significant results were found within-subjects for the diffused or foreclosed identity formation statuses.

In addition, in examining between-subject differences, significant results were found for the moratorium status. Tests of between-subject effects showed mean squares of 6.78 ( $F = 12.11$ ,  $p < .001$ ) for pre- and post-test scores of career commitment. As stated in the analyses section above, participants received a rating for each of the four identity formation statuses, ranging from a zero-rating to a three-rating (refer to Table 1 in analyses section). These ratings were then analyzed in conjunction with pre- and post-test means of career commitment, and mean differences of career commitment were found between these groups.

Specifically, LSD post-hoc tests revealed significant between-subject differences (refer to Table 6 below). The zero-rating category's change in career commitment from the one-rating category's change in career commitment was subtracted from the pre- to post-test to arrive at a mean difference of .63 ( $p < .05$ ) in career commitment between the one-rating category and the zero-rating category. Similarly, the zero-rating category's change in career commitment was subtracted from the two-rating's change in career commitment to arrive at a mean difference of 1.14 ( $p < .001$ ) in career commitment between the two-rating and zero-rating categories. Additionally, the zero-rating category's change in career commitment was subtracted from the three-rating category's change in career commitment to arrive at a mean difference of .39 ( $p < .001$ ) in career commitment between the zero- and three-rating categories. Lastly, the three-rating category's change in career commitment was subtracted from the two-rating category's change in career commitment to arrive at a mean difference of .76 ( $p < .001$ ) in career commitment between the three-rating and two-rating categories. Therefore, the null hypothesis was rejected, and the alternative hypothesis was supported between-subjects for the moratorium status. No significant results were found between-subjects for the diffused or foreclosed identity formation statuses.

**Table 6: Mean Differences in Career Commitment among the Zero-, One-, Two-, and Three-Rating Categories of the Moratorium Status**

(I) Moratorium Rating Category	(J) Moratorium Rating Category	Mean Difference (I - J)	Significance
1	0	.63	$p < .05$
2	0	1.14	$p < .001$
3	0	.39	$p < .001$
2	3	.76	$p < .001$

### **H<sub>7</sub>: Self-Efficacy's Relationship to Attribution Dimensions**

**H<sub>7</sub>:** Self-efficacy will be positively related to internal locus of causality and control.

This hypothesis was supported (refer to Table 7 below). The pre-test measure of self-efficacy (measured by combining the means of the Self-Appraisal, Occupational Information, and Problem-Solving subscales of the CDMSE) demonstrated a significant positive relationship with the pre-test measures of controllability ( $r = .54, p < .01$ ) and causality ( $r = .38, p < .01$ ). Similarly, the post-test measure of self-efficacy demonstrated a significant positive relationship with the post-test measures of controllability ( $r = .51, p < .001$ ) and causality ( $r = .42, p < .001$ ). As a result, the null hypothesis was rejected, and the alternative hypothesis was supported.

**Table 7: Pre- and Post-Test Correlations of Self-Efficacy and Causality and Controllability**

Attribution Subscale	Pre-Test		Post-Test	
	$r$	Significance	$r$	Significance
Causality	.38	$p < .01$	.42	$p < .001$
Controllability	.54	$p < .01$	.51	$p < .001$

### **H<sub>8</sub>: Locus of Causality**

**H<sub>8</sub>:** The internship experience will increase the tendency for an internal locus of causality, one factor in the career decision-making process.

This hypothesis was supported. The AACDM's Causality subscale had means of 4.20 for the pre-test and 4.57 for the post-test ( $t = -6.64, p < .001$ ; refer to Table 8 below). The higher post-test means show an increase in locus of causality following the internship. As a result, the null hypothesis was rejected, and the alternative hypothesis was supported.

**Table 8: Locus of Causality Means, Before and After the Internship**

Subscale	Pre-Test Means	Post-Test Means	Pre-Test / Post-Test Mean Differences	t-score
Locus of Causality	4.20	4.57	-.37	-6.64*

\* Mean differences are statistically significant ( $p < .001$ ).

### **H<sub>9</sub>: Controllability**

**H<sub>9</sub>:** The internship experience will increase the tendency for an internal locus of control, one factor in the career decision-making process.

This hypothesis was supported. The AACDM's Controllability subscale means were 4.32 on the pre-test and 4.59 on the post-test ( $t = -4.33$ ,  $p < .001$ ; refer to Table 9 below). With higher post-test means, controllability levels were higher after the internship. As a result, the null hypothesis was rejected, and the alternative hypothesis was supported.

**Table 9: Controllability Means, Before and After the Internship**

Subscale	Pre-Test Means	Post-Test Means	Pre-Test / Post-Test Mean Differences	t-score
Controllability	4.32	4.59	-.27	-4.43*

\* Mean differences are statistically significant ( $p < .001$ ).

### **H<sub>10</sub>: Stability**

**H<sub>10</sub>:** The internship experience will increase the tendency for an unstable (i.e., dynamic) attributional style, one factor in the career decision-making process.

This hypothesis was not supported. The means of the AACDM's Stability subscale were 3.42 on the pre-test and 3.34 ( $t = .60$ , ns; refer to Table 10 below). With lower means

on the post-test, stability levels were lower following the internship; inversely, the optimistic attributional style, instability, was higher on the post-test, as predicted. However, the results were not statistically significant. As a result, the null hypothesis was not rejected.

**Table 10: Stability Means, Before and After the Internship**

Subscale	Pre-Test Means	Post-Test Means	Pre-Test / Post-Test Mean Differences	t-score
Locus of Causality	3.42	3.34	-.08	.60 (ns)

## DISCUSSION

This study has demonstrated the value of the internship experience in contributing to several factors of the career decision-making process. Here the results and their relevance to career counseling will be discussed, and recommendations for future research will be provided.

### Social Cognitive Career Theory

Social Cognitive Career Theory attributes successful career decision-making to high levels of self-efficacy, realistic outcome expectations, and motivated goal-setting (Gore & Leuwerke, 2000). This study demonstrates that the internship experience significantly increases self-efficacy, promotes realistic outcome expectations, and encourages goal-orientation. These findings have important implications. The internship experience serves as a catalyst in facilitating career decision-making.

### Self-Efficacy

Self-efficacy constitutes the degree of confidence individuals have with regard to their career-related abilities (Betz & Hackett, 1981). The real-world work experience gained through an internship gives individuals a taste of what the work in their chosen career field entails. The internship experience addresses several career barriers, such as fear of the unknown and lack of confidence in performing well on the job. Throughout the internship, interns learn what is expected of them, and they experience the reality of work. The fear of the unknown is removed, allowing the interns to gain confidence in their ability to be successful in a work role, whereby boosting their self-efficacy.

Bandura (1986) identified four factors that contribute to self-efficacy: performance accomplishments, verbal persuasion and encouragement, vicarious learning, and

physiological arousal. Clearly, the internship experience impacts all four factors to enhance career decision-making. Through performance accomplishments attained during the internship, individuals gain career-related confidence. Subsequently, when internship supervisors recognize the interns' performance accomplishments, verbal persuasion and encouragement to pursue a career in that field occurs. In addition, internship supervisors and coworkers model successful career behaviors, resulting in vicarious learning among the interns. The fourth factor, physiological arousal, also occurs throughout the internship, but it can vary in nature from enthusiasm, in cases of a positive internship experience, to anxiety if the intern considers the experience negative. Nonetheless, the internship serves as a valuable tool, either encouraging interns to further pursue a career in that field or, in cases of a negative internship experience, encouraging them to consider other careers for a better fit. Because it significantly increases self-efficacy among students, the internship experience should be recommended by all career counselors.

### **Outcome Expectations**

This study found that students have realistic outcome expectations about the internship. Realistic outcome expectations result in better post-internship evaluations (Feldman & Weitz, 1990), and realistic expectations of the internship tend to result in further career exploration and career decision-making, both intrinsic reinforcements (Lent et al., 1994). There was no significant difference between their pre-internship expectations of the internship's usefulness and their post-internship evaluation of its usefulness. The match between the pre-internship expectations and the post-internship evaluation signify that students' outcome expectations were realistic. This has important implications because the internship will only lead to career decision-making if the outcome expectations are realistic.

### **Goal-Orientation**

The least examined SCCT construct (Van Vianen, 1999), goals are based on the self-efficacy and outcome expectation thought processes, representing the action plan that guides the individual's behavior (Bandura, 1986; Lent et al., 1994). This study demonstrates that the internship experience significantly increases students' tendency to engage in career planning and goal selection. These findings are critical. Goal-orientation is essential in building a successful career, and students clearly benefit by clarifying their career goals during an internship, while they are still in college, than if goals were not clarified until students entered the workforce upon graduation. Through the internship experience, students are able to reevaluate their career choices and make any changes to their career plans while they are still in college, enabling confident, thoughtful goal selection to occur prior to graduation. With clearly defined goals, students are better able to utilize the job search process and, upon graduation, obtain the jobs for which they are best suited.

### **Identity Theories**

Based on Erikson's (1968) Psychosocial Theory of Development's fifth stage, identity versus identity diffusion, Marcia (1966, 1976) identified four identity formation statuses: identity achievement, identity diffusion, moratorium, and foreclosure. Throughout the identity formation process, the goal is identity achievement. Ego identity formation has multiple applications, including career exploration and commitment (Blustein et al., 1989).

This study found identity achievement to be closely related to academic year. That is, seniors who had participated in an internship had higher levels of identity achievement than juniors who had participated in an internship. These results show that not only is identity achievement a function of the internship experience, it is also a function of the level of



academic experience. However, it must be noted that, though significant, this relationship is fairly small, with a low Pearson r-value.

Identity-achieved individuals have a well-defined self-concept and a strong commitment to their beliefs and values (Marcia, 1966, 1976), and as a result, they tend to proactively explore careers and decide which career path to pursue (Blustein, et al, 1989b; Vondreck et al, 1995). Subsequently, previous research has found that of the four identity formation statuses, only individuals in the identity-achieved status have demonstrated career decidedness (Vondreck et al., 1995). This study found that increase in career commitment, from before to after the internship, was statistically significant across the identity achievement status group, demonstrated by significant between-subject differences. That is, career commitment significantly increased across participants within the identity-achieved group, demonstrated by varied career commitment levels between participants in the group. However, within-subject differences in career commitment were not significant, meaning that when an individual participant's pre-test career commitment score was compared with the post-test score, no significant differences were found.

In contrast, significant increases in career commitment were found both between-groups and within-groups for the moratorium status group. Moratorium is the identity formation status that is marked by the indecisive struggle to identify one's self-concept, beliefs, and values. Individuals in this status have difficulty deciding which career to pursue because, until they achieve a self-identity (i.e., identity achievement), they have difficulty choosing and committing to a career path (Blustein et al, 1989b). This study found that, in comparing individual participants' pre-internship career commitment scores with their post-internship scores, career commitment significantly increased within subjects. Career commitment also significantly increased between-subjects across the moratorium status

group, with career commitment increasing across participants within the moratorium group, demonstrated by varied career commitment levels between participants in the group. Based on these findings, we can conclude that career commitment is significantly affected by the internship with regard to the moratorium identity formation status.

### **Attribution Theory**

Weiner's (1985) tri-dimensional model of Attribution Theory examines the locus of causality, controllability, and stability dimensions. Chartrand et al. (1993) and Leong and Chervinko (1996) applied Weiner's model to career decision-making and found that external loci of causality and control are paramount to career indecision. This study predicted a relationship between self-efficacy and both an internal loci of causality and control, and the results showed a significant, positive relationship. That is, individuals who attribute their successes and failures to their ability or effort and those who feel that they have control over their career decisions will also demonstrate self-efficacy, career-related confidence to perform well in a work role. In contrast, the results of this study also demonstrate that individuals with external loci of causality and control tend to lack career-related confidence.

### **Locus of Causality**

This study showed that the internship experience is one method to significantly increase the tendency for an internal locus of causality. Throughout the experience, interns realize that their skills and the effort they expend are strongly connected to their career-related success, demonstrated during the internship. They realize that luck and task difficulty are less related to their success than their abilities and effort.

### **Controllability**

An internal locus of control is the result of an internal locus of causality. When individuals attribute their success to their abilities and effort, they realize that they have control over their success. That is, their controllability is internalized. This is an important component of the internship experience. The results of this study showed that the internship experience does significantly increase the tendency for an internal locus of control. Interns with an internal locus hold themselves accountable for ensuring that the internship experience is successful. They feel responsible for taking full advantage of the internship opportunity, and they hold themselves accountable for their career decisions.

### **Stability**

Because career decisions must be dynamic to adapt to external factors, such as the changing job market, instability has been identified as the more optimistic attribute. Career success does not occur when career decisions are stagnant (Luzzo & Jenkins-Smith, 1996). This study hypothesized that the internship experience would increase the tendency for an unstable attributional style. However, no significant results related to this construct were found.

### **Recommendations for Future Research**

Repeat studies are recommended using this study's design. This study's internal reliabilities were somewhat low for several subscales (i.e., internship pre-test with internal reliabilities of .59; internship post-test .50; planning pre-test, .67; goal-selection pre-test, .67; causality post-test, .64; identity diffusion pre-test, .59; identity diffusion post-test, .66; identity achievement pre-test, .63). Ideally, repeat studies would demonstrate higher internal reliabilities for these subscales, more similar to the subscales' normative reliabilities. The

low reliabilities may be due to the fact that the internship subscales and the diffusion and identity achievement subscales consisted of just two items. Perhaps scales with a greater number of items would yield higher reliabilities. An alternative would be to search for other scales to measure these variables, scales with more homogeneous items, which would likely lead to higher internal consistency.

Further development of a pre-post internship scale, in particular, is recommended. The pre- and post-test subscales should add to the two items used for this study, to create subscales with a larger number of items. Additional items should also tap into the pre-internship expectation and the post-internship evaluation of the usefulness of the internship experience. Creating additional items would likely increase the internal consistency of the measure.

Further research is recommended for the stability dimension of the Attribution Theory. This study found no significant increase in instability due to the internship experience. One explanation for the insignificant results could be that instability seems to contradict career commitment somewhat. The more committed individuals are to their career plans, the less likely it seems that they would change their plans to adapt to external factors. Instead, they may be more likely to persevere, aggressively striving to achieve their career plans. In contrast, individuals who demonstrate an unstable attributional style might be less committed to their career plans. The apparent contradiction between these two optimistic career-related attributes requires further investigation.

A third recommendation for future research involves the outcome expectations construct of SCCT. While this study measured the students' outcome expectations for the internship experience with the pre-test administered before the internship and the post-test administered afterwards, it is suggested that future studies measure outcome expectations

regarding the job by conducting the pre-test following the internship and the post-test after the job begins, following graduation. Based on the results of this study, demonstrating realistic outcome expectations of the internship, it is expected that the internship will likely provide realistic outcome expectations with regard to the job.

A fourth recommendation for future research is examining these variables by administering a different research design. It is recommended that the same pre-test, administered to this sample, be given to college seniors before any of them participate in an internship, and the post-test be given after they had begun their jobs following graduation. With this study, the sample consisted only of students who had completed internships. This recommendation for future research suggests that students who completed internships would serve as the experimental group, while students who chose not to complete an internship would comprise the control group. This recommendation for future research would examine the effect of internships on career decision among individuals who have entered the workforce.

## CONCLUSION

Vocational psychology assists in building the bridge from being a student to becoming a member of the workforce, by matching skills and interests with a variety of career options (Solberg, 1998). Exploring career options is a crucial component of the career decision-making process, with the internship experience representing an excellent opportunity to test interns' career choices. Nevertheless, few studies have examined the effects of internships on career decision-making (Brooks et al., 1995; Eyler, 1995; Feldman & Weitz, 1990). The significant results of this study demonstrate the importance of dedicating further research to studying the value of internships as they enhance a variety of psychological constructs.

This study has focused on the effect of internships on career decision, from the viewpoint of Social Cognitive Career Theory, Attribution Theory, and Identity Theory. Each of these psychological theories contains constructs that address career decision-making, and the results of this study showed that the internship does significantly impact these theories' constructs, relative to career decision-making. These findings have important implications for career counselors. The internship benefits are numerous, making it critical for career counselors to focus not only on career exploration and job placement but to emphasize the necessity of performing at least one internship. The most motivated students may be the ones who would engage in an internship with or without the encouragement of a career counselor, but less motivated students are less likely to take the initiative to obtain an internship. To assist the "middle of the road" students in career decision-making and also to increase their job placement rates upon graduation, career counselors must emphasize the importance of internships to these students and assist them in obtaining internships.

To maximize the likelihood of the student experiencing satisfaction from the internship, career counselors must ensure that the internship matches not only the students' interests, but also matches their other personal attributes, compliments their behaviors, and provides a good intern-employer fit. All three dimensions of triadic reciprocity play an interrelated role (Bandura, 1977, 1986).

The internship experience is essential. It provides students with career-related confidence, realistic outcome expectations, strong goal-orientation, identity achievement, and a sense of power that they have control over their career successes through their abilities and ambition. The internship experience also gives students an edge, making them more competitive job candidates than students who chose not to complete an internship. Internships become increasingly important in a stagnant job market, with numerous new graduates vying for a limited number of jobs. Why, then, would students choose not to complete an internship? Whether it's because of lack of information about the real importance of the internship, or whether it's due to lack of motivation, it becomes the career counselor's responsibility to instill in students the necessity of the internship experience. Each student should perform at least one internship. Career counselors, as well as the college curriculum, must communicate the importance of the internship, encourage students to engage in an internship, and promote the vast rewards of the internship experience.

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## APPENDIX A: PARTICIPANT INFORMATION

### **Title of the Study:**

The Effects of Internships on Career Indecision as Explained by Social Cognitive Career Theory, Identity Theory, and Attribution Theory

### **Principal Investigator:**

Laura Friesenborg, Director of Career Planning, Waldorf College  
Phone: 641-585-8682, E-mail: [friesenbl@waldorf.edu](mailto:friesenbl@waldorf.edu)

### **Purpose of the Study:**

The purpose is to assess the value of internships by measuring its effects on career indecision, career self-efficacy, ego identity, and attribution. Essentially, we will be determining if internships reduce career indecision among students.

### **Length of Time Required:**

Approximately 30 minutes are required to complete the pre-test, and approximately 30 minutes are required to complete the post-test.

### **Confidentiality:**

Complete confidentiality will be maintained. You are asked to list the last four digits of your social security number on both the pre-test and post-test. The last four digits of your social security number will serve as your personal identifier, enabling the investigator to match your pre-test and post-test responses, to examine how they have changed as a result of the internship.

The personal identifier will also enable the investigator to identify the participants, in order for her to notify you about the time and location of the post-test sessions, following your internship. This will be accomplished by obtaining a list of students from the Registrar's Office, showing corresponding names and social security numbers.

The personal identifier will also be used to identify the participants for the college bookstore drawing. By participating in the study, you are entered in a drawing for a chance to win gift certificates to the college bookstore. Three gift certificates will be awarded.

### **Voluntary Participation:**

Your participation in the study is voluntary. You are allowed to withdraw at any time. Participants who withdraw are still eligible to be entered in the drawing for gift certificates to the college bookstore.

### **Questions?**

At any time during the study, if you have questions or concerns, please feel free to contact the principal investigator, Laura Friesenborg, at 641-585-8682 or at [friesenbl@waldorf.edu](mailto:friesenbl@waldorf.edu). She is conducting this study as her thesis project for the industrial relations master's degree program at Iowa State University.

## APPENDIX B: INFORMED CONSENT

I, \_\_\_\_\_ (printed name), have been debriefed about the study of the Effects of Internships on Career Indecision as Explained by Social Cognitive Career Theory, Identity Theory, and Attribution Theory, and I voluntarily agree to participate. I know that at any time I can direct questions about the study to Laura Friesenborg, the principal investigator, by calling 641-585-8682 or e-mailing [friesenbl@waldorf.edu](mailto:friesenbl@waldorf.edu). I know that I can withdraw from the study at any time without prejudice.

I understand that my Social Security Number will be used to match my pre-test with my post-test. My phone number and e-mail address will be used to notify me of the post-test. This consent form, which links my name with my Social Security Number, will be destroyed within one month after data collection is completed.

Social Security Number: \_\_\_\_\_

Phone Number: \_\_\_\_\_

E-mail Address: \_\_\_\_\_

\_\_\_\_\_  
Signature of Participant

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of Principal Investigator

\_\_\_\_\_  
Date

**Principal Investigator:** Laura Friesenborg, Director of Career Planning, Waldorf College, 106 S. 6<sup>th</sup> St., Forest City, IA 50436; Phone: 641-585-8682; E-mail: [friesenbl@waldorf.edu](mailto:friesenbl@waldorf.edu)

**Co-Principal Investigator:** Dr. Kathy Hanisch, Professor of Psychology, Iowa State University, W212 Lagomarcino Hall, Ames, IA 50011; Phone: 515-294-1488; E-mail: [kathann@iastate.edu](mailto:kathann@iastate.edu)

## APPENDIX C: PRE-TEST DEMOGRAPHIC ITEMS

Subject # \_\_\_\_\_  
(Last 4 Digits of Social Security Number)

### The Effects of Internships on Career Indecision as Explained by Social Cognitive Career Theory, Identity Theory, and Attribution Theory

Complete the items below by filling in the blank or by circling the answer that best fits you:

1. Age: \_\_\_\_\_
2. Grade Point Average: \_\_\_\_\_
3. Gender:                      Male                      Female
4. Class standing (at the time you complete your internship): Junior                      Senior
5. Internship time:                      Spring Semester                      Summer Semester
6. Duration of internship: \_\_\_\_\_ weeks
7. Internship is:                      Paid at \$ \_\_\_\_\_ / hour                      Unpaid
8. Which area best describes your internship?
 

Financial Services	Newspaper/Magazine	TV Broadcasting
Retail	Public Relations	Film Production
Theatre	Radio	Music Performance
Religion	Elementary Education	History
Computer Networking	Computer Programming	Other: _____
9. Academic major: \_\_\_\_\_
10. How many times have you changed your academic major?
 

0	1	2	3	4	5+
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11. Are you a United States citizen?                      Yes                      No

## APPENDIX D: PRE-TEST INTERNSHIP SUBSCALE

Please indicate the degree to which you agree or disagree with each statement by circling the corresponding numerical value.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>completely disagree</b>	<b>disagree somewhat</b>	<b>neutral</b>	<b>agree somewhat</b>	<b>completely agree</b>

### Subscale Items: 12, 15

- |  |   |   |   |   |   |
|--|---|---|---|---|---|
| 12. I expect the internship will be one of the most useful aspects of my college experience. | 1 | 2 | 3 | 4 | 5 |
| 13. Right now, I know what my career will be when I graduate.                                | 1 | 2 | 3 | 4 | 5 |
| 14. I am doing the internship mainly because it's a graduation requirement.                  | 1 | 2 | 3 | 4 | 5 |
| 15. I expect my internship will help me decide which career to pursue.                       | 1 | 2 | 3 | 4 | 5 |
| 16. Right now, I am unsure about my career goals.  | 1 | 2 | 3 | 4 | 5 |



## APPENDIX E: THE VOCATIONAL EXPLORATION AND COMMITMENT SCALE, A CCCS SUBSCALE

In the items that follow, please indicate the appropriate number using the scale below that most accurately reflects the extent to which you agree or disagree with the statement. If you do not currently have a specific career goal, respond to the following items in a way that would reflect your behavior and attitudes if you did have an occupational preference.

1 /	2 /	3 /	4 /	5 /	6 /	7 /
Never true about me	Almost never true about me	Usually not true about me	No opinion or not sure	Usually true about me	Almost always true about me	Always true about me

**VECS Items:** 3, 4, 5, 6, 7, 11, 12, 13, 14, 17, 18, 19, 20, 21, 23, 24, 25, 26, 27

Please note that the following items are reverse-scored: 3, 6, 7, 21, 24.

**Place the appropriate number next to the item in the space provided.**

- \_\_\_ 1. I believe that a sign of maturity is deciding on a single career goal and sticking to it.
- \_\_\_ 2. Based on what I know about my interests, I believe that I am suited for only one specific occupation.
- \_\_\_ 3. The chances are excellent that I will actually end up doing the kind of work that I most want to do.
- \_\_\_ 4. I may need to learn more about myself (i.e., my interests, abilities, values, etc.) before making a commitment to a specific occupation.
- \_\_\_ 5. It is hard for me to decide on a career goal because it seems that there are too many possibilities.
- \_\_\_ 6. I have a good deal of information about the occupational fields that are most interesting to me.
- \_\_\_ 7. I have thought about how to get around the obstacles that may exist in the occupational field that I am considering.
- \_\_\_ 8. I think that a wavering or indecisive approach to educational and career choices is a sign of weakness; one should take a stand and follow through with it no matter what.

1 /	2 /	3 /	4 /	5 /	6 /	7 /
Never true about me	Almost never true about me	Usually true about me	No opinion or not sure	Usually true about me	Almost always true about me	Always true about me

- \_\_\_ 9. I believe that no matter what others might think, my educational and career decisions will either be right or wrong.
- \_\_\_ 10. Based on what I know about my abilities and talents, I believe that only one specific occupation is right for me.
- \_\_\_ 11. While I am aware of my educational and career options, I do not feel comfortable committing myself to a specific occupation.
- \_\_\_ 12. I feel uneasy about committing myself to a specific occupation because I am not aware of alternative options in related fields.
- \_\_\_ 13. I find myself changing academic majors often because I cannot focus on one specific career goal.
- \_\_\_ 14. I do not know enough about myself (i.e., my interests, abilities, and values) to make a commitment to a specific occupation.
- \_\_\_ 15. I like the openness of considering various possibilities before committing myself to a specific occupation.
- \_\_\_ 16. Based on what I know about the world of work (i.e., the nature of various occupations), I do not believe that I should seriously consider more than a single career goal at a time.
- \_\_\_ 17. It is hard to commit myself to a specific career goal because I am unsure about what the future holds for me.
- \_\_\_ 18. I find it difficult to commit myself to important life decisions.
- \_\_\_ 19. I feel uneasy in committing myself to a career goal because I do not have as much information about the fields that I am considering as I probably should.
- \_\_\_ 20. I have difficulty making decisions when faced with a variety of options.

1 /	2 /	3 /	4 /	5 /	6 /	7 /
Never true about me	Almost never true about me	Usually not true about me	No opinion or not sure	Usually true about me	Almost always true about me	Always true about me

- \_\_\_ 21. I feel confident in my ability to achieve my career goals.
- \_\_\_ 22. Based on what I know about my values (e.g., the importance of money, job security, etc.), I believe that only one single occupation is right for me.
- \_\_\_ 23. I feel uneasy in committing myself to a specific career plan.
- \_\_\_ 24. I think that I know enough about the occupations that I am considering to be able to commit myself firmly to a specific career goal.
- \_\_\_ 25. I worry about my ability to make effective educational and career decisions.
- \_\_\_ 26. I am not very certain about the kind of work I would like to do.
- \_\_\_ 27. I would change my career plans if the field I am considering became more competitive and less accessible due to a decline in available openings.
- \_\_\_ 28. I believe that there is only one specific career goal that is right for me.

## APPENDIX F: THE CAREER DECISION-MAKING SELF-EFFICACY SCALE

For each statement below, please read carefully and indicate how much confidence you have that you could accomplish each of these tasks. Mark your answer by filling in the correct circle on the answer sheet.

1	2	3	4	5
No Confidence at all	Very Little Confidence	Moderate Confidence	Much Confidence	Complete Confidence

**Self-Appraisal Items: 5, 9, 14, 18, 22**

**Occupational Information Items: 1, 10, 15, 19, 23**

**Problem-Solving Items: 2, 6, 11, 16, 20**

**Goal Selection Items: 3, 7, 12, 21, 24**

**Planning Items: 4, 8, 13, 17, 25**

### HOW MUCH CONFIDENCE DO YOU HAVE THAT YOU COULD:

- \_\_\_ 1. Find information in the library about occupations you are interested in.
- \_\_\_ 2. Select one major from a list of potential majors you are considering.
- \_\_\_ 3. Make a plan of your goals for the next five years.
- \_\_\_ 4. Determine the steps to take if you are having academic trouble with an aspect of your chosen major.
- \_\_\_ 5. Accurately assess your abilities.
- \_\_\_ 6. Select one occupation from a list of potential occupations you are considering.
- \_\_\_ 7. Determine the steps you need to take to successfully complete your chosen major.
- \_\_\_ 8. Persistently work at your major or career goal even when you get frustrated.
- \_\_\_ 9. Determine what your ideal job would be.

1	2	3	4	5
No Confidence at all	Very Little Confidence	Moderate Confidence	Much Confidence	Complete Confidence

**HOW MUCH CONFIDENCE DO YOU HAVE THAT YOU COULD:**

- \_\_\_ 10. Find out the employment trends for an occupation over the next ten years.
- \_\_\_ 11. Choose a career that will fit your preferred lifestyle.
- \_\_\_ 12. Prepare a good resume.
- \_\_\_ 13. Change majors if you did not like your first choice.
- \_\_\_ 14. Decide what you value most in an occupation.
- \_\_\_ 15. Find out about the average yearly earnings of people in an occupation.
- \_\_\_ 16. Make a career decision and then not worry whether it was right or wrong.
- \_\_\_ 17. Change occupations if you are not satisfied with the one you enter.
- \_\_\_ 18. Figure out what you are and are not ready to sacrifice to achieve your career goals.
- \_\_\_ 19. Talk with a person already employed in a field you are interested in.
- \_\_\_ 20. Choose a major or career that will fit your interests.
- \_\_\_ 21. Identify employers, firms, and institutions relevant to your career possibilities.
- \_\_\_ 22. Define the type of lifestyle you would like to live.
- \_\_\_ 23. Find information about graduate or professional schools.
- \_\_\_ 24. Successfully manage the job interview process.
- \_\_\_ 25. Identify some reasonable major or career alternatives if you are unable to get your first choice.

## APPENDIX G: THE OCCUPATIONAL SUBSCALE OF THE EOM-EIS

### Response Scale:

- A = strongly agree
- B = moderately agree
- C = agree
- D = disagree
- E = moderately disagree
- F = strongly disagree

### **Identity Achievement Items: 5, 7**

### **Diffusion Items: 1, 4**

### **Moratorium Items: 2, 8**

### **Foreclosure Items: 3, 6**

- \_\_\_ 1. I haven't chosen the occupation I really want to get into, and I'm just working at what is available until something better comes along.
- \_\_\_ 2. I'm still trying to decide how capable I am as a person and what work will be right for me.
- \_\_\_ 3. I might have thought about a lot of different jobs, but there's never really been any question since my parents said what they wanted.
- \_\_\_ 4. I'm not really interested in finding the right job, any job will do. I just seem to flow with what is available.
- \_\_\_ 5. It took me a while to figure it out, but now I really know what I want for a career.
- \_\_\_ 6. My parents decided a long time ago what I should go into for employment and I'm following through with their plans.
- \_\_\_ 7. It took me a long time to decide but now I know for sure what direction to move in for a career.
- \_\_\_ 8. I just can't decide what to do for an occupation. There are so many possibilities.

## APPENDIX H: THE ASSESSMENT OF ATTRIBUTIONS FOR CAREER DECISION-MAKING

Please indicate the degree to which you agree or disagree with each statement by circling the corresponding numerical value.

1	2	3	4	5
completely disagree	disagree somewhat	neutral	agree somewhat	completely agree

**Causality Items: 2, 4 (reverse-scored), 7**

**Controllability Items: 1, 5 (reverse-scored), 9**

**Stability Items: 3, 6, 8 (reverse-scored)**

1. The career decisions that I make are under my control.	1	2	3	4	5
2. If my career decisions lead to success, it will be because of my skills and abilities.	1	2	3	4	5
3. Many of the career decisions I am making these days differ from the kinds of career decisions I made in the past.	1	2	3	4	5
4. Career decisions are made for me by other people.	1	2	3	4	5
5. I have very little control over the forces that influence my career decisions.	1	2	3	4	5
6. Career decisions often change over time.	1	2	3	4	5
7. I make career decisions based on what is best for me.	1	2	3	4	5
8. The recent career decisions I have been making are the same kinds of career decisions I have made in the past.	1	2	3	4	5
9. I have control over the decisions I make about my career.	1	2	3	4	5

**APPENDIX I: POST-INTERNSHIP SUBSCALE  
AND POST-TEST DEMOGRAPHIC ITEMS**

Please indicate the degree to which you agree or disagree with each statement by circling the corresponding numerical value.

1	2	3	4	5
completely disagree	disagree somewhat	neutral	agree somewhat	completely agree

**Subscale Items: 1, 4**

1. My internship was one of the most useful aspects of my college experience.	1	2	3	4	5
2. Right now, I know what my career will be when I graduate.	1	2	3	4	5
3. I did the internship mainly because it was a graduation requirement.	1	2	3	4	5
4. My internship has helped me decide which career to pursue.	1	2	3	4	5
5. Right now, I am unsure about my career goals.	1	2	3	4	5
6. What I learned from my internship is that I do <u>not</u> to pursue a career in that field.	1	2	3	4	5
7. Because of my internship, I am more confident about my career decisions.	1	2	3	4	5
8. My internship was <u>not</u> as useful as I had hoped it would be.	1	2	3	4	5
9. I will probably be offered a full-time job with the organization where I interned.	1	2	3	4	5



Subject # \_\_\_\_\_  
(Last 4 Digits of Social Security Number)

**The Effects of Internships on Career Indecision  
as Explained by Social Cognitive Career Theory, Identity Theory, and Attribution  
Theory**

Please complete the items below by filling in the blank or by circling the answer that best fits you:

1. Which area best describes your internship?

Financial Services	Newspaper/Magazine	TV Broadcasting
Retail	Public Relations	Film Production
Theatre	Radio	Music Performance
Religion	Elementary Education	History
Computer Networking	Computer Programming	Other: _____

2. Internship is:            Paid at \$\_\_\_\_\_ / hour            Unpaid

## APPENDIX J: DEBRIEFING

### **Title of the Study:**

The Effects of Internships on Career Indecision as Explained by Social Cognitive Career Theory, Identity Theory, and Attribution Theory

### **Purpose of the Study:**

The purpose is to assess the value of internships by measuring its effects on career indecision, career self-efficacy, ego identity, and attribution.

### **For Information about the Results of the Study:**

You are welcome to refer to the results of the research project, beginning in December 2002, by visiting the Waldorf College intranet site at [www.waldorf.edu/waldorfnet/](http://www.waldorf.edu/waldorfnet/). As an alternative, at your request, the principal investigator will also provide you with a copy of the thesis paper. If you would like a copy, please contact the investigator, Laura Friesenborg, at 641-585-8682 or [friesenbl@waldorf.edu](mailto:friesenbl@waldorf.edu). Be sure to provide either your e-mail address or mailing address, where you would like the information sent.

### **Questions?**

At any time during the study, if you have questions or concerns, please feel free to contact the principal investigator, Laura Friesenborg, at 641-585-8682 or at [friesenbl@waldorf.edu](mailto:friesenbl@waldorf.edu). Laura is the Director of Career Planning at Waldorf College. She is conducting this study as her thesis project for the industrial relations master's degree program at Iowa State University.

## APPENDIX K: CORRELATIONS FOR ALL VARIABLES

	Pre-Session	Post-Session	Age	GPA	Academic Year	Sem	Weeks	Intern Major	Change Major	Citizen	Gender	Pre-Intern	VECS	Self-Appraisal	Info	Occ	Goal Select	Planning	Solving	Control	Causality	Stability
Pre-least Session	1	.84**	.30**	-.03	.52**	.62**	-.16	-.09	-.03	.07	-.03	-.12	.08	.01	.00	.08	.08	-.01	.00	.21	.17	.12
Post-least Session	.87**	1	-.15	.03	-.41**	.76**	-.2	.01	.02	.03	.01	.20	-.02	-.03	.04	.15	.15	.11	.02	.14	.12	.06
Age	-.30**	-.15	1	.11	.29**	-.08	.03	.25	.98	.54**	-.09	.02	.02	-.05	.04	.07	.04	.04	.04	-.09	.08	-.21
GPA	-.03**	.03	.11	1	.01	.62	.02	.15	.14	-.04	.34**	.27*	-.02	-.08	.28**	.07	.23*	.15	.05	.23*	.11	.10
Academic Year	-.52**	-.41**	.29**	.01	1	.6**	.01	-.04	.07	-.08	-.02	-.11	-.18	.11	.19	.17	.15	.15	.16	.16	.21	-.13
Semester	.62**	.76**	-.08	.06	-.6**	1	-.19	.26*	.14	.09	.03	.19	.16	-.08	-.07	.05	.05	-.05	-.11	.02	-.04	.03
Internship Weeks	-.16	-.20	.03	.02	.01	-.19	1	.41**	.13	-.07	.03	-.01	.13	.10	.05	-.05	-.05	-.05	.19	.02	.04	-.01
Major	-.09	.01	.03	.15	.04	.26*	.41**	1	.07	-.09	.22	.06	.01	.05	-.17	-.03	.02	-.03	.02	-.06	-.06	.07
Change Major Freq	-.03	.02	.10	.14	.07	.14	.13	.07	1	.03	.05	-.24*	.02	-.01	.15	-.01	.07	.07	.14	.17	.00	.00
Citizen	.07	.03	.54**	-.04	-.08	.09	-.07	-.09	.03	1	-.07	.11	.06	-.04	-.07	-.05	-.13	-.08	.03	.13	.13	-.15
Gender	-.03	.00	-.09	.34**	-.02	.03	.03	.22	.05	-.07	1	.24*	-.24	.06	.14	.10	.10	-.16	-.20	.06	-.04	.04
Pre-Internship	-.12	.20	.02	.27*	-.11	.19	-.16	.06	-.24*	.11	.24*	1	.05	-.16	-.03	.02	.02	-.07	-.19	.01	.24*	-.15
VECS	.08	-.02	.02	-.02	-.18	.16	-.13	.01	.02	.06	-.02	.05	1	-.45**	-.46**	-.55**	-.55**	-.28*	-.07	-.18	-.24*	.29**
Self-Appraisal	.01	.03	.05	.08	.11	-.08	.10	.05	-.17	.15	.04	.06	-.16	-.45**	1	.54**	.65**	.42**	.62**	.39**	.24*	-.07
Occupational Info	.00	.04	.04	.28*	.19	-.07	.05	-.17	.15	-.07	.14	-.03	-.46**	.54**	1	.50**	.65**	.57**	.47**	.5**	.43**	-.02
Goal Selection	.06	.15	.01	.07	.17	.05	-.05	-.03	-.01	-.05	-.10	.02	-.55**	.65**	.50**	1	.43**	.44**	.44**	.37**	.31**	-.13
Planning	-.01	.11	.04	.15	.15	-.05	-.05	-.19	.07	-.13	-.16	-.07	-.27*	.42**	.57**	.43**	1	.62**	.28*	.28*	.36**	.06
Problem Solving	.00	.02	.04	.05	.16	-.11	.19	.02	.14	-.08	-.20	-.19	-.07	.62**	.47**	.44**	.62**	1	.62**	.44**	.25*	.21
Controllability	.21	.14	-.09	.23*	-.16	.02	-.06	.17	.03	.06	.01	-.18	-.07	.39**	.50**	.37**	.28*	.28*	.44**	1	.52**	.01
Causality	.17	.12	.08	.11	.21	-.04	.04	-.06	.01	.13	-.04	.24*	-.24*	.24*	.43**	.31**	.36*	.36*	.25*	.52**	1	-.03
Stability	.12	.06	-.21	.10	-.13	.03	-.01	.07	.00	-.15	.04	-.15	.29**	-.45**	-.30**	-.34**	-.13	.06	.21	.01	.01	-.03
Diffusion	-.08	-.14	-.18	-.28	-.04	-.06	-.15	-.15	-.07	-.06	-.27*	.08	.45**	-.45**	-.30**	-.34**	-.16	-.16	-.18	-.24*	-.28*	-.06
Moratorium	.08	-.02	-.07	-.05	.06	.12	-.03	-.01	-.03	-.08	-.08	-.03	.70**	-.42**	-.21	-.39**	-.09	.04	.04	-.10	-.14	.29*
Foreclosure	.00	-.04	.03	-.28	-.12	.03	-.12	-.25	.01	.13	-.24*	.03	.10	-.34**	-.16	-.31**	-.12	-.12	-.31**	-.24*	-.10	-.08
Identity Achievement	.06	-.98	-.21	-.10	.15	-.23	.13	-.18	.12	-.02	.11	-.06	-.29*	.34**	.15	.35**	.08	.28*	.08	.29*	.18	.04
Post Intern Field	-.02	.14	.02	.03	.03	.01	.07	-.22	.13	-.22	.01	.02	-.13	-.24*	.03	.08	.08	.28*	.12	.13	-.01	-.05
Post Internship	-.03	-.05	-.11	.10	-.16	.21	.24	.81	.02	-.19	.21	.20	-.12	.04	-.12	.04	.18	-.04	-.11	-.07	-.07	.11
Post-Internship	-.03	-.14	-.16	-.08	-.08	.00	.26	.19	-.10	.10	.03	.31*	.09	.03	-.01	.01	.08	.08	.08	.10	.06	.02
Post VECS	.23	.14	.26	-.13	-.27	.14	-.29	.21	-.06	-.01	-.01	.08	.53**	-.33**	-.33**	-.44**	.19	.19	.20	.14	-.27*	.16
Post Self-Appraisal	-.23	-.26	-.27	.21	.21	-.21	.21	.03	.09	.06	-.15	-.06	-.26*	.48**	.42**	.44**	.44*	.44*	.52**	.20	.30*	-.08
Post Occ Info	-.27	-.15	.24	.39	.18	-.14	.09	-.05	.18	-.05	-.11	-.08	-.29*	.37**	.65**	.36**	.36**	.57*	.54**	.21	.22	.12
Post Goal Selection	-.21	-.14	.22	.04	.25	.06	.14	.11	.10	.05	-.14	.00	-.4**	.45**	.39**	.64**	.47**	.61*	.48**	.22	.27*	-.14
Post Planning	-.26	-.19	.20	.35	.21	-.13	.12	.02	.21	-.10	-.04	-.10	-.37**	.43**	.54**	.47**	.37*	.81*	.48**	.27*	.24*	-.06
Post Problem Solve	-.05	-.02	.18	.02	.13	-.01	.01	-.06	.16	-.10	-.24*	-.06	-.15	.35**	.39**	.39**	.28*	.35*	.58**	.27*	.32**	.09
Post Controllability	-.04	-.04	.02	.33	.23	-.13	.12	-.04	.14	-.14	-.06	.06	-.32**	.24*	.35*	.44**	.28*	.28*	.31**	.45**	.32**	.09
Post Causality	.04	-.05	.11	.07	.24	-.21	.12	-.10	.24	.09	-.07	-.15	-.20	.14	.27*	.23*	.13	.13	.21	.30*	.43**	-.13
Post Stability	-.01	-.05	-.24	.18	-.14	.02	-.11	-.07	.20	-.14	.06	-.20	.18	-.10	.03	-.21	.03	-.01	-.01	.07	.16	-.18
Post Diffusion	-.01	-.11	-.03	-.40	.03	-.03	-.07	-.09	-.08	.16	-.16	-.01	.36**	-.32**	-.39**	-.30*	-.31**	-.31**	-.29*	.18	-.25*	-.14
Post Moratorium	.13	-.04	-.06	-.10	-.22	.10	-.12	-.10	-.02	.07	-.14	.11	.68**	-.44**	-.41**	-.52**	-.20	-.12	-.12	-.19	-.26*	.23
Post Foreclosure	-.08	-.15	.02	-.16	-.06	-.07	-.06	-.23	-.08	.24*	-.17	.04	.18	-.22	-.14	-.27*	-.10	-.11	-.22	-.10	-.14	-.13
Post Identity Achieve	-.17	-.20	-.03	.09	.30	-.19	-.02	-.15	.22	-.05	.02	.04	.09	.02	.20	.10	.10	.16	.14	.18	.18	-.13

\* denotes  $p < .05$   
 \*\* denotes  $p < .01$



## APPENDIX K (continued)

	Post Diffusion	Post Moratorium	Post Foreclosure	Post Achievement
Pre-test Session	-.01	.13	-.08	-.17
Post-test Session	-.11	-.04	-.15	-.20
Age	-.03	-.06	.02	-.03
GPA	-.39**	-.13	-.16	.09
Academic Year	.03	-.22	-.06	.30**
Semester	-.03	.10	-.07	-.19
Internship Weeks	-.07	-.12	-.06	-.02
Major	-.09	-.10	-.23*	-.15
Change Major Freq	-.08	-.02	-.08	.22
Citizen	.16	.07	.24*	-.05
Gender	-.18	-.14	-.17	.02
Pre-Internship	-.01	.11	.04	.04
VECS	.36**	.66**	.18	.09
Self-Appraisal	-.32**	-.44**	-.22	.02
Occupational Info	-.39**	-.41**	-.14	.20
Goal Selection	-.30*	-.52**	-.27*	.10
Planning	-.31**	-.20	-.11	.16
Problem Solving	-.28*	-.12	-.22	.14
Controlability	-.18	-.19	-.10	.18
Causality	-.25*	-.26*	-.14	.19
Stability	-.14	-.23	-.13	.13
Diffusion	.69**	.58**	.44**	-.12
Moratorium	.24*	.62**	.15	.10
Foreclosure	.27	.10	.84**	.07
Identity Achievement	.10	-.35**	-.03	.41**
Post Hourly Pay	-.07	-.10	-.08	.08
Post Intern Field	.16	.16	-.26*	-.10
Post-Internship	-.02	.03	.05	.35**
Post VECS	.47**	.69**	.16	-.34**
Post Self-Appraisal	-.31**	-.35**	.05	.32**
Post Occ Info	-.43**	-.30**	-.12	.21
Post Goal Selection	-.33**	-.50**	-.11	.36**
Post Planning	.42**	-.42**	-.19	.36**
Post Problem Solve	-.26*	-.23*	-.14	.22
Post Controlability	-.46**	-.37**	-.16	.26*
Post Causality	-.22	-.28*	-.23	.18
Post Stability	-.01	.19	-.11	.11
Post Diffusion	1	.61**	.37**	-.20
Post Moratorium	.61**	1	.15	-.27*
Post Foreclosure	.37**	.15	1	.12
Post Identity Achieve	-.20	-.27*	.12	1

\* denotes  $p < .05$   
 \*\* denotes  $p < .01$