THE EFFECTS OF CAREER INTERVENTIONS ON THE CAREER UNCERTAINTY OF ADULTS.

A Dissertation in

Adult Education

by

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ABSTRACT

This study was driven by concerns regarding an unstable economic and employment period as more adults are seeking career counseling to determine future occupational choices and decisions. Of importance, to the researcher, was exploring life roles, burdens, and resources and their impact an individual’s ability to make career decisions. Duane Brown’s Values-Based Career Counseling Approach (Brown, 1995) and Howard McClusky’s Margin in Life Theory (McClusky, 1963) were the theoretical frameworks guiding the study’s interventions.

A quasi-experimental study was designed to focus on whether career indecision of adults could be reduced by participation in a series of values-based career webinars. Subjects were divided into three groups; one control and two treatments where the Career Decision Scale was administered as a pretest and posttest for the researcher to compare the mean uncertainty scores among the three groups. One treatment group received the values-based career webinar intervention and the second received an interest based career counseling intervention. The interventions consisted of three webinars spanning one hour each in length. Participants were also given the Margin in Life Scale simultaneously with the Career Decision Scale to understand current life burdens and resources.

The study targeted alumni from The Pennsylvania State University. Sixty-seven participants persisted throughout the entire study which was voluntary. Participant’s age and gender were obtained since previous literature describes both as having significant roles in the ability to make career decisions. The webinars acted as the independent variable while indecision scores obtained through the Career Decision Scale and marginal values scores obtained through the Margin in Life Scale were the dependent variables. Testing was completed using an ANCOVA, Tukey Pairwise and Pearson correlation.

The main contributions that this study generated were: a) show statistical significance of career uncertainty decrease through use of the values-based career counseling intervention which is particularly useful to career counselors working with adults; b) recognize that an individual’s age and gender can influence career decision making; c) understand the relationship between life burdens and resources and the ability to make a career decision. Insights were also gained in the areas of career education techniques as this study presented a unique way of facilitating career development through groups using online technology in the form of a webinar.
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CHAPTER 1
INTRODUCTION

The days when adults were expected to stay within the same occupation or work for the same employer from the beginning of their career to retirement are a thing of the past. Current workforce shifts require employees to focus on constant career development within various topics including self-evaluation, guidance, occupational information, identification and affirming satisfying career directions through assessments, values clarity, and decision-making (Colozzi, 2007; Ford & Orel, 2005; Gingras, 2005; Healy, 2001; Johnson, 1986; Lucas, 1999; Rafael, 2007). These concerns are slightly different from traditional aged learners'; particularly indecision. Studies have found that adults place high importance on values in regard to indecision and decision-making whereas traditional aged learners do not (Brown & Crace, 1996). This warrants a deep understanding and concentration for career counselors to specialize in adult career development (Dean, 1988).

Meeting the needs of adults and adult students through trained career counselors is a major hurdle for educational institutions. According to Darkenwald and Merriam (1982), “the number of formally designated adult [career] counselors is very small, and thus for the most part the counseling that does occur is done by teachers, program developers, or administrators” (p. 19). Career counselors have limited knowledge of adult development and learning theories since counseling programs focus on traditional aged student training. Theories currently taught “still lag behind the theory building which focuses on youth” (Dean, 1988, p. 4). Several learning theories including Androgogy, self-directed learning theory, developmental learning theory, social learning
theory and Margin in Life Theory explain how adults learn differently from traditional learners. Faced with a multitude of theories developed for adults, those who are skilled working with nontraditional learners may wonder which theory best applies and therefore determining a career decision-making intervention that is suited for adults (measured through a values-based webinar intervention and the Career Decision Scale) along with using Margin in Life Theory as a framework (measured through the Margin in Life Scale) are the foci of the research study.

Need for the Study

The National Student Clearinghouse (Newbaker, 2012) reported that more than one-third of all individuals enrolled in college courses during the fall of 2009 and fall of 2011 were over the age of twenty-five years old; thus, despite being considered an understudied topic, it is rapidly becoming the new normal within classroom demographics with projected statistics expected to incline. Adults returning to the classroom are partially or somewhat attributed to a poor economy which has forced many to question their current occupation, make new career decisions, and seek additional education. Researchers studying the changing population on college campuses predicted that the substantial increase in the number of adult learners is a trend that is likely to continue (Cross, 1980; Holtzclaw, 1980). This prediction began as early as 1982 when college presidents attending a conference on the future of higher education were advised that there would be a shift in higher education to accommodate the middle aged population (Brown, Collins, & Duguid, 1989). Thirty years later educators are still estimating 8 million additional adults will return to college, either online or traditional classroom based, to earn an additional degree by 2020 (Gast, 2013).
This shift is attributed to an ever evolving workforce. Adults are living longer and working past the age of retirement or opting to work in part time positions after retiring. According to the Bureau of Labor and Statistics (“Labor Force Statistics,” 2014) in 2013, 43 percent of all employed workers were over the age of forty-five. This continued increase began in 2004 and is not projected to decline anytime soon; in fact it is projected by 2016 the number of workers between the ages fifty-five and sixty-four is expected to increase over 36 percent. Anticipated numbers of an adult employed population serve as a guide and reminder for career counselors to develop skills to assist not only traditional aged learners, but to also include those skills necessary to assist adult learners with career guidance.

Despite the increased attention surrounding adults and their career development needs within the past fifty years, researchers agreed there was a lack of training and educational information given to career counselors and future career counseling practitioners in the areas of adult career development (Bejian & Salomone, 1995; Brock & Davis, 1987; Buck & Daniels, 1981; Campbell & Shaltry, 1960; Donohoe & Patton, 1998; Fredrickson, 1978; Ginzberg, 1951; Johnson, 1986; Luzzo, 1999, 2000; Miller & Musgrove, 1986; 1987; Ronzio, 2012). Stemming as far back as basic curriculum in graduate programs, rarely are adults mentioned as potential clients or is instruction given to career counselors on proper techniques, theories, or practices to help serve that demographic. Higher education institutions are experiencing an increase in adults desiring services as either alumni or returning adult learners and consequently, colleges and universities must quickly adapt to meet their needs including expanding and
reorganizing staff and adding updated resources (Brock & Davis, 1987; Buck & Daniels, 1981).

The differences in conducting career counseling with traditional and nontraditional learners stem from very dissimilar learning styles including distance, social, developmental, and contextual learning as is discussed through the Review of Literature, Chapter 2. Currently, career counselors are given the tools to work with traditional aged learners who are making their initial career decision. Most career related decisions among traditional aged learners revolve around beginning stages of vocational exploration such as: narrowing down program areas to study, pursuing internships, and entry level job search strategies upon graduation. The transition from college to employment period has been researched in various studies through diverse topics (Choi et al., 2013; Greenhaus, Hawkins & Brenner, 1983; Healy, Mitchell & Mourton, 1987). Colleges and universities host a variety of services including individual career counseling appointments, career related workshops, classes, and seminars to empower learners and provide the tools needed to make career decisions and often work jointly with academic advisers who discuss major choices through guidance as well. Classes are available to all learners regardless of age but often are conducted during work hours when adults who are currently employed are unable to attend such sessions. Assessments or inventories are also provided to all learners by career counselors to clarify interests and abilities which aid in their career decision process. However, most career centers only give the more common assessments such as Career Thoughts Inventory (Sampson, Peterson, Lenz, Saunders, & Reardon, 1996), Self-Directed Search or SDS (Holland, 1994), and Strong Interest Inventory (Prince, 2008) when assessments strictly developed for adults are
available such as the Adult Career Concerns Inventory (Super, Zelkowitz, & Thompson, 1975).

Colleges and universities often publish career literature in the form of booklets, handouts, and guidebooks. The Pennsylvania State University (PSU), for instance, publishes a large, 96 page career guide annually targeting undergraduate and graduate traditional learners. Two pages are explicitly dedicated to career decisions and provide students with a step by step guide to follow including: increasing self-awareness, acquiring knowledge, skills and experience, exploring career options, and developing self-marketing skills to help implement career goals (“Penn State career guide,” 2015, pp. 45-46). Although helpful for traditional aged learners, again, like many other services provided, is not supportive to adults who are neither undergraduate nor graduate students but are continuing educational learners and in need of career decision help beyond basic strategies.

Career change and transition are more practical topics for adults as they need to be in constant control of their career development. The need to address such matters are influenced by many factors including increasing skill levels, upkeep in technology, competitive job market, and the ability to perform on a global scale. Also of concern are company layoffs, demotions and limited job security where adults need to be prepared for life after possible job termination. The persistent state of adjustment forces adults to evaluate and reevaluate their goals constantly. Decision-making is unique as it affects not only one’s career, but also impacts all aspects of one’s life. Lindeman (1961) believed this constant adjustment and alteration of work, family, and community was precisely when adult learning began.
According to Campbell and Shaltry (1960) “counselors may be valuable consultants by helping their clients identify realistic options” (p. 71). Unfortunately, there is a limited number of research studies conducted concerning both adults and career decision-making or indecision for practitioners to reference. Reasons speculated are the sheer nature of the topic; adults are not comfortable seeking career counseling and those that do are not comfortable disclosing the information needed, or the services are not available. The studies that are presented (Hartman et al., 1985; Krumboltz, 1979; Osipow et al., 1976; 1979; Osipow & Reed, 1985) were conducted after the 1970’s when the workforce demographics began changing; more women started working while raising a family, the ability to work from home was initiated, and a boom in technology changed the workforce during the 1980’s and 1990’s which sparked interest in many professionals as research topics.

Literature illustrates that career decision-making theories and models have evolved from Parson’s (1909) trait-and-factor approaches to the concept of lifelong learning. Examinations of these are explored through the lens of career decision-making in the Review of Literature. One prominent aspect of decision-making is the concept of values both personal and work. Values have been shown in studies to be associated with job satisfaction (Rounds, 1990) and also influence the majority of life decisions including career decisions (Brown & Crace, 1996; Colozzi, 2003; Dawis & Lofquist, 1984; Patton, 2000). This is because values typically represent what is important in both personal and professional choices. Intertwining values into career counseling techniques warrants the need to enhance more interventions to reduce career indecision among adults.
Significance of the Study

It is unquestionable that qualified career counselors are a major requirement for quality career counseling programs (Miller & Musgrove, 1986). Institutions and professionals that have traditionally assisted students in career decision-making may not have the services, the skills, or the knowledge to help today’s adult learners (Johnson, 1986). How can career counselors ensure quality for adult learners? The outcomes of this study are important for career counselors, career counseling programs, training of future career counselors, and adult educational studies in various ways.

It has been noted that adult students are being counseled inadequately in terms of existing services because of this disconnection (Darkenwald, 1980). Customary, sequential life-stage theory may no longer be suitable for today’s society (Johnson, 1986). Through examining the effectiveness of a values-based intervention to career counseling, counselors will be able to utilize an effective technique when working with nontraditional students and adults to clarify career decisions. This supports the notion that the ever expanding enrollment of adult students returning to the classroom has made many researchers wonder why career counselors are not taught adult career development techniques. “The fact is that adults in need of help and the career counselors who can provide the help are not making a connection” (Johnson, 1986, p. 6).

Adult learning theories and career counseling theories have changed and expanded rapidly within the past decade. Significant to practitioners is realizing which learning theory is best applied through career counseling sessions. According to Johnson, (1986):
Concepts of how adults learn and grow and definitions of career development have been changing as society undergoes both social and technological transformations. Quite often, however, career counselors and other helping professionals working with adults have not systematically applied this knowledge of adult learning and career development theory in the delivery of career-counseling programs. (p. 8)

It is difficult to implement one single adult learning theory because of the multitude of factors that need to be taken into consideration. This study provides a rationale for the applicability between the theory of margin and adult learning by viewing engaged learning as inherently related to life experiences and situations which is beneficial for practitioners and research participants using the Margin in Life Scale and a predictor and correlational tool. “What [the learner] learns, and how he does so, depends upon the stage he occupies in his life cycle and upon the suitability of the learning situation to the learning potentialities and learning handicaps he has at that stage” (McClusky, 1971, p. 415).

Statement of the Problem

A fluctuating workforce, unstable economy, and demand for increased training are a few factors elevating the necessity for career counseling services among adults. Practitioners who specialize in adult career development are needed as services that are available such as employment brokers and placement agencies are inadequate and do not meet all career essentials of adults especially career decision-making (Johnson, 1986). Current economic fluctuations have placed demands on career counselors to incorporate both positive and negative life events such as promotion or layoff which are sensitive subjects and may require additional training on coping strategies for adults (Bimrose &
Hearne, 2012). There are few studies that address career uncertainty among adults and warrant the need for additional exploration.

The research study was designed to test a values-based career counseling intervention to determine if there was a significant difference in career uncertainty post test scores from those that participated in the career intervention and those that did not. The researcher was also interested in using the Margin in Life Scale to predict an adult’s ability to learn through the values-based career counseling intervention based on their marginal value score and also the correlation between marginal values and career uncertainty pretest scores.

**Research Questions**

The following research questions guided this study: Is there a relationship between values and decision making? Can career counseling and career education interventions decrease career indecision? The sub-questions of this study included: 1) Can values-based career group webinar interventions reduce career uncertainty among adults? 2) Are there correlations between age and gender and career indecision? 3) Do life burdens affect career indecision? It was through these questions that the following research hypotheses were developed:

**Research Hypotheses**

Through examination of relevant literature, and the researchers experience within career development and adult education, the following research hypotheses were proposed:

\[ H_1 = \text{Adults facing a career transition who have gone through a series of values-based webinars will have reduced levels of career uncertainty than adults who did not receive the treatment intervention (webinar).} \]
H₂ = Margin in Life Scale marginal values scores will predict ability to learn through the values-based webinars.

H₃ = There is a difference in Career Decision Scale pre-test uncertainty scores for age and gender.

H₄ = There is a difference in Margin in Life Scale scores for age and gender.

H₅ = There is a relationship between Margin in Life scores and Career Decision Scale uncertainty pre-test scores among adults.

Null Hypotheses

HO₁ = There is no difference in the career uncertainty levels with adults attending a series of values-based webinars, and adults who did not attend a series of values-based webinars.

HO₂ = Margin in Life Scale marginal values scores will fail to predict career indecisiveness decrease through values-based webinars.

HO₃ = There is no difference in Career Decision Scale pre-test uncertainty scores for age and gender.

HO₄ = There is no difference in Margin in Life Scale scores for age and gender.

HO₅ = There is no relationship between Margin in Life scores and Career Decision Scale uncertainty pre-test scores among adults.

A quasi-experimental design was employed to determine the effectiveness in reducing career indecision levels in adults. There were two interventions; the first was an intervention of a series of values-based career webinars spanning three sessions. The second was an intervention using a series of interest based career education webinars. The use of ‘career education’ over ‘career counseling’ in reference to the second intervention is important to note. Initially, the intervention was considered career counseling but changed to reflect different aspects of the study. It is important to explain why the word counseling was removed in further detail: The intervention is a series of
three webinars, however, only one webinar contains career content where the researcher is assisting participants and shaping their career development and spans less than one hour in length. Career counseling typically spans over the course of more than one session and intertwines multiple career topics with life roles. The intervention conducted through this study focused solely on decision-making and provided career information and strategies for effective career decision-making moving it more toward career education than career counseling.

The research study was also conducted to inform all educators including career counselors and adult educators about the career development and decision-making of adults. There was concern that the phrase career counseling for both interventions may deter other professionals from reading or using the study for future considerations if career counseling was not their primary job responsibility. It is helpful to have a background in career development, however, not necessary to replicate the study. The term career education is more inclusive and therefore was used to describe the intervention.

This study focuses on Brown’s Values Based Theory which emphasizes the importance of intertwining values into career counseling. His theory was chosen because current researchers found that one important difference between traditional and nontraditional students in terms of their career needs is the emphasis placed on values. Nontraditional students are more concerned with the manner in which their values align with their current or future careers which affects their career decision abilities. Career change and returning to school as an adult are often stressful and can inhibit their ability to make career decisions. As more career options are explored, it has been researched
that adults became more anxious and not ready to make permanent decisions that affect their values (Healy, 2001). One finding, in particular, states that a main component of career indecision is neuroticism and anxiety among individuals which affects career choices (Meldahl & Muchinsky, 1997). Proper career counseling is important because of the impact career indecision has on one’s mental health. Catering to the emotional context of adults helps prepare them to become the driver behind their career.

A person’s age has also been found to be a significant factor that effects career decision making. A young adult typically does not have the same robust experiences, both personal and professional, to help shape their future career decisions that older adults do (Behymer & Cockriel, 1988). A short list of experiences include: being laid off, working during a poor economy, having a family or holding multiple jobs. It has been studied, however, that young adults, are more susceptible to depression than older adults while unemployed. A study by the Substance Abuse and Mental Health Services Administration in 2010, showed that adults between the ages 18 and 25 were three times more likely to be depressed while unemployed than those over 25 years old. It was important for the researcher to analyze age during the study as a factor with the ability to influence career decision and indecision values.

Gender was also evaluated within the study’s data because of the research concluding that men and women approach career decision making differently. Miles (1988) reported that women often feel guilt when choosing either being a homemaker or pursuing a career and not fulfilling their domestic responsibilities. Meldahl and Muchinsky, (1997) echoed Miles (1988); saying women face additional stress and anxiety when making vocational decisions that men do not because of their expected
family roles. Guilty feelings can stay with females for quite some time and impact how career decisions are made, therefore making gender an important aspect to consider during the study.

Three groups were formed during the study; one control and two experimental. The control group was given two pre-tests in the form of formal instruments and a post-test but was not given an intervention. The values-based and interest based interventions were offered at the conclusion of the study to the control group. The first experimental group received the values-based career counseling intervention after taking two pre-tests in the form of formal instruments. The second experimental group received an interest based career education intervention after taking two pre-tests in the form of formal instruments. The two instruments administered were the Margin in Life Scale and the Career Decision Scale. To test the research hypotheses, an ANCOVA and Pearson Correlation tests were performed.

**Limitations of the Study**

Numerous limitations of the study were identified:

- Since the nature of the study required subjects to actively participate in a career intervention and complete two formal assessments, participants all volunteered for the study. These subjects were all geographically dispersed and are Pennsylvania State University alumni; therefore generalizing to other populations or other entire alumni populations may be limited.

- The Margin in Life Scale (Stevenson, 1994) and the Career Decision Scale (Osipow, 1980) are both self-reported instruments which can weaken accuracy; participants can misinterpret questions or answer dishonestly.
The Margin in Life Scale (Stevenson, 1994) and the Career Decision Scale (Osipow, 1980) were both mailed to participants. Although placed in sealed envelopes a concern over confidentiality and privacy was noted.

The Margin in Life Scale (Stevenson, 1994) is an older scale not updated for over twenty years. Because of this, the researcher had to adapt two words on the scale for the benefit of the participants.

The webinars were conducted from a distance in order to reach geographically dispersed alumni. This is a limitation for some participants who learn and prefer in person career education.

The webinars consisted of groups instead of individual appointments which is a limitation to those that prefer one on one career education delivery.

**Summary of the Study**

The following study involved the effect of a values-based webinar intervention on adults’ career indecision while exploring the predictability of the effect based on the Margin in Life Scale. Chapter two includes a review of literature in a summary format pertaining to the history of career counselors, adult learning theories, theoretical framework, career decision-making theories and styles, and values within career decisions. Chapter three encompasses the research study methodology and instrumentation. The study’s findings and results are discussed in chapter four followed by recommendations and concluding thoughts in chapter five.
Definitions of Terms

Operationalizing terms is important for readers as some words and phrases have more than one definition. For example the word ‘values’ as noted previously was found to have four different meanings within the literature. For this study’s purpose, the following are working definitions:

**Vocational Guidance** – “Progressive social reform movement aimed at eradicating poverty and substandard living conditions spawned by the rapid industrialization and consequent migration of people to major urban centers at the turn of the 20th century” (Whiteley, 1984, p. 2)

**Career** – “The work positions, identified by job or occupational labels, that an individual holds in a lifetime” (Wise, Charner, and Randour, 1976, p. 49)

**Career Development** – Lifelong psychological, contextual, and behavioral processes that shape one’s career over the life span (Niles & Harris-Bowlsbey, 2005)

**Career Education** – “Systematic attempt to influence the career development of students and adults through various types of educational strategies, including occupational information, career-related concepts, various worksite-based experiences, and career planning courses” (Niles & Harris-Bowlsbey, 2005, p. 357)

**Career Counseling** – Process of assisting individuals in developing life-career with focus on defining the worker role and how that role interacts with other life roles (National Career Development Association, 1997)
CHAPTER 2
REVIEW OF LITERATURE

Chapter two provides a literature review relative to the research study. A brief history of guidance and counseling is provided along with a description of adult learners, career decision-making theories, types, and models, gender and career decision-making, the importance of values, distance learning and learning styles. Additionally, this chapter provides an overview and critiques of the margin in life theory (McClusky, 1963) and Joanne Stevenson’s Margin in Life Scale (1982, 1994).

Guidance and Counseling

Guidance and counseling has historically been considered as having developed during the 1890’s Progressive Era social reform movement which promoted social responsibility as members of society. Formalized adult career counseling, however, within colleges and universities, was not emphasized in the United States until the 1940’s with the emphasis placed on training of vocational counselors (Pope, 2000). The end of the Great Depression and beginning of World War II resulted in an increased student enrollment in colleges and universities due, in part to young men avoiding the draft. Those that served and planned to attend college after World War II benefited from the Servicemen’s Readjustment Act of 1944 which provided financial assistance to veterans for educational purposes. Once enrolled, students found they were in need of vocational counseling services, employment courses, and other transfer programs (Neufeldt, 1988). Over 7.8 million World War II veterans used G.I. Bill education benefits before it ended in July 1956 (“History and Timeline,” 2013). The G.I. Bill brought men back to school
well beyond prewar averages and as a result adults explored varied workforces and occupational interests beyond what they were taught in armed services (Charles, 1971). Vocational counselors, during this time, were faced with improving areas of importance to society. More than 2.5 million students enrolled in colleges and universities from 1947-1948 where veterans represented half of those registered (Splaver, 1949). Vocational counselors were recognized as a major force in transitioning veterans to the workplace and therefore trained under the National Defense Education Act of 1957 which encouraged adults to consider employment within science and math fields. They were also responsible for assisting handicapped veterans discover new occupations and training opportunities. Vocational counselor organizations united with other national administrations such as the American Counseling Association to build strength based organizations serving a large demographic (Pope, 2000). Trait-and-factor approaches were used in the majority of vocational counseling interventions as men were matched with employment options while typically going through three phases; intake interview, assessment interpretation, and information processing; this accounted for the post WWII boom. Client-centered counseling and psychoanalytic counseling trends began to peak interest among vocational counselors as well.

Nearly twenty years later, a second large surge of adult student enrollment was initiated in the mid 1970’s increasing from 28 percent to 43 percent which represented over four million total students (Kasworm, 2003). Career related circumstances triggered growth; thus again increasing the need for vocational counselors. Bejian and Salamone (1995) believed the midcareer reevaluation was due in part to rising economic changes in America. An increase in technology in the workforce forced employees to expand their
knowledge of new job skill requirements in order to maintain their position within the organization. In addition, economic restructuring influenced jobs, some of which were identified as unstable from year to year. Business related changes affected adults in their personal and work lives forcing them to be proactive in their continuing education.

The United States experienced an increased use of capital goods which required a growth in the need for employees to transition into skilled, technical, and semiprofessional occupations as careers. Prospective positions required additional on the job training post high school but did not require a four year degree thus, leaving basic knowledge and practical operational skills to be learned in continuing education courses. By 1997, 58.7 percent of adults were enrolled in some form of learning institution and by 2002, a federal program named the Trade Adjustment Assistance (TAA) provided assistance to adversely affected workers who lost their jobs or whose hours of work and wages reduced as a result of increased imports. The TAA benefits included funded training for individuals wishing to return to school which escalated enrollment figures for a third time (“Trade Adjustment Assistance Reform Act,” 2004). The era when adult employees were expected and assumed to remain within the same career field or work for the same employer or company from the start of their career to retirement was long gone. A poor economy, corporate downsizing, and company relocation are reflective of the fact that career changes and transitions are staples of most adult’s career patterns (Stoltz-Loike, 1995). Longevity within an occupation or company is also an intentional choice. According to the Bureau of Labor Statistics (2015), a longitudinal study conducted with volunteers born between the years 1957 and 1964 found that the subjects held an average of 11.3 jobs between the ages 18 and 46. In comparison, those born during the Millennial
Period are expected to change jobs every three years which potentially add up to over 15 jobs throughout their life time (Meister, 2012). Job-hopping is becoming extremely common in the workplace and contributes to an individual’s instability within their career development. This, in turn, affects an employee’s personal and professional life and can be helped through career counseling.

The job title vocational counselor was altered to career counselor after the National Vocational Guidance Association reorganized to become the National Career Development Association in 1984 (Pope, 2000). Developmental and behavioral approaches within personal counseling were then being utilized by career counselors. Many companies provided outplacement services staffed by career counselors or specialists who delivered career assessments, workplace training, psychological assessments, financial counseling, and other support services until new employment options prevailed (Gribble & Miller, 2009). Companies were hopeful the outplacement services would both assist terminated employees transition into a new occupation and salvage their corporate reputation for active employees that had concerns about their future.

Chiappone (1989) believed that in addition to economic and social changes in America, a growing and changing society also forced individuals to adjust career directions. One of the changes in society was and is the rising age demographic of workers. Adults are living longer, staying in the workforce later, retiring at an older age, and hitting the peak in their careers later in their midlife rather than in an earlier career stage. Onnismaa (2003) believed that these modifications resulted in career paths being
fragmented. As a result, career indecision often occurred where employees found themselves struggling with career choices.

**Defining Adult Learner**

For decades, adult education literature referenced twenty-five years of age as the point at which one was defined an adult learner or a nontraditional learner (Griff, 1987; Kenner & Weinerman, 2011; Rathus & Fichner-Rathus, 1997; Wyatt, 2011). Buck and Daniels (1981) believed student development ended at age twenty-five as well; adult development continued after. Similarly, within career development literature, theorist Super (1990) developed the established period for adults beginning at age twenty-five. Levinson (1986), however, proposed that early adulthood began at age seventeen. Even though National Student Clearinghouse (Newbaker, 2012) continues running statistical reports basing twenty-five years of age as their defining point of an adult learner, it is apparent within higher education institutions that age is obsolete as many are expanding their definition to include other aspects such as; military, employment, and parental status, along with numerous other adult roles (“Information for Adult Learners,” 2012; “Nontraditional Undergraduates,” 2002). The National Center for Education Statistics also agrees by defining nontraditional learners as individuals that have at least one of the following characteristics: attend school part-time, are single parents, work more than 35 hours per week, are financially dependent, have children, etc. (“Non-traditional Undergraduates,” 2002).

In addition to citing age, the term nontraditional is also important to recognize when defining adult learners. There is a direct correlation between adult learners and their marginalization within power and privilege (Kasworm, Sissel, & Hansman, 2001;}
Kasworm (2003) and Kasworm, Sissel, and Hansman (2001) believe that the sheer ability to refer to an adult learner as nontraditional is a form of marginalization toward a population that is already fiercely excluded within higher education. Labeling learners as nontraditional has a direct effect on instructors and educators and can negatively impact expectations because the language chosen is directly related to power and privilege.

“Marginalized is a term that can describe not only adult learners but the programs in place for them and their advocates in higher education” (Kasworm et al., 2001, p. 21). This idea is reinforced through the introduction where programs, policies, and practices are defined as designed for full time students between the ages eighteen and twenty-two. Programming occurs during typical work hours and topics presented revolve around basic adolescent needs. Career service offices are specifically held accountable among other university departments (Kasworm et al., 2001). Career change is one of the biggest areas of concern within adult education studies (Plimmer & Schmidt, 2007). Adults reported career-related fears or concerns as the top reason why they sought new learning experiences during a national survey conducted (Aslanian & Brickell, 1980) suggesting more adults understand the impact a poor economy has on their career development and thus seek guidance from career service offices. Adult learners are often not taken into consideration during program planning and can be seen as less important. Quinnan (1997) believes this is because educational institutions are focused on developing traditional aged students academically to represent a new generation within the workforce.
However, adults that are employed are expected to continue learning new skills and abilities through formalized and informal education maintaining capabilities in the work force. Chiappone (1989) believed learning was mainly the direct path to remain marketable among a younger and competitive workforce. Termination can be the result if employees are no longer on par with their fresher counter parts and yet educational institutions are primarily focusing on adolescents. If termination occurs, according to the Bureau of Labor Statistics (“Unemployed Persons,” 2014), it can take over thirty weeks for an unemployed American to search for a job, thus, making career and vocational guidance for adults a national priority (Canaff, 1997). Although career development is only one area or component of adult development, it is one that emerges frequently and has the possibility to affect all adults despite their age, gender, educational level, or financial circumstance.

**Career Decision-Making Theories**

People are forced to make career decisions when they are presented with one or more options. Cochran (1995) believed that if an option were presented to an individual that met all of their values, a decision would not be necessary. Career decisions are also viewed as problem solving since decision-making often presents a limited view or scope of the actual task at hand. Various factors shape how the decisions are made including internal and external influences and personal and environmental constraints or enablers (Krumboltz, 1979). Colozzi (2003) sees values as the core of all career-life choices, including how people choose to respond to situational determinants that continuously occur across life roles, including the work role, and encourages an in-depth reflection of interests to facilitate the extraction of implied or true work values (Colozzi & Haehnlen,
1982). The nature of the situation or decision determines which influences are relevant or important. At this point it is recommended that the individual considers goals, interests, values, and needs when making an informed decision which potentially affects both the individual and society (Ginzberg, 1951).

Despite how commonplace the struggle to make a career decision, it has generally been associated with the developmental stage of adolescence where individuals are beginning their college or technical career and later graduating from institutions and deciding on their first occupational choice. Thus, adults were rarely considered included within the stage of career decision-making (Duffy, 1998; Osipow, 1983). This, however, changed drastically as more adults were undergoing midcareer alterations and had problems making decisions associated with careers. A lack of decision-making capability can occur at any point throughout a person’s life and is no longer only associated with adolescence (Campbell & Shaltry, 1960). Adults wanting to make career decisions might not have experienced sufficient assistance with career services providers during their college years. Colozzi and Colozzi (2000) found in their qualitative investigative of 253 individuals seeking private practice counseling covering a 21-month period, that over 90% of (their) clients indicated they experienced little involvement with career services providers in college settings (p.81).

Career decision-making theories are grouped within the literature into four different categories according to Osipow (1990):

1. Trait oriented (person-environment)
2. Developmental
3. Reinforcement based (social learning approach)
4. Personality focused (psychoanalytic approach)
Each focus introduces theoretical concepts that are the underlying principles in a career decision-making process. The goal of each theory is to help people make a decision in a way that works best for them. For example, trait oriented theories place emphasis on an individual’s traits and an occupation’s responsibilities to find a fit or match between the two which formulates a career decision (Betz, Fitzgerald, & Hill, 1989; Brown, 1990; Osipow, 1983). Career counselors may help clients identify their skills and abilities and help find occupations where those skills and abilities are best suited.

Although there are numerous career decision-making theories, common themes emerged from the literature:

- Self-concept, self-knowledge
- Knowledge of needs and values
- Environmental influences

The first commonality is a complete knowledge of one’s self and one’s skills and abilities as recognized by the client and not the career counselor. The client must also be in tune with their values and current needs both personal and occupational. Needs can complement one another or cause conflict for example; an employee who wants to work three days a week as a personal need yet also desires a position that prohibits working from home. Evaluating these needs and values are dire for making career decisions. Lastly, to clarify indecision, environmental influences must be considered including geographic location, financial status, and relationships.

In addition to the four main classical theories of career decision-making, there are other theories that are of interest to career counselors as well including: cognitive
information processing approach (Sampson, Peterson, Reardon, & Lenz, 2003) systems theory approach (Zimmerman & Kontosh, 2007) and existential theory approach which is a holistic way of making career decisions (Bland & Roberts-Pitman, 2014; Cohen, 2003). Theorists began emphasizing the importance an individual’s entire life process and not only one aspect have on career decisions since careers are ongoing that witness growth, change, and evolution throughout using navigating options and opportunities. This implies a more universal way of helping adults make career-decisions based on multiple factors instead of one aspect as more important than another. When adults face indecision they too typically consider not only themselves but also their environment, relationships, and external and internal influences.

One flaw of traditional career decision-making theories is that very little emphasis is placed on the individual balancing multiple roles including family member, worker, community member, etc. It is important to consider this since outside roles can have a negative or positive impact. Multiple roles require additional time commitments that can cause stress and strain. A second flaw as discussed by Miller (1986) believed traditional theories also viewed career planning usually as an individual activity which is clearly not the case especially when working with adults. It is not uncommon for multiple family members to attend a career counseling session to gain a domestic influence. Spouses and partners typically address career decisions with each other as well before making a final choice.

**Career Decision Maker Types**

Career counselors need to understand the types of decision makers along with which career counseling method, theory, or practice is best suited for helping adults make
career decisions. This is because the type of decision maker a person is will impact and influence the process of making a decision.

According to Sampson, Peterson, Reardon, and Lenz (2003) three different types of career decision makers have been referenced throughout the literature:

- Indecisive individuals
- Undecided Individuals
- Decided Individuals

Decided individuals are those that decide a choice but need help clarifying or putting it into action. They also handle stress well during a decision conflict making them an ideal client for a career counselor to help. It is important to understand the differences between indecisive and undecided individuals, however, as they frequently find themselves seeking career services. Indecisive typically refers to a personality characteristic where an individual has difficulty making various decisions, not just career related, in the context of life (Fabio, Palazzeschi, Asulin-Peretz, & Gati, 2013). They are more likely to have negative opinions and confused thoughts. Undecided individuals, on the other hand, lack decision-making knowledge and experiences in order to make a decision and are often overwhelmed with the availability of options presented. Once a choice is made, undecided individuals are unable to commit and find they recycle the exploration process.

**Career Decision-Making Models**

As mentioned in the history of career and guidance counselors, post WWII brought large numbers of adults returning to civilian life forcing many career choices upon them. The decision-making models addressed in this section were developed
during the 1960’s for vocational counselors to use with those struggling to find an occupation post-war. Career decision-making models are used in combination with theories and types and are either descriptive or prescriptive of any career decision-making process (Walsh & Osipow, 1988). Descriptive models attempt to describe how an individual’s natural career decision-making processes actually occur. For example, the sequential model developed by Tiedeman and O’Hara (1963) hypothesized the career decision-making process through a set of stages:

1. Anticipation
2. Implementation
3. Adjustment leading to expanding and narrowing choices
4. Finalization of choice

It is easy to imagine a perfect decision-making model where the individual progresses through the steps in sequential order. Individuals, however, can regress through the sequence hitting various stages more than once; for example, reaching the stage of narrowing choices only to revert back to the anticipation stage. A second model that follows the descriptive method for career decision-making was developed by Hilton (1962) who looked for factors that preceded events that stimulated career decision-making. Through studies, Hilton (1962) found that an individual’s beliefs, values, and their own career plan combined were main factors for career decision-making processes and had the most impact prior to the finalization stage.

Prescriptive models are models that explain how career decision-making should be made by the individual in the best possible way. Prescriptive models are based on facts, information, reliable and relevant data, as well as the ability to use a rational thought process to make career decisions (Walsh & Osipow, 1988). Models developed
by Katz (1966) and Gelatt (1962) both encouraged the use of mathematical operations such as statistics to make informed career decisions which was a stark contrast to descriptive models. This would include pushing aside one’s feelings and relying strictly on data. Both descriptive and prescriptive models require two aspects: an individual who is making the career decision and a situation that requires a career decision to be made with more than one option to choose.

The variety of career decision-making types, theories, and models affirms the mindfulness and complexity of an individual’s ability to make a career decision. Some individuals may go through the stages sequentially and some may skip around and use multiple methods to get the best possible decision for them. It is no surprise that researchers believe career or vocational choice is one of the most significant decisions made by individuals and further research is needed to address the many unanswered questions regarding adults making decisions (Dawis & Lofquist, 1984; Luzzo, 2000).

**Gender and Career Decision-Making**

Women in the workforce have seen a steady growth in the United States since 1970. Women represented 45% of the labor market in 1975 and increased to over 57% in 2013 (U.S. Dept. of Labor, 2003; 2013). Career development primarily focused on men and their career needs since women previously fixated their career on marriage and family priorities. Since women currently have multiple career options and have begun to manage numerous life roles, there is a need for additional understanding of women’s career development through empirical studies (Betz & Hackett, 1981).

Despite having more career options, family is still a concern for many women which influences their career decision-making. Many women might delay a career
decision or base it around marriage or other family roles which makes balancing the
demands of multiple life roles extremely stressful (Betz, 2002; Neice, 1979). Women
also experience a disrupt in their career path or progression in comparison to men
because of various family and marriage commitments which makes linearity and
advancement in a career hard to achieve (Betz, 2002). Many of these career decisions
revolve around personal values; some value career as the top and only priority and others
try to balance multiple life roles. A study by Johnson (2001) found that men’s extrinsic
work values were higher than women’s work values. Not all women, however, share the
same values and do not consider external relationships while making career decisions;
yet, knowing the information and variables that have the potential to effect decision-
making is important for career counselors.

Many researchers have noted self-efficacy as having an impact in the career
development of women (Betz & Hackett, 1981; Crawford, 1978). Many women do not
consider careers that have been predominately held by males in the past; for example
engineers or computer technicians. Instead, they tend to lean toward occupations that are
more traditional for females such as nursing or teaching and therefore restrict their
choices. It appears there is a strong connection between role perception and vocational
choice particularly with females that continues to deter decision-making (Betz & Hackett,
1981; Crawford, 1978). A lack of confidence to pursue male dominated roles in and of
itself is a study worth investigating.

Besides self-efficacy, there are other barriers women face such as discrimination
and lack of support. Hackett and Betz (1981) believe that women are positioned at a
disadvantage in the workforce. Reasons postulated include salary differences between
genders where women have chronically been paid lower than men who perform the same job (Bailey & Tisdell, 1994).

Values

An individual’s values are an important contribution to career decision-making (Dawis & Lofquist, 1984). The concept of values has a long standing root within the field of psychology and has numerous definitions and meanings depending on an individual’s perspective. The perception of values means different things placed in different contexts and theories (Macnab & Fitzsimmons, 1987). Countless definitions exist throughout literature and are described as follows; for example, Brown (2002) gave a general explanation that values were a person’s beliefs that guide how he or she should live. Rokeach (1973) defined values as beliefs containing cognitive, affective, and behavioral dimensions. Schwartz (1994) and Sagiv (2002) believed values were ‘transsitutional’ goals which served as guides and principles for a person’s work life and social life. Wise, Charner, and Randour (1976) spoke of values as something that has worth or is believed to have worth as a return. It seems difficult to define ‘values’ because of the various views and therefore is often defined in literature related to career development through categories including two important domains within the workforce: work values and personal values.

Too often, people choose a career path based on projected salary earnings, glamorous titles, or influence from parental figures, and find out quickly that the position is not what they expected. Long work hours and demanding job duties which do not align with their morals and values cause many to reconsider their career choice and opt for changes when possible. Buck and Daniels (1981) believed that an individual’s
decisions were affected by various life roles and eventually “these decisions may bring one life vector or role into sharper focus while causing a corresponding reordering of other important roles at that point in the life course” (p. 2). To someone working 80 hours per week, making a significant salary may make sense to someone who values materialism, but, to someone who values family and time this example work situation may not make sense (Niles & Harris-Bowlsbey, 2005). When the realization happens, individuals feel trapped with no way of realigning their career and thus turn to career counselors or career coaches for help and advice. Thus, job satisfaction is clearly relational to individual fulfillment and should be researched more often than literature demonstrates (Borow, 1964).

Literature found pertaining to values and occupational choice does suggest that the two are more than merely related therefore educators should be just as concerned with values development within careers as they are with helping individuals learn technical skills such as resume writing and networking (Korkut et al., 2009; Leuty & Hansen, 2011; Underhill, 1966). Traditional aged learners reported that they were more likely to search for companies that practiced similar values to themselves as with the company as a whole and with their employees through a study conducted by Judge and Bretz (1992). It is suggested that work values of a company that students were considering working for had a significant impact on whether the student accepted a job offer if the company’s values were known beforehand.

Career choice and satisfaction are also closely linked to values as a study by Rounds (1990) proved that values in comparison to interests accounted for twice the amount of job satisfaction. And Gianakos (1996) discovered non-traditional aged
learners were more likely to assess their values while exploring career options than traditional learners.

It is often questioned, however, whether values determine career choice or whether career choices determine an individual’s values. In either case, it is more common for individuals to change their occupational choices to match their values than to change values for a career (Underhill, 1966). Values, also, have a way of modifying themselves over time without the intent of the individual. Individuals should understand early in their career how their values have the potential to both negatively and positively influence career and career decision-making. In a negative way, values that lack clarity and are not prioritized result in poor decision-making, dissatisfaction at work, lack of motivation within the workplace and poor outlook or attitude (Brown & Crace, 1996). Values, however, guide individuals to understand the importance of job duties or aspects of the work environment that were not considered initially (Dobson et al., 2014).

Although values are widely considered to be a central point of decision-making, satisfaction of work related duties, and represent what is important to individuals (Brown & Crace, 1996; Colozzi, 2003; Dawis & Lofquist, 1984; Patten, 2000; Rounds, 1990) there is a large gap in the literature where values could be used in various career entities.

**Workforce Values**

It should be stated that work values are referenced throughout this paper as values that are specific to characteristics or commitments of a particular occupation or position rather than values about working or being employed in general. Work values according to Sagiv (2002) referred to career choice issues and vocational interests. They are also the values both tangible and intangible that employees believe are attained as a result of
their contribution to the workplace (Brown, 2002; Mongo, 1978; Underhill, 1966). These values relevant to jobs affect numerous aspects of employment including values related to the work itself, values surrounding the employee’s company, and values instilled within the company culture.

Ginzberg (1951) placed work values into two categories those being: extrinsic work values and intrinsic work values. Extrinsic work values are those related to the environment of the job such as salary, job security, and prestige. Intrinsic work values include those that are actually related to the performance of the job and have an emotional component to them such as interests, leadership, and responsibility. Extrinsic work values are considered a large barrier to career decision-making because it is too often that what an employee wants to obtain conflicts with what the employee wants to do as a career (Choi et al., 2013). Rokeach (1973) however, described values as either instrumental or terminal. Instrumental values are thought to be character traits such as helpful and ambitious and are seen as methods of one’s behavior in the workforce. Terminal values are those which one wants to obtain through the workforce such as monetary compensation for a job, healthcare, or other benefits. The varying degree of emphasis placed on work values is found to fluctuate dependent on an employee’s demographic characteristics including gender, age, education, marital status, and family. They also change and evolve throughout a person’s life and are altered through experiences; a person’s background, culture, personality, and social interactions largely influenced their view on work values for themselves and the people they work closely with (Borow, 1964).
Personal values, in relation to how they affect a person’s career, are also described in a myriad of definitions. Sagiv (2002) argued that personal values actually represented interests and needs and were assumed to be the same concept while representing a person’s entire life in general. Lofquist and Dawis (1978) agreed with Sagiv (2002) that personal values were assumed as reference to measure needs and also helped describe needs of an individual. Nevill and Kruse (1996) believed that personal values represented what an employee desired or wanted and considered being of importance. Through various definitions, personal values are shown to have a direct link to the extent to which job satisfaction is attained and therefore is an area of interest for researchers.

Work and personal values are also categorized into two separate domains: expressed and implied values. Expressed values are easily and readily available to an individual when asked what the most important values are within one’s personal life or work life. Colozzi (2003) argues that most career-life choices are based on an individual’s expressed work values. Implied values, however, are usually unavailable and harder to pull from an individual unless using an in depth and reflection of interests and values (Colozzi & Colozzi, 2000).

Regardless of how values are grouped, all values can incorporate easily into the career counseling process through the following ways: Career counselors following a person-environment fit theory help clients understand how their values fit within their work environment making their career satisfactory. Adults specifically are found to identify and use their work values to help predict their job satisfaction (Rounds, 1990). Values can also be used as a way to initially broaden career exploration and narrow it
down toward specific areas honing in the client’s values; as a career management system for individuals, values are used as their guide to help clients align their job duties to their value structure (VanVoorhis & Protivnak, 2012).

Conflicts in Work Values

Conflicts within values are a very common experience throughout one’s career. Conflicts arise when one’s values are only obtained by getting rid of or decreasing the importance of another value, thus, causing an internal conflict and sometimes even crisis (Cochran, 1995). Various types of conflicts occur and are sought within a client’s work environment. Those are intrarole and interrole. Intrarole conflicts occur when values of the employee are not reinforced within the workplace and interrole conflicts occur when the job’s duties conflict with another role the individual plays (Patton & McMahon, 2006). Brown (1995) alleged that individuals who purposely left their workplace did so for two reasons: either intrarole or interrole conflict occurred and could not be reversed. It is believed that most individuals make career decisions and choices based on the option or choice that least conflicts with both their work values and personal values (Brown & Crace, 1996). If any of these conflicts are accounted for, the client begins thinking about transitioning into a new career field or work environment. It is important to include other life roles in relation to career decisions rather than making them isolated events (Patton & McMahon, 2006).

Values-Based Career Counseling Theory

Duane Brown developed a career counseling model that focused on the significance values play in career decision-making based on previous research found connected the two variables (Niles & Harris-Bowlsbey, 2005). Brown found that values
were largely missing in most career counseling literature and needed to be taken into consideration when working with adults. Values encompass both work values and personal values and both should be incorporated into the career decision process. According to Brown (1995) in order for a job to be satisfying, it must engage in activities that employees perceived as worthwhile both personally and professionally. His values-based career counseling theory teaches practitioners an overview of how to incorporate work and personal values into the career counseling process by the following method: determining which values are important, ranking the values, and finding out where values and work responsibilities conflict or potentially could conflict.

In addition to values, other factors taken into consideration when working with adults are age, career history, and most importantly, family, and culture. Although values change with age, a career path focused on values allows future employees to consider their morals and how they will or will not align with their future career. When initially meeting with a career counselor, the client should convey some sort of unhappiness within their current workplace. The client might not be aware that the unhappiness is caused by a conflict within their morals and their work environment, or, they may complain, for example, of their job not being ‘fulfilling enough’ or they are not ‘making a difference’ within other people’s lives. This is often the case during career sessions with adults who wish to feel purposeful within their job duties.

Counselors begin to discuss environmental factors that inhibit or produce values that all people consider during their career. Some of these environmental factors are family, media, school, community, and culture (Niles & Harris-Bowlsbey, 2005). Counselors and clients first identify these values using either qualitative or quantitative
approaches. Qualitative approaches comprise of a variety of techniques including; a values list where ranking occurs; a narrative approach where the client discusses past employment histories and how circumstances in their life have affected their values and morals; a sentence completion method where clients are prompted to fill in the blanks of sentences or complete unfinished sentences that focus on values; and daydreams where clients are asked to think about what brings them joy and happiness within their lives. Qualitative approaches focus more on the counselor-client interactions and allow the client to be engaged and focus on their own lives (Patton, 2000). Qualitative methods can be used jointly with quantitative methods.

Quantitative approaches include a variety of assessments that are developed for the purpose of defining values. Some of the inventories are; Life Values Inventory (Brown & Crace, 1996) and Rokeach Value Survey (Rokeach, 1985). Clients often begin with ideas or notions about what values they consider are a priority within their working environment. Assessments or inventories help clients actually see the values appear on paper via assessments which usually confirms their initial premonitions. Once the first technique is conducted, clients begin to crystallize or prioritize their values. Conversations between counselor and client discuss the values and begin ranking them in order of importance to determine which values are preferred and necessary components of their daily lives. Career counselors are reminded to make clients aware that their values change throughout their life depending on environmental factors. Brown describes a crystallized value as one that has distinct meaning to the individual and cannot be ignored. Crystallized values also help counselors understand current behavior of the individual and its use as a prediction tool (Brown, 1995). Without crystallizing
values uncertainty occurs. People often use the crystallized or prioritized list to guide and explain their career choices to career counselors (Niles & Harris-Bowlsbey, 2005). Once values are assessed by the client, counselor and client begin looking holistically at how their values interact with their work responsibilities. Do their values align or do they conflict? As mentioned above when discussing types of values conflict, counselors use this as a conversational piece to assess where the disconnect between job role and personal values are. Cochran (1995) suggested that when values clash career counselors conduct a variety of interventions including setting priorities, understand self, and discussing options.

Although Brown advanced the values-based career counseling theorem, the following theorists, besides Brown, recognized the importance of values and made significant contributions as well. Super (1973) was one of the first career theorists to delve into work values by distinguishing them from needs, wants, and interests which were often confused during discussions with clients. Needs, according to Super (1995) were essentially wants; “manifestations of physiological conditions such as hunger and […] are related to survival” (p. 54). Values are what people pursue to satisfy their needs and interests are the activities people use to attain their values. However, individuals who want to understand where people’s needs lead them to should essentially study values and those who want to understand why people do things should study needs (Super, 1995). Super also developed the first rating instrument, in 1970, called the Work Values Inventory measuring values.

Dawis, England, and Lofquist (1964) set forth the theory of work adjustment (TWA) which followed a person-environment fit realizing that if a person’s work values
and abilities correspond with occupational requirements the individual more likely performed the job well, were satisfied, and predicted the likelihood of staying in a position. To fully understand one’s work adjustment, the future work environment and characteristics of the employee must be known beforehand in order to analyze work values of both self and company to make a complete career decision.

Colozzi (1978) created a values clarification process for clients that allows individuals to better understand and categorize work and personal values into two separate domains: expressed and implied values. He postulated that both these values systems are operative in the decision-making process and constantly influence cognitive and affective processes associated with decision-making across all career-life roles (Colozzi & Haehnlen, 1982). He discovered that expressed values are readily available to an individual’s consciousness when asked what the most important values are within one’s personal life or work life, while ‘hidden’ or ‘implied’ career-life values are usually unavailable and can only be extracted through reflection and, ideally, an in-depth analysis of expressed interests (p.280). He later discovered these implied truer values have an evident relationship among clients’ Holland-types and termed this values clarification process DOVE [Depth-Oriented Values Extraction] (Colozzi, 2003; Colozzi & Colozzi, 2000), and argues that most career-life choices are based on an individual’s expressed work values, which can be misleading and confuse clients.

Colozzi’s method is a five step process that includes: discovery, integration and crystallization, extraction, prioritization and achievement of cognitive clarity, and congruence. The counselor’s role during DOVE is to constantly be curious and encourage the client to reflect on main or emotional core reasons why a client has
specific expressed interests and uses the “why” question or “what is three about this activity” question to uncover clues that most often relate to “a more holistic and complete application of their Holland-type...[and] a client’s deep sense of purpose and calling” (Colozzi & Colozzi, 2000, p 67). This approach has many similarities to Brown’s theory and supports Brown’s (1996) challenge to counselors to discover how to translate various types of psychological data into values-based terms. Colozzi (Colozzi & Byars-Winston, 2014) reported the positive longitudinal implications for DOVE based on his initial work with Client J in 2000 as discussed in her case study in 2003 (Colozzi, 2003), and believes DOVE values seem to be consistent over long periods of time and hold their relevance across career-life roles.

Values-based career counseling has numerous strengths for working with adult clients that other career counseling theories do not. These include; intertwining a person’s cultural and personal values into the influence of an adult’s career decision; accounting for change within an individual’s personal and professional desires; and flexibility to use multiple career counseling interventions and methods conjointly. Dobson, Gardner, Metz, and Gore (2014) argued that helping clients compare their values to workplace rewards was a strength as it empowered career counseling strategies. Leuty and Hansen (2013) believed using work values information to understand different occupational choices provided employees with a much more thorough understanding than only gathering information about interests and personality. Values help individuals reveal important details about themselves including why they work and what motivates them to work and can be incorporated with other career counseling theories. A values-based career counseling theory is also helpful to consider when there is a large disconnect
between client values and working environment as individuals, “seek work environments that allow [them] to realize [their] values” (Nevill & Kruse, 1996, p. 384).

Perceived weakness of the values-based theory is that values often change over time. An adult may have different values emerge during a counseling session depending on the time in their life. If the client is starting a family, family values are important. If the client gets divorced suddenly family values begin to fade. Adults find themselves turning to career counseling multiple times throughout life to reexamine values which becomes tiresome. Although relatively new to career counseling theories, Niles and Harris-Bowlsbey (2005) believed additional research was needed of the values-based career counseling approach particularly looking at the theoretical base for which is exists.

Distance Learning

Another novel approach to career counseling is the incorporation of distance learning and counseling for professionals to span their reach. A major change in helping people with their career development has shifted from traditional learning in physical places to online spaces where learning and instructing or counseling is completed remotely. Currently, adult learners are slowly emerging as the majority of pupils taking advantage and using online services for continuing education. The main reasons are because online learning allows flexible scheduling, geographic expansion, and for those that fear in person counseling the ability to hide behind technology.

Online career counseling, surprisingly, is not a new concept as computer based career guidance systems were developed as early as the 1970’s. Programs such as DISCOVER and DISCOVER for Adult Learners (American College Testing Program, 1986; 1988) and SIGI and SIGI PLUS (Katz, 1980; Educational Testing Service, 1986)
were designed and targeted to incorporate technology and give clients a fresh and exciting way of accessing career information through means of a computer. Over twenty years later, numerous other career development resources appeared online including career decision-making activities, formal and informal career assessments, and many career related tutorials helping with resumes, cover letters, and networking.

In partnership with online resources, online career counseling, both groups and individual sessions, have shown growth in the past decade. In 1997, the National Career Development Association (NCDA) approved *Guidelines for the Use of Internet for Provision of Career Information and Planning Services* which granted counselors approval to begin incorporating advanced technologies into their career counseling practices. With the growth of online technology the need for additional research has led those in the field to focus on the benefits and challenges of online career counseling, suitability for clients, along with the client’s and counselor’s experiences and perceptions of participating in online career counseling (Richards & Vigano, 2013). Numerous studies reported that despite not stepping into a formal classroom online learning courses and interventions were just as effective as traditional classroom environments from the learners’ perspective (Brinthaupt, 2009; DeRosier, Kemany, Holler, Davis & Maschauer, 2013; Yates, 2014). Adults have also reported experiencing entering a deep learning stage through online courses while sharing information with other learners (Ke & Xie, 2009). To some, online career counseling is also viewed as less formal, less intimidating, or safe because of the absence of person to person contact. Often times, a conversation that occurs over the phone or through email can break down barriers or protective walls whereas the client begins to feel comfortable which leads to in person encounters.
From the instructor’s perspective, online career counseling has numerous advantages as well including:

- Saved chat transcripts (if done through computer software)
- Easy transcript edit ability
- Exportable interventions
- Low cost

A major concern, however, is the lack of training in online career counseling for current career counselors and students in training. Lewis and Coursol (2007) and Tanrikulu (2009) revealed through their studies that career counselors and counselors-in-training had positive views about using distance counseling, yet counselors-in-training felt unprepared and lacked adequate information and resources to educate them. Despite the challenge of the lack of additional training for use of online career counseling, other concerns are the depth of a counselor-client relationship formed; exploration of person-environment interactions; technology difficulties; and ethical considerations (Mallen & Vogel, 2005).

Numerous types and methods of online career counseling have developed to accommodate distance learners. One that is commonly used in multiple areas of education, in addition to career development, is a webinar. Described by Korotov and Antal-Mokus (2013) a webinar is a way for participants to interact with each other and the instructor via the internet in a seminar format anywhere across the globe. Participants have the ability to interact with each other through a chat forum or conference call and can also see other participants if their computer has a built-in camera or they purchase a camera for their desktop. It is reported that some clients feel more comfortable in this mode of career counseling because they are allowed time to think through their responses.
or interaction and also enjoy being in their preferred environment be it home or office (Mallen & Vogel, 2005). Webinars also incorporate new technologies into the participant’s learning experience which assists adults, in particular, gain familiarity and additional skill sets that potentially transfer into on the job knowledge. Webinars give instructors flexibility to have both large and small group sizes which is an additional feature that in classroom learning cannot accommodate. Research affirms that groups are favorable for adults within transitions for the following reasons:

- Support is provided for the individual (Anderson, Goodman & Schlossberg, 2011)
- Settings are conducive to examine and reexamine personal values and goals (Lea & Leibowitz, 1992)
- Fear of being judged or feeling alone is reduced by sharing their concerns within the group (Lea & Leibowitz, 1992)
- Groups promote discussions which is one of the most effective techniques while working with adults (Borow, 1964)
- “Involvement in a career workshop with others of similar vocational identity status, whether high or low, results in greater gains in decidedness” (Zagora & Cramer, 1994, p. 244).

Although there is a slight difference between career counseling and psychological counseling, it is common for people to shy away from seeking help because of the perceived negative connotation within any counseling profession. There may be less resistance to begin career counseling within a group setting where a supportive atmosphere among others is already established acting as a gateway to one on one conversations when needed.

On the other hand, a drawback of conducting counseling in groups as stated by Lea and Leibowitz (1992) is, “groups generally operate on the assumption that all midlife adults need similar experiences” (p. 250). Counselors know this is not true. There are
individualized benefits of speaking one-on-one which depends on various factors; mainly learning styles.

**Adult Development**

According to Campbell and Cellini (1981) main themes emerged through adult development literature:

- There are specifications of adult development in terms of milestones, life events, transitions, etc.
- Attention is drawn to the ability to balance multiple life roles such as work, family, society, etc.
- Many researchers have delineated developmental stages by age and include key events expected during those stages.

There are numerous life themes or adjustment issues that appear during stages. Awareness of adult development helps career counselors create intervention methods when working with adult learners and deciphering where groups or individual career counseling is appropriate. There is a strong overlap between adult development and career development, however, as the two phrases are often used interchangeably (Cytrynbaum & Crites, 1989). Stock (1979) and Long (1974) understood adult learning or lifelong learning as synonymous with phrases such as career education. Professionals in the field, according to Stock (1979) view adult education and career education as sectors which overlap which explains why adult development is the base for many career development theories which include the following: the concept of lifelong learning as a key component; a direct focus on recognizing that outside influences impact a person’s behavior; and multiple life roles impact one another (Campbell & Cellini, 1960).

Historically, lifelong learning occurred when young adults often learned by serving masters in a craft or trade while observing and helping with menial tasks. This was how
they slowly developed their own skills which were essentially on the job or career training (Cropley, 1974). It is through these principles, the social, developmental, and cognitive differences between adult learners and traditional aged learners are deeper explored through both adult and career development.

**Social**

Studies conducted and various theories developed illustrate the positive effect social learning has on adults (Brown et al., 1989; Lave, 1996; Orey & Nelson, 1994; Piti, 2004; Wilson, 1993). The ability to converse with one another, share ideas and thoughts, and interact through activities adds dimension to what could be monotonous learning. Integrated behavioral and cognitive psychology theories researched by psychologist Bandura (1977) took into reflection a person’s actions, environment, and personal characteristics to prescribe a social cognitive theory. It was not enough to only consider the self and one’s drive. It is the entire person including social aspects that add to the learning experience of an adult either negatively or positively.

Rooted in Bandura’s concept, career counseling theories focusing on social development are; John Krumboltz’s (1979) social learning theory of career decision-making (SLTCDM), and Steven Brown and Robert Lent’s (1996) Social Cognitive Career Theory (SCCT). According to Merriam and Caffarella (1991) these social learning theories described the learning that occurs when individuals observe others within a situation or social setting. Adults prefer subject matter when knowledge is transferred from participation in activities, sharing of resources and involvement with others including their surroundings and environment (Stein, 1998). Both career counseling theories believe social learning theories provide individuals with a conceptual
framework to understand how social interactions help or hinder occupational choices, develop career related interests, and formulate career goals through appropriate interventions and actions (Niles & Harris-Bowlsbey, 2005).

Another interpretation on social learning theory stems from Jean Lave (1996) and Etienne Wenger’s (2000) situated learning theory; a theory positioned within adult education context. The emphasis is placed on the process or experience of engaging through a social community rather than the abstract knowledge or content itself which is what Dewey (1938) postulated almost a century ago. Here, individuals who form a group of collective learning that share the same desire or concern create what Lave (1996) and Wenger (2000) described as a community of practice. Adults tend to appreciate learning through a community setting such as group career counseling especially where all participants focus on the same career concerns while sharing knowledge and experience and supporting one another. Groups also provide individuals with support, a feeling of inclusion while sharing similar experiences which ease tensions and anxiety. The ability to promote meaningful participation and discussions proved to be one of the most preferred learning techniques within adults (Borow, 1964; Lea & Leibowitz, 1992). Numerous studies, however, argued that traditional aged learners preferred lecture style teaching where group work is minimal and learning is individualized (Bishop-Clark & Lynch, 1992; Brown et al., 1989; Lave, 1996; Orey & Nelson, 1994; Pitri, 2004; Wilson, 1993). Reasons postulated are a fear of being judged in class, an unsupportive atmosphere among other traditional aged learners, and a lack of experience working in a group. In research studies where classrooms have been of mixed-aged, age always proved an important determinant of participation where adult learners were twice as
likely to participate in discussions, activities, and group assignments as traditional aged students (Clarke, 1990; Howard & Baird, 2000; Scala, 1996).

**Developmental**

Developmentally, within both career development and adult education postulate stages representing common themes or cycles individuals progress through which is largely dependent on an individual’s age. Donald Super’s (1990) life-span, life-space theory, for example, focuses on career developmental stages through a person’s self-concept proposed as the following:

- **Growth** – birth through fourteen years of age
- **Exploration** – fifteen years old through twenty-four years old
- **Establishment** – twenty-five years old through forty-four years old
- **Maintenance** – forty-five years old through sixty-four years old
- **Decline** – sixty-five years old and older.

The stages, at the time of conception, were meant to follow a specific pattern of an individual’s career path with little possibility to recycle or skip stages throughout the lifespan. Daniel Levinson (1986) similarly based his adult development life cycle on age as well believing that an individual’s twenties and thirties were the peak years of their life where occupational advancement and major life goals occurred and one’s forties and fifties were considered senior members focusing on managerial or supervisory work within an occupation. He believed individuals younger than twenty-two concentrated on maturity and dependency. Other theorists such as George Vaillant (2007) believed career milestones, rather than age, deemed someone an ‘adult.’

The above mentioned stages are practical options for career counselors to follow while working with traditional aged students. Adolescents typically follow the periods presented in developmental theories within their career development trajectory because of
their lack of experiences. Adults, however, often do not follow the phases as planned and find themselves recycling stages such as the exploration stage multiple times throughout life as well as beginning a new career as late as in their sixties. It is very common to have discussions with adults on topics regarding career change or transition; similar to conversations with traditional aged learners. Buck and Daniels (1981) believed that planned stages with age norms often caused a conflict with adults who feel late to complete specific phases especially when society often rewards those for being perceived as on time. This is often seen within the workforce when adults apply to positions within a field with little relevant experience. The desire to begin a career in an entry level job is often misperceived by employers who assume older adults should be at a higher phase in their profession which results in unfair hiring. The above mentioned stages, therefore, are obsolete, impractical, and do not account for career change. Consequently, they may perplex career counselors relying on such outdated theories while working with adults (Bejian & Salomone, 1995).

Super (1980), along with his developmental stages, also developed the Life-Career Rainbow which addresses the nine major roles that people play most commonly throughout their lifespan which affects their learning developmentally and their self-concept. The nine roles are as follows: child, student, leisurite, citizen, worker, spouse, homemaker, parent, and pensioner. Super (1980) placed these roles in a sequential order depending on the most common roles individuals reach which is largely dependent on their age. For traditional learners, they are expected to reach only two stages by the beginning of college; child and student. Nontraditional learners, however, in theory can partake in all nine roles at once and may find themselves playing those roles in more than
one arena; for example, an individual who holds the role of worker in an office but also is a worker at home or in the community. Multiple roles often compete with one another as well. Super (1980) believes, “roles increase and decrease in importance with the life stage in which a person finds himself, according to the developmental tasks which are encountered with increasing age” (p. 288). Life roles affect nontraditional learners’ ability to learn. If the role of student is not of high priority to an individual, it will most likely be pushed aside for more important roles such as worker or parent. Roles can also conflict with one another in regards to both time and nature of duties.

Super (1980) does acknowledge the notion that sequential life roles will not pertain to everyone. An individual may chose the student role after parent or spouse roles and may hold the role as parent as their last life role. Also, the amount of life roles one holds varies depending on the individual. A traditional learner that is also a parent and worker faces different learning challenges than someone who is only child and student roles. Time management and role balancing are common challenges. The basis of Super’s (1980) Life-Career Rainbow show instructors and counselors how; multiple roles influence one’s ability to learn, one’s age affects the roles they hold and the importance placed on each role, and how fitting a career decision-making model into the perspective of a life-stage model is extremely difficult because of life’s complexities.

Cognitive Changes

Developmentally, adults progress cognitively differently than traditional aged learners as well which is evident when observing behavioral transformations during situations. An adult’s beliefs, schemas, experiences, and values provide a lens or viewpoint of how to make sense of the world. This is incorporated, sometimes
unknowingly, into an adult’s learning experience. It is important to remember, however, that as Merriam (2001) argued, factors that influence learning may not always have a positive influence. Experiences are often the cause of making stark changes within a career which prompts adults to adjust or redirect their goals. Traditional aged learners, in comparison, lack a fully developed perspective based on limited life and work experiences thus shaping how their rational and thinking patterns differ from adults’ dependent on the teaching or career counseling technique. It is often suggested that those prior understandings are a criterion or necessity for developing cognitively; thus placing emphasis on adults (Merriam, 2004).

Similarly, a cognitive behavioral therapy (CBT) approach within career counseling is sporadically used, however, brings comparable developmental changes in behaviors as well that have the possibility to negatively affect one’s career development. Founded by Albert Ellis and Aaron Beck, CBT predominantly emphasized how to help clients overcome psychological problems (Sheward & Branch, 2012). This was accomplished by encouraging clients to think more effectively in difficult situations rather than focusing on the problem. CBT has since developed into helping clients transform how they think, feel, and behave in order to confront challenges. In a career development context, anxiety, low self-efficacy, and confidence are behaviors that hinder career transitions, job searches, and the ability to balance multiple roles that need to be resolved before progressing. Many times adults need reassurance about their skills and abilities in order to make career decisions on their own. Since it is often recommended that individuals have work experiences and a greater sense of self to understand the challenges that hamper their career progression it is clear that CBT works divergently
with adults than traditional aged learners (Crites, 1974). Career counselors may take an exploratory approach with traditional aged learners helping them understand their barriers first before attempting to change their interpretation or perspectives of situations. Time is also spent conducting reality tests challenging beliefs or emotions.

**Theory of Margin**

One theorist that combined the social, developmental, and cognitive learning of adults and placed them into one observation of how adults learn was Howard McClusky who in 1963 developed the theory of margin. McClusky believed that adults specifically had additional life stresses that traditional aged learners did not which prohibited the ability to learn dependent on their capacity to balance their current load. A professor of educational psychology and adult education, McClusky used his educational background and influence from Erik Erikson, whom focused on incorporating a person’s entire lifespan into a model of development, to view and understand adult learning while attempting to explain ways of helping adults maintain a balanced life (Merriam, 1987).

The theory of margin, or as it is also referred to; power, load, margin (PLM) is essentially both a formula and a conceptual model which addresses the aspect of motivation and potential within adults. What McClusky attempted to measure is rather difficult since the relationship of life experience and learning is extremely complicated. The theory of margin defines learning in conjunction with adult social roles and life situations which makes it specifically unique to adulthood. McClusky was very deliberate in his reason for selecting his theory to revolve around adults and adult learners. Adults’ lives are in a constant change, growth, and integration period of new experiences and roles on a daily basis particularly with middle-aged or older adults (Hiemstra, 1993; Merriam, 1987;
Telbis, 2013). Some traditional aged students experience similar transition periods as adults, yet, it is not the norm for students to have as many responsibilities. A constant check and balance approach to energy spent between new and recurring responsibilities is required in order to balance and manage life. It is assumed then that there is a very close tie between life experiences and the ability to learn. McClusky’s theory helps users improve their understanding of adults as learners and the various factors that hinder how adults learn; not necessarily how the learning specifically occurs. It does not define learning in the traditional sense, yet, still provides users with an approach looking indirectly at learning and how it is intrinsically related to an adult’s life situation and experience (Merriam & Clark, 2006).

There are various components within the theory of margin. Power is the first element which is described as any resource that is used to balance an individual’s load such as positive influences, strength, knowledge, mentors, etc. (Hanpachern, Morgan, & Griego, 1998). Power is broken down into two separate categories; internal and external power. Internal power includes skills or abilities that adults consider positive characteristics of themselves including: stamina, resiliency, and sincerity. External power includes resources such as family, money, and employment. McClusky (1963) believed that having a surplus of power was a major component for achieving goals within the learning situation. The ability to access and apply that power is a necessary condition for learning particularly in career related situations or within career development.

Load is the second component of McClusky’s formula and is referred to as the demands of self and social required by an individual in order to maintain a level of
autonomy (McClusky, 1967). Load, similar to power, is also viewed as both internal and external loads. Internal loads are those that are specific to the individual such as goals, dreams, and desires. External loads are those that are more common such as work responsibilities, family duties, and hobbies or interests. The internal and external loads are very similar to internal and external values that an individual carries with them through experiences as well. Unlike adults who prefer having high power, high load actually puts more responsibilities and burdens on them depending on what that load is (Hanpachern, Morgan, & Griego, 1998).

Margin is thus the outcome or product of both load and power in McClusky’s formula. Margin is controlled by the adult learner reducing or increasing load and power. McClusky (1963) believed that having a large margin was essential in order for adults to learn, participate, and make decisions. Benedict (2002) thought that in any situation, adult learners were identifiable using the theory of margin by observing their levels of participation during any activity either personal or work related. If the adult was actively engaged in the activity it was believed he or she had a higher level of margin than someone who was passive in the activity. Merriam and Clark (2006) agreed with Benedict (2002) that McClusky offered important insight into when learning or related functions were most likely occurring with adults. Hiemstra (1981) believed that this insight was particularly seen when applying the theory to activities in older adults when drastic changes in their load and power ratio may occur.

Margin not only indicates a person’s participation within a learning activity but also closely relates to the concept of empowerment (Hanpachern, Morgan, & Griego, 1998). Margin gives an individual the ability to make choices, have options, and develop
himself if desired through opportunities and transitional states. Main (1979) reported that margin could be used by the individual constructively or destructively. Constructively, one uses margin to pursue additional education, participate in community involvement, and become active within organizations. Destructively, one uses margin to engage in illegal activities or other negative behaviors. Regardless of how margin is used, both individually and societally, margin increases opportunities as a whole.

**Power, Load, Margin Critiques**

Despite making numerous strides within adult learning, the theory of margin has had several critiques as well that need to be addressed. Grenier and Burke (2008) believed that, McClusky’s theory neglected the privilege of social power especially lacking the experience of female learners which includes role influences and identities. Actually, McClusky failed to take into consideration any power differences between gender, race, ethnicity, or sexual orientation. However, this is assumed because the time period during which he developed his theory was the early 1960’s. The majority of adult learners during this time were American, Caucasian, males who were given the opportunity to use their G.I. Bill to continue their education at community colleges and universities. Women were not as active within higher education and very rarely was sexual orientation considered in terms of power or lack of power; that did not occur until the early 90’s. Because of this, it is supposed McClusky omitted and failed to address power. Power, however, varies on a daily or even hourly basis and is hard to predict. Something that is a power or load can switch roles depending on the situation or the other individuals involved. McClusky’s lack of weighting each variable is seen as a critique if necessary.
A criticism by Hiemstra (1993) claimed that McClusky’s theory did not address function or features of learning and therefore empirical testing would be difficult. It is true that the *how* adults learn is not as prevalent as in other adult learning theories, yet that does not mean that the theory is rendered useless for researchers to utilize in their studies. Researchers have used the theory of margin as their theoretical framework and have used it as a predictive model of learning ability with various populations including widows, adult learners, and military spouses (Baum, 1980; Gleiman & Swearengen, 2012; Telbis, 2010).

McClusky provided evidence that an individual’s marginal value, load, and power have strong relationships that exists among them. Conditions necessary for a variety of circumstances require necessary marginal values available. This is also observed during adult transition or adjustment periods when marginal value is critical. Although McClusky’s theory does not address the transition or adjustment itself, Merriam and Caffarella (1999) believed that it addressed when the change was going to occur within the individual which could deem helpful for multiple people including the individual, counselors, and family. Therefore, more career counselors should be aware of the theory of margin and other adult learning theories as many believed a complete reevaluation of career theories was needed as Konstam and Lehmann (2011) stated:

> The recent identification of emerging adulthood as a separate and distinguishable period of human development, in conjunction with the changing nature, structure, and meaning of work, suggest the need for the reexamination of career counseling theories and their implications for practice with this population (p. 151).
CHAPTER 3

METHODOLOGY

A quasi-experimental design was employed to determine the effectiveness in reducing career indecision scores in adults. Three groups were used; one control and two experimental. According to Spector (1981) using more than two groups allows additional levels of the independent variable to be compared. In this study, the values-based career counseling intervention was compared to the control group and also an interest based career education intervention which is commonly used. This represents a ‘double control’ where it was shown through the data that the values-based career counseling intervention reduced levels of uncertainty more than the commonly used career education technique of exploring interests and reduced uncertainty levels more than no treatment (p. 42).

The control group was given two pre-tests and a post-test without any intervention, however, was offered both the values-based career counseling intervention and interest based career education intervention after the close of the study. Experimental group number one received a values-based career counseling intervention after taking two pre-tests in the form of formal instruments. Experimental group number two received an interest based career education intervention after taking two pre-tests in the form of formal instruments. The two instruments administered were the Margin in Life Scale and the Career Decision Scale (C.D.S.).

The webinars consisted of three sessions. The first session was comprised of an orientation and explanation of the study and pre-test instructions, along with requirements for participants. The last session consisted of a termination webinar, explanation and
instructions of the post-tests and closing discussion. The second webinar comprised of either the values-based career counseling method which was the Depth-Orientated Values Extraction (DOVE) developed by Dr. Ed Colozzi or the interest based career education webinar. Dr. Ed Colozzi has been in the field of career counseling for over forty years and held numerous professional roles within higher education and corporate settings. All webinars were facilitated by the researcher.

**Research Hypotheses**

Through examination of relevant literature, and the researcher’s experience within career development and adult education, the following research hypotheses were proposed:

\(H_1=\) Adults facing a career transition who have gone through a series of values-based webinars will have reduced levels of career uncertainty than workers who did not receive the treatment intervention (workshops).

\(H_2=\) Margin in Life Scale marginal values scores will predict ability to learn through the values-based webinars.

\(H_3=\) There is a difference in Career Decision Scale pre-test uncertainty scores for age and gender.

\(H_4=\) There is a difference in Margin in Life Scale scores for age and gender.

\(H_5=\) There is a relationship between Margin in Life scores and Career Decision Scale pre-test uncertainty scores among adults.

**Null Hypotheses**

\(H_{O1}=\) There is no difference in the career uncertainty levels with adults attending a series of values-based webinars, and adults who did not attend a series of values-based webinars.

\(H_{O2}=\) Margin in Life Scale marginal values scores will fail to predict career indecisiveness decrease through values-based webinars.
HO_3 = There is no difference in Career Decision Scale pre-test uncertainty scores for age and gender.

HO_4 = There is no difference in Margin in Life Scale scores for age and gender.

HO_5 = There is no relationship between Margin in Life scores and Career Decision Scale pre-test uncertainty scores among adults.

**Methodological Stance/Reasoning**

Experts in the field of guidance and career counseling made the argument that high quality empirical studies were necessary to understand the career development and career decision-making of adults (Brown, 1995; Bullock-Yowell et al., 2014; Luzzo, 1999; Rounds & Tinsley, 1984). When determining what form of research design to employ, Brown (1995) suggested quantitative approaches were efficient when studying values or effects of values. Patten (2000) agreed with Brown (1995) that traditionally, studies with values as a variable had used quantitative methods. Career decision-making among adults previously employed studies using quantitative methods; pre-test, intervention, post-test format; interested in cause and effect (Bullock-Yowell et al., 2014; Choi et al., 2013; Gati, Landman, Davidovitch, Asulin-Petertz & Gadassi, 2010; Greenhaus et al., 1983; Healy et al., 1987; Konstam & Lehmann, 2011; Slaney, Palko-Nonemaker & Alexander, 1981; Taber, 2013). Research in counseling fields in general appear more applied in nature focusing on interventions. When choosing the type of quantitative design, Singh (2007) noted, that quasi-experimental research was conducted detailing causality when it was impossible to have complete control over one’s subjects through experimental proposals. Muijs (2004) believed that quasi-experimental designs had a distinct advantage over experimental designs which allow the researcher to study in
a natural educational setting. For this reason they are a good way to evaluate educational interventions or programs.

This study is also viewed as a correlation relational study because at least two or more data is collected from the experimental and control groups testing for relationships between the independent and dependent variables concurrently (Privitera, 2013). The intervention was evaluated using one instrument; the Career Decision Scale (CDS) which was used as a pre and post assessment following a test-retest type of reliability within quantitative research (Creswell, 2005). The Margin in Life Scale (MIL) was used to gather total marginal value scores and whether adults participating in the values-based webinar persisted and decreased their career indecisiveness. The MIL Scale also explored relationships between the instrument and the C.D.S. The use of instruments was chosen in as much as research suggests assessments have been shown to provide input when testing hypotheses (Lea & Leibowitz, 1992).

It is important to lay a clear foundation and state the epistemological positioning of the researcher and the study. This study followed a post-positivistic approach concerned with confidence of the study’s findings, not the absolute truth (Muijs, 2004). According to Nassar-McMillian and Niles (2011) post-positivism within counseling fields was closely related to testing models or theoretical formulations and supporting or rejecting cause and effect relationships. Because of this, surveys and assessments were distributed to participants instead of interviews or other qualitative approaches. Epistemologically, deductive, rather than inductive reasoning was used in the study initiating with a theory and narrowing down into specific hypotheses to be tested.
Environment/Setting of the Study

The control group and experimental groups’ interventions were conducted in the form of online group webinars. Initially, the researcher considered using either Adobe Connect or Citrix to conduct the group webinars; however, Adobe Connect was chosen based on cost and availability. Participants were given typed instructions through mail and email that listed the URL for using Adobe Connect. Adobe Connect allows participants to talk through chat, microphone, or internal microphone in one’s computer. Those three modes were how participants communicated with the researcher and with one another during the webinars. An internet connection is required to use Adobe Connect and was needed to complete the study. The researcher was the last person to sign off of the webinar at the conclusion of each group session making sure all other participants had signed off beforehand.

Group sessions were selected over individual sessions for various reasons. Previous research demonstrates that groups are the preferred method of providing career guidance (Brown, 1981). Groups are almost always utilized during experimental and quasi-experimental designs as well; one group receives the experimental treatment and the other does not (Muijs, 2004). Research affirms that groups are favorable for adults within transitions for the following reasons: support is provided for the individual (Anderson, Goodman & Schlossberg, 2011); the setting is conducive to examine and reexamine personal values and goals (Lea & Leibowitz, 1992); a fear of being judged or feeling alone is reduced by sharing their concerns within the group (Lea & Leibowitz, 1992); groups promote discussions which is one of the most effective techniques while working with adults (Borow, 1964) and Zagora and Cramer (1994) found that,
“involvement in a career workshop with others of similar vocational identity status, whether high or low, results in greater gains in decidedness” (p. 244).

The online medium is preferred over in person career counseling methods for multiple reasons as well. It offers anonymity of participants, convenience with both time and location, and is a resource that complements or supports other types of mediation (Richards & Vigano, 2013). Numerous types of online career counseling mediums are used including videoconferencing, chat, live web cameras, and, for the purpose of this study, webinars.

**DOVE Method**

The values-based online career counseling webinar consisted of one session using a modified version of the Depth-Oriented Values Extraction (DOVE) technique. The chosen method was developed with the intent to help others discover their values and understand how values relate to career and educational goals and decisions while balancing numerous life roles (Colozzi, 2003; 2011). The DOVE method is a five-step process commencing with an exercise that directs subjects to reflect and list their top work values, life values, interests, and abilities and then a focus on the subjects’ interests only. The following five steps represent the abbreviated DOVE method: 1) Discovery- subject reflects on seven expressed interests and two or three core reasons for each interest; why the subject enjoys each interest, to encourage accessing emotions associated with each interest. 2) Integration and Crystallization- subject notices common themes that began to evolve from their reflection of core reasons for each interest and how these themes relate to the Holland-type that was discussed in their webinar materials. 3) Extraction-subject identifies the main two or three Holland-type themes from a reflection
of the seven expressed interests. 4) Prioritization and Cognitive Clarity-subject reflects on the work values they initially listed and compare them with the Holland-type themes that evolved from the modified version of DOVE. 5) Congruence-subject uses the main two or three Holland Typology themes to explore specific occupations using the crosswalk computer links to the Internet and then create an initial draft of an Ideal Career-Life Scenario using the directions in their webinar materials.

Besides improving career decision-making skills through exploring values, interests and abilities, the DOVE method helps individuals establish self-efficacy and confidence making occupational decision. The webinar is one hour in length using the software Adobe Connect which allows participants to speak with the facilitator and other participants through either a chat feature or internal laptop microphone. A supportive atmosphere where active discussion occurs every week is one of the main group techniques related to career education as read in the literature (Borow, 1964).

Researchers found that values related career counseling strategies were important when helping people explore career trajectories (VanVoorhis & Protivnak, 2012). One of the reasons the C.D.S. was developed was to “assess the effects of career development interventions” (Levinson, Ohler, Caswell, & Kiewra, 1998, p. 480). The questions on the C.D.S. revolve primarily around an individual’s interests, abilities, interpersonal burdens or pressures, barriers to ideal employment, conflicts, confidence of career choice and naivety about the career choice process (Osipow & Winer, 1996). The DOVE method uses these same topics through the intervention technique making the C.D.S. an applicable instrument determining the DOVE method’s effectiveness in reducing career indecision.
**Interests-Based Career Counseling**

Exploring a person’s career interests has a prominent history stemming from The Carnegie Interest Inventory developed in 1920 (Harrington & Long, 2012). For almost a century, teachers and counselors commonly refer to a person’s interests over other factors to help determine their career trajectory. Interests are explored with all age ranges including elementary school children, adolescents, and adults, and both genders. However, it is now common to couple examining interests with a person’s values, skills, abilities, and motivations. This is due part to people having a difficult time understanding how their interests align with various professions while also considering external influences.

It is because of the popularity of interests, that an interest based career education intervention was used with the second experimental group. During the first webinar, participants followed the same structure of the values-based group and control group by filling out the C.D.S. and Margin in Life Scale. The second webinar, the intervention, began with participants completing a pencil and paper informal basic interest inventory which corresponded with the Holland Codes. The Holland Codes helped participants understand why they were attracted to particular occupations dependent on their personality type. As reported earlier, the questions on the C.D.S. address career interests and therefore were deemed an appropriate assessment to measure the effectiveness in reducing career indecision. Participants were given the URL for O*Net OnLine where they could explore the website on their own for additional help with their career decision-making. O*Net OnLine offers ways to find careers based on a variety of qualities including personal values, interests, and skills. It also provides a Holland Code with each
occupation listed making it a great addition to the informal assessment. The third and final webinar consisted of participants reflecting on their interest-based intervention from the second webinar, completed the C.D.S. post-test and closing the session with any questions for the researcher.

Recruitment

The analysis units were initially Penn State University Pennsylvania alumni chapters. Because there are hundreds of Penn State University alumni chapters geographically dispersed across the globe, all thirty-four Pennsylvania chapters were initially chosen for the study. The researcher contacted all chapter presidents through email attaching two documents; a volunteer consent letter and overview of the study letter. The researcher received thirty-nine volunteers from the same geographic area within Pennsylvania. Concerned with the response rate, the researcher contacted all 158 Penn State alumni chapters within the United States by emailing chapter presidents again with the two attached letters. A colleague not associated with the study posted an advertisement looking for volunteers on the official Penn State Alumni Association LinkedIn group which reaches over 70,000 group members. The researcher’s second attempt at collecting volunteers yielded 83 volunteers. The only Penn State alumni chapters not contacted were those internationally.

Once the study began, 16 people did not complete all three webinars and therefore any pre-test assessments completed were not considered in the data collection leaving the total number of volunteers at 67. According to Creswell (2005) the researcher can eliminate participants that do not participate in the entire study or have a significant amount of missing scores from the data analysis. A limitation of the study was that many
of the participants dropped out; however, the researcher debated recruiting another group of volunteers for a second study and ultimately decided against it based on timing and continuity. It was important that all participants received the same webinars at the same time of the day and any slight differences had the ability to alter results. Also, websites were given to participants to explore on their own time and since they tend to change content continuously the researcher wanted to ensure that all participants were receiving the same information at the same time. With 67 participants completing the study it still provided enough data to make assumptions and inferences.

Initially, all 83 volunteers were randomly assigned into three groups using the computer software Excel 2010 in order to prevent bias. Random assignment uses a process of assigning individuals at random to groups or to differing groups in an experiment (Creswell, 2005). Twenty-eight subjects were placed into group one, twenty-seven subjects were placed into group two, and twenty-eight subjects were placed into group three. Group three had the largest amount of participants leave the study totaling eight, followed by group two with five subjects leaving, and group one with three subjects withdrawing from the study.

Members of Penn State University alumni chapters are typically graduates from Penn State University, however, non-graduates are also invited to join chapters; screening to make sure all participants were Penn State University alumni was conducted by using the computer software AdvanceWeb to confirm alumni status. Nassar-McMillan and Niles (2011) explained that in counseling fields, the population was often a collection of people and the sample is the person and unit of analysis.
**Sampling Frame**

The sampling frame was determined by a multi-stage sampling process using volunteer sampling, and convenience sampling. Penn State University Pennsylvania alumni chapters were based on the convenience to the researcher. The researcher identified alumni chapter presidents and contacted them with the research information to pass along to their chapter members. Those alumni that completed the surveys and agreed to participate in additional studies were volunteering. The researcher provided no compensation for subjects participating in the study. Potential subjects received the invitation to participate through electronic mail along with the purpose of the study, initial intake form, confidentiality statement, and a consent form.

**Career Decision Scale**

Deeply rooted in empiricism, C.D.S.’s original purpose was to develop categories of career indecision helping clients self-assess themselves determining specific areas they needed to enhance or adjust during their career exploration. The instrument is currently used by career counselors to measure a client’s career uncertainty and examine the effectiveness of career interventions. This is one of the most common uses of the C.D.S. as it is “typically administered to clients prior to and subsequent to a treatment of some kind” (Osipow & Winer, 1996, p. 119). As discussed previously, the study presented uses the C.D.S. for the purpose of evaluating a career intervention; values-based career counseling webinars. One of the C.D.S.’s advantages is that is not associated with any one particular theory and is used in conjunction with numerous theories (Osipow & Winer, 1996). According to the C.D.S. Manual, the C.D.S. is also appropriate to use in group settings, thus favoring the design of the study’s intervention (Osipow, 1980, 1987).
The original C.D.S. developed in 1976 with 16 items in the scale and later revised to add an additional two questions plus an open-ended question. Questions three through eighteen are aspects of indecision that reduce an individual’s ability to make an appropriate career decision. Questions one and two measure how certain an individual is about making a career decision and question number nineteen is an open-ended question where the subject has the option to provide additional information that may be helpful and relates to their career decision ability (Osipow, Carney, & Barak, 1976). For the use of this study, the C.D.S. and the C.D.S. Manual were purchased from Psychological Assessment Resources (PAR). To date, the scale is only in paper and pencil format; it has not been transferred into an electronic version which is why the subjects were mailed their assessment and then returned their completed instrument to the researcher through mail.

A variety of studies have been conducted using the C.D.S. to confirm its validity (Hartman, Fuqua, Blum, & Hartman, 1985; Hartman, Jenkins, Fuqua, & Sutherland, 1987; Meyer & Winer, 1993; Osipow et al., 1976). Osipow et al. (1976) found the C.D.S. effective when measuring the efficiency of an intervention after studying college students who participated in an intervention versus students who did not participate in the intervention. They also found that it measured what it said it would measure; career certainty within the first two items and career uncertainty within the following sixteen items.

The C.D.S. is also valid in conjunction with other scales such as the Harren Assessment of Career Decision Making and the Johnson Decision Making Inventory (Osipow & Schweikert, 1981; Osipow & Reed, 1985). Osipow et al. (1976) tested the
effectiveness of test-retest design which the proposed study also employed and found high reliability scores of .902 and .819 over two weeks. Slaney et al. (1981) also tested the test-retest effectiveness over six weeks and found slightly lower numbers which still proved reliable; yet reliability scores slowly declined as time progresses.

**Margin in Life Scale**

The second scale used in the study is the margin in life instrument. Joanne Stevenson from The Ohio State University developed a scale in order to assess a person’s marginal value based on Howard McClusky’s theory of margin. The scale was developed to measure a person’s load and power among six dimensions of an adult’s life. The first phase of the MIL scale was created in 1980 and counted 211 items. It measured six different factors; health, self, family, religiosity/spirituality, community, and the last factor represented a mixture of the first five factors. Subjects were instructed to read the item and circle from highest load (0) to highest power (9) how the item impacted the individual. A space for comments and a ‘not applicable’ were available for subjects as well. Using test-retest reliability, Stevenson analyzed an ‘r’ greater than .80 from test 1 and test 2. Stevenson again modified the scale to 94 items creating another draft of the MIL scale. Again, Stevenson conducted a study with 103 subjects and conducted a factor analysis and an alpha reliability. An importance rating was added to the scale. Subjects were instructed to rank the importance of an item on a scale from 1-10, and were asked to rate the load of that item to their life on a scale from 1-5, and the power of the item on a scale from 1-5. A formula was developed to combine importance, load, and power into a total score for each item. Items in the same factor combined for a subscale score and then added for an overall MIL scores (Stevenson, 1982). The test re-test was greater than .80
and Cronbach’s alpha coefficients spanned between 0.67 and 0.87, except for subscales on community and work which ranged from -0.16 and 0.37. A final version of the scale was revised in 1994 in which Stevenson reduced the number of items to 58 and work as a factor was removed (Stevenson, 1982).

Until the instrument was developed, researchers could only test the theory of margin by observing participants in learning activities or through qualitative research asking participants about their load and power and determining the margin that remained. The calculated formula for marginal values is shown as: \( M = \frac{L}{P} \). Load is in the numerator and power is in the denominator giving margin as the product. Using this formula the MIL instrument has various questions that are given to the participant taking the instrument. Numerical values are then assigned to both the load and power resulting in a marginal score. McClusky (1963) suggested that a margin between .50 and .80 provided enough power to successfully learn. If the load is higher than the power, margin will always be less than .5 meaning the learner’s potential has decreased significantly. A score of 0.90 indicates reduced reserves to address future demands.

The MIL scale is and has always been a paper and pencil instrument where subjects are instructed to circle the importance of an item on a scale from 1-10, and are asked to rate the load or ‘burden’ of that item in relation to their life on a scale from 1-5, and also rate the power or ‘resource’ of the item in relation to their life on a scale from 1-5. Because the scale is not available for purchase, approval to use the scale was previously granted by Stevenson herself, however, after her passing, she gave permission to Dr. McCarthy, retired faculty at The Ohio State University, to grant authorization to researchers wanting to use the scale. The scale has been used mostly in conjunction with
the theory of margin as the theoretical framework of a study while proctoring the MIL scale to participants to collect empirical data. Stevenson believed the MIL scale could be used as a post intervention evaluation tool, predictor tool, an assessment tool, and a tool to determine changes between a subject’s crisis and resolution moment (Stevenson, 1982).

The MIL scale has been used in various research studies. Roberts and Fitzpatrick (1994) used the MIL scale to measure and compare the marginal values of elderly adults living in a community and elderly adults hospitalized. Weiman (1987) and Knepper (1990) used the MIL scale to determine if there was any relationship between marginal values and a student’s grade point average. And Walker (1997) used the MIL scale to predict educational persistence in college among three consecutive semesters.

The MIL scale has also been used in conjunction with other scales through research studies including the Readiness for Change instrument, the Multidimensional Health Locus of Control Scale, and the Ideal Adult Classroom Environment Scale (Hanpachern, 1997; Madsen, Cameron, Miller & Warren, 2004; Madsen, Cameron, & Miller, 2006; Schawo, 1997; Yoder Wise, 1984). It has been the primary instrument in numerous dissertation studies as well (Hanpachern, 1997; Kalynych, 2010; Knepper, 1990; Lagana, 2005; Walker, 1997; Weiman, 1987; Yoder-Wise, 1984).

Instrument Administration and Scoring

The MIL Scale and the C.D.S. as a pre-test were given to all participants during the orientation webinar where the researcher read the directions to both instruments. The MIL Scale and C.D.S. pre-test were proctored by the researcher. The researcher presented both interventions to the control and experimental groups since Cook and
Campbell (1979) explained that the delivery of treatments may differ from one facilitator to another which had potential to account for error obtaining true differences. It should be noted, however, that according to a post-positivistic philosophy, the researcher and their views and perceptions are never seen as completely detached from the study (Clark, 1998). Yet participants should act independent as if the facilitated was not present (Simon, 2010).

All webinar handouts for the interest based intervention group were provided by email and print version to all participants before the orientation session. All handouts chosen for the study were screened to ensure the reading level was appropriate; information was current, and relevant. Researcher reviewed the C.D.S. and MIL Scale to participants and stressed the importance of confidentiality and attendance at scheduled webinars. In order to ensure anonymity, assessment inventories were mailed to participants in envelopes with return address labels and prepaid postage. Participants were instructed to omit their names from the assessments when mailing the completed scales back.

The control and experimental groups subjects were given the MIL Scale and C.D.S. pre-test and post-test at the same time to minimize preferential treatment. The experimental groups were scheduled into values-based webinars and interest based webinars. The control group was offered values-based webinars and interest based webinars after the conclusion of the study to make sure all groups were offered the same treatment. The MIL Scale was mailed to experimental and control groups at the same time as well; before all groups received their respected interventions. Muijs (2004) explained that keeping the experimental and control groups as similar as possible was
critical during the research. Following the same protocol as the C.D.S., the MIL Scale was mailed to participants with return address envelopes already labeled with pre-paid postage. Participants were instructed to remain anonymous keeping their names off of the scale as Privitera (2013) stressed to keep the confidentiality of respondents.

Prior to administering the pre-test C.D.S., the researcher made slight adjustments to the instrument with permission from Psychological Assessment Resources, Inc. (PAR). A copy of the consent letter is included. On the C.D.S, item two, the word ‘major’ changed to ‘career,’ item number twelve, the word ‘major’ to ‘do,’ and item number eighteen, the words ‘to major in’ to ‘career to choose.” These changes were made to reflect occupational choice of adults instead of college major choice for traditional aged learners.

The C.D.S. was purchased through PAR. It was proctored through a conference call during the subjects’ first webinar. Copies of the C.D.S. were mailed to subjects prior to the first conference call since it is a paper and pencil instrument. The C.D.S. Manual states that “minimal supervision is required for administration” and therefore proctoring remotely is not a concern (Osipow, 1987). The researcher gave the instructions as stated in the C.D.S. Manual which explain; subjects should read their instructions carefully, answer the first 18 items by circling the number which corresponds with how similar the subject feels each item relates; and answer the 19th item as an open-ended question which the subject has the chance to clarify or expand. Total time to complete the scale ranges from 10 to 15 minutes (Osipow, 1987). Participants were instructed to mail the C.D.S. back to the researcher using the prepaid envelope. The researcher has the necessary
background in testing and measurement and therefore found no conflict in obtaining the completed scales herself as warranted in the C.D.S. Manual.

Time was an important consideration as Black (1999) explained, the longer the time between the first measurement and the second, the higher the chances something besides the intervention influenced the second measurement. For this reason, a one month time period to complete all three webinars was initiated.

Reviewing the MIL Scale, the researcher changed the instrument’s headers ‘load’ to ‘burden’ and ‘power’ to ‘resources.’ The reason for change was clarity and better understanding of wording for the subjects since the instrument has not been updated or revised since 1994. The researcher was granted permission by Dr. Donna McCarthy, who was appointed by Stevenson, author of the MIL Scale, to give authorization before she passed away. A copy of the consent letter is included. The MIL Scale was given during the orientation webinar through a conference call with the researcher. Copies of the MIL Scale were mailed to participants prior to the first session since the MIL Scale is a paper and pencil assessment. Subjects were given the instructions which are: circle the importance of an item on a scale of 1-10, and then rate the load or ‘burden’ of that item in relation to their life on a scale from 1-5, and also rate the power or ‘resource’ of the item on a scale from 1-5. There is no set duration recommended in the manual that participants have to complete the scale. Participants were instructed to mail the survey back to the researcher using the prepaid envelope. Once completed scales were received, each subjects’ responses were coded. Scores were entered into a computer by the researcher using Minitab. Additional data collected as covariates; these included age and gender from the initial intake survey given to potential subjects through electronic mail.
Any items that were missing or scales that were incomplete were thrown out and discarded from the study.

**Reliability and Validity**

Two types of validity were brought to attention within quasi-experimental research. External validity according to Cook and Campbell (1979) referred to the approximate validity that inferred generalizability to and across other situations typically found through probability sampling. According to Clark (1998), however, “knowledge deemed to be ‘truthful’ under post-positivist inquiry is not universally generalizable to all cases and all situations. Rather, findings are viewed as contextually related” (p. 1246). In applied social research where it is not feasible to use a random sample process of subjects, non-probabilistic sampling is used (Singh, 2007). Subjects from this study followed a non-probability convenience and volunteer sampling since the study required volunteers to participate in the treatment intervention after being randomly selected through random sampling. Adult learners, in the study, represented various educational backgrounds, ages, career levels, and were geographically dispersed.

Volunteer and convenience sampling are said to be some of the most common types in educational studies because it is cost efficient (Muijs, 2004). Reinard (2007) stated non-probability sampling was often invited during quasi-experimental research designs; however, he continued to state that non-probability sampling tended to show bias as well. Disadvantages of non-probability sampling must be addressed as they directly affect external validity. There is no way to know or prove that the selected sample represents or generalizes to a large population (Singh, 2007). Also, because of the convenient access to the population, subjects are more likely to cooperate due to of
the shared interest between subject and researcher and those who volunteer often have stronger ties to the research subject therefore showing bias (Muijs, 2004).

The second type of validity is internal validity which is described as the approximate validity that infers a causal relationship between two variables based on a study is deserved (Cook & Campbell, 1979). Miller and Salkind (2002) described eight different variables related to internal validity that need to be controlled. Below are a list of those not previously mentioned and how they are controlled:

*Statistical regression* – Participants are not selected on the basis of their scores.

*Biases* – Subjects are randomly placed into two groups; control group and experimental group based on even and odd numbers dependent on the total number of subjects (Black, 1999).

*Experimental mortality* – This is more likely to happen if the study exceeds allotted time frame. Researcher can add make up participants to equal treatment or control group.

*Testing* – The assessments proctored are not measuring subject’s knowledge therefore subjects cannot do better or worse on the assessments from the pre-test to the post-test.

*Instrumentation* – The same scale given during the pre-test will also be given during the post-test.

**Errors**

Errors often occur when naming hypotheses within a research study. Two types of errors a researcher makes are either Type I error or Type II error (Singh, 2007). Type I errors are falsely rejecting a true null hypothesis based on a set alpha level. Alpha is set
lower at either 0.01 or 0.05 as the level of significance to account for the possibility of this error. Type II errors fail to reject a false null hypothesis. The researcher turns to power of the test. To increase power, the researcher chooses a lower value for beta, decreases variance, or increases effect size.

**Unit of Observation/Unit of Analysis**

Subjects received the intervention as a group and not individually where Glass and Hopkins (1970) warned that the researcher could run into a Type I error when analyzing data individually instead of as a group when needed. However, the values-based career counseling groups were not conducted in the traditional classroom sense; participants were not in the same environment and interaction between participants and teacher had the potential to be individualized as well. Hopkins (1982) argued that, “researchers have failed to recognize that if the proper ANOVA model is explicated and employed, the “problem” of appropriate unit of analysis disappears” (p. 7). The data from the assessments was administered individually and therefore collected, recorded, and analyzed using the individual scores as the unit of observation. The unit of analysis, however, was the comparison between groups’ assessment data. Therefore the control group and experimental groups’ data was derived from individual data where inferences were made about the control and experimental groups.
CHAPTER 4
FINDINGS AND ANALYSIS

The purpose of the quasi-experimental study was to determine the effectiveness of decreasing career indecision scores on the Career Decision Scale (C.D.S.) through a series of values-based career counseling and interest based career education webinars. Also of interest, was determining any relationship between marginal values and career indecision scores. This chapter details the results of the study and each of the study’s hypotheses are answered through examining the emerged data.

Research Design

The C.D.S. and the MIL Scale were administered as a pre-test to one control group and two experimental groups simultaneously by the researcher to determine current career indecision scores and marginal values. Because the study wanted to observe if the difference in mean scores on the C.D.S. between adults who participated in the values-based career intervention with those adults that did not participate in the values-based career intervention was statistically significant, the first test conducted was an analysis of variance (ANOVA). The ANOVA test allows the controlling of factors that are randomized but are also measured on an interval scale. However, since the study looks at both gender and age, an analysis of covariance (ANCOVA) is the preferred method of analysis to examine both the pre-test scores and post-test scores of the three groups (Cook & Campbell, 1979; Green & Salkind, 2013). An ANCOVA, according to Glass and Hopkins (1970), was used to increase statistical power and reduce bias especially in studies of non-randomization. A Pearson Correlation test was also performed to detect a relationship, if any, between C.D.S. pre-test and post-test scores.
An ANCOVA was also used to determine any difference in marginal value scores by age and gender. A Pearson Correlation was performed to understand a relationship between marginal value scores and career indecision scores. Level of significance was set at 0.05, however, when analyzing the data an asterisk (*) was placed by any result under 0.10 and two asterisks (**) were placed by any result under 0.05.

Sample

The participants for the study were Pennsylvania State University alumni over the age of eighteen. Sixty-seven subjects accounted for three groups (N=67). Originally eighty-three subjects began the study but failed to attend all required webinars. The setting for the webinars was wherever the subjects felt comfortable; home, office. Subjects were each coded from numbers 1 to 83 then randomly assigned into three groups using Excel 2010 in order to avoid bias. To do this, the researcher used column A in Excel to host numbers 1 through 83 on each line and then used column B to generate three random groups, one for each number: Group 1, Group 2, or Group 3. This is also commonly known as a Random Team Generator in Excel. Subjects were then put into groups depending on the group number next to their coded number.

Results

Since the study accounted for one control and two experimental groups, the groups were coded as follows: “1” was used for the control group, “2” was used for the interest based experimental group and “3” designated the values-based group. The control group was offered both forms of treatments after post-testing was administered to all three groups.
Subjects were also coded depending on their age and gender as the following:

Gender:  
- Female – 1  
- Male – 2

Age Ranges:  
- Under 25 years old – 1  
- 26-39 years old – 2  
- 40 years and older – 3

The following graphs were analyzed to test for normality prior to running any statistical analyses.

Figure 1:  
Residual Plots for C.D.S. Uncertainty Score Pretest
Figure 2:

*Residual Plots for C.D.S. Uncertainty Score Posttest*

![Residual Plots for C.D.S. Uncertainty Score-posttest](image)

Figure 3:

*Residual Plots for Margin in Life Marginal Values*

![Residual Plots for Margin in Life Marginal Values](image)
The graphs show all data from the assessments follow a normal probability distribution and therefore the researcher applied appropriate tests to the data.

A complete report of the sample population’s characteristics is reported in Table 4.1. Below are also distributions for age and gender by group reported in Tables 4.2, 4.3, and 4.4. A list of all of the data and scores of participants is listed in Appendix A-1; Group 1: Control Group, Group 2: Interest Based Experimental Group, and Group 3: Values-Based Experimental Group.

Table 4.1

*Sample Population Characteristics by Gender, Age*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Number</th>
<th>%</th>
<th>Age</th>
<th>%</th>
</tr>
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<tbody>
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<td>36</td>
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<td>1-13</td>
<td>19%</td>
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<tr>
<td>Male</td>
<td>31</td>
<td>46%</td>
<td>2-28</td>
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<td></td>
<td></td>
<td></td>
<td>3-26</td>
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Table 4.2

*Control Group Characteristics by Gender, Age*

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<th>%</th>
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<td>1-6</td>
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<td>Male</td>
<td>10</td>
<td>50%</td>
<td>2-7</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>3-7</td>
<td>35%</td>
</tr>
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</table>
Table 4.3

*Interest Based Intervention Group Characteristics by Gender, Age*

<table>
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<td>12</td>
<td>54%</td>
<td>1 - 4</td>
<td>18%</td>
</tr>
<tr>
<td>Male</td>
<td>10</td>
<td>46%</td>
<td>2 - 9</td>
<td>41%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3 - 9</td>
<td>41%</td>
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</tbody>
</table>

Table 4.4

*Values-Based Intervention Group Characteristics by Gender, Age*

<table>
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<th>Age</th>
<th>%</th>
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</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3 - 9</td>
<td>36%</td>
</tr>
</tbody>
</table>

**Finding 1:** Career indecision score was the dependent variable based on the difference between career uncertainty pretest and posttest scores. The mean difference in career uncertainty scores for 67 subjects, after running two separate interventions, was a decrease of 3.556. The decrease shows there was a significant impact on the subjects’ career indecision. Tables 4.5, 4.6, and 4.7 further state the data for each assessment. There was an average decrease in career uncertainty of 4.520 in the values-based intervention group compared to the interest-based intervention group which saw a decrease of 3.5. Literature described the importance values have with career decision-making and therefore it was expected the values-based group would have a decreased career indecision score after the intervention and therefore the null hypothesis, HO1, was rejected.
Table 4.5

Descriptive Statistics: C.D.S. Uncertainty Score-Pretest

<table>
<thead>
<tr>
<th>Variable</th>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>SE Mean</th>
<th>StDev</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uncertainty Score-Pretest</td>
<td>Control Group</td>
<td>20</td>
<td>24.55</td>
<td>1.17</td>
<td>5.22</td>
</tr>
<tr>
<td></td>
<td>Interest</td>
<td>22</td>
<td>26.68</td>
<td>1.17</td>
<td>5.50</td>
</tr>
<tr>
<td></td>
<td>Values</td>
<td>25</td>
<td>25.64</td>
<td>1.21</td>
<td>6.03</td>
</tr>
</tbody>
</table>

Table 4.6

Descriptive Statistics: C.D.S. Uncertainty Score-Posttest

<table>
<thead>
<tr>
<th>Variable</th>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>SE Mean</th>
<th>StDev</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uncertainty Score-Posttest</td>
<td>Control Group</td>
<td>20</td>
<td>21.900</td>
<td>0.732</td>
<td>3.275</td>
</tr>
<tr>
<td></td>
<td>Interest</td>
<td>22</td>
<td>23.182</td>
<td>0.766</td>
<td>3.594</td>
</tr>
<tr>
<td></td>
<td>Values</td>
<td>25</td>
<td>21.120</td>
<td>0.620</td>
<td>3.100</td>
</tr>
</tbody>
</table>

Table 4.7

Descriptive Statistics: Career Uncertainty Difference

<table>
<thead>
<tr>
<th>Variable</th>
<th>Group</th>
<th>N</th>
<th>N*</th>
<th>Mean</th>
<th>SE Mean</th>
<th>StDev</th>
</tr>
</thead>
<tbody>
<tr>
<td>Career Uncertainty Difference</td>
<td>1</td>
<td>20</td>
<td>0</td>
<td>2.650</td>
<td>0.573</td>
<td>2.560</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>22</td>
<td>0</td>
<td>3.500</td>
<td>0.735</td>
<td>3.447</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>25</td>
<td>0</td>
<td>4.520</td>
<td>0.768</td>
<td>3.928</td>
</tr>
</tbody>
</table>

To further examine the decrease of career indecision, an analysis of variance (ANOVA) was performed to determine if there were any significant differences within career uncertainty scores between the three group’s pre and posttest means. Observing the output and looking at the p-values, it is concluded that group number is of statistical significance at the 0.10 level. Sum of squares, degrees of freedom, and an F-Value are
reported in Table 4.9. An R-sq. level of 71.27% was reported showing the strength of the linear relationship.

Table 4.8

ANOVA Pre/Post Test Difference C.D.S. Uncertainty Scores

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Adj SS</th>
<th>Adj MS</th>
<th>F-Value</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uncert. Score-pretest</td>
<td>1</td>
<td>482.900</td>
<td>482.900</td>
<td>133.41</td>
<td>0.000</td>
</tr>
<tr>
<td>Group Number</td>
<td>2</td>
<td>20.845</td>
<td>10.423</td>
<td>2.88</td>
<td>0.064*</td>
</tr>
<tr>
<td>Age</td>
<td>2</td>
<td>0.162</td>
<td>0.081</td>
<td>0.02</td>
<td>0.978</td>
</tr>
<tr>
<td>Gender</td>
<td>1</td>
<td>1.003</td>
<td>1.003</td>
<td>0.28</td>
<td>0.601</td>
</tr>
<tr>
<td>Error</td>
<td>60</td>
<td>217.178</td>
<td>3.620</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack-of-Fit</td>
<td>55</td>
<td>193.678</td>
<td>3.521</td>
<td>0.75</td>
<td>0.737</td>
</tr>
<tr>
<td>Pure Error</td>
<td>5</td>
<td>23.500</td>
<td>4.700</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Model Summary

<table>
<thead>
<tr>
<th>S</th>
<th>R-sq</th>
<th>R-sq(adj)</th>
<th>R-sq(pred)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.90253</td>
<td>71.27%</td>
<td>68.40%</td>
<td>64.31%</td>
</tr>
</tbody>
</table>

**Alpha < 0.10**

Effect size was also calculated to understand the relationship among the variable ‘group number’ in the model (Creswell, 2005). In ANOVA, one effect size measure is Eta squared, which is calculated as:

\[
\eta^2 = \frac{SS_{Treatment}}{SS_{Total}}
\]

\[
= \frac{20.845}{755.940}
\]

\[
= .0275
\]

2.75% of the variance is accounted for by group number. According to Cohen (2007), effect sizes of 0.2–0.3 are small, 0.5 medium, and ≥ 0.8 are large. This effect size above
is well over large and considered of high practical significance where there is an evident effect explained through group number.

Upon further examining the data using the Post Hoc and Tukey Pairwise Comparison tests showed that group three had the largest decrease in C.D.S. uncertainty scores and group one had the smallest decrease. A Post Hoc test was used to further explore the three groups and the difference in means at a 95% CI. Table 4.10 shows the greatest difference in means was between groups 3 (the Values-Based Counseling Group) and group 1 (Control Group) where group 3 had the largest post-test mean difference and group 1 the smallest post-test mean difference.

Table 4.9

<table>
<thead>
<tr>
<th>Difference of Group Levels</th>
<th>Difference of Means</th>
<th>SE of Difference</th>
<th>Simultaneous 95% CI</th>
<th>T-Value</th>
<th>Adjusted P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 – 1</td>
<td>-3.75</td>
<td>1.06</td>
<td>(-6.30, -1.20)</td>
<td>-3.53</td>
<td>0.002</td>
</tr>
<tr>
<td>2 – 1</td>
<td>-2.07</td>
<td>1.04</td>
<td>(-4.56, 0.42)</td>
<td>-2.00</td>
<td>0.122</td>
</tr>
<tr>
<td>3 – 2</td>
<td>1.68</td>
<td>1.00</td>
<td>(-0.73, 4.08)</td>
<td>1.68</td>
<td>0.222</td>
</tr>
</tbody>
</table>

Individual confidence level = 98.06%

**Finding 2:** Exploring the p-values of the categories of age and the categories of gender through a two-way ANOVA test for C.D.S. pre-test uncertainty scores determined there was no difference between them therefore accepting the null hypothesis, HO3.
Reviewing the data from the Margin in Life Scale, Table 4.8 shows descriptive statistics. Group 2 had the highest marginal values average scores followed by group 3 and group 1 had the lowest marginal values average scores.

Table 4.11

Descriptive Statistics: MIL Scores by Group

<table>
<thead>
<tr>
<th>Variable</th>
<th>Group</th>
<th>Number</th>
<th>Mean</th>
<th>SE Mean</th>
<th>StDev</th>
</tr>
</thead>
<tbody>
<tr>
<td>MIL</td>
<td>1</td>
<td>20</td>
<td>-0.1910</td>
<td>0.00668</td>
<td>0.02989</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>22</td>
<td>-0.08818</td>
<td>0.00789</td>
<td>0.03699</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>25</td>
<td>-0.1404</td>
<td>0.0133</td>
<td>0.0666</td>
</tr>
</tbody>
</table>

A Pearson correlation test was performed to determine a relationship between margin in life values scores and the difference on career uncertainty pre-test/post-test scores. The Pearson R value of 0.392 determines there is a small relationship between the two values with a p-value less than 0.05.
**Finding 3:** There was a slight relationship between marginal value scores and career uncertainty difference scores from the pre-test and post-test at the 0.392 level. Therefore, the null hypothesis $H_0$, was accepted.

An analysis of variance (ANOVA) was performed to determine if there were any significant differences between the margin in life means’ values between age and gender of the participants. Observing the outputs, it is concluded that gender is statistically significant at the 0.05 level. Sum of squares, degrees of freedom, and an F-Value are reported in Table 4.9. An R- sq. level of 51.03% was reported showing the strength of the linear relationship.

**Table 4.12**

**ANOVA MIL Scores**

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Adj SS</th>
<th>Adj MS</th>
<th>F-Value</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>2</td>
<td>0.005220</td>
<td>0.002610</td>
<td>1.17</td>
<td>0.318</td>
</tr>
<tr>
<td>Gender</td>
<td>1</td>
<td>0.009933</td>
<td>0.009933</td>
<td>4.44</td>
<td><strong>0.039</strong></td>
</tr>
<tr>
<td>Error</td>
<td>59</td>
<td>0.128747</td>
<td>0.002182</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack-of-Fit</td>
<td>10</td>
<td>0.023086</td>
<td>0.002309</td>
<td>1.07</td>
<td>0.402</td>
</tr>
<tr>
<td>Pure Error</td>
<td>49</td>
<td>0.105661</td>
<td>0.002156</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Model Summary**

<table>
<thead>
<tr>
<th>S</th>
<th>R-sq</th>
<th>R-sq(adj)</th>
<th>R-sq(pred)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.0467135</td>
<td>51.03%</td>
<td>45.22%</td>
<td>38.71%</td>
</tr>
</tbody>
</table>

**Alpha < 0.05**

Eta squared was calculated as:

$$\eta^2 = \frac{SS_{Treatment}}{SS_{Total}}$$

$$= \frac{0.009933}{0.262919}$$

$$= 0.0370$$
Calculations by hand showed that 3.7% of the variance was accounted for by gender. This effect size is of high practical significance and explains the difference between gender and marginal value scores.

Exploring the p-values through a two-way ANOVA test of both age and gender for marginal value scores determined there was a difference among the age groups but not within gender.

Table 4.13

*Coefficients through ANOVA – Marginal Value Scores*

<table>
<thead>
<tr>
<th>Term</th>
<th>Coef</th>
<th>SE Coef</th>
<th>T-Value</th>
<th>P-Value</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-0.14110</td>
<td>0.00616</td>
<td>-22.89</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>-0.01219</td>
<td>0.00995</td>
<td>-1.23</td>
<td>0.225</td>
<td>1.59</td>
</tr>
<tr>
<td>2</td>
<td>0.00006</td>
<td>0.00812</td>
<td>0.01</td>
<td>0.995</td>
<td>1.59</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>-0.01231</td>
<td>0.00584</td>
<td>-2.11</td>
<td>0.039</td>
<td>1.02</td>
</tr>
</tbody>
</table>

**Finding 4:** There was a difference in marginal value scores based on age but not gender. (Table 4.13) Therefore the null hypothesis HO$_4$, was rejected.

A Pearson correlation test was performed to determine a relationship between margin in life values scores and career uncertainty pre-test scores. The Pearson R value of 0.434 determines there is a medium relationship between the two values with a p-value less than 0.05.
Table 4.14

Correlation: Marginal Value Scores and C.D.S. Uncertainty Scores-Pretest

Pearson correlation of marginal value scores and career uncertainty score-pretest = 0.434

P-Value = 0.000

Finding 5: There was a medium relationship between marginal value scores and career uncertainty pre-test scores at the 0.434 level. Therefore, the null hypothesis HO₅, was accepted.
CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

A review of published literature illustrates that career counseling researchers have predominantly focused their studies on traditional aged college students and the changes or transitions encountered throughout their academic experience. Donohue and Patton (1998) believed too much research was conducted studying college students when practitioners have little knowledge regarding adults. It is suggested that studies are not conducive to examining a variety of interventions as techniques that assist adults in their career decision-making or transition; conversely the studies underscored the roadblocks that deter adults from making career decisions. Career counselors are beginning to witness the challenges of working with adults as clients and understand that more information is needed to properly serve them (Fredrickson, 1978; Miller & Musgrove, 1986; Ronzio, 2012). More combined theories that incorporate adult learning and development should be included in the delivery of not only individual career counseling of adults, but also programs and other services where adults are the targeted participant population.

This study focused on reducing career indecision through a series of webinar interventions using the DOVE method created by Dr. Colozzi along with an interest-based career education technique. The quantitative study sheds light on different mediations to use with adults needing career counseling which was also the attraction to this study; a glaring lack of adult career counseling training in graduate programs resulting in a shortage of confidence or skill in employed career counselors.
Career Indecision Implications

Data analysis, presented in Chapter IV, supported the following findings: Group career counseling and education interventions, values-based and interest based, were both significant factors in reducing career uncertainty scores shown through the data and post-test scores on the C.D.S. These findings support previous studies that aimed at increasing decision making skills through the use of career interventions (Kleiman et al., 2004; Reed et al., 2001; Sampson, Peterson, Reardon, & Lenz, 2000). However, Bullock-Yowell, et al. (2013) also conducted group career decision-making workshops and found participants that attended the workshops had slightly higher levels of career decision-making difficulties than the control group after the intervention. This was attributed to the content delivered which ultimately confused participants, not the facilitator or format. Various aspects are taken into consideration by the researcher when developing interventions including the participants’ learning styles and methodology which also affects assessment results.

The lack of consistent outcomes in studies does not account for all career interventions and their ability to decrease career indecision and therefore additional studies are needed to continue focusing on the strengths and weaknesses career interventions have within career development. It would be helpful to compare individual interventions with group interventions to determine effectiveness at reducing career uncertainty as well as comparing distance interventions with in-person interventions but would ultimately depend on learning preferences of participants. As technology continues to grow within education, people are becoming more comfortable using Skype, Facetime, and other video call systems not only for social use but, also, personal and
professional including counseling appointments. Because of this, more virtual based career services are offered among private practices and higher education institutions.

Participants’ indecision scores on the C.D.S. post-test were not equal within the three groups therefore rejecting the null hypothesis. The DOVE method, which focused predominately on an individual’s values, both personal and professional and how they relate to career occupations, decreased career uncertainty scores slightly greater than the interest-based intervention group. It is expected that exploring and understanding values would decrease indecision since values influence everything from morals to actions and quality of choices (Brown, 1995).

Values clarity and its relationship to career decision-making have had mixed research results through previous studies. Greenhaus, Hawkins, and Brenner (1983), did not find that values clarity explained a relationship between career exploration and decision making, yet, did confirm a strong relationship with career satisfaction projection. The difference in outcomes of the studies could be attributed to the type of values intervention participants received. Numerous assessments and activities, both informal and formal, have been created to explore values including card sorts and clarification activities. Future studies should explore various approaches to values clarity since it is unquestionable that values are an important contribution to career exploration and need to be mentioned during career counseling and education sessions (Brown, 1995; Brown & Crace, 1996; Dawis & Lofquist, 1984; Legiv, 2002).

Data analyzed from the C.D.S. also revealed there was no difference in pre-test uncertainty scores by gender therefore accepting the null hypothesis. The quantitative data was consisted with previous literature including Hartman et al. (1987). Their study
focused on the administration of the C.D.S. to high school seniors and found no difference among genders and their career uncertainty scores. More recently, a study conducted by Whitmarsh and Wentworth (2012) explored national trends in occupational choice and found that women have begun to increase their representation in primarily male dominated fields including legal and high management positions. The results indicate that males and females do not have any dissimilarity when it comes to career indecision. The study’s results force career counselors to rethink the way sessions are conducted including topics addressed if gender is not as important of a factor in decision making than previously assumed. For career practitioners, this is an enormous implication and could change the way career counseling sessions are held.

There is a vast amount of research that discusses the importance of gender and career development. Larson et al. (1994) and Healy, Mitchell and Mourton (1987) argue gender is an important characteristic to be aware of during the career counseling process and additional research is needed to determine proper interventions for men and women. Ronzio (2011) agreed, that “women’s developmental life stages are likely to be highly relevant in counseling” (p. 75). Linda Gottfredson’s (1981) theory of circumscription and compromise stresses the importance of career decision making and gender role influences. Throughout a person’s childhood and adolescence, gender identity begins to shape perceptions of what careers are appropriate if selected by a female or male. Previous studies found that women have historically been discouraged from pursuing careers that are heavily focused in technology because of gender stereotypes (Betz, 1994; Luzzo & McWhirter, 2001). Stoltz-Loike (1995) also believed women respond differently to job loss and career transition than men and often underrate their skills and
abilities and lack the confidence men have. It is not uncommon that female life roles such as spouse, mother, and homemaker, are major topics during career discussions especially when determining career choices. Men, similarly, were found to have gender role conflicts when it came to choosing a career path. A study conducted by Dodson and Borders (2006) reported that men who chose a more traditional male occupation such as engineering presented more traditional gender role attitudes including; difficulty expressing feelings and thoughts, balancing family with work, and showing emotions. Men in the study who were elementary school counselors did not display the same attitudes.

Because no gender difference was found on the C.D.S., it forces the researcher to question whether a different assessment may have determined variances in gender and decision making. Also, it is possible that perceptions toward gender and occupational choice have changed since Gottfredson’s Theory which was developed in 1981 since over thirty years later, women and men are sharing family role responsibilities and choosing jobs that were primarily held by the opposite gender. The C.D.S.’s questions are worth examining as well to determine if wording is accurately measuring what it claims.

Participants’ age was collected and analyzed in relation to the C.D.S. pre-test uncertainty scores and supported the study conducted by Slaney (1986) in that no difference was found between age groups. Without having prior knowledge of working with adults, one would assume that the oldest age group would have obtained the lowest career uncertainty scores. Participants, on the other hand, reported under the age of twenty-five showed similar levels of career uncertainty from those over forty years old. As Slaney (1986) stated, a range of career indecision scores were found between the
participants in the study from each age category. Upon analyzing the data further there were no patterns of career indecision scores found among the three age groups and indecision scores varied from low to high. This could be for various reasons; the study recruited all type of participants; no prior career counseling experience or interest in career help was required, thus obtaining a wide variety of individuals; the data also provides evidence that participants are in various stages of career exploration throughout their life and can experience high and low periods of indecision which refutes Super’s career stages.

According to Super and Knasal (1981) career decision readiness is something that increases with age along with the ability to cope with career related tasks; therefore it would be expected that the youngest age group would have higher levels of indecision rather than the oldest age group. Decades ago, age may have been related to career decision readiness; however, the current changing labor market confronts employees with situations that are not always age associated. It can be argued that life is often comprised of predictable age linked events such as graduating high school, getting married, having children, etc. Conversely, the vocational maturity needed to manage developmental career tasks may or may not be the same at any age. A lack of data to support career-decision maturation is important for career counselors, graduate counseling programs, and adult educators to understand. Age is not a factor when determining an individual’s career phase and it is even less appropriate to rely on life stages since this negative stereotype has influenced many beliefs that anyone over a certain age, for example, 65 is no longer productive (Canaff, 1997). The changing workplace challenges existing career theories and has the potential to create new models of career decision-making.
Marginal Value Implications

Adults intertwine multiple worlds together which include work and personal lives and ultimately effect career decisions. McClusky wanted to measure and predict the ability to manage multiple worlds and the effect they have on adults’ learning. According to McClusky, “what [the learner] learns, and how he does so, depends upon the stage he occupies in his life cycle and upon the suitability of the learning situation to the learning potentialities and learning handicaps he has at that stage” (McClusky, 1971, p. 415). It was hypothesized, and accepted, that marginal value scores of participants would have a correlation with career indecision pre-test scores on the C.D.S. Results from the study echo previous research that incorporated the theory of margin to predict or observe relationships between two variables (Baum, 1980; Gleiman & Swearengen, 2012; Hanpachern, Morgan & Griego, 1998; Telbis, 2010). Participants in the study that had lower marginal value scores also had lower indecision pre-test/post-test difference scores on the C.D.S. The correlation could be contributed to a lack of enough marginal value to invest in the career education webinars (Main, 1979). Merriam and Clark (2006) noted that learning which occurs within low margin individuals versus the learning that occurs with high margin individuals appears different in character and action. Future questions to consider while using the MIL Scale are: should individuals continue participation in learning activities if low marginal values are revealed? Are the same interventions appropriate for individuals with low marginal values?

Marginal value scores were also analyzed by age where a significant difference was found. Participants under the age of 25 had the lowest marginal values on average; those between the ages 25 and 39 had the second lowest average marginal values, and
those over the age of 40 had the highest marginal value average scores on the MIL scale. McClusky (1973) believed that life experiences had a direct effect on an individual’s marginal value which is composed of internal and external powers and loads. It is possible that the participants in the study who were in the youngest age group did not have enough support or experiences to offset the loads in their current life whereas those in the older age group had built their support systems throughout experiences to counteract the burdens resulting in a higher marginal value. This is important to understand since McClusky (1963) believed that an excess of margin is needed to take on additional undertakings including career aspirations. From a career development standpoint, career counselors may want to determine an individual’s marginal value before conducting sessions to identify those that are at greater risk of not being able to tackle career decisions or obstacles at that moment. This does not have to be done through a formal assessment; questions can be asked that allude to having enough or not enough resources, support, and experiences to tackle delicate and complicated problems such as career decision making. On the other hand, marginal values can rise and fall based on current circumstances the individual is in depending on the week, month, or year. These factors could have attributed to the relationship found during the study between marginal value scores and career indecision pre-test scores.

Previous studies that used the MIL Scale were not concerned with exploring differences between genders and therefore did not compare marginal value scores. The currently study, surprisingly; found no difference in marginal value scores and gender. Females have additional life role burdens such as homemaker, mother, and spouse that can offset resources needed to balance responsibilities. They are also presented with
more life experiences because of additional life roles that act as resources. Because of these roles, it was expected females would have lower marginal values than males. This is similar to the results found with gender and the C.D.S. The lack of differences does not change the career counselors attempt to include female life roles into their session. Life roles can hinder someone from completing career goals and should be understood before beginning a counseling session. Grenier and Burke (2008) also believed that understanding the burdens of women is critical to adult educators. As a former adult educator in a community college, there was a pattern of working females who struggled with completing assignments because of their additional life roles outside of the classroom. Educators should take outside commitments into consideration to understand how people prioritize and complete additional responsibilities.

**Recommendations**

The career counseling intervention webinars were evaluated based on participants’ scores on the C.D.S. Without an assessment to gage the effectiveness, the outcome of such webinars is giving participants enough information to recognize how external factors, such as values and interests, influence career decisions. There were other instructional methods that could have been chosen to conduct the study, such as individual sessions, role playing, card sorts, etc. and therefore could have influenced the participant’s ability to learn the information. Because of the various ways this study could be replicated, the following are recommendations for future research:

From my professional experience, if I were to replicate the study using the same webinar based format, the following are changes I would make: The current study used participants who were alumni from a large university. Moving forward, it would be
useful to recruit only adults that were currently enrolled as a student, part-time or full-time or only adults that were unemployed. Furthering education is usually a conscious choice that pertains to career or occupational advancement. This is a factor influencing the participant’s career decision making and could unknowingly affect their outcomes on a scale or assessment. Similarly, research shows that being unemployed has emotional and mental impacts that also affect decisions both personal and career related. Additionally, other variables besides age and gender to include would be educational level or occupational category for the researcher to examine. There is little research that accounts for these demographics.

Similarly, I would recruit alumni from a small university instead of a large one where less major and minors were offered to students. Penn State students and alumni have access to more than 160 majors that impact the type of career they pursue upon graduation. A smaller university limits the exposure to occupational fields and therefore could also limit their job searching skills. Of interest would be a comparison of alumni who graduated from a large university and those that graduated from a smaller university and if there is a difference in their career decision uncertainty scores.

The current length of the study was one hour per webinar. Expanding the length of the study to include longer webinars and more sessions would provide participants with more information and opportunities to engage with the material and one another. Because of lack of time and resources, the study was constrained to three sessions and one hour each per webinar. This is rather quick and skims the surface of the material addressed. On the other hand, a longer webinar requires a greater attention span from the participant. Since webinars are conducted remotely, the researcher trusts the
attendees to remain engaged during the entire webinar without walking away from the computer screen or becoming distracted.

In addition, further studies could couple the C.D.S. with additional scales that measure anxiety since research found females and younger adults handle the stress of career decision and unemployment different from others. Those participating in the control group may have heightened levels of anxiety in comparison to those that are part of an experimental group which would be shown through the post-test of an assessment.

If I were to recreate the study but alter the format, I would first do a follow-up study with participants to understand how their experience was participating remotely during three webinars. If participants did not find the webinars favorable, or too challenging, I would change the study to be in person. Webinars are a great way to reach a large audience especially those that are geographically dispersed. Taking into consideration the age of the participants and previous experience with online learning could affect results from the intervention. Webinars also are not the most effective technique for participants who prefer in person learning over distance learning.

A replicated study conducted in person rather than online would change the way subjects were recruited. All participants would have to be geographically in the same location which takes away the diverse audience received through the online webinars. Participants would meet in person with the researcher at a private location such as a classroom. The researcher would need to consider time of day, day of the week, and even the month that the interventions occur. An in person intervention caters to individuals who prefer the personal interaction gained through learning face to face and it
is easier to build a rapport with the fellow attendees and the researcher. All other elements of the study would remain the same.

The United States has seen multiple changes in its workforce including adults working past the time of retirement, women taking on leadership roles, people holding more than one job, companies closing, large layoffs, and other unexpected challenges that cause employees to constantly examine and re-examine their career decisions and choices. Career development is an ever-going, lifelong process. As noted earlier, career counselors need to adapt to the changing workforce demographics and be prepared to serve adults in various career stages. Adults will also have to be aware of growing trends within career development including, networking, gaining additional knowledge and skills, and how to remain flexible and marketable during their job search.

The results from the study give insight into how effective values are with decision making. Using a values-based approach to career counseling is useful for many areas of counseling and education, not only higher education. Guidance counselors in secondary education, career counselors in private practices and mental health counselors can incorporate values into their methods and theories. Despite where an individual’s interests are, conflict in occupations typically occurs when values and interest do not align and could be avoided if included by more counseling and education professionals.
REFERENCES


Sheward, S., & Branch, R. (2012). Introduction to CBT career counselling theory. In Sheward & Branch (Eds.), *Motivational career counselling and coaching*:


Substance Abuse and Mental Health Services Administration, Center for Behavioral Health Statistics and Quality. 2010–2011 National Survey on Drug Use and Health: model-based prevalence estimates (50 states and the District of Columbia).


APPENDICES
### APPENDIX A

Subject Data Scores

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APPENDIX B

PAR Approval

February 24, 2015

Amy S. Thul-Sigler
The Pennsylvania State University
Bank of America Career Services
Eisenhower Blvd.
State College, PA 16802

Dear Ms. Thul-Sigler:

In response to your recent request, permission is hereby granted to you to modify the wording on items 2, 12 and 18 to replace the word "major" with an appropriate "career" phrasing and reproduce up to a total of 150 (paper) copies of the Career Decision Scale (CDS) for use in your research tentatively titled, The effects of a values-based career intervention on the career uncertainty scores of Penn State alumni. If additional copies are needed, it will be necessary to write to PAR for further permission.

This Agreement is subject to the following restrictions:

1. Any and all materials used will contain the following credit line:

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1-800-727-9329 (fax)

ACCEPTED AND AGREED:

BY: AMY S. THUL-SIGLER
DATE: 3-12-15

ACCEPTED AND AGREED:

BY: VICKI M. MCFADDEN
DATE: March 24, 2015
PAYMENT RECEIVED: AMEX
PAR CUSTOMER No.: 171579

SIGNATURE OF PROFESSOR REQUIRED:

I hereby agree to supervise this student’s use of these materials. I also certify that I am qualified to use and interpret the results of these tests as recommended in the Standards for Educational and Psychological Testing, and I assume full responsibility for the proper use of all materials used per this Agreement.

BY: Robert Thul-Sigler
Printed Name: Robert Thul-Sigler
October 15, 2014

Amy Thul-Sigler
303 Chadham Ct.
Belleville, PA 16823

Dr. Mrs. Thul-Sigler,

Before she died Dr. Joanne Stevenson granted the Associate Dean for Research in the College of Nursing permission to release the Margin in Life scale to any investigator who requests it. I have sent the scale to other investigators who requested access. I ask that you cite Dr. Stevenson’s work when you publish anything using the scale.

Best wishes for success in your scholarship,

Donna McCarthy Beckett, PhD, RN, FAAN
Associate Dean for Research, and
Mildred E. Newton Professor of Nursing
APPENDIX D-1

Values-Based Webinar Schedule

**Webinar 1** – Orientation/Introduction, confidentiality, C.D.S. administration, Margin in Life Scale administration, review and next steps.

**Webinar 2** – DOVE exercise, values and occupational themes, career information using OnetOnline, resources, career plan, next steps.

**Webinar 3** – Post-test, questions and answers.
APPENDIX D-2

Values-Based Webinar Objectives

To help clients understand the importance of values within their career.
To make clients aware of different types of values.
To help clients learn about their self-knowledge including interests, talents, and values.
To help clients understand the career-life paradigm and identify the multiple life roles they play.
To show clients how to explore careers using online resources.
To show clients how to apply decision-making skills for making career decisions.
To help clients discover how to appropriately match values with work environment.
To help clients integrate and balance their work role goals into their other multiple life roles.
APPENDIX D-3

Values-Based Webinar Facilitator Lesson Plans

**Webinar 1:**

Materials Needed:

Confidentiality statement, C.D.S. instructions, Margin in Life Instructions, Adobe Connect, Internet, land line

Introductions
Explain participation, importance of attending all webinars, confidentiality statement
Administer C.D.S.
Administer Margin in Life Scale

**Webinar 2:**

Materials Needed:

Onet Online webpage, Internet, Adobe Connect, land line, DOVE materials

DOVE handouts – activities.
Review of Onet Online

**Webinar 3:**

Materials Needed:

C.D.S. instructions, Margin in Life Instructions, Adobe Connect, Internet, land line

Questions regarding implementing values within career-decisions
Administer C.D.S.
Termination of study information and next steps
APPENDIX D-4

Values-Based Webinar DOVE Handout

Creating Careers with Confidence Assessment Activity ©:
Learning & Practicing A Strategy To Help You With YOUR Career-Life Exploration

Edward Anthony Colozzi, Ed.D.
careercoachcolozzi@verizon.net www.creatingcareerswithconfidence.com

Agenda (Please carefully read the information and directions and complete all the activities (1-8) in the order as presented)

* 1) Introduction/Overview

* 2) The Career-Life Strategy Formula - Understanding the role of Self-Knowledge (focusing on the Six Holland Personality Types), the structure of the World of Work (as represented by the same Six Holland World of Work Environment Types), the concept of Personality/Work Environment Matching, Decision-Making, and the Career-Life Paradigm (viewing “career” as multiple life roles through which one can give and/or receive CARE, i.e., one’s Self Knowledge - Skills, Interests and Values, in any of nine career-life roles, one of which is the paid work role)

* 3) CAREER-LIFE CARE Assessment & Action Inventory (AVI) © (AV:Abbreviated Version)

* 4) Assessing My Self-Knowledge © (Skills, Interests and Values)

* 5) Holland Type Summary MY Self-Esteem® (Discovering interests and values-related themes from my Holland Code)

* 6) The Five-Minute Rainbow Connection® (Discovering Interests and values-related themes: Clues for my Holland Code)

* 7) Exploring Occupations Using My Holland Personality Type and the ACT World-of-Work Map ©

* 8) Creating MY Ideal Career-Life Scenario ©

Terms & Concepts
The Career-Life & CARE Paradigm; Self Knowledge; Holland Personality Types (6); World-of-Work Map Regions (6); Person/Work Environment Matching

Resources for Exploring Occupations Based on Your Holland Personality Type

When you have completed parts 1) through 6) below, you will be ready to use the ACT Interactive World-of-Work Map with a link provided on page 8, to explore specific occupations of interest that match your Holland Personality Type, related occupations, and relevant education or training programs that can best prepare you.

The following are SIX Sections (1 through 6) that you are asked to read and complete in the order they are provided in this handout. Once completed, you will be directed to part 7 for the ACT Interactive World-of-Work Map and part 8.

1) Introduction/Overview— Making career-life choices can be confusing, stressful and even overwhelming because of the huge number of choices that are available, the influences from others in our lives, including family, friends, and those distorting “inner voices” we often hear that tend to focus on self-doubt or fear about taking risks and making changes. This handout has been designed to help you explore your self-knowledge and the specialness that YOU really do have within yourself, and how to use this important information for making wise choices for your future. The assessments in this handout will help you reflect on important information about self-knowledge (your personality type), the structure of the world of work, and how to discover and explore occupations that might best match your personality type. Additionally, you will encouraged to re-think the concept of career, as the traditional view states (career is paid work) but rather, an expansive and more relevant view that career is comprised of multiple life roles (e.g., only ONE of which is paid work). This career-life concept focuses on the importance of finding work that rewards you financially, provides a measure of meaning and purpose, and allows you to balance and enjoy the multiple life roles most adults play simultaneously throughout their life journey. Please be as honest as possible with all your responses to better discover and narrow down those occupations that more appropriately match YOU, your personality type, including ways to more fully achieve a sense of happiness and fulfillment as you continue your life journey. Thank you for taking part in this project!

Please continue on to page 2

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The Career-Life Strategy Formula:

- **Self-Knowledge Pyramid**: A pyramid representing self-knowledge, your self-assessed skills, interests, and values, who you think you are, and what you have to offer to the world. Your self-knowledge is the key to achieving self-actualization and happiness throughout your entire life. It is important to gain an understanding of your self-knowledge by developing a sense of self-awareness, setting goals, and often reassessing what you believe about yourself. This includes the beliefs you have and choose to hold onto, and the new beliefs you are willing to accept, to lead you forward throughout your life journey. A sense of purpose lies deep within your self-knowledge waiting to be discovered. There are SIX basic types: most people are dominant in 2-3.

- **Career-Life Roles**: A series of rainbow bands, each representing different roles you are often playing in life that make up your "career." These roles may include, for example, the time and energy you put in at part-time work, a student, or someone as a volunteer, or an employee. Several of these roles are usually being played throughout your life at the same time, hence the term "career-life." This component is easy to understand and also very enjoyable to apply to your personal career-life situation. Career is NOT work. Career is made up of multiple life roles, including your work role, where you earn income. Each role potentially involves giving/receiving CARE, one's sub-knowledge.

- **World-of-Work Map**: A pie-shaped figure representing the world of work and how many occupations can be organized into very logical sectors or pieces of the pie, sometimes referred to as regions of the world of work. All jobs involve some aspects of FOUR Primary Work Tasks: Things, Ideas, People, and Data, with Things located about 90% on a regular clock, Ideas located about 60%, People at 10, and Data at 15, at the top of the clock. Both People and Ideas include TWO additional work environments resulting in SIX work regions that correspond to the SIX similar self-knowledge personality types.

- **Decision-Making Process**: A circular, clockwise configuration of steps that represent both a reflective and intuitive process of making decisions, especially those decisions that have serious consequences for you or others close to you. This is easy to understand, easy to apply, and very effective if you take the time to learn the process. Imagine an L-shaped "inner eye" in the center of this symbol, representing one's intuition.

- **Person/Work-Environment Match**: (Discovering the best matches of YOUR self-knowledge into the right parts of the world-of-work)

---

Please continue on to page 3 and page 4.
Combining all five of these important components together results in the Career-Life Strategy Formula.

1) Learn about your Self-Knowledge Pyramid (skills/special talents, interests, values).

We will use the Holland Typology (Holland, 1973) which describes six personality types that comprise aspects of each person's personality. Most people are dominant in two or three of the six types.

2) Add to your self-knowledge, additional knowledge about the world-of-work and its structure and organization.

The world of work is comprised of about 22 thousand different specific occupations. All jobs have something to do with one or two of four Primary Work-Relateds, depending on their involvement with mostly THINGS, IDEAS, PEOPLE, and DATA. Each grouping of those jobs is specifically placed in a circular, clock-like shaped map (ACT, 2000), with the mix of THINGS, jobs being located on the right, about 3 on a clock, IDEAS on the bottom, about 6, PEOPLE to the left, about 9, and DATA about 12, at the top. Both PEOPLE and IDEAS include TWO additional work environments resulting in SIX work regions that correspond to the SIX personality types.

3) This results in discovering the most appropriate “person/work-environment” matches.

Applying self-knowledge information with an understanding about the structure of the world of work, helps to narrow down the job search, and discover those occupations that best match one’s self-knowledge. It’s very much like finding the right place in the circular pie-shape world of work to find what matches your self-knowledge wedge, or the tastiest piece of the pie that's waiting just for you.

4) Learn and apply an effective decision-making model for making decisions.

I developed a Reflective/Initiative model informed by Bowlsby (ACT & Harris-Bowlsby, 1992), that guides decisions about work and all career-life life roles played throughout the life span. It is circular-shaped like a clock. One enters the decision-making process at 12 on the top and goes through six clockwise steps to eventually experience the consequences of their decision— and then decides if their decision is viewed as a positive one. This is fully explained in my workbook in an activity called “The Ice Cream Cone.”

5) Place these first four components under the “umbrella” context of viewing career differently, NOT in the traditional way as “work”, but a NEW way, as multiple Life Roles, and as overlapping pyramids or a rainbow with several bands going from left to right, and called, Career-Life (CARE-ER), which focuses on career as giving and or receiving CARE which can result in an actual physiological energy release (ER), CAREER—or if not released, a blockage which can then cause stress and triggers to much cortisol, and even more stress!

Each pyramid life role environment (Colozzi, 1976, 1978), or viewed as rainbow bands (Super, 1980), allows opportunities to express energy through giving and or receiving care throughout one’s life span (Colozzi, 2011). CARE involves some measure of sharing and/or receiving aspects of self-knowledge (e.g., skills/abilities, interests, and values). Any interactions an individual experiences in any life role is accompanied by a potential energy release (ER), that can either occur or be blocked. This dynamic directly affects stress levels (Colozzi, 2008). Giving any caring experiences, because of the psycho-physiological dynamics involved in both interpersonal and interperson interactions, an individual will experience a decrease or increase in stress, depending on the congruence or incongruence of one’s self-knowledge with any of the career-life role environments, resulting in the release of either positive or negative hormones that alter gene activity and can be measured (Benson & Proctor, 2010; Wolff, 2001), including the activities of genes influencing health or producing other changes in the human body, referred to as “gene-expression” (Benson & Proctor, 2010, p. 23).

CARE is further discussed in Ed’s website and a book chapter by Colozzi & Byrne-Wislon (2014), Information Age Publishing, Charlotte NC.

This powerful way of understanding career as multiple roles you play throughout your life, from birth to retirement and beyond, hence the term “Career-Life”, and symbolized by a series of rainbow bands to represent the nine major roles most people play, can be affirming, life-changing, and promote wellness.
3) **CAREER-LIFE CARE Assessment & Action Inventory (AL) 99 (PA-Alternate Version)**

Below are nine major career-life roles into which most people put time and energy, often playing 5-6 or more simultaneously. Using the paradigm of Career-Life as CARE giving and/or receiving CARE (self-knowledge, i.e., one's skil/talents, interests & values, through care-giving experiences in any career-life role), place check (√) to the right of each role you personally play or would like to play that allows you to more fully express yourself and your special gifts/talents, and also an opportunity to give and/or receive a measure of CARE as defined above. Circle what you believe are your top two or three most important life roles. Next, reflect on ways to experience more balance or create balance, and reduce stress, among all your roles. Identify any roles in which you want to make changes, especially those that might be causing stress, and place a heart (√) above those roles now. Here select one role where you most wish to make CARE Changes, and add a second heart to indicate double hearts (√) above this role. Finally, write your appropriate action plan responses on the bottom right area of CARE Changes Action Plan.

<table>
<thead>
<tr>
<th>Worker</th>
<th>Learner</th>
<th>Spouse/Partner</th>
<th>Parent</th>
<th>Home Manager</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fun activities that produce good relationships, depending on culture &amp; structural determinants</td>
<td>Receive formal/unformal learning, depending on culture &amp; structural determinants</td>
<td>Time with such people focusing on close interpersonal relationships</td>
<td>Activities that provide direct care to immediate family members by providing care to such other relationships</td>
<td>Non-paid activities involving caring for one's place of living, e.g., cooking, cleaning, managing a budget, etc., alone or with others</td>
</tr>
</tbody>
</table>

**CARE Changes Action Plan**

Briefly describe a) what you want to change, b) specific action, c) start date & first step:

| a) |
| b) |
| c) |

**Reflection Notes**

Write below thoughts and feelings based on your reflections about what you have completed above.

---

**How select the ONE CHANGE you want to make, and write it below to expand your thinking and actions regarding your desired change.**

**My ONE Selected Change**

**Main Reasons For This Change**

**Main Obstacles**

**Creative Solutions**

**My ABC Action Plan for Success** (it is important to create an effective action plan that WILL work)

Next, reflect on your most important ONE Change you have identified, the main reason, main obstacles, and the CREATIVE SOLUTIONS that will allow you to make your desired change. Fill in below your responses.

A) Identify your main goal, what you want to accomplish:

B) What will help you achieve your goal? (Be specific e.g., knowledge/skills, information about myself, others, attitude shifts, etc. and list here.)

C) What actions must you take to accomplish what you desired in B? (Specific actions). Also include a realistic timeline, start date, and first step to move forward. Review this every few weeks/months and adjust as needed.

List actions, timeline, start date and first step if needed.

---

When the above task is completed, please continue on to page 5

The following assessment activities are adapted from Ed’s workbook, *Creating Careers with Confidence*. Please write your responses in the appropriate spaces below and in the order they are presented to you in this handout.

4) Assessing My Self-Knowledge © (Skills, Interests and Values) (A warm-up activity to help you reflect on yourself)

List below FIVE personal examples of your Self-Knowledge, i.e., focusing on your Skills, Interests and then Values. After making a list, indicate what you believe are your top two in each category by circling those items.

**SKILL** = Anything you do, that you do well; your special talents.

**INTEREST** = Anything you enjoy doing such as hobbies, whether or not you are skilful

**VALUE** = Anything that is very important to you that influences your decisions/behaviour. (Note under My Values, both ‘Work’ and ‘Life’ values)

<table>
<thead>
<tr>
<th>My Special Skills &amp; Talents</th>
<th>My Interests/Hobbies</th>
<th>My Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>1)</td>
<td>1)</td>
<td>Life Values</td>
</tr>
<tr>
<td>2)</td>
<td>2)</td>
<td>1)</td>
</tr>
<tr>
<td>3)</td>
<td>3)</td>
<td>2)</td>
</tr>
<tr>
<td>4)</td>
<td>4)</td>
<td>3)</td>
</tr>
<tr>
<td>5)</td>
<td>5)</td>
<td>4)</td>
</tr>
</tbody>
</table>

A clearer understanding of self-knowledge, especially with reflection, will help you gain clarity and discover insights that are useful for exploring occupations and making informed career-life decisions.

**Who I Am** Using TWO sentences, describe yourself in a way that clearly informs others about YOU, the type of person you are, your inner core that some people close to your might see and others, not as close, might not usually see.

**What I Have To Offer Others** Using TWO sentences, describe the special skills & talents that help YOU contribute directly to others and/or projects, either in work or non-work activities, including volunteer activities.

**The Work Tasks I Would Most Desire to Do** Using TWO sentences, describe your favorite or preferred work tasks, regardless of your skill sets. Make sure to imagine that you have all the training, education, and skill sets, including the self-confidence, support from everyone in your life, and WILL BE SUCCESSFUL in whatever you do! In essence you are describing a brief initial draft of your IDEAL CAREER-LIFE SCENARIO. Look at your interests for clues about YOU.

When the above task is completed, please read the following and continue on to page 6.

One way to understand yourself, as you consider appropriate occupations to explore, is to learn about the Holland Personality Typology described on page 6. As you reflect on the descriptions that follow and use this information to complete the other assessment activities, you will begin to discover which of these six personality types are YOUR TOP 2 or 3. By doing this, it will be easier to narrow down the world of work based on focusing your search on those specific occupations in the world of work that DO MATCH YOU and your personality type. Most people will have between 7-10, perhaps 15, different jobs in their work history before ending their work role. Everyone has self-knowledge; having sufficient awareness of one’s self-knowledge is necessary for making wise work choices and all career-life decisions.

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5) Holland Personality Type Summary: MY Self-Estimate

<table>
<thead>
<tr>
<th>Realistic</th>
<th>Investigative and/or Artistic</th>
<th>Social and/or Enterprising</th>
<th>Conventional</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>THINGS</strong></td>
<td><strong>IDEAS</strong></td>
<td><strong>PEOPLE</strong></td>
<td><strong>DATA</strong></td>
</tr>
</tbody>
</table>

**THINGS = R**
- Realistic (being creative or being physical with anything including plants or animals)

**IDEAS = I and A** (You might be one or both of these Holland types.)
- I = Investigative (learning, problem-solving about science or social science)
- A = Artistic (creating/expressing in written/verbal/visual ways)

**PEOPLE = S and E** (You might be one or both of these Holland types.)
- S = Social (helping, teaching), or assisting others
- E = Enterprising (managing, selling, or personal services)

**DATA = C**
- C = Conventional (organizing numbers/data/facts/figures)

**EXPANDED SUMMARY** (adapted from Creating Careers with Confidence)

**THINGS = R**
- R = Realistic In general, prefer to deal physically with the environment, working with objects, machines, tools, or even plants or animals (raising them), cooking and baking food products, performing tasks such as producing, transporting, servicing, or repairing.

**IDEAS = I and/or A**
- I = Investigative In general, prefer to deal mentally with the environment using problem-solving and interpersonal processes dealing with theories, knowledge, or concepts, e.g., science or social science.
- A = Artistic In general, prefer to deal mentally with the environment using imagination, creativity, and interpersonal processes dealing with visual, written, or spoken elements, or a combination, often in expressive or performance-related approaches.

**PEOPLE = S and/or E**
- S = Social In general, prefer to deal directly with others through caring and helpful interpersonal processes that provide service or assistance.
- E = Enterprising In general, prefer to deal with others through interpersonal processes, by taking charge and managing or directing them and/or projects, usually with verbal instructions, or influencing others to purchase a product or service.

**DATA = C**
- C = Conventional In general, prefer to deal with details, numbers, records, or systematic, impersonal processes such as recording, verifying, transmitting, and organizing.

**Holland Type Summary: MY Self-Estimate**

Think you have an idea of what education, training, self-confidence, approval from others, and WILL BE SUCCESSFUL. Review the above Holland Types and write the spaces below, what you believe are your top 1 or 2 Holland Types. RIAS E C.

(RIAS E C) Top #1: #2: Next, circle below the appropriate 1 or 2 matching Holland Types. Example: A=Artistic.

<table>
<thead>
<tr>
<th>Realistic</th>
<th>Investigative and/or Artistic</th>
<th>Social and/or Enterprising</th>
<th>Conventional</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>THINGS</strong></td>
<td><strong>IDEAS</strong></td>
<td><strong>PEOPLE</strong></td>
<td><strong>DATA</strong></td>
</tr>
</tbody>
</table>

Next, circle below the top 1 or 2 that best match what you circled above. Refer to the Holland Type Summary above for clarification.

When the above task is completed, please continue on to page 7.

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6) The Five-Minute Rainbow Connection ©

Discovering my interests and values-related themes: Close for my Holland Type Personality Code (RIASEC)

Refer to Page 6 for the Holland Summary if you need further clarification of the six personality descriptions.

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>2-3 CORE REASONS WHY YOU ENJOY THE ACTIVITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1)</td>
<td></td>
</tr>
<tr>
<td>2)</td>
<td></td>
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<td>3)</td>
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<tr>
<td>6)</td>
<td></td>
</tr>
<tr>
<td>7)</td>
<td></td>
</tr>
</tbody>
</table>

**Five-Minute Rainbow Connection Summary**

Review your responses above, and write on the lines below, the top two and three Holland types.

RIASEC 31 32 33

Next, circle below the corresponding RIASEC types that describe your top 2 choices.

RIASEC 31 32 33

Next, circle below the top 1 or 2 that best match what you just circled above.

THINGS IDEAS PEOPLE DATA

**FINAL ASSESSMENT SUMMARY**

Review your top 2 RIASEC types from both your Holland Type Summary: MY Self-Estimate (bottom of page 6) and The Five-Minute Rainbow Connection Summary © (above on this page).

Write in the lines below the top 2 or 3 ranked Holland RIASEC types that most accurately reflect your best estimate based on your assessment activities.

RIASEC 31 32 33

Next, circle the corresponding RIASEC types that describe your top 2 choices.

RIASEC 31 32 33

Next, circle below the top 1 or 2 that best match what you just circled above.

THINGS IDEAS PEOPLE DATA

When the above task is completed, please continue on to page 8.
7) Exploring Occupations Using My Holland Personality Type and the ACT World-of-Work Map ©

(Provide this entire page before continuing on to start your actual occupational exploration)

You will be using the ACT Interactive World-of-Work Map that will allow you to browse areas of the map that correspond to your Holland Personality Type. See the FINAL ASSESSMENT SUMMARY at the bottom of page 7 for your top 2 or 3 Holland Personality Type Codes. Use these Holland Types to discover the matching World-of-Work Map Career Areas.

The following chart will help you match your top 2 or 3 Holland Personality Codes (RIASEC) with the appropriate 26 Career Areas (e.g., Community Service, Management, Medical Technologies or Creative & Performing Arts, etc.) that are displayed throughout the 12 specific-colored Regions on the Interactive ACT World-of-Work Map. Write your top 2 or 3 codes here: ______ (2) ______

R = Realistic = THINGS = Regions 6 and 7 = Career Areas H, I, J, K, L, M and N
1 = Investigative = IDEAS = Regions 8, 9 and 10 = Career Areas O, P, Q, R and S
A = Creative = IDEAS = Regions 10 and 11 = Career Areas T, U and V
S = Social = PEOPLE = Regions 12 and 1 = Career Areas W, X, Y and Z.
E = Enterprising = PEOPLE = Regions 2 and 3 = Career Areas A, B, C and D
C = Conventional = DATA = Regions 4 and 5 = Career Areas E, F and G

Once you have your top 2 or 3 Holland Personality Type Codes, you will be able to browse any of the specific occupations and a second smaller overlay screen will appear on the World-of-Work Map that provides five useful types of information relevant to the occupation you selected to explore. These five types of information are: 1) Work Tasks, 2) Salary, Size & Growth, 3) Entry Requirements, 4) Related Occupations, and 5) Related Majors. Click on the Career Area called Employment Related Services in Region 2 and pick any occupation to practice exploring this portion of the map and the information that you will be using to narrow down your choices.

Especially focus on 1) Work Tasks and 4) Related Occupations, and then click on any of the Related Occupations so you can read about the specific Work Tasks described in each of these Related Occupations that also might be of interest to you.

Make sure to explore ALL the Career Areas that specifically correspond to your top 2 or 3 Holland codes to narrow down your preferred occupations for possible consideration. As you read relevant information that is provided to help you narrow down your choices, select occupations that you definitely want to explore further, and write the names of these occupations down on the appropriate spaces provided below: (Occupations That Match My Holland RIASEC Personality Type I Have Narrowed Down For Further Consideration).

Once you have explored the specific Career Areas and matching occupations that correspond to your top three Holland RIASEC Personality Types, also feel free to explore other Career Areas in case you might be interested.

If you do find specific occupations that seem interesting in any of other Career Areas that don’t correspond to your Holland RIASEC Personality Type, make sure to re-read the Work Task descriptions to be certain about what you would be expected to do if you were to seriously consider choosing that occupation. If you still are interested in any of those occupations that don’t seem to correspond to your Holland RIASEC Personality Type, that’s okay. Simply write the names of these occupations down on the appropriate spaces provided below: (Occupations That Do Not Match My Holland RIASEC Personality Type I Have Narrowed Down For Further Consideration).

NOW start your occupational exploration. Please click on http://www.act.org/worldworld.html to locate the ACT Interactive World-of-Work Map to browse areas of the Map that correspond to your Holland Personality Type. Once you have narrowed down a list of tentative choices, CLICK ANY 4-6 that seem to interest you MORE than the others. Note how these relate to your top Holland Personality Types. Perhaps one specific type will be dominant. Reflect why this is so. Read page 6 again to gain more self-knowledge.

Occupations That Match My Holland RIASEC Personality Type I Have Narrowed Down For Further Consideration:

1. ___________________________ 2. ___________________________
   3. ___________________________
   4. ___________________________
   5. ___________________________

Occupations That Do Not Match My Holland RIASEC Personality Type I Have Narrowed Down For Further Consideration:

1. ___________________________ 2. ___________________________
   3. ___________________________
   4. ___________________________
   5. ___________________________

When the above task is completed, please continue on to page 9.

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8) Creating MY Ideal Career-Life Scenario © Draft A (based on final assessment summary bottom of page 7)

Congratulations! You have worked hard to reflect on yourself and assess your own world-of-work in a preliminary list of 4-5 occupations for serious consideration. Reflect on these occupations you have highlighted during your exploration so far. These are your top 4-5 occupations you might wish to pursue further research, including networking and informational interviews with people working in these occupations, will be useful. Those occupations might also serve as stepping stones in your ideal career-life scenario.

The final activity in this handout is to create a first draft of MY Ideal Career-Life Scenario. There will be three main parts to your Ideal Career-Life Scenario: a) Prefered Work Environment/Community; b) Preferred Work Activities and Competencies that refer in your Holland Type; and c) Evidence of Career-Life Role Balance to help you envision what time and energy you believe is important for your state of well-being across the 5-6 career-life roles you are probably playing even now, so you can enjoy a sufficient measure of fulfillment and happiness, and less stress, across all of your life roles. Most adults play these life roles simultaneously throughout this career-life journey we all experience. The following are directions for your first draft of MY Ideal Career-Life Scenario:

HINT
Some people find that creating several scenarios helps them select one that best matches their career-life goals based on self-knowledge gained from present and past work experiences, and classes or trainings they have taken.

BENEFITS
This activity will help you identify ways to more fully express your Holland Personality Type in your work role activities, create work-life balance, and enjoy a measure of fulfillment in all your career-life roles including new work opportunities that you might seek in the future. It will also help you identify those compensatory skills, and learning opportunities that will best support your future career-life goals, and add value to your present and future work settings. This will help you obtain more meaning and purpose in your life!

HOW TO CREATE YOUR SCENARIO:
The first paragraph should describe your preferred work location (city/hour), preferred commute (public transportation), work setting (small/large office) or preference to work out of one’s home, etc.

The last paragraph should reflect how your Holland type can be best expressed in your hobbies and interests, your volunteer work (about 2-3 hours a week), your leisure role (choose one you think will advance your skill sets or you simply enjoy), time spent in sports/partner and parenting roles if desired, other activities throughout your various career-life roles, other than your paid work role. Write these thoughts into the last paragraph. Make sure you create balance among the various roles and are not stressed.

These first and last paragraphs will usually be the same throughout the scenario drafts.

IN THE MAIN PART OF YOUR SCENARIO (the middle paragraphs of your narrative), describe your preferred paid work experience using your Holland IA/EC types as your main reference. List some of the specific activities that you would enjoy your Holland type. Feel free to use any of the words or phrases that are found in this handout on page 6 that refer the Holland typology. Throughout your Ideal Career-Life Scenario, try to reference your Holland type IA/EC type that seems to match all the activities you are describing in your career-life roles. Also list several specific competencies/technical skills that are probably necessary to be successful in the activities you describe as your preferred work situation. Your Holland reference sheet on page 6 may help.

QUESTIONS & SUGGESTIONS THAT MIGHT ASSIST YOU
** Do you want to work mostly with PEOPLE, DATA, THINGS or IDEAS or some combination of these work tasks? Again, refer to your assessment activities to help you articulate your preferences. Add specificity where you are able. Try to imagine you have all the talents, degrees, knowledge, self-confidence, self-esteem and the support of everyone you know, including your family, necessary to successfully accomplish your Ideal Career-Life Scenario. Also imagine that THERE IS A NEED AND THAT THE OPPORTUNITY IS THERE FOR YOU.

** How much alone time do you want…contact with others, sitting down time or moving about or perhaps traveling time? When you have contact with others, do you want to manage or coordinate them and their projects or the details that need to be completed, or do you want to work with others and participate in a project as a co-worker—not a manager or leader? If you want to solve problems, WHAT types of problems do you most prefer to solve, and if you prefer to be creative and express yourself, HOW, visually, verbally, or in written form, or perhaps some combination of these?

** Remember to indicate your Holland type letter in several places throughout your narrative (e.g., P, or J and I) to indicate how you would use your code in all your career-life rainbow roles. If your work role will NOT always a certain Holland type to be fully expressed, indicate how you plan to express in your other life roles. Create BALANCE for yourself.

** This is only a DRAFT to work in progress. Take time to reflect on your ideas as you experience this process. Enjoy this process of creating! Note specific competencies/skills you may need. It may be useful to re-visit this initial draft in the future and modify as appropriate based on your reflections if you want to continue using this activity to facilitate your career-life exploration activities.

Thank you for your participation in this project and ALL your efforts with the activities in this handout.

We wish you the very best with all aspects your career-life journey.

Warm regards, Mary Susan Thal-Snyder and Edward Anthony Colazzi

Edward Colazzi ©2015 Career Development and Counseling Services www.creatingcareerswithconfidence.com
APPENDIX E-1

Interest Based Webinar Schedule

**Webinar 1** – Orientation/Introduction, confidentiality, C.D.S. administration, Margin in Life Scale administration, review and next steps.

**Webinar 2** – Basic Interests Inventory, Basic Interests Inventory Summary Profile, Holland Codes, career information using OnetOnline, resources, career plan, next steps.

**Webinar 3** – Post-test, questions and answers.
APPENDIX E-2

Interest Based Webinar Objectives

To help clients understand the importance of interests within their career.
To make clients aware of different types of Holland Codes.
To help clients learn about their self-knowledge through their interests.
To show clients how to explore careers using their Holland Code.
To show clients how to apply decision-making skills for making career decisions.
Help clients discover how to appropriately match interests with work environment.
APPENDIX E-3

Interest Based Webinar Facilitator Lesson Plans

Webinar 1:

Materials Needed:

Confidentiality statement, C.D.S. instructions, Margin in Life Instructions, Adobe Connect, Internet, land line

Introductions
Explain participation, importance of attending all webinars, confidentiality statement
Administer C.D.S.
Administer Margin in Life Scale

Webinar 2:

Materials Needed:

Onet Online webpage, Internet, Adobe Connect, land line, Basic Interests Inventory materials

Basic Interests Inventory handouts – activities.
Review of Onet Online

Webinar 3:

Materials Needed:

C.D.S. instructions, Margin in Life Instructions, Adobe Connect, Internet, land line

Questions regarding implementing interests within career-decisions
Administer C.D.S.
Termination of study information and next steps
APPENDIX E-4

Interest Based Webinar Basic Interests Inventory

**Basic Interests Inventory**

Listed below are a variety of study and work activities that will have varying degrees of appeal to you. Indicate how much each activity appeals to you by writing a 1, 2, 3, or 0 in the shaded box next to each item.

| Write "3" if you have a definite or strong interest in the activity. | 3 |
| Write "2" if you have a moderate amount of interest in the activity. | 2 |
| Write "1" if you have little interest in the activity. | 1 |
| Write "0" if the activity has no appeal to you at all. | 0 |

Do not be concerned with whether you have the skills to perform the activity, how much money you could make or whether you could get ahead. Just think about whether or not you would like to do the activity. Work quickly, giving your first, most spontaneous reaction to each item. **Complete the entire inventory before you total your scores.**

<table>
<thead>
<tr>
<th>Activity</th>
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<tbody>
<tr>
<td>1. Writing, arranging, or playing music.</td>
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<td>2. Routing planes, ships, trucks or buses.</td>
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<td>3. Installing, maintaining and repairing computers.</td>
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<td>4. Investigating people's occupations, style of living or behavior.</td>
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<td>5. Designing floor plans, selecting colors &amp; furniture for homes or offices.</td>
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<td>7. Illustrating books or magazines or designing their covers.</td>
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<td>8. Experimenting with plants or animals to explore laws of growth or heredity.</td>
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<td>9.</td>
<td>Breeding pure bred dogs, horses, or other animals.</td>
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<td>10.</td>
<td>Designing new forms of transportation or communication.</td>
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<td>11.</td>
<td>Engaging in creative dance, ballet, or rhythmic gymnastics.</td>
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<td>12.</td>
<td>Supervising activities at parks or other recreational facilities.</td>
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<td>13.</td>
<td>Operating various kinds of office machines and computers.</td>
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<td>14.</td>
<td>Taking care of children and assisting in their education.</td>
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<td>15.</td>
<td>Buying and selling stocks and bonds.</td>
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<td>16.</td>
<td>Drawing cartoons, comics, or caricatures of people.</td>
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<td>17.</td>
<td>Writing short stories, novels, plays or poetry.</td>
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<td>18.</td>
<td>Doing the buying for a large store or a chain of stores.</td>
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<td>19.</td>
<td>Landscaping private yards or public parks.</td>
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<td>20.</td>
<td>Developing an accounting or filing system for a firm.</td>
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<td>21.</td>
<td>Helping people with their personal problems and important life decisions.</td>
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<td>22.</td>
<td>Planting the oceans for fish and other sea products.</td>
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<td>23.</td>
<td>Building or repairing various kinds of furniture.</td>
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<td>24.</td>
<td>Teaching or helping people develop their talents and interests.</td>
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<td>25.</td>
<td>Designing experiments to create or test new drugs, chemicals or diets.</td>
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<td>26.</td>
<td>Designing buildings, bridges, or other structures.</td>
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<td>27.</td>
<td>Developing and demonstrating your athletic skills.</td>
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<td>29.</td>
<td>Enforcing laws that protect lives and property.</td>
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<td>30.</td>
<td>Working with numerical data, bills, accounts, receipts, etc.</td>
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<td>31.</td>
<td>Using wood, clay, paint, or other materials to create art objects.</td>
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<td>32.</td>
<td>Being a conference coordinator or convention planner.</td>
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<td>33.</td>
<td>Creating blueprints for buildings, machines or electrical equipment.</td>
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<td>34.</td>
<td>Helping others in locating and securing employment.</td>
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<td>35.</td>
<td>Developing methods of long-range weather forecasting and prediction.</td>
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<td>36.</td>
<td>Assisting others in planning and managing their finances.</td>
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<td>37.</td>
<td>Doing creative photography.</td>
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<td>38.</td>
<td>Teaching others how to care for themselves and improve their health.</td>
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<td>39.</td>
<td>Advising parents about the rearing of their children.</td>
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<td>40.</td>
<td>Conducting an orchestra or directing a play.</td>
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<td>41.</td>
<td>Classifying orders, figuring price quotations &amp; making out price sheets.</td>
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<td>42.</td>
<td>Feeding and guarding the safety of wildlife.</td>
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<td>43.</td>
<td>Keeping financial records.</td>
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<td>44.</td>
<td>Giving presentations, writing critiques of plays, books, movies or music.</td>
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<td>45.</td>
<td>Operating an X-ray machine or other laboratory equipment.</td>
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<td>Lobbying legislators for the passage of a law.</td>
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<td>47.</td>
<td>Coordinating health and social services for the public.</td>
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<td>48.</td>
<td>Setting up art, merchandise or museum displays.</td>
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<td>49.</td>
<td>Assisting in treatment of sick, handicapped or injured individuals.</td>
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<td>50.</td>
<td>Answering and routing phone calls and giving information to callers.</td>
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<td>51.</td>
<td>Examining mineral deposits and determining how they can be mined.</td>
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<td>52.</td>
<td>Writing dialogue or commercials for radio or television programs.</td>
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<td>53.</td>
<td>Building houses or other kinds of structures.</td>
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<td>54.</td>
<td>Supervising the selection, placement and promotion of employees.</td>
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<td>55.</td>
<td>Operating emergency, rescue or fire fighting equipment.</td>
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<td>56.</td>
<td>Programming computers to solve complex technical problems.</td>
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<td>57.</td>
<td>Teaching business classes.</td>
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<td>58.</td>
<td>Studying, diagnosing and treating diseases in animals or humans.</td>
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<td>59.</td>
<td>Settling disputes between labor and management.</td>
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<td>60.</td>
<td>Preparing payroll; figuring salary deductions and commissions.</td>
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<td>61.</td>
<td>Managing or directing a large enterprise or corporate division.</td>
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<td>62.</td>
<td>Directing a social service or recreational agency.</td>
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<td>63.</td>
<td>Meeting clients, making appointments and doing general office work.</td>
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<td>64.</td>
<td>Driving a truck, tractor, bus or other large, powerful vehicle.</td>
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<td>65.</td>
<td>Navigating a ship or a plane.</td>
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<td>66.</td>
<td>Studying and translating foreign languages.</td>
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<td>67.</td>
<td>Developing chemical formulas or math equations to solve problems.</td>
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<td>68.</td>
<td>Directing sales policies &amp; managing the salespeople for a large firm.</td>
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<td>69.</td>
<td>Taking dictation and typing correspondence.</td>
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<td>70.</td>
<td>Studying the solar system.</td>
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<td>71.</td>
<td>Building or operating radio or television equipment.</td>
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<td>72.</td>
<td>Assisting individuals in making travel plans.</td>
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<td>73.</td>
<td>Visiting people in their homes to provide needed assistance.</td>
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<td>74.</td>
<td>Teaching arts and crafts to others.</td>
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<td>75.</td>
<td>Making announcements on radio or television.</td>
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<td>76.</td>
<td>Investigating legal situations and interpreting the law.</td>
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<td>77.</td>
<td>Designing containers and packaging for commercial products.</td>
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<td>78.</td>
<td>Studying the customs and folkways of different societies and cultures.</td>
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<tr>
<td>79.</td>
<td>Investigating bodies of water such as oceans, rivers and lakes...</td>
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<tr>
<td>80.</td>
<td>Managing and representing performers, speakers and artists...</td>
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<tr>
<td>81.</td>
<td>Making bookkeeping entries, taking off trial balances, keeping inventories</td>
<td></td>
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<tr>
<td>82.</td>
<td>Interviewing people for information about their beliefs and habits</td>
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<tr>
<td>83.</td>
<td>Helping others develop their physical talents and athletic skills</td>
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<tr>
<td>84.</td>
<td>Studying how people manage their time and energy to complete tasks</td>
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</table>

**Page Five Totals**

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<th>1</th>
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<tbody>
<tr>
<td>Page One Totals</td>
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<td>Page Five Totals</td>
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<tr>
<td>Interests</td>
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<tr>
<td>Grand Totals</td>
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</tbody>
</table>

* Now go back through all of the items to make sure you have written a number (1, 2, 3, 4) in the shaded box next to each item.
* After you complete this check, add the score in each column on each page and write the totals at the bottom of the page in the spaces provided.
* Next re-record the page totals in the spaces provided below.
* Be careful to record them under the correct column number.
* Then add the page totals in each column and record the Grand Total in the appropriate boxes next to **Grand Totals** below.
Summary Profile

The final step in this two-part self-assessment process is to pull together a composite picture of your interests and your skills. Doing so will allow you to look at your interests and skills separately and then compare the consistency of interest and skill areas with each other.

To complete the process, write your Interest Grand Totals and your Skill Grand Totals in the boxes provided below. Then add the totals to get a composite score of both Interests and Skills.

<table>
<thead>
<tr>
<th>Interests Grand Totals</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
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<tbody>
<tr>
<td>R I A S E C</td>
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</tbody>
</table>

Write the **LETTERS (R, I, A, S, E, C)** that correspond to your three highest numerical scores in interests.

**Interest Areas**

<table>
<thead>
<tr>
<th>Skills Grand Totals</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>R I A S E C</td>
<td></td>
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<td></td>
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</tr>
</tbody>
</table>

Write the **LETTERS (R, I, A, S, E, C)** that correspond to your three highest numerical scores in skills.

**Skill Areas**

- Look at your interests and skills separately and then compare them.
- Are your skills in the same areas as your interests?
- Do you want to use your skills to earn a living, and follow your interests in your spare time?
- Do you want to learn the skills necessary to earn a living doing something you are interested in?
The Social Personality

Social individuals are concerned leaders, sensitive, humanistic, supportive and responsible. They use feelings, words, and ideas to work with people rather than things. They are empathetic, perceptive, insightful and genuine. Social people enjoy closeness, sharing, groups, unstructured activity, and being in charge. They view and solve problems based on their feelings. People in the Social category are friendly and skilled with words. They like to work with people to inform, enlighten, help, train, develop, or cure them.

Sensitive to people's moods and feelings, these individuals enjoy company and make friends easily. This level of caring may range from one person to the entire human race. Their relationships with people depend on their ability to communicate both verbally and nonverbally, to listen as well as speak, their empathy and ability to read emotional cues, to help them solve people problems, sometimes even before others are aware of them. They can pull people together and generate positive energy for a good cause. The social personality types sometimes focus on people concerns to the exclusion of all else. Sometimes they appear "impractical," especially to the realistic types.

Social Majors at Rutgers-Newark

- Allied Health Technologies
- Biology
- Criminal Justice
- Economics
- Education (minor)
- English
- Nursing
- Political Science/Public Administration
- Psychology
- Social Work
- Sociology

Social Careers (Note: Some may require additional education or training)

Allied Health Technologies
- Dental Assistant, Dental Hygienist, Occupational Therapist, Physical Therapist, Physician Assistant, Speech-Language Pathologist

Biology
- Physician Assistant, Medical Assistant, Nutritionist, Fitness Center Manager, Personal Trainer

Criminal Justice
- Bailiff, Criminal Investigator, Detective, Immigration Inspector, Intelligence Agent, Parole Officer, Police Officer, Prison Classification Interviewer

Economics
- Business Manager, Human Resources Administrator, Labor Relations Specialist, Foreign Correspondent, Political Campaign Organizer, Financial Aid Director, Public Relations Specialist, Investment Counselor, Affirmative Action Representative, Hospital Administrator, Alumni Affairs Coordinator

Education
- Childcare Worker, High School Teacher, Elementary School Teacher, Pr-School Teacher, Teacher's Aide, School Counselor, College Student Personnel Worker, College Faculty, Human Resources Administrator, Librarian

English
- Corporate Communications Specialist, Editor, Newspaper/Magazine Journalist, Public Relations Specialist, Writing Center Director, Customer Service Representative, English/Lit Professor, Fundraiser, Librarian, Lobbyist, Government Press Secretary, Radio/TV Announcer

Nursing
- Registered Nurse, Nurse Aide/Ex, Nursing Home Administrator, Sales Representative, Hospital Administrator, Nurse Practitioner, Teacher, Nutritionist, Employment Agency Counselor, Nanny

Political Science/Public Administration
- Legal Assistant, Paralegal, Public Administrator/Manager, Probation/Parole Officer, Consumer Advocate, Congressional Aide, Lobbyist, Political Community Relations, Foreign Correspondent, Peace Corps/VISTA Worker

Psychology
- Alcohol and Drug Abuse Assistance Worker, Caseworker, Community Organization Worker, Job Analyst, Residence Counselor, Student Affairs Administrator, Counselor, Clergy, Psychotherapist, Psychologist, Music Therapist, Art Therapist

Social Work
- Advocate, Community Worker, Social Service Director, Social Worker, Geriatric Social Worker, Nursing Home Group Worker, Cottage Parent, Community Volunteer Program Administrator, Rehabilitation Counselor, Community Service Agency Worker, Mental Health Coordinator, Affirmative Action Specialist, Career Counselor, Church Worker, Congressional Aide, Lobbyist

Sociology
- Case Worker, Sociologist, Social Worker, Field Research Interviewer, Admissions Counselor, Career Planning and Placement Director, Rehabilitation Counselor, Personnel Interviewer, Trainer, Real Estate Agent, Consumer Advocate, Prison Classification Interviewer, Missionary
The Realistic Personality

Realistic individuals are people who accomplish things using their hands and other tools. They like to see their hands and eyes to explore things and achieve. These are people who are steady, frank, energetic, and enjoy athletics or mechanical activities. They prefer to work with things like machines, tools, objects, plants, and animals.

Realistic individuals are most capable and confident during physical activity. They focus on things and have little need for conversation. They express themselves and achieve primarily through action rather than words, thoughts, and feelings. Realistic people sometimes get so absorbed with getting things right that they can forget about everything else. These individuals prefer to handle concrete rather than abstract problems and solve them by doing something physical. They are often good in emergencies because of their manual dexterity. Their ability to deal with the physical world often makes them very independent, practical minded, strong, well coordinated, aggressive, and conservative. Realistic people also enjoy risk, excitement, the outdoors, and money.

Examples of Realistic Careers (Note: Some may require additional education or training)

- Allied Health Technologies
  - Physical Therapist
  - Occupational Therapist
  - Respiratory Therapist
  - Speech/Language Pathologist

- Biology/Botany
  - Biologist
  - Botanist
  - Food Technologist
  - Horticulturist
  - Laboratory Assistant

- Chemistry
  - Chemist
  - Industrial Air Pollution Analyst
  - Materials Scientist
  - Perfumer
  - Petroleum Laboratory Assistant

- Clinical Laboratory Science
  - Medical Assistant
  - Medical Office Assistant
  - Pharmacy Technician
  - Sonologist

- Criminal Justice
  - Customs Agent
  - Internal Revenue Officer
  - Loss Prevention Specialist
  - Police Officer

- CS/IS/Human-Computer Interaction/MS
  - End User Support Specialist
  - Network Administrator
  - Sales Support Specialist
  - Software Development Specialist

- Environmental Science
  - Agronomist
  - Dairy Technologist
  - Field Contractor
  - Landscape Architect
  - Park Naturalist

- Geology/Geoscience Engineering
  - Geologist
  - Materials Analyst
  - Pollution Control Specialist
  - Cartographer
  - Geographer
  - Surveyor

- History
  - Archivist
  - Historic Site Administrator
  - Historic Site Restorer
  - Museum Curator
  - Research Assistant

- Physics
  - Quality Control Manager
  - Occupational Safety Specialist
  - Process Engineer
  - Air Traffic Controller
  - Optometrist

- Theatre Arts and Television: Technical Theatre
  - Broadcast Technician
  - Producer
  - Filmmaker
  - Video Producer
  - Digital Animator
  - Audio Production

- Zoology
  - Taxonomist
  - Zoo Manager
  - Aquarium Manager
  - Biological Supply House Specialist
The Investigative Personality

Investigative describes an individual as a person who ‘lives’ very much in his or her mind. This type deals with the ‘real world’, but from a distance. Investigative individuals prefer to read, study, and use books, charts and other data instead of doing hands-on work to achieve their goals. They are unconventional and independent thinkers, intellectually curious, insightful, and persistent. Investigative people express themselves primarily through their thoughts rather than through association with people or involvement with things. When involved with people, they tend to focus on ideas. Wherever they are, they collect information and analyze situations before making decisions. If they enjoy the outdoors, it’s because they are scientifically curious, not because they enjoy rugged, heavy, physical work. Their curiosity sometimes leads them to explore their ideas to the exclusion of all else.

Investigative people are intellectual and introverted. They like activities involving the natural or social sciences and tend to develop mathematical and scientific skills required for these activities.

Investigative Majors at Rutgers-Newark

- Allied Health Technologies
- Anthropology
- Biology/Botany/Environmental Science
- Chemistry
- Clinical Laboratory Science
- Computer Science/Information Systems
- Economics
- Education (Minor)
- Geology/Geoscience Engineering
- History
- Mathematics
- Nursing
- Philosophy
- Political Science
- Psychology
- Sociology

Investigative Careers (Note: Some may require additional education or training)

**Allied Health Technologies**
Medical Assistant, Physical Therapist, Occupational Therapist, Respiratory Therapist, Speech Pathologist

**Anthropology**
Anthropologist, Archeologist, Archivist, Clinical Sociologist, Historian, Historic Site Administrator, Urban Planner

**Biology/Botany/Environmental Science**
Biologist, Forester, Aquarist Technician, Biometrician, Plant Physiologist, Industrial Hygienist, EPA Inspector

**Chemistry**
Industrial Pollution Analyst, Perfumer, FTA Inspector, Radiologist, Dentist, Product Tester, Forensic Chemist

**Clinical Laboratory Science**
Immunologist, Medical Technologist, Sonologist, Cytotechnologist, Diagnostic Ultrasound Technician

**Computer Science/Information Systems**
Programmer, Software Engineer, Database Analyst, Systems Analyst, Quality Assurance Specialist, IS Director

**Economics**
Job Analyst, Editor, Demographer, Industrial Traffic Manager, Investment Analyst, Lawyer, Health Policy Planner

**Education**
Science/Math Teacher

**Geology/Geoscience Engineering**
Geographer, Industrial Hygienist, Mining Engineer, Surveyor, Paleontologist, Quality Control Coordinator, Volcanologist

**History**
Archivist, Research Assistant, Museum Curator, Genealogist, Historian, Librarian, FBI Agent, Media Historical Consultant

**Mathematics**
Actuary, Auditor, Mathematician, Weight Analyst, Statistician, Underwriter, Cryptologist

**Nursing**
Registered Nurse, Quality Assurance Reviewer, Infection Control Assistant

**Philosophy**
Indexer, Researcher, Grant Writer, Trust Management Specialist, Computer Programmer

**Political Science**
Lawyer, Government Intelligence Analyst, Political Scientist, Researcher, Public Opinion Interviewer

**Psychology**
Motivational Researcher, Trainer, Counselor, Psychologist, Job Analyst, Ergonomist, Secret Service Agent

**Sociology**
Social and Human Services Assistant, Sociologist, Corrections Officer, Public Health Statistician, Pinologist
The Enterprising Personality

Enterprising individuals are project-oriented persons who are thoroughly absorbed in what they are involved. They are energetic, enthusiastic, confident, dominant, political, verbal, sensitive and quick decision-makers. These individuals are often leaders who are talented at organizing, persuading and managing. Enterprising people enjoy money, power, status and being in charge.

Enterprising people are extroverted and sociable. They like to work with people to influence, persuade, lead, or manage them for organizational or economic gain. The enterprising person is a leader who initiates projects but often gets others to carry them out. Instead of doing research, these people rely on their sensibilities and intuition about what will work. They may strike as observers as restless and irresponsible since they often drop these projects after the job is underway. However, many activities would never get off the ground without their energizing influence. They need to be part of the 'in crowd.' Since their relationships center around tasks, they may focus so dynamically on the project that the personal concerns of others (and even their own) go unnoticed.

Enterprising people solve problems by taking risks.

Enterprising Majors at Rutgers-Newark

- Accounting
- Art, Graphic Design or Arts Management
- Economics
- Finance
- Journalism
- Management
- Marketing
- Political Science
- Public Administration
- Theatre Arts and Television, Arts Management concentration

Enterprising Careers (Note: Some may require additional education or training)

Accounting
Bookkeeper, Accountant, Underwriter, Bank Examiner, Financial Manager, Commodity Trader, Actuary, Auditor, Contract Administrator, Collections Agent, Financial Investment Analyst, Financial Aid Director, Entrepreneur, Purchasing Agent/Buyer, Stockbroker, Loan Officer

Art, Graphic Design or Arts Management
Graphic Designer, Exhibit Designer, Corporate Designer, Magazine Designer, TV Graphic Designer, Sales Representative, Consultant, Art Agent

Economics

Finance
Inventory Control Specialist, Business Credit/Loan Administrator, Consumer Credit/Loan Officer, Business Manager, Property Manager, Budget Analyst, Financial Planner, Claims Examiner, Securities Broker, Auditor, Commodities Trader, Credit Counselor, Pension Fund Manager, Collection Agent, Portfolio Analyst, Appraiser

Journalism
Market Research Analyst, Television/Film Producer, Media Buyer, Consumer Advocate, Advertising Account Executive, Convention Organizer, Insurance Agent/Broker, Claims Examiner, Travel Agent, Resume Writer

Management
Urban Regional Planner, Systems Analyst, Financial Manager, Restaurant Manager, Production Manager, Business Manager, Purchasing Agent, Property Manager, Distribution Manager, Job Analyst, Sales Representative, Securities Broker, Advertising Account Executive, Facilities Planner, IRS Investigator, Contract Administrator

Marketing
Marketing/Sales Manager, Securities Broker, Direct Mail Specialist, Advertising Account Executive, Brand or Product Management, Advertising Traffic Coordinator, Media Time Sales Representative, Employment Agency Counselor, Consultant, Market Research Company Manager, Sales Promoter, Comparison Shopper

Political Science/Public Administration
Business Credit/Loan Administrator, Marketing/Sales Manager, Business Manager, Sales Representative, Fundraiser/Development Officer, Management Trainee, Advertising Traffic Coordinator, Inventory Control Specialist, Consultant, Warehouse Manager

Theater Arts and Television, Arts Management
Producer, Director, Theatrical Agent/Manager, Media Timer, Sales Representative, Production Coordinator, Publicity Manager, Stage Manager, Media Consultant, Advertising Account Manager
The Conventional Personality

Conventional individuals are people who live primarily in their orderly. They are quiet, careful, accurate, responsible, practical, persevering, well organized and task oriented. They solve problems by appealing to and following rules and use their mind, eyes, and hands to carry out tasks. They like to work with data (facts, figures, and numbers) in structured settings.

The Conventional person prefers to carry out tasks initiated by others, by working for someone of power and status rather than to be in such a position themselves. Attentive to detail, these individuals keep the world's records and transmit its messages. They value order, and their sense of responsibility keeps things going as they focus on the tasks at hand to the exclusion of all else. They are good at carrying out details or following through on others' instructions. They have a strong need to feel secure and certain, get things finished, attend to every detail and follow a routine.

Conventional Majors at Rutgers-Newark

- Accounting
- Business, Management Information Systems
- Clinical Laboratory Science
- Computer Science/Information Systems
- Criminal Justice
- Education
- Finance
- Management

Conventional Careers (Note: Some may require additional education or training)

**Accounting**
- Bookkeeper, Accountant, Bank Teller, Accountant,
- Underwriter, Management Accountant, Bank Examiner,
- Compensation/Benefit Administrator, Tax Auditor, Internal Auditor, Cost Accountant, Collections Agent, External Auditor, IRS Investigator, Credit Analyst, Tax Accountant, Payroll Manager, Financial Investment Analyst, Systems Accountant, Budget Accountant, Purchasing Agent/Buyer, Business Teacher, Consumer Credit/Loan Officer, Claims Adjuster/Examiner, Administrative Services Manager

**Clinical Laboratory Science**
- Medical Records Technician, Medical Secretary, Medical Transcriptionist, Medical Office Manager, Medical/Nursing Librarian, Nuclear Medical Technologist, Blood Bank Specialist

<table>
<thead>
<tr>
<th>Computer Science/Information Systems/MIS</th>
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<tr>
<th>Criminal Justice</th>
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<tr>
<td>Bailiff, Court Administrator, Court Liaison Officer, Paralegal, Law Librarian, Court Clerk, Court Reporter, Alarm Investigator, Loss Prevention Specialist, Security Manager, Security Detective, Inmate Records Coordinator</td>
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<tr>
<th>Education</th>
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<tr>
<td>Kindergarten Teacher, Nursery School Teacher, Teacher's Aide</td>
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<table>
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<tr>
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<tr>
<td>Inventory Control Specialist, Business Credit/Loan Administrator, Business Manager, Property Manager, Trust Analyst, Rate Analyst, Claims Adjuster/Examiner, Underwriter, External Auditor, Pension Fund Manager, Estimator, Collections Agent, Portfolio Analyst, Systems Analyst, Public Practice Accountant, Management Accountant, Appraiser, Real Estate Developer, Securities Analyst</td>
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<tr>
<th>Management</th>
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<tbody>
<tr>
<td>Marketing Manager, Advertising Manager, Human Resources Assistant, Administrative Assistant, Office Manager, Secretary, Office Administrator, Office Supervisor, Underwriter, Urban/Regional Planner, Administrative Services Manager, Systems Analyst, Financial Manager, Restaurant Manager, Production Manager, Hotel/Hotel Manager, Consumer Credit/Loan Officer, Retail Manager, Inventory Control Specialist, Purchasing Agent/Buyer, Business Credit/Loan Administrator, Property Manager, Distribution Manager, Building Manager, Public Practice Accountant, Management Accountant, Business Teacher, Facilities Planner, IRS Investigator, Contract Administrator</td>
</tr>
</tbody>
</table>
The Artistic Personality

Artistic individuals are creative persons that use their hands and minds to create new things. They enjoy beauty, unstructured activities and variety. They are especially attuned to perception of color, form, sound and feeling. They appreciate interesting and unusual sights, sounds, textures, and people. Artistic people are those who are individualistic, imaginative and impulsive. They like to work in unstructured situations using their imagination and creativity.

Artistic individuals are creative, sensitive, introspective, intuitive and visionary. They see new possibilities and want to express them in creative ways. The artistic type is creative, but not necessarily with paint and canvas. These individuals express creativity not only with material objects, but with data and systems as well. These individuals may prefer to work alone and independently rather than with others. Their irresponsibility and enthusiasm can often keep them focused on a project to the exclusion of all else. They solve problems by creating something new. Their ideas don't always please others, but opposition doesn't discourage them for long.

Artistic Majors at Rutgers-Newark

- Cultural Studies (African, African-American, Asian, Asian-American, Mediterranean, Puerto Rican, Slavic)
- English
- Fine Arts (Design, Art History)
- Graphic Design
- Journalism
- Languages (French, German, Italian, Spanish)
- Marketing
- Music
- Philosophy
- Theatre Arts and Television

Examples of Artistic Careers (Note: Some may require additional education or training)

Cultural Studies
- Museum Curator, Display Creator, Historic Preservationist, Tour Guide, Travel Writer

English
- Advertising Copywriter, Bibliographer, Copy Editor, Corporate Communications Specialist, Editor, Lexicographer, Manuscript Reader, Newspaper/Magazine Journalist, Proofreader, Public Relations Specialist, Playwright, Author, Media Planner, Radio/TV Announcer, Screen/Television Script Writer, Speech Writer

Fine Arts

Graphic Design
- Audiovisual Production Specialist, Commercial Designer, Graphic Designer Flatware Designer, Video Game Designer, Technical Illustrator, Audio-Visual Specialist, Art Agent, Decorator (Pottery, Mannequins), Textile Designer, Cartoonist, Picture Frame Designer, Parade Float Maker, Greeting Card Designer, Billboard Artist, Web Page Designer

Journalism
- Copy Writer, Editor, Journalist, Newscaster, Photojournalist, Writer

Languages

Marketing
- Retail Store Manager, Advertising Copywriter, Merchandise Display Specialist, Marketing/Sales Manager

Music
- Musician, Singer, Composer, Arranger, Dance Instructor, Music Librarian, Impersonator, Magician, Music Therapist, Music Critic, Disc Jockey, Music Teacher, Narrator, Orchestra Conductor, Furniture Designer, Choral Director, Musical Director

Philosophy
- Writer/Author, Editor, Critic, Religious Education Director, Teacher

Theatre Arts and Television
- Actor, Prop Master, Director, Stage Manager, Costume Designer, Playwright, Lighting Designer, Sound Director, Disc Jockey, Scene Setter, Makeup Artist, Drama/ Film Critic, Script Writer/Reviewer, Film Editor, Sound Technician, Comedian, Puppeteer, Theatrical Photographer, Choreographer, Pantomime
APPENDIX F-1

Control Group Webinar Schedule

Webinar 1 – Orientation/Introduction, confidentiality, C.D.S. administration, Margin in Life Scale administration, review and next steps.

Webinar 2 – Post-test, questions and answers, termination, offering of services.
Control Group Webinar Facilitator Lesson Plans

**Webinar 1:**

Materials Needed:

Confidentiality statement, C.D.S. instructions, Margin in Life Instructions, Adobe Connect, Internet, land line

Introductions
Explain participation, importance of attending all webinars, confidentiality statement
Administer C.D.S.
Administer Margin in Life Scale

**Webinar 2:**

Materials Needed:

C.D.S. instructions, Margin in Life Instructions, Adobe Connect, Internet, land line

Questions regarding implementing interests within career-decisions
Administer C.D.S.
Termination of study information and next steps
APPENDIX G

Screen Shot of LinkedIn – Recruitment Tool
APPENDIX H

Sample Recruitment Letter for Volunteers

May 22, 2015

Dear Penn State alumni:

I am writing to tell you about the Values-Based Career Counseling study being conducted by Amy Thul-Sigler, Penn State Alumni Career Services Assistant Director and current doctoral student at Penn State University, which will be conducted remotely from the comfort of your own home at no cost.

The purpose of this research study is to find a career counseling theory that helps adults with their career indecisiveness.

You are eligible for this study if you are a Penn State alumni.

It is important to know that this letter is not to tell you to join this study. It is your decision. Your participation is voluntary. Whether or not you participate in this study will have no effect on your relationship with Penn State University.

You do not have to respond if you are not interested in this study. If you do not respond, no one will contact you.

Thank you for your time and consideration.

Sincerely,

Amy Thul-Sigler
Good afternoon Mr. [Name],

My name is Amy and I currently work as the Assistant Director for Penn State Alumni Career Services. In my spare time, I am also a full time doctoral student currently conducting my research study on adult career counseling techniques. I am asking of you, as the contact for the [chapter], to please share the attached documents with the members of your chapter in hopes to gain volunteers for my study. This study is ideal for any adult seeking additional career development assistance. If you have any questions or concerns please do not hesitate to ask.

Thank you for your time!

Amy

Amy Thul-Sigler, M.Ed., GCDF
Assistant Director, Alumni Career Services
The Pennsylvania State University
102 Bank of America Career Services Building
University Park, PA 16802
VITA

Amy Susan Thul-Sigler

EDUCATION

THE PENNSYLVANIA STATE UNIVERSITY
Doctorate of Education Degree, Concentration in Adult Education
2015 NCDA Graduate Student Research Award
University Park, PA
May 2016

BLOOMSBURG UNIVERSITY OF PENNSYLVANIA
Master of Education Degree, Concentration in Counseling
Bloomsburg, PA
December 2009

SUSQUEHANNA UNIVERSITY
Bachelor of Arts Degree, Concentration in English
Selinsgrove, PA
December 2006

PROFESSIONAL EXPERIENCE

THE PENNSYLVANIA STATE UNIVERSITY
Assistant Director, Alumni Career Services
University Park, PA
December 2012 – June 2016

THE PENNSYLVANIA STATE UNIVERSITY
Career Counselor, Alumni Career Services
University Park, PA
August 2012 - December 2012

EDUCATIONAL TESTING SERVICES
Certified Online Scoring Consultant
Princeton, NJ
February 2012 – Present

CENTRAL SUSQUEHANNA INTERMEDIATE UNIT
Adult Basic Education Instructor
Lewisburg, PA
September 2011 - June 2012

LUZERNE COUNTY COMMUNITY COLLEGE
Instructor, Education/English Department
Shamokin, PA
August 2009 - August 2011

CERTIFICATION

Global Career Development Facilitator

2014

PROFESSIONAL ORGANIZATIONS

ACSN, Business Development Board Member
NCDA, Field Editor, Technology Committee Member