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REWRITING THE QUESTION, “WHAT DO YOU WANT TO BE WHEN YOU GROW UP?”  
CAREER COUNSELING WITH 21ST CENTURY DEGREE-SEEKING EMERGING  
ADULTS

A Dissertation  
presented in partial fulfillment of requirements  
for the degree of Doctor of Philosophy  
in Higher Education  
The University of Mississippi

by

SUSAN RENE BARCLAY

March 2012

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## ABSTRACT

Adults ask children constantly, “what do you want to be when you grow up?”, leading children to focus on an uncertain future as an adult. From very early in life, children attempt to parlay their likes and desires into a career choice. However, as children grow into adolescence, they begin to realize vocation is not as easy as simply making a choice. The years spent in college are usually a more serious time for committing to plans regarding the future and are when many degree-seeking emerging adults face challenges in gaining a concrete sense of direction toward a future career. Complicating this process is that many college students are still trying to determine their identity. In the face of a shifting work paradigm, university career professionals must be innovative and creative in providing career counseling interventions. The Career Story Interview (CSI) is a subjective career counseling technique that responds to both the call for innovation and the increasing changing world of work. Yet how do career counseling practitioners know the CSI is a valid intervention? Only one empirical study exists for the CSI. The purpose of this mixed-methods study was to assess the validity of the CSI for use in career development counseling with degree-seeking emerging adults (N = 83) from a midsize southern university. Using a Pearson’s *r* correlation, comparisons were made between the 3-letter RIASEC Strong Interest Inventory (SII) theme code and RIASEC theme codes derived from coding the CSI written narratives of the participants. Results indicated overall moderate correlation between the CSI and SII participant results.

*Keywords:* Career Story Interview, College Career Counseling, Emerging Adults, College Student Identity Development

## DEDICATION

I dedicate this work to all of the educators at Mercer University (Atlanta), Georgia State University (Atlanta), and The University of Mississippi (Oxford) who buoyed me with their guidance, encouragement, and support throughout my postsecondary educational endeavors. Your belief in my ability to accomplish great things has been unwavering.

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## LIST OF TABLES

1. Example correlation matrix for RIASEC theme codes – degree of congruence .....	54
2. Example correlation matrix for RIASEC theme codes – decreased congruence.....	55
3. Example correlation matrix for RIASEC theme codes across CSI questions, overall CSI-derived code, and SII theme code .....	56
4. Intraclass correlation of coder agreement .....	61
5. Distribution of correlations by participant count .....	75

## TABLE OF CONTENTS

ABSTRACT.....	ii
DEDICATION.....	iii
ACKNOWLEDGEMENTS.....	iv
LIST OF TABLES.....	vii
CHAPTER I: INTRODUCTION.....	1
Statement of the Purpose .....	7
Hypotheses.....	7
Theoretical Perspectives .....	8
Significance of the Study .....	10
Definition of Terms.....	13
Delimitations/Limitations .....	15
Summary .....	16
Organization of the Remainder of the Study .....	17
CHAPTER II: LITERATURE REVIEW .....	18
Student Identity Development .....	18
Emerging Adults .....	20
Career Exploration, Decision-Making Processes, and Career Commitment .....	23
The Changing World of Work .....	28
Summary.....	33
CHAPTER III: METHODOLOGY .....	34
Research Design.....	34
Dataset.....	35
Instrumentation .....	37
Strong Interest Inventory.....	37
Career Story Interview .....	41
The Researcher.....	46
Hypotheses.....	46
Data Analysis .....	47
Qualitative.....	47
Quantitative .....	51
Summary.....	57

CHAPTER IV: RESULTS.....	59
Interrater Reliability.....	59
Hypothesis Testing.....	61
CHAPTER V: DISCUSSION.....	65
Statement of the Purpose .....	65
Summary of Procedures .....	65
Summary of Results .....	66
Interrater Reliability .....	66
Hypotheses .....	67
Discussion and Recommendations .....	69
Limitations .....	77
Implications for Further Research .....	80
Conclusion .....	81
LIST OF REFERENCES.....	83
APPENDICES .....	103
VITA.....	112

## CHAPTER I

### INTRODUCTION

When I grow up I just might be a teacher,  
A farmer, doctor, or a movie star.  
When I grow up I just might be an artist,  
Or an author writing a famous book,  
When I grow up.

There are so many things that I could be,  
So many choices just for me.  
When I grow up whatever I'll be,  
I'll be so proud of me.

When I grow up I just might be a singer,  
Computer worker or a president.  
When I grow up I just might be a lawyer,  
Or a fire fighter saving lives,  
When I grow up.

There are so many things that I could be,  
So many choices just for me.  
When I grow up whatever I'll be,  
I'll be so proud of me.

When I grow up.  
What do you want to be?

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From a very early age in life, children learn they must go off to work eventually (Super, 1957). Adults ask constantly, “what do you want to be when you grow up?”, beginning the process in childhood of focusing on an uncertain future as an adult. Answering the question of what they want to “become” is simple, if not irresolute, for the very young; after all, children

want to “be” whatever they see others “being” – teacher, firefighter, doctor, nurse, or some other occupation they see around them. According to Super (1957), these characters serve as role models whom children want to emulate. To the casual observer, however, children’s choices change as often as the beginning of the next intriguing show, cartoon, or commercial. Yet, this seemingly external process of fluctuating aspirations is deliberate, though unconscious, and leaves internal fingerprints upon children’s psyche (Gottfredson, 2005). Children store these unconscious fingerprints in the deepest vaults of their memories, and these unconscious fingerprints pull humans across the lifespan in a continuous effort to both find that “perfect” occupation (Saka, Gati, & Kelly, 2008) and be able to tell everyone what they want to “be.”

As children and adolescents, we take our wants, likes, and desires and attempt to turn those into a career choice. Initially, this endeavor is fun and exciting. Children imagine themselves as “cheerful chick-a-dee[s]” who “whistle while [they] work” (Morey, 1937, para. 2 and 3). Yet, as the years pass, and as children grow into adolescents, they begin to make decisions relative to career. This process may induce anxiety and confusion that replaces their “chick-a-dee” attitude (Gottfredson, 2005; Niles & Harris-Bowlsbey, 2009; Saka et al., 2008; Tavieria, Silva, Rodriquez, & Maia, 1998). Humans tire of the question others ask because determining what they want to “do” or “be” can be such an arduous chore (Saka et al., 2008).

The task of making concrete career decisions becomes no easier for those who transition through adolescence into the late teens without having unearthed the “perfect” occupational path. Adolescence is a time of trying on various self-roles, and youth find themselves much like the steel ball of a pinball machine. As adolescents pull back the flipper and plunge forward into their perceived self-role, they find themselves bumping into various influences, such as peers, parents,

sexual identity, and societal stereotyping (Heppner & Fu, 2011). Many graduate high school and head off to college still unsure of their identity and uncommitted to a career path.

The years spent in college are normally a more serious time for making commitments regarding the future and are when many college students must face the challenges of locating a concrete sense of direction toward their future careers. Hamilton and Hamilton (2006) emphasized the importance of the connection between education and vocation. Although some students arrive on a college campus somewhat sure of the career path they intend to pursue, a majority of incoming college students arrive with a lack of directedness toward any career path at all (Johnson, Nichols, Buboltz, & Riedesel, 2002; McDaniels, Carter, Heinzen, Candrly, & Wiebert, 1994; Tinto, 2002). This lack of direction may add to a student's early departure from college (Hamilton & Hamilton, 2006; Tinto, 2002). The results of a study by Restubog, Florentino, and Garcia (2010) suggested career self-efficacy and decidedness are related positively to student persistence. Likewise, Sandler (2000) and Willcoxson and Wynder (2010) found that the self-perceived ability for students to make solid decisions regarding their career path added to their determination to complete college. Moreover, Kreysa (2006) concluded from his study that students who had sharply defined career objectives were more likely to persist with their educational goals. Therefore, understanding the reasons for vocational non-direction and discovering effective ways to assist students in orienting themselves to a vocational future are important for higher education (Kreysa, 2006; Saka et al., 2008; Tinto, 2002). Several reasons may exist for students' non-commitment to a career path, chief among them the intensity with which students are constructing their self-concepts and work identities. Traditional aged college students are formulating the "self" more than any other time in their lives. (Arnett, 2000; Arnett & Tanner, 2006; Chickering & Reisser, 1993; Saka et al., 2008; Super, 1953, 1957).

In the late 20th century, Arnett (2000, 2007) began to recognize developmental shifts taking place in young people, in particular, the postponement of life decisions. Arnett (2000) wrote in his seminal article “it is no longer normative for the late teens and early twenties to be a time of entering and settling into long-term adult roles. On the contrary, these years are more typically a period of frequent change and exploration” (p. 469). Using Erikson’s (1968) developmental theory as a backdrop, Arnett introduced a new developmental theory to address these “volitional years of life” (p. 469). He called this period *emerging adulthood*. Arnett argued that emerging adulthood was a more appropriate term because 18-25 year olds are no longer adolescents but not yet young adults, as theorized by Erikson. More about the theory of emerging adulthood is included in chapter two; however, what is most important to note about emerging adulthood in this section is what Arnett called “a key feature” (p. 473) and that is identity exploration and formation. Arnett posited that identity development pertaining to many areas, including vocation, takes place during emerging adulthood more so than in any other maturational season. In particular, Arnett specified the frequent or multiple changes in academic majors within the first two years of college as part of the identity exploration and formation process.

In the face of career decision-making difficulties, such as ascertaining a clearer career direction, students turn commonly to others for assistance. Fouad et al. (2006) reported that of the 694 participants in their study, anywhere from 6% to 17% sought aid with career concerns. Bubany, Krieshok, Black, and McKay (2008) found that 20% of respondents in their study turned to career professionals throughout their career decision-making process. Whiston (2000) stated, “many students...indicate that they would like assistance with career planning” (p. 137). Therefore, for college students to seek the assistance of career counselors on a college campus

seems reasonable. In fact, Fouad et al. stressed after finalizing their study that students need both “greater information about the stages of career decision making” and “career counseling to...help with the career decision-making process” (p.417). These authors advocated for university career counselors to provide such assistance.

There are numerous avenues career counselors at university career centers might take in assisting college students who are moulding self-concepts and identities and committing to a career path. The methodology career center personnel utilize ranges from administering career assessments (Chauvin, Miller, Godfrey, & Thomas, 2010; Pope, Prince, & Mitchell, 2000), such as the Strong Interest Inventory (SII), to offering career guidance. The SII is popular because of the incorporation of Holland’s (1973) empirically supported typology of career preferences into Strong’s (1953) theory of predicting careers based on an individual’s interests and aspirations. Strong incorporated Holland’s typology into his Strong Vocational Interest Blank (later renamed to SII) (Hansen, 2005) based on empirical research on both Strong’s (1953) theory and resulting instrument and Holland’s (1957) typology. Holland’s typology consists of six environments that individuals may prefer relative to career interests. One might think of these six environments as groups of similar personalities that make up the work environments. According to Holland’s typology, those environments, also known as categories, are *realistic*, *investigative*, *artistic*, *social*, *enterprising*, and *conventional*. A thorough overview of these six categories, also known commonly as the RIASEC categories, is contained in a later section of this chapter.

Career assessment inventories have long been the standard in providing vocational guidance to college students (Pope, Prince, & Mitchell, 2000) as career professionals adopted a career counseling approach of “test’em and tell’em” (Pope, 2003). This approach, according to Pope, stems from a trait and factor theory of career counseling (discussed later in this chapter)



that focuses more on “outcome over that of *process*” (Pope, 2003, p. 55, italics added). In addition, Savickas (1998) posited, “interest inventory interpretation does not help clients who lack a clear and stable picture of who they are and what they want from life” (p. 331).

To address the *process* of counseling, many career professionals turn to developmental career theories. Super (1957) noted that “helping a person match his [sic] traits with those required by available occupations” (p. 168), performed through the use of career inventories, “led to both a failure to develop a supporting theory and a failure to explore other theories and approaches which would supplement” (p. 169) the approach of “test’em and tell’em”. Super argued that career is a developmental process that takes place over the life span and that “vocational development consists of implementing a self-concept” (p.308). Before individuals can implement their self-concept, however, Super insisted that individuals must modify their self-concept, and he called for career clients to put their perception of themselves into words. Career construction theory (Savickas, 1998, 2005, 2011a) (discussed later in this chapter) articulates ways in which career counselors might assist the career client with this process. One career construction theory method is the career story interview (CSI) (Savickas, 1998, 2005, 2011a) to aid individuals in putting their self-concept into words. The CSI is a series of five to seven questions a career counselor asks the career client to assist the client in addressing career difficulties. Throughout the interview, the career counselor listens for life themes and patterns that represent the self-concept. After the counselor and the client agree on life themes and the constructed self, they work together to transition the adaptable self into the context of preferred occupational environments (Savickas, 2011b, 2011d).

## **Purpose of the Study**

The purpose of this mixed-methods study was to assess the validity of the CSI, a career construction theory technique, for use in career development counseling with degree-seeking emerging adults. Specifically, I compared coded data on three narrative responses from the CSI to the objective results of the SII, a career assessment inventory used commonly in university career centers, to determine whether the themes in the CSI narrative responses match RIASEC theme codes (Holland, 1985) derived from the SII. The data from both the CSI and the SII came from degree-seeking emerging adults enrolled in a career and life-planning course at a midsize Southern university. The reason for assessing the narrative data quantitatively was to give validity to increasing use of subjective methods alongside objective career assessments in career development counseling (Barclay, Stoltz, & Chung, 2011; Chope, 2011; Del Corso & Rehfuss, 2011; Savickas, 2011c; Whiston, 2011) with degree-seeking emerging adults in the 21st century.

## **Hypotheses**

Using data collected from degree-seeking emerging adults enrolled in a career and life-planning course at a midsize Southern university, I tested the following hypotheses:

1. There is no significant correlation between the RIASEC code derived from CSI question #1 and the SII-derived RIASEC code.
2. There is no significant correlation between the RIASEC code derived from CSI question #2 and the SII-derived RIASEC code.
3. There is no significant correlation between the RIASEC code derived from CSI question #3 and the SII-derived RIASEC code.
4. There is no significant correlation between the overall RIASEC code derived from the CSI questions and the SII-derived RIASEC code.

## Theoretical Perspectives

Two theories support this study. The first theory important to this study is identity development theory. Multiple theories exist that support identity development and meaning-making during the years associated with traditional-age college students. Super (1957) alleged that, in the transition from youth to adulthood, young people experience the trauma of not “belonging,” of being lost in a grown-up world where no one claims them. Likewise, Erikson (1968, 1980) discussed the crisis youth face in identity development, and many developmental theorists based their own theories on Erikson’s. Marcia (1989), who grounded his identity achievement theory in Erikson’s stage theory, identified *exploration* and *commitment* as critical principles in identity formation. Marcia’s “exploration” includes occupational decision-making and is a time when students may seek out career professionals when making decisions about career. Marcia defined “commitment” as the act of committing to a career path and pursuing that path in spite of obstacles. McAdams (2001; see also McAdams & Olson, 2010) extended Erikson’s identity crisis and identity development by describing identity as a *life story* and then discussed the narrative process in which an individual engages in exploring a sense of self. Chickering and Reisser (1993) delineated *establishing identity* and *developing purpose* as two of the seven vectors that they posited explains student development. Within these two vectors, students are discovering themselves through various roles and attempting to locate a life direction that has meaning for them. Finally, Arnett (2000) articulated a theory of *emerging adulthood* to address the particular needs of individuals in their late teens through their twenties, with an emphasis on the ages 18 to 25. Arnett proposed this developmental theory in the face of a changing and increasingly global and complex world. He stressed that emerging adults are in

the process of exploring many life directions, including work, and that life direction exploration is greater during emerging adulthood than at any other time over the course of the human lifespan.

In addition to identity development theory, career development theory is useful to this study. Career development theories are important for career counselors in working effectively with individuals who are having difficulties committing to a career path. There are many career theories available to the career counselors, and the oldest and most foundational is Parsons' (1909) trait and factor theory. Tenets of trait and factor theory posit a personality and environment "fit" (known commonly as a "P-E fit"). The difficulty with relying solely on trait and factor theory, however, is that trait and factor theory is static. Johnson et al. (2002) described the trait and factor model as a three-step process of (a) increasing one's knowledge about self; (b) increasing one's knowledge about the work world; and (c) merging these two knowledge bases and making a career decision. In an increasingly complex, global world, the P-E fit model fails to address the ability of the person to adapt to the constant change represented in the 21st century world of work (Brott, 2001; Savickas, 2011a). Deciding on a life-long career does not align with the protean (Hall, 1996a, 1996b) and boundaryless career (Arthur & Rousseau, 1996). A detailed description of both the protean and boundaryless career appears in chapter two.

Parsons' trait and factor theory was fundamental to the birth of developmental career theories and is the theory on which the early to mid-20th century career theorists based their models of career counseling. Developmental theories address exploration as a way for individuals to understand themselves and the world of work. As the term *developmental* connotes, these theories posit a process of development as "traditional-aged college students are typically making the transition from tentative vocational preferences to more specific goals and

plans” (Johnson et al., 2002, p. 4). Developmental theorists encourage career counselors to view career decision-making as a dynamic, life long process (Super, 1957) rather than a one-time decision.

Career construction theory seeks to converge trait and factor theory and developmental theories as a way of assisting individuals in locating career direction and adaptability in a constantly evolving world. Helping students to both get in touch with their career interests and to gain a greater sense of identity is imperative to this goal. As stressed throughout this dissertation, ascertaining “what I want to be when I grow up” is not as simple as merely making a decision about what to *become* as much as it is a *process* of becoming adaptable and maintaining adaptability in the dynamics of the 21st century work world. Career construction theory and its associated techniques represent a holistic way for providing career counseling to college students and preparing them for transitioning into a world that is very different from the world their parents or grandparents faced at their age. The contributions of career construction theory to the career counseling profession provide ways to answer the call for working with individuals who face the unique career difficulties of the 21st century.

### **Significance of this Study**

A review of the literature indicates the need for effective career developmental and decision-making interventions that respect the context of the 21st century world of work, particularly in higher education settings where degree-seeking emerging adults are formulating their self-concepts (Arnett, 2000), constructing their career identities (Arnett, 2000), and preparing to move into a constantly changing work world. This work environment no longer values security and lifetime employment; rather, the environment demands that workers compete to stay employable, and workers must develop attitudes and skills that transfer across

organizations and professional fields. In addition, with an increasingly changing world of work came the need and the call for use of additional career counseling techniques that address the unique career difficulties of the 21st century worker-to-be (Heppner, O'Brien, Hinkelman, & Humphrey, 1994; Savickas, 1998, 2011a; Skovholt, Morgan, & Negron-Cunningham, 1989). This current study may contribute to the literature in two important ways.

The first way in which this study may contribute to the existing literature is through use of the CSI as a written career counseling intervention. Savickas (1998, 2011a) formulated the questions that compose the CSI with great deliberation and intent. He encompassed Erikson's (1968) stages of development, Super's (1957) Life-Space, Life-Span theory, Holland's (1985) typology, and Adler's theory of Individual Psychology (Ansbacher & Ansbacher, 1956). Savickas created the CSI while purposefully keeping the individual in mind. In other words and in keeping with career construction theory, he respected that each person brings his or her personal perceptions of various experiences into creating the self. Each individual has a unique identity that he or she attempts to place into life roles, including that of a worker. The CSI targets the heart of the individuality and identity of the interviewee. Savickas (1998, 2011a) designed the CSI for use with individuals, and usually the counselor conducts the CSI orally with an individual in a private setting. Although Savickas' demonstration of this intervention at professional conferences has always been in front of groups, he always conducts the interview with just one individual.

Savickas (2011a) was not alone in his use of "story" when working with career clients. Many others have advocated for the use of narrative approaches in the career counseling process (Barclay & Stoltz, 2011; Barclay et al., 2011; Bujold, 2004; Brott, 2001; Clark, Severy, & Sawyer, 2004; Collin, 1996; Del Corso & Reh fuss, 2011; Richardson, 1996; Severy, 2002,

2008). These authors recognized that individuals' narratives contain various aspects of one's self-concept or identity and reveal "preferences, problems, strengths, and weaknesses" (Cochran, 1992, p. 187). The current study investigates an innovative use of the CSI as a classroom writing assignment that I incorporated into a career and life-planning curriculum. Although the students completing the assignment were not giving oral responses to the CSI questions, the writing assignment captured the narrative of each student as she or he responded to those questions. Using the CSI in this manner responds to the call for both innovative and narrative career counseling methods because of the diversion from the way counselors conduct the CSI commonly. The results of this study will add to the existing literature by providing additional ways of using the CSI in career counseling, guidance, and curriculum. Using the CSI in written form may provide application to larger groups, thus, having an effect on larger populations with fewer resources.

Another way in which this study is significant is that this investigation is the first of its kind. Although a plethora of literature exists in which authors have discussed the CSI and its use (e.g., Hanson, 1995; Rehruss, Cosio, & Del Corso, 2011; Savickas, 1998, 2011a; Taber, Hartung, Briddick, Briddick, & Rehfuss, 2011), only one has attempted to investigate the validity of the CSI. In her study, Hanson (1995) asked 101 graduate students to view a video tape of the CSI with a single volunteer and attempt to determine the volunteer's vocational interests according to Holland's (1973, 1985, 1996) typology. My study is the first empirical analysis of the CSI with a large number of participants. This will test questions from the CSI that are designed to evoke interest themes similar to popularly used career assessments. Being able to assess career themes accurately, in the context of the students' narrative responses, aids in transferring understanding of the meaning of these theme codes to the students' personal story. This process supports a

contextual approach to career counseling called for by career researchers (Blustein, 1997; Savickas, 2011a). Of specific importance is that many researchers consider the results of interest inventories to be static measures that were founded in traditional assessment theory. With the new work paradigm, workers can no longer rely on static components of their personality to be the primary source of career guidance. Tying these traits as resources with the student's story capitalizes on strengths, adaptability, and traits and is considered the new standard in career counseling for the 21st century. Therefore, testing the CSI questions will provide empirical results that can inform career counselors, college career services professionals, and career theorists concerning use of the CSI within the context of colleges and universities.

### **Definitions**

The following operational terms and definitions will assist the reader of this study to understand the significance of this research and supporting concepts better.

Adaptability – the “attitudes, beliefs, and competencies needed to enact a choice” (Savickas, 2011a, p. 139). In the context of this dissertation, adaptability refers specifically to the attitudes, beliefs, and competencies necessary to execute choices relative to career.

Career – “the unfolding sequence of any person's work experiences over time” (Arthur & Rousseau, 1996, p. 30).

Career counseling – the process of providing various career services, including vocational guidance, career education, and career construction. Although Savickas (2011a) defines each of these three elements as separate, but important, interventions, the term *career counseling* in this dissertation refers to any one or a combination of any of these interventions.



Career story interview (CSI) – a subjective, constructivist method used by career counselors to assess an individual’s narrative identity and ways of making meaning (Savickas, 2005, 2011a).

Degree-seeking emerging adult – an individual, who is approximately 18 to 25 years old (Arnett, 2000) and actively enrolled at a college or university in pursuit of a bachelor’s degree.

Expressed interests – “the verbal profession of interest in an object, activity, task, or occupation” (Savickas, 2011, personal communication).

Inventoried interests – “responses of *like*, *dislike*, and *indifference* to verbal presentations of activities, objects, and types of people that can be summed to produce scaled scores on standardized profiles that depict an individual’s vocational interests in reference to some normative group” (M. L. Savickas, personal communication, September 25, 2011).

Manifest interests – representations of “active participation in an activity or occupation. Manifest interests show the interest within social occupations that currently attracts a person.” (M. L. Savickas, personal communication, September 25, 2011).

Narrative identity – “Internalized and evolving life story that a person begins to develop in late adolescence to provide life with meaning and purpose” (McAdams & Olson, 2010, p. 527).

RIASEC theme codes – codes that represent individuals’ preferred life environments. RIASEC is an acronym for *realistic*, *investigative*, *artistic*, *social*, *enterprising*, and *conventional* categories developed by John Holland (1985) to describe preferred environments.

Strong Interest Inventory – a career assessment inventory designed to assess preferred life environments in accordance with Holland’s (1985; 1996) RIASEC categories (Strong, 1953).

## **Delimitations/Limitations**

This study is delimited to emerging adults classified as juniors or seniors enrolled in a career and life planning class at a midsize Southern university. Additionally, this study will be delimited to the coding of narrative responses to only three questions from a seven-question career story interview in an attempt to assess the career story interview as a credible method of providing career counseling with degree-seeking emerging adults. The three questions chosen for analysis relate specifically to topics of concern in this dissertation, in particular, student identity development and career development. The first inquiry, concerning role models, provides access into an individual's self-concept (Savickas, 2011a). Many times, a person is unable to articulate their self-concept directly; however, elements of one's self-concept emerge as the individual discusses people the individual admired when younger. Responses to the second inquiry, concerning favorite magazines, television shows, and websites, communicative the individual's preferred environments (Savickas, 2011a). The interviewer can translate these directly to Holland's (1996) typology of preferred environments. Responses to the third inquiry, concerning favorite high school subjects, provide insight into earlier life arenas in which the individual felt competent and satisfied (Taber et al., 2011). The remaining four questions of the CSI are unrelated to the theories I am utilizing in this study, although the CSI, in its entirety, remains an important and useful tool when counseling with individuals from a career construction theoretical base (Savickas, 2011a; Taber et al., 2011).

Limitations to this study may include generalizability of the results of this study. Because the sample for this study consisted of degree-seeking emerging adults classified as juniors or seniors only, the use of the CSI may not lend itself to use with degree-seeking emerging adults classified as freshman or sophomores. In addition, the participants of this study elected

voluntarily to take the class from which the dataset comes; thus, the participants may have been open to greater self-discovery than those students who did not take this elective class. Finally, this study may not help us to understand whether use of the CSI is appropriate for non-degree-seeking emerging adults.

## **Summary**

Identifying and implementing effective methods for aiding students in answering the question of *who* they want to be, rather than *what* they want to be is essential. The theories of *emerging adulthood* and *career construction* meld well for this purpose in the 21st century. According to both Arnett (2000, 2007) and Schwartz, Côté, and Arnett (2005), identity issues have a major position in the theory of emerging adults. Career construction theory presents methods by which career professionals might aid degree-seeking emerging adults in both working through identity issues and designing a satisfying life.

Although career assessments remain important in providing vocational guidance to college students, clearly these assessments are not enough to aid students in formulating their self-concept and vocational identity (Bujold, 2004; Hartung & Blustein, 2002; Johnson et al., 2002; Savickas, 1993). Addressing the future of career counseling, Niles (2003) stated:

Given the uncertainty related to career paths today, it should be clear that providing clients with information about themselves and the world of work through objective, standardized assessments may be necessary, yet not be sufficient for empowering people to develop the level of self-identity required to manage their careers effectively. (p. 74)

This manuscript presents results of a mixed-methods study that attempts to assess a subjective contemporary, career constructivist method, known as the career story interview. The

CSI may prove important in providing both identity formulation assistance and career counseling to 21st century degree-seeking emerging adults.

### **Organization of the Remainder of the Study**

The remaining chapters are organized as follows: I offer an overview of relevant literature in chapter two. In chapter three, I present the methodology of the study conducted with degree-seeking emerging adults enrolled in a career and life-planning course at a midsize Southern university. I discuss the results of the study and implications of those results in chapter four. Finally, I provide a summary, conclusions, and recommendations for future research in chapter five.

## CHAPTER II

### LITERATURE REVIEW

This literature review addresses several topics and culminates with the discussion of one particular career counseling intervention that is appropriate for the degree-seeking emerging adult. This career counseling intervention is the career story interview (CSI), a career construction theory-based narrative intervention. First is a review of traditional student identity development theories. Next is an overview of the developmental stage to which traditional degree-seeking students characteristically belong. This is a newly theorized stage, *emerging adulthood* (Arnett, 2000), that nestles between adolescence and adulthood but, until recently, has not been recognized as a separate developmental stage. Third is a synopsis of literature related to the career decision-making process of emerging adults, including some of the difficulties they may encounter as they attempt to determine who they want to “be.” Also included is an overview of career theories and interventions that receive attention and use in many of the university career centers across America. Fourth is a discussion about the evolving world of work and how changes in the world of work raise unique challenges for degree-seeking emerging adults about to leave college and embark on their careers. Last is the introduction of the CSI, an innovative intervention appropriate for degree-seeking emerging adults.

#### **Student Identity Development**

Establishing one’s identity is a complex and multifaceted process. Chickering and Reisser (1993) equated the process of establishing identity to assembling a jigsaw puzzle. They wrote that developing one’s identity includes several components, namely, becoming comfortable with

one's body, appearance, gender, and sexual orientation, a sense of self in various environments, elucidation of one's self-concept, which comes through various life roles, self-acceptance, and an integration and stability of all aspects of who one is. Included within the various life roles is that of a worker. Chickering and Reisser went on to state that developing purpose in life is a vital piece to becoming a solid "self" and wrote

Many college students are all dressed up and do not know where they want to go. They have energy but no destination. While they may have clarified who they are and where they come from, they have only the vaguest notion of *who they want to be* (p. 50, italics added).

The main difficulty with discovering "who they want to be," insisted Chickering and Reisser, is that college students, in particular, have not honed the necessary skills. According to these authors, "developing purpose entails an increasing ability to be intentional, to assess interests and options, to clarify goals, to make plans, and to persist despite obstacles" (p. 50). One of the priorities of developing purpose is having solid, intentful career aspirations and plans (Chickering & Reisser, 1993). Making decisions relative to career requires students to have an increasingly solid identity and self-concept of both who they are becoming and where they are going in life (Pascarella & Terenzini, 2005).

In his Scheme of Cognitive and Ethical Development, Perry (1981, 1999) spoke extensively of the developmental process through which college students progress in formulating their identities and making meaning in their lives. Perry believed that as students journey through each of the developmental positions in his model, simultaneously encountering development tasks and piecing together their identity, students transition from being "a *holder of meaning*" to

being “a *maker* of meaning” (p. 87). Part of that meaning making includes consideration of and commitment to future plans, such as moving into a meaningful career (Perry, 1981, 1999).

Building upon the work of Erikson (1950, 1968, 1980), Marcia (1966, 1989; see also Marcia, Waterman, Matteson, Archer, & Orlofsky, 1993) created his model of identity development based on the premise that the formation of identity requires navigating two psychological tasks successfully: *exploration* and *commitment*, stages specified in Erikson’s model of identity formation. Marcia’s extension of Erikson’s work placed exploration and commitment within four identity status stages. In these stages, individuals are in varying processes of searching for meaning in their lives or differentiating meaningful alternatives (*exploration*) and investing in life tasks, including work and career (*commitment*). Although Marcia applied his theory primarily to adolescents, he believed individuals could respond to his four identity status stages at any age as individuals continued to explore aspects of their identity throughout life.

Forming one’s identity, or “becoming a person,” is an internal and individualistic process (Rogers, 1961) as each student becomes aware of and implements “hidden aspects of himself [sic]” (p. 123). Many factors influence the process, factors such as gender (Anthis, Dunkel, & Anderson, 2004; Baxter-Magolda, 1992; Gallos, 1989; Gilligan, 1982; Josselson, 1987; 1996), cultural background (Leong, Hardin, & Gupta, 2011; Trafimow & Clayton, 2006), ethnicity (Leong, Hardin, & Gupta, 2011; Schwartz & Pantin, 2006), parental attachment (Meeus, 2011), and the extent of one’s social network (Astin, 1993; McFarland & Pals, 2005).

### **Emerging Adults**

For most of the 20th century, social scientists and human development specialists segmented the human developmental lifespan into distinct age groups. Erikson (1950, 1968) was

one of the first to delineate the period known as adolescence (approximately 12 to 18 years of age) from what he termed young adulthood (approximately 19 to 40 years of age). At the dawning of the 21st century, however, Arnett (2000) proposed another distinct developmental period, which he believed positions between adolescence and young adulthood. More specifically, Arnett posited that those individuals 18 to 25 years of age face developmental concerns unknown to adolescents or adults. He called this period *emerging adulthood*.

Arnett (2000, 2007) and Arnett and Tanner (2006) argued that emerging adulthood is a unique time for the 21st century individual, a time during which emerging adults are exploring their identity, contemplating career choices, broadening their worldviews, and struggling with the desire for autonomy while simultaneously wanting to remain intimately close to family. More than that, though, emerging adulthood is “a distinct period of the life course, characterized by change and exploration of possible life directions” (Arnett, 2000, p. 469). Whereas the 18 to 25 year-old of times past usually moved from the family home and possibly into marriage, the 21st century 18 to 25 year-old delays marriage and remains in the family home longer (Arnett, 2000; Arnett & Tanner, 2006; Konstam & Lehman, 2011). This is true of the emerging adults who arrive on campuses. These emerging adults are in the midst of establishing their personal identity, a part of which is their career identity (Ludwikowski, Vogel, & Armstrong, 2009). Well-intending adults have spent these emerging adults’ lifetime, even into college entrance, asking them what they want to be when they are grown. College is usually both the time and the place emerging adults spend constructing their career identity and pursuing the education that will support their identity choices (Amundson, Borgen, Jaquinta, Butterfield, & Koert, 2010). They do this in multiple ways by exploring various experiences that help orient them towards the roles in which they may place themselves some day. In his conceptual article that introduced the



theory of emerging adulthood, Arnett (2000) explained that this developmental period is a time when emerging adults focus more on *preparing* for adult work roles than *launching into* those roles. They do this by participating in a myriad of experiences as part of their career identity-building process. Super (1957) and Savickas (2011a) called this type of participation *exploration*, a time individuals spend investigating “self” and how to place “self” within future life roles. Murphy, Blustein, Bohlig, and Platt (2010) found that career identity was the most prevalent theme that arose from their interview of college graduates who responded to interview questions relative to their undergraduate college experience. This supports Blustein, Devenis, and Kidney’s (1989) study of 99 college students wherein Blustein et al. found a direct relationship between identity formation and the career development process. These authors discovered that the more students engaged in self-exploration, the more apt the students were to engage in a wider practice of constructing their identities. Blustein et al. concluded that those students “with a clear sense of their ego identity may continue to engage in career exploration to find a vocational outlet for this identity” (p. 200).

While emerging adults are in the midst of exploring various aspects of their lives and formulating their identities, most are contemplating, simultaneously, both career options and orientation toward a career path (Astin, 1993; Hamilton & Hamilton, 2006). This is challenging for emerging adults. As they consider varying career paths, they are juggling issues of self-esteem and self-efficacy (Savickas, 2011d), refining the management of emotions (Chickering & Reisser, 1993; Saka & Gati, 2007), and reconsidering their worldview (Arnett, 2000). Heppner & Fu (2011) cited incompatibility between possible life roles as a contributing factor to the career nondirectness. I discuss some of the career exploration dilemmas in the next section.

## **Career Exploration, Decision-Making Processes, and Career Commitment**

Making decisions about one's career is serious business and can be a long, arduous process for emerging adults (Gati & Amir, 2010). The career decision-making process is wrought with difficulties and dilemmas that may interrupt students' career decision-making processes, motivate "less than optimal" (Gati & Amir, 2010, p. 301) vocational decisions, or lead students to avoid the process altogether (Gati, Krausz & Osipow, 1996). The stressors of trying to adjust to all of this in a short span of time can be overwhelming (Berzonsky, 2003).

Pittman (2000) conducted a qualitative study with 30 undergraduate students to understand the dilemmas students face throughout the career decision-making process. Career counselors audio recorded counseling sessions with the study participants and, when transcribing the recordings, listened for talk that indicated a dilemma for the students. Three types of dilemmas emerged: *certainty versus uncertainty* (certainty concerning interests but uncertainty concerning how to match the interests to the world of work), *interest versus practical* (knowing one's interests yet believing pursuit of interests was impractical), and *focus versus options* (balance between a probable career choice and the desire to keep career options open). Apparent in this study is that career orienteering is a dynamic process, and degree-seeking emerging adults experience the stress of orienting toward their careers in multiple areas.

During the process of developing their Career Decision-Making Difficulties Questionnaire (CDDQ), Gati et al. (1996) devised a taxonomy of difficulties after collecting data from 259 Israeli emerging adults who were preparing to exit military service and 304 American degree-seeking emerging adults at a large Midwestern university. Gati et al. found that a lack of career decision-making readiness contributed to career decision-making difficulties before

engaging in the process. Chief among career decision-making difficulties during the process was lack of information about “self.”

Gati and Amir (2010) extended the study by Gati et al. (1996) by finalizing the construction of the CDDQ. They administered the CDDQ to 626 undergraduate degree-seeking emerging adults to test the clinical applicability of the CDDQ. The CDDQ contains three main clusters: *lack of readiness*, *lack of information*, and *inconsistent information*. Gati and Amir (2010) discovered that career decision-making difficulties of the participants fell primarily in the Lack of Readiness cluster, which includes categories such as lack of motivation, general indecisiveness, and dysfunctional beliefs concerning career.

Gati and Amir’s (2010) study supports what Savickas (1998) posited in his discourse about career assessment administration to career clients. Many individuals lack readiness to engage in the career decision-making process. This is especially true of emerging adults, who are still in the midst of codifying their self-concepts (Arnett, 2000; Arnett & Tanner, 2006; Savickas, 1998) and establishing their career identities (Murphy et al., 2010).

The literature makes clear that the ability to make confident decisions about career that lead to commitment to a career path requires elevated levels of readiness (Savickas, 1998, 2011a; Gati & Amir, 2010) and a stabilized work identity (Blustein & Phillips, 1990; Gati et al., 1996; Hartung & Niles, 2000). Because degree-seeking emerging adults are working simultaneously on identity exploration and formulation and gaining the education to transition to the world of work after graduation, they may be neglecting areas necessary to establishing clear vocational goals (e.g., readiness) and direction. Astin (1984) articulated this in his theory of student development where he posited that for a student to reach a point of readiness to engage in an activity (e.g., career counseling), the student must be willing to implement an investment of time and energy.

The motivation to *engage* must be present, just as Gati & Amir (2010) discovered in their study. Not much motivation is necessary, however, for students to begin facing their career challenges, and when they do, students turn to others, including family members, classmates, or friends, for assistance in resolving those challenges (Bubany et al., 2008). Orndorff and Herr (1996) and Pittman (2000) asserted that students might turn to university career centers the most.

Virtually all universities provide career services to its student population (Severy, 2002). For degree-seeking students to look to the career professional as the expert is not uncommon because students trust that the career professional has the appropriate education and training to guide students through the career decision-making process. Qualified career professionals will know fundamental career theories and effective interventions in order to provide the best service for college students. Parsons (1909), the father of vocational development, espoused a vast number of qualifications career professionals should possess in order to engage in the career development process with students. Parsons argued that, minimally, career counselors will possess excellent helping skills that aid in developing rapport and an appropriate relationship with students. In addition, qualified career professionals will have knowledge of various vocations and requirements for those vocations, knowledge of how students can prepare themselves for various careers, and the ability to guide students through “careful self-analysis” (Parsons, 1909, p. vii). To facilitate self-analysis with students, Parsons espoused that career professionals must recognize themes and patterns in the students’ stories and “group [these themes and patterns] according to their true relations” (p. 95), all the while drawing justifiable conclusions. The method by which Parsons posited career counselors accomplish this is by having intimate knowledge and practice of career theories.

In the 21st century, the qualifications Parsons (1909) articulated remain vital. The National Career Development Association (NCDA, 2009) issued a statement of career counseling competencies in 1997 and updated that list in 2009. The list includes eleven areas of proficiency, which includes knowledge of career development models and theories, along with specific techniques for providing career counseling. In addition, NCDA advocates specific life-work planning skills for those engaged in career counseling.

There are many career counseling theories on which career counselors may rely when counseling with students. One of the oldest and most trusted (Gasser, Larson, & Borgen, 2007) is Parsons' vocational theory. Parsons (1909) believed that there were three critical components for individuals to consider when making wise career decisions: knowing oneself, knowing the world of work, and understanding the relationship between the two (Jones, 1994; Parsons, 1909). With this came what is known as the trait and factor theory, which posits a "fit" between the person and a career.

Parsons' trait and factor theory was the birth of career development counseling and the theory on which the early to mid-20th century career theorists based their models of career counseling. Chief among those and one most popular in use at university career centers is Holland's (1997) theory of career choice (Chauvin et al., 2010). Holland's matching model posits a "fit" between individuals' interests and personality and the career that will satisfy those interests and personalities most (Brown, 2007). To assess this fit, career professionals administer and interpret the Strong Interest Inventory (Harmon, Hansen, Borgen, & Hammer, 1994; Strong, 1927). The Strong Interest Inventory is a 291-item instrument that encompasses Holland's theory that career professionals use to assess interests of students in occupations that range from expansive areas, such as environmental preference, to explicit occupations and occupational

requirements. Responses to the 291 items become categorized into six separate categories: Realistic, Investigative, Artistic, Social, Enterprising, or Conventional (RIASEC). One-to-three of the categories emerge stronger than the remaining categories to form a one-to-three letter theme code. The RIASEC categories represent environments composed of workers with similar personality characteristics. One might think of the adage, “birds of a feather flock together” to understand the congruence of personalities within each category. Brown (2007) explained, “personality develops as a result of the interaction of inherited characteristics, the activities to which the individual is exposed, and the interests and competencies that grow out of the activities” (p. 34) and that “individuals must select vocational environments congruent with their personalities to maximize their job satisfaction and achievements” (p.35). As such, Holland theorized matching individuals’ interests and personalities to like environments to maximize occupational satisfaction.

Researchers and career theorists have tested the Strong Interest Inventory continuously since its development. Gasser et al. (2007) investigated the concurrent validity of the most recent edition of the Strong Interest Inventory, which was updated in 2005 to reflect the changing world of work. They sought to differentiate 31 academic majors among the 41 content scales of the Strong Interest Inventory. Their study included 1,872 participants (1,403 women and 469 men), and the results indicated that the Strong Interest Inventory Basic Interest Scales were predictive of the participants’ academic major, supporting concurrent validity.

Likewise, Bailey, Larson, Borgen, and Gasser (2008) investigated the continuity of the Strong Interest Inventory from the 1994 version to the 2005 version. Participants were 622 college students enrolled in an introductory psychology class. Specifically, Bailey et al. wanted to know whether the content scales of the two versions were comparable. The results of their

study indicated “strong positive relations” (p. 152) between the scales of the two versions of the Strong Interest Inventory.

These two studies are important to remember as 21st century college graduates head out into a workplace that is significantly different from that in which their parents and grandparents worked. The most current version of the Strong Interest Inventory is still valid and reliable to assist students in moving into a world of work that has transitioned from an industrial society to an information society and, now, to a service society. However, the Strong Interest Inventory is static and does not take into account a world of work that has moved from being secure and stable to being unstable and unpredictable. Not only has the work world changed, but so has the psychological mindset of the individual workers as they face a capricious work environment. I discuss reasons for this next.

### **The Changing World of Work**

The world of work began changing in the mid-20th century and continued into the 21st century. The most obvious evidence of that change was the breaking of the social contract (Niles, Herr, & Hartung, 2002) that existed between workforce organizations and the nation’s populace. Employers no longer extended previously offered benefits such as long-term employment or pensions. An organization’s loyalty to its employees waned. In response, members of the labor force began moving their focus from depending on their employer to advance their careers and shifted to their own subjective interpretation of career success. The result was what Hall (1996a, 1996b) and Briscoe, Hall, and DeMuth (2006) called the *protean career* and what Arthur (1994), Arthur and Rousseau (1996), and Briscoe et al. (2006) called the *boundaryless career*.

The protean career (Briscoe et al., 2006; Hall, 1996a, 1996b) encompasses individuals’ value-driven and self-directed attitudes. For instance, and in keeping with the idea that

individuals no longer look to employers for career success, 21st century employees make career decisions based on what is important to them and what has meaning for their lives. The boundaryless career (Arthur, 1994; Arthur and Rousseau, 1996; Briscoe et al., 2006) proposes the idea that 21st century employees are more willing than employees of past decades to work across organizational boundaries and for multiple employers throughout their career. In fact, engaging in multiple careers over the lifespan is not unusual. Responding to both the protean and the boundaryless careers requires that workers engage in self-development (Savickas, 1993).

Informing degree-seeking emerging adults about protean and boundaryless constructs is important as they pursue their educations (O'Regan, 2010). There are mental and emotional struggles that ensue for emerging adults relative to their career decision-making process. Since birth, they have heard their grandparents and perhaps parents talk about climbing the corporate ladder and remaining with one employer over the working lifespan. This is no longer the case for the vast majority of the labor force (Arthur, 1994; Arthur and Rousseau, 1996; Briscoe et al., 2006; Hall, 1996a, 1996b; Savickas, 1993), yet many times emerging adults continue to look for the security that seemed certain with 19th and 20th century employment. Higher education career professionals are charged with teaching 21st century college students about protean and boundaryless career constructs and providing guidance against those backdrops. We must help students develop self-directed and value-driven career attitudes and skills (Briscoe et al., 2006). One way to accomplish this is to question students' constructs about career and the world of work.

With this shift in both the world of work and the mindset of the 21st century worker comes a cry from career theorists and researchers for the use of innovative career counseling techniques, a cry that began in the prior century (Heppner et al., 1994; Savickas, 1998; Skovholt



et al., 1989) and continues today (Hunt, 2010; Savickas, 2010; Shepard & Shoop, 2003). These innovative interventions should augment, not replace, traditional interventions (Savickas, 2005). For instance, in higher education settings, use of the Strong Interest Inventory or the Myers-Briggs Type Indicator (MBTI) (Myers & Briggs, 1976; Myers & McCaulley, 1985) would be supplemented with a creative writing activity (Hunt, 2010), guided imagery, career genograms, or collages (Heppner et al., 1994). Sacino (2005), a community college educator, suggested the use of narrative as adjunct to foundational career theories and techniques.

Narratives, or life stories, play a significant role in one's self-assessment of motives (Sacino, 2005) and opportunities (Bujold, 2004), and are what Savickas (2005) called "the construction tools for making meaning." Moreover, Sacino argued that life stories aid students in resolving life and career impasses. This takes place as students construct their identities through narrating their stories, "an obviously important concept in career theory" (Bujold, p. 472). According to Bujold, counselors play an important role in helping students co-construct their identities through stories, which in turn, helps students to envision an occupational future.

One such narrative method of providing well-rounded career counseling with career clients, including degree-seeking emerging adults, was put forth over two decades ago by Savickas (1998). Savickas designed the *career story interview* (CSI) to enrich empirically tested assessment instruments, including the Strong Interest Inventory. He posits that these instruments, while important, do not take into consideration the readiness level of the student to engage in the career counseling process or be motivated by the results of the career instruments. Both Savickas and Schwartz et. al (2005) maintain that individuals must be able to stabilize their self-concept to engage fully in the career decision-making process. As established in an earlier section, emerging adults are continuing to explore and construct their identity. Savickas (1998) argued

that until individuals stabilize their self-concept, they lack the ability to “respond meaningfully to interest inventories” (331). He believes strongly that emerging adults need assistance in developing their self-concept and clarifying their career objectives and postulates career professionals can aid emerging adults accomplish these tasks via use of the career story interview (CSI).

The CSI is a career counseling method that Savickas (1998) is convinced gets to the heart of emerging adults’ self-concept. Counselors use the CSI to assess a student’s level for readiness to engage fully in the career counseling process. Readiness, or motivation, to engage in the counseling process presupposes that the counseling process will be meaningful to the student. The CSI helps students understand what they need from a career if they are to find satisfaction in that career and make meaning in their lives. Assessment, through the CSI, determines not only the interests of the student but also the career ambitions, the decision-making processes, and the dilemmas or barriers students face in making career choices. These are constructs objective career inventories cannot assess.

The career story interview contains a series of stimulus questions. These questions elicit “self-defining stories...about life structure (roles), adaptability strategies, motivations, strivings, and personality style” (Taber et al., 2011, p. 275). Each CSI question elicits micro stories that the career professional and the student weave collaboratively into a grand narrative that the student can apply to the future. The grand narrative provides clarity in career abilities and strengths and provides motivation for the student to explore the specifics of individual work environments, which are temporary and transitional. In short, using the CSI as a career counseling intervention helps increase students’ career adaptability to a constantly changing world of work. This allows a relief from the dilemmas or inaction students have faced prior to this intervention.

Little empirical data exists on the CSI. In a careful search of existing literature, only one study emerged. For her dissertation, Hanson (1995) sought to validate use of the CSI as a viable career counseling intervention. Her hope was to predict the Holland work values and both the personality styles and traits based on responses to a videotaped career story interview. The participants for Hanson's study were 101 graduate students enrolled in either a counseling or a counseling psychology program. These graduate students were counselors-in-training whom the researcher asked to view a videotape of the career story interview conducted with a 29-year-old male. They were then asked to predict one or more of his RIASEC theme code letters. Prior to the interview, Hanson had administered the Self-Directed Search (SDS) (Holland, 1994), an interest inventory developed by Holland (1994), to the 29-year old "client." The Self-Directed Search is similar to the Strong Interest Inventory in that it assesses and organizes interests within the six RIASEC categories, and career professionals use it sometimes in place of the Strong Interest Inventory.

Ninety-six of the participants in Hanson's study identified at least one of the RIASEC categories that surfaced in the "client's" SDS 3-letter theme code after viewing the videotape. Sixty-nine (62.7%) of the participants identified the primary (i.e., first letter) type. Hanson does not specify the number of participants who were able to identify both the first and second letters of the 3-letter code. None were able to identify all three of the SDS 3-letter theme code. One important reason Hanson cited for this is that a counselor "would have to be quite knowledgeable about the definitions and descriptions associated with each of the six RIASEC personality/occupational types in order to assign an exact code to an individual based on brief biographical data alone" (p. 116). This assertion makes an important contribution to this study, which I describe in the methodology chapter.

## Summary

A review of the literature indicates the need for effective career developmental and decision-making interventions, particularly in higher education settings where degree-seeking emerging adults are crystallizing their self-concepts, formulating their career identities, and preparing to move into a constantly changing work world. Savickas (1998; 2005; 2010) argued that career assessment inventories are insufficient when used alone and called for use of supplemental interventions in the career development relationship. Conjointly, researchers have put forth the call for innovative career development interventions (Heppner et al., 1994; Savickas, 1998; Skovholt et al., 1989). Because of the distinct developmental issues degree-seeking emerging adults face (Arnett, 2000, 2007; Arnett & Tanner, 2006), responding to the call for career developmental creativity with this unique population only makes sense.

Through this study, I attempted to validate use of the career story interview in assisting degree-seeking emerging adults in their career decision-making process, including orientation and commitment to a career path. Integration of the CSI with the Strong Interest Inventory will test Savickas's theory and heed the call for working with college students more creatively and, hopefully, more effectively. In the next chapter, I explain the steps I took to assess the validity of the CSI.

## CHAPTER III

### METHODOLOGY

The purpose of this chapter is to specify the procedures I used to carry out this research project. First, I explain the research design for this study. Next, I discuss the dataset with which I worked, followed by a discussion of the instrumentation used in this study. Following the instrumentation section, I remind the reader of the hypotheses that directed this study. Last, I provide a discussion of the ways in which I analyzed the data for this study.

#### **Research Design**

The purpose of this mixed-methods study was to assess the validity of the career story interview (CSI) for use in career development counseling with degree-seeking emerging adults. Relying on archival data, I compared narrative responses to three of the seven CSI questions to the objective results of the Strong Interest Inventory (SII) career assessment. The CSI questions and the SII were completed by degree-seeking emerging adults as course assignments. I explain the details of this comparison in the *Data Analysis* section.

The results of this study may be generalizable to other degree-seeking emerging adults because career centers across all institutional types use the SII in assisting students resolve career difficulties. In addition, results may be transferrable to other populations because, as Hansen (2000) points out, “the Strong is used by a broad cross section of organizations including secondary and vocational-technical schools, universities, government agencies, mental health centers, hospitals, industry, consulting firms, private institutions, and the military” (p. 236).

Further, the SII has been used successfully with 13-18 year olds (Hansen, 2000) and has growing validity of use with diverse cultures (Hansen & Lee, 2007).

## **Dataset**

The dataset for this study came from archived assignments completed by degree-seeking emerging adults who were enrolled in a career and life planning class that I taught. The class was open to students who had earned enough credit hours to gain junior or senior status at the midsize Southern university where this study took place. There are multiple sections of this class across three campuses, and the classes are offered during both the fall and spring semesters of each academic year. On average, each section contained 25-28 students. The School of Education funds these classes partially, and staff from the university-based career center teach the classes. Students receive a grade and three credit hours for successful completion of the class.

The dataset for this study came from one section of both the fall and spring semesters of the 2009-2010 and 2010-2011 academic years (four semesters overall). There was a total of 100 students in these four sections. I eliminated seventeen students from this study: four students did not complete the SII, ten students either chose not to complete the CNP or did not complete the CNP in its entirety, and three students were not emerging adults based on Arnett's (2000) definition. Of the remaining 83 students, 31 (37.3%) were male, 52 (62.7%) were female, 14 (16.9%) were juniors, 68 (81.9%) were seniors, and two (1.2%) were unclassified as to their classification.

The primary objective of the career and life planning class is to prepare juniors and seniors for the transition from college to either the world of work or graduate school. Typical curriculum includes resume and cover letter preparation, job searching and interviewing skills, goal setting, and many other topics that may be relevant to the transition from college.

Instructors have the discretion of including other topics they deem important to the subject of career and life planning. For example, for the section from which the dataset came, I began each semester by advising students that I would include assignments and activities designed to help the students “know themselves” more thoroughly than when they began the semester. One of the assignments was a semester-long writing activity I called the *career narrative project*, which required students to respond to reflective questions. The questions came directly from the CSI, which I discuss in detail in the instrumentation section of this document. The inclusion of this assignment aligned well with the instructor’s belief that individuals are prepared better to make informed decisions about life and career as they know themselves more intimately. More succinctly, the goal of this assignment was to provide students one way of identity exploration. In addition, the assignment related directly to course objectives, such as setting short and long-term goals for career and life planning and for looking at alternatives to planned goals based on learning more about oneself during the semester.

Required curriculum across all sections of the career and life planning class includes completion of the Myers-Briggs Type Indicator (MBTI) (Myers, McCaulley, Quenk, & Hammer, 1998), the Strong Interest Inventory (SII) (Hansen, 2000; Harmon et al., 1994), and a mock interview at the university career center. In addition, students are required to attend one career fair during the semester, and instructors across all sections teach students how to develop resumes, write cover letters, perform job searches, apply for jobs, and navigate job interviews. Students pay a \$50 fee for the MBTI and the SII. No other fees apply nor is a textbook required. As noted earlier, additional assignments are at the discretion of the instructor. For instance, instructors of two sections required students to participate in a service-learning project in which students volunteered time in the community. These same instructors also required their students

to conduct interviews of community members. This was a group project modeled after Roadtrip Nation (see Roadtripnation.com) purposed for students to discover how others determined what they wanted to do in life when the same age of the college students conducting the interviews. Another instructor required his students to put together a career portfolio of assignments, such as completed resumes and cover letters. I was the only instructor that required students to participate in the career narrative project (CNP).

Neither the participants' MBTI results nor other required assignments have any bearing on the present study; therefore, I focused only on the SII and the career narrative project (CSI questions) from my section of the career planning class as instruments used for this study. Specifically, I was interested in how participant CSI results relate to the SII results. I discuss both of these at length in the next section.

## **Instrumentation**

**Strong Interest Inventory (SII).** The SII, in existence since 1927, is an objective 291-response career assessment that has been revised on several occasions. These revisions have served to strengthen the SII by both blending the male and female versions and keeping pace with occupational changes in the workplace over the decades (Hansen, 2000). In a study conducted to investigate the degree of variation in RIASEC profiles across five interest inventories, Savickas and Taber (2006) found that the SII-derived profile was most representative of the RIASEC typology than the other four inventories (i.e., the Campbell Interest and Skills Survey [CISS; Campbell, Hyne, & Nilsen, 1992]; the Kuder Occupation Interest Survey [KOIS; Kuder & Zytowski, 1991]; the Self-Directed Search, Form R [SDS; Holland, Fritsche, & Powell, 1994]; and the Revised Unisex Edition of the ACT Interest Inventory [UNIACT-R; ACT, 1995]). The SII version used for this study was the 2004 College



Edition version, which is the most current version available, and is the version used in the career and life planning classes from which data for this study came. The 2004 College Edition version includes amendments to the response items, which in turn, makes the assessment more user-friendly (Donnay, Thompson, Morris, & Schaubhut, 2004). In addition, the 2004 College Edition version includes current occupations, with an increase in “the level of business, technology, and teamwork measures” (Donnay et al., 2004, p. 2) and a broadening of work and leisure activities.

The SII contains four main scales. The *General Occupational Themes* (GOT) scale provides broad descriptions of the assessment taker’s interests, possible skills and abilities, and various work activities. The SII results profile organizes these descriptions within the six RIASEC categories. The *Basic Interest Scales* (BIS) provide more specific details regarding the GOT results by specifying general occupational areas that align with the assessment taker’s interests. The *Occupational Scales* (OS) suggest ten occupations based on the assessment taker’s responses. These suggestions are ascertained through a comparison of the likes and dislikes of the assessment taker with those of individuals of the same gender who expressed satisfaction in the ten specific occupations suggested in the OS section of the SII. Finally, the *Personal Style Scales* (PSS) give an indication of the ways in which the assessment taker approaches “learning, working, playing, or living in general” (Borgen & Grutter, 2005, p. 18). The PSS measures such things as risk taking comfort, preference level for working in groups, and learning preferences.

The GOTs, BIS, and OS provide results within Holland’s typology by using the RIASEC categories to organize the information. The weight of the assessment taker’s results within those six RIASEC categories creates the 3-letter theme code used to interpret the SII results. In other words, the category that receives the most interest, based on the assessment taker’s results, becomes the primary RIASEC theme and is represented by the first letter of that category. The

category that receives the second highest interest becomes the secondary RIASEC theme, which is represented by the first letter of that category. Interest results continue throughout the remaining RIASEC categories, and the primary, secondary, and tertiary categories, represented by the first letter of the RIASEC category, constitute the 3-letter RIASEC theme code. On occasion, an individual's responses to the SII weigh heavily in only one or two RIASEC categories, thus, providing a 1-letter or 2-letter RIASEC theme code. Because the focus of this current study is on the RIASEC categories rather than general occupational areas or specific occupations within those categories, I will focus only on the GOT scale.

***General Occupational Themes (GOTs).*** The GOTs are based on Holland's (1985; 1996) typology and provide a representation of the six vocational personality types articulated in Holland's theory (Hansen, 2000). Based on his research on Holland's typology, Prediger (1981) articulated that, generally, individuals enjoy working with people, things/objects, data, or ideas. Holland's typology includes the following interest categories:

***Realistic (R).*** This category includes individuals who are "doers" and represents a preference for working with objects/things. Objects might include machinery or tools, and individuals who present as "realistic" might prefer careers such as mechanics, carpentry, truck driving, or working with computer hardware. "Realistic" individuals perceive themselves as frank, practical, and productive, yet may come across to others as stubborn or hardheaded. "Realistic" individuals may avoid social interaction (Borgen & Grutter, 2005; Donnay et al., 2004; Harmon et al., 1994; Holland, 1994, 1996).

***Investigative (I).*** This category includes individuals who are "thinkers" and represents a preference for working with ideas. Individuals with "investigative" preferences tend to enjoy scientific inquiry – attempting to answer questions of *why* and *how*. "Investigative" types tend to

view themselves as analytical, exploratory, and intelligent. Others may consider them as intellectual, scholarly, and independent. “Investigative” individuals may be drawn to careers such as microbiology, chemistry, or research. “Investigative” types might avoid contexts in which persuasive skills are required (e.g., sales) (Borgen & Grutter, 2005; Donnay et al., 2004; Harmon et al., 1994; Holland, 1994, 1996).

*Artistic (A).* This category includes individuals who are “creators” and represents a preference for working with ideas. Career preferences might include interior designing, writing/editing, acting, or other forms of artistic endeavors (e.g., sculpting, drawing, or painting). “Artistic” individuals view themselves as imaginative, introspective, and open to experiences. They tend to have an appreciation for aesthetics. Others may experience “artistic” types as non-conforming, emotional, and impulsive. “Artistic” individuals might avoid habitual schedules and conformity to conventional policies (Borgen & Grutter, 2005; Donnay et al., 2004; Harmon et al., 1994; Holland, 1994, 1996).

*Social (S).* This category includes individuals who are “helpers” and represents a preference for working with people. “Social” career preferences might include social worker, teacher, counselor, or clergy member. “Social” types may view themselves as altruistic, empathic, helpful, and friendly. Others may describe “social” types as cooperative, generous, and facilitative. “Social” individuals might avoid technical or mechanical activities (Borgen & Grutter, 2005; Donnay et al., 2004; Harmon et al., 1994; Holland, 1994, 1996).

*Enterprising (E).* This category includes individuals who are “persuaders” and represents a preference for working with people. “Enterprising” types prefer careers such as sales, politics, or law. They may view themselves as self-confident, leaders, and astute at making things happen. Others may describe “enterprising” types as energetic, manipulative, dominant, and adventurous.

“Enterprising” individuals might avoid complex topics or scientific or intellectual environments (Borgen & Grutter, 2005; Donnay et al., 2004; Harmon et al., 1994; Holland, 1994, 1996).

*Conventional (C)*. This category includes individuals who are “organizers” and represents a preference for working with data and/or things. “Conventional” individuals prefer establishing and maintaining orderly, habitual routines, and career preferences might include clerical or computer tech positions (e.g., programming software), accountancy, and editor or proofreader. “Conventional” types view themselves as obedient, conscientious, and skilled in technical or production endeavors. Others may describe “conventional” individuals as inflexible, inhibited, and conforming. “Conventional” individuals might avoid obscure endeavors (Borgen & Grutter, 2005; Donnay et al., 2004; Harmon et al., 1994; Holland, 1994, 1996).

Use of the SII is popular in college career centers because of the strong reliability and validity of the SII across all four scales. Donnay et al. (2004) reported that the Cronbach’s alphas for the six GOT categories remained consistent in past versions of the SII and showed improvement in the 2004 College Version. Donnay et al. reported alpha coefficients as *Realistic* ( $\alpha = .93$ ), *Investigative* ( $\alpha = .92$ ), *Artistic* ( $\alpha = .95$ ), *Social* ( $\alpha = .93$ ), *Enterprising* ( $\alpha = .91$ ), and *Conventional* ( $\alpha = .91$ ). Reliability correlations on test-retest, as reported by Donnay et al., are *Realistic* ( $r = .92$ ), *Investigative* ( $r = .89$ ), *Artistic* ( $r = .92$ ), *Social* ( $r = .88$ ), *Enterprising* ( $r = .95$ ), and *Conventional* ( $r = .84$ ).

**Career Story Interview (CSI)**. The CSI (Savickas, 1998, 2005, 2011a) is a narrative approach to providing career counseling to individuals facing career developmental tasks. The CSI consists of stimulus questions aimed at soliciting life stories from the interviewee. The premise is that the interviewee’s self-concept is embedded within the life stories and that career

professionals learn much about the individual's life roles, character traits, strategies for adaptability, and incentives by using the CSI with clients.

Questions comprising the CSI include asking about one's role models or heroes; what magazines, books, television shows, websites, or hobbies the interviewee enjoys; a particular motto to which the interviewee is inclined; and favorite school subjects. The final question asks the participant to recall three early childhood memories. Through the responses the interviewee gives, the skilled interviewer may determine aspects of the self-concept and career interests of the interviewee, how the interviewee solves problems, and the interviewee's ways of movement through life.

The CSI has experienced several modifications since its conception. Savickas (1998) conceived the CSI as the *career style interview* originally, and the number of questions have fluctuated between five (Savickas, 2011a) and eight questions (Hanson, 1995) since its origin. The most current modifications (Savickas, 2011a) included a change in name and a reduction in the number of questions. Savickas amended the name of the CSI to *career story interview* to reflect the narrative nature of career construction counseling. Career construction counselors believe that the self-concept and identity of individuals lie within their *story*. As individuals narrate their stories, they begin to understand themselves better and use pieces of their story to design and construct a career for themselves. Thus, *career story* interview aligns better with the tenets of career construction theory. I selected the CSI version used for this study prior to the most recent changes. The version I used consisted of seven questions. As explained in chapter two, I used the results of only three of those questions, which are described below. For the exact wording of these questions, see Appendix A.

The wording of the first question used in this study instructs the interviewee to name three individuals, preferably other than parents, the interviewee admired while growing up. These role models or heroes can be real or fictional (e.g., superheroes, cartoon characters, animals) and either renowned or relatively unknown. Following up on the interviewee's response, the interviewer asks what the interviewee admired about these individuals and about similarities and differences the interviewee has with these early role models. The counselor's focus is on *what* about the role model or hero the interviewee admires, not on *who* the role model or hero is. According to career construction theory, the interviewee will reveal clues about his or her identity in the response. In particular, the interviewer will learn about the interviewee's values and how he or she conceptualizes the self. The interviewee combines main aspects from each role model to form a meaningful, whole "self."

Like the question about role models and heroes, the second question used in this study is multifaceted. The question instructs the interviewee to discuss favorite magazines, television shows, and websites that the interviewee peruses regularly. In addition, the interviewee's responses will include what he or she enjoys most about these magazines, television shows, and websites. In the responses, the interviewer should hear clues about preferred environments that the interviewee enjoys and where he or she gains a sense of implementation of the self. Savickas (2011a) argued that by "applying Holland's RIASEC language to a client's favorite setting, practitioners can translate magazines, television shows, or websites into an occupational code" (p. 115). Specifically, "the CSI question about magazines, television shows, and websites gives the best indication of the individual's preferred RIASEC environment" (M. L. Savickas, personal communication, June 30, 2010).

Finally, the third question is worded such to instruct the interviewee to name favorite and least favorite high school subjects. Because research indicates teacher characteristics may influence both student perception of the classroom experience and academic performance (Bierman, 2011; Dan, Feng, & Wang, 2009; Brown, Jones, LaRusso, & Aber, 2010; Desimone & Long, 2010; Koles, O'Connor, & McCartney, 2009; Lizzio, Dempster, & Regan, 2011), the interviewee is instructed to focus on what, specifically, made the subject either enjoyable or displeasurable rather than on teacher attributes. In asking this question, the counselor is attempting to differentiate aspects of the individual's self-concept. As in the first two questions, the question directs interviewees to discuss why they enjoyed or disliked the subjects they named. The interviewer is listening for interests, skills, and values in the responses. In addition, the interviewer learns what early experiences were satisfying to the interviewee (Taber et al., 2011).

Usually, a career counselor conducts the CSI individually and privately over the course of one to two 60-90 minute sessions. I implemented the CSI as a written assignment in my section of the career and life planning class for three reasons. First, and as explained earlier, I viewed the CSI as a supplemental method for students to gain knowledge about themselves. Career construction theory tenets hold that "self-conscious reflection that constructs continuity across the past, present, and future" (Savickas, 2011a, p. 15-16) is essential if one is to understand the "self." The CSI was a reflective engagement that allowed students to put their experiences into a narrative form and meld together the various pieces of those experiences to formulate an identity. At the beginning of each semester, I advised the students that one of my goals for the semester was to help them know themselves well. Toward that end, I introduced activities both inside and outside of the classroom aimed at facilitating self-discovery in the students. The CSI was one of

several activities designed to engage students in self-reflection. Self-reflection allowed the students a way in which they could respond to two objectives outlined in the syllabi of all sections of the career and life-planning classes. Students could begin to both articulate career and life goals through self-reflection and explore alternatives to long-held beliefs about who they are as a person. Second, use of the CSI as a written class assignment aligns well with University writing initiatives, primarily a quality enhancement plan that focuses on reflective writing as a core learning value. Third, using the CSI as a written class assignment is one response to the calls for innovative career counseling in the 21st century (Heppner et al., 1994; Savickas, 1998, 2011b; Skovholt et al., 1989).

In using the CSI as a class assignment, I developed the *Career Narrative Project (CNP)*. Approximately three class sessions into the semester, I introduced and explained the CNP as a writing assignment in which the students would write a one-to-two page response to questions that I would give them throughout the semester. Thereafter, I gave the students one question from the CSI, in succession, every three class sessions. In other words, as the students completed one CNP response, I assigned the next CSI question. In the class session in which the students submitted the last CNP response, I devoted the entire class period to giving a thorough explanation of the CSI/CNP and included a theme mapping (Barclay & Stoltz, 2011) example for clarity. Theme mapping is a way of making connections between various facets of the CSI interviewee's responses in a visual form, such as on a whiteboard in the classroom. Completion of the CNP earned students points toward their final grade. Not all students chose to complete the project.

No empirical information exists for the CSI because little research exists to assess validity of the CSI. Only one study exists wherein the researcher (Hanson, 1995) sought to assess



such information. In her study, Hanson asked 101 graduate students from counseling or psychology programs to view a videotape in which she conducted the CSI with a single interviewee. Hanson asked the graduate students to predict a 3-letter RIASEC theme code for the videotaped “client.”

**The Researcher as an instrument.** My involvement as researcher in this current study plays a significant part. I was the instructor of record for the career and life planning class from where the data for this study came. I developed and assigned the CNP as a writing assignment in the class. My interest in career construction theory and, in particular, the CSI has grown in proportion to my involvement as a career counselor and instructor at the university from where the data came. My first exposure to career construction theory and the CSI was through research related to my work as a career counselor. My interest intensified after watching Mark Savickas give live demonstrations of the CSI at professional career development conferences.

Various researchers and I have used the CSI with degree-seeking emerging adults in individual, group, and classroom settings (Barclay & Stoltz, 2011; Barclay, Stoltz, & Wolff, 2011). Students have responded favorably to use of the CSI, and the resulting narrative responses have guided our work together. I acted as a coder in the qualitative analysis of the CSI responses used in this study. To control for the biases I brought to this study, I engaged two independent coders, as described later in the *Data Analysis* section.

## **Hypotheses**

Using data collected from degree-seeking emerging adults enrolled in a career and life-planning course at a midsize Southern university, I tested the following hypotheses:

1. There is no significant correlation between the RIASEC code derived from CSI question #1 and the SII-derived RIASEC code.

2. There is no significant correlation between the RIASEC code derived from CSI question #2 and the SII-derived RIASEC code.
3. There is no significant correlation between the RIASEC code derived from CSI question #3 and the SII-derived RIASEC code.
4. There is no significant correlation between the overall RIASEC code derived from the CSI questions and the SII-derived RIASEC code.

### **Data Analysis**

After securing the approval of my dissertation committee and waiver of Institutional Review Board (IRB) approval (see Appendix D) to conduct this study, I began analysis of the data. Analysis of the data took place in multiple and succeeding steps. First, I analyzed the data from the CSI question responses. Analyzing the CSI data took place prior to pulling the archived SII data. Second, I assessed for inter-rater reliability. Third, I compared the analyzed results from the CSI to the results of the SII to determine the amount of agreement in the RIASEC codes from both measures for each participant. The procedures for accomplishing the data analysis follow.

**Qualitative analysis.** Stemler (2001) described content analysis as an excellent method for making inferences out of qualitative data. Stemler contended that researchers could substantiate those inferences using additional methods of data collection (e.g., the SII, which I will discuss in the *Quantitative Data Analysis* section). With this in mind, content analysis of the CSI data took place as follows.

**Coders.** I identified potential coders as individuals who have a working knowledge of the RIASEC categories. This is important due to the theory-driven nature of this study. In addition, Hanson (1995) believed that the results of her study showed little accuracy in determining a client's RIASEC theme code due to the lack of knowledge the participants in her study had

regarding the six RIASEC categories. Because I relied on coders to “use intuition and induction to choose which...story fragments...fit into the [theory] frame and how to present” the identified patterns (Savickas, 2011a, p. 56), knowing Holland’s (1973, 1985, 1996, 1997) typology was crucial to this study. Two individuals I solicited as coders included a counselor educator and a career-counseling professional. The counselor educator teaches career counseling at the university from where the data for this study came. In addition, he presents research relative to matters of career at professional conferences and publishes on topics of career on a regular basis. The career-counseling professional works in the career center at the same university and teaches one of the sections of the career and life-planning class. Both have a strong working knowledge of Holland’s typology and the RIASEC categories. I served as the third coder. My experience as a career counselor, instructor of one section of the career and life-planning class, and a presenter of topics of career at professional conferences qualified me as a knowledgeable coder.

After securing coders for the narrative data, I provided each coder with a chart that specifies the *interest types* and *occupation types* of all six RIASEC categories. The chart came directly from the *Dictionary of Holland Occupational Codes* (p. 3-4, Gottfredson and Holland, 1996), a guide to using Holland’s RIASEC theme codes. Although each coder had a working knowledge of the RIASEC categories, providing the same chart to all three coders assured uniformity of materials. This is in concert with Stemler’s (2001) description of *a priori* coding, wherein “the categories are established prior to the analysis based upon some theory” (para. 13). Validity and reliability of Holland’s (1973, 1985) theory of vocational interest are well established, and Holland’s typology served as the foundation of established categories for analyzing the CSI responses. Because Stemler argued that referential coding units are most effective in “making inferences about attitudes, values, or preferences,” (para. 14), I instructed

the coders to base their inferences on the referential coding units represented as the entire narrative response to each of the CSI questions, per participant. Coders rated each response on a seven point Likert scale that ranged from *most dissimilar* (1) to *very similar* (7) in relation to the RIASEC categories (see Appendix B); the three strongest rated RIASEC themes created the 3-letter RIASEC code. Stemler (2004) stressed the importance of training coders in both interpreting a scoring rubric and applying the rating scale levels consistently so as to exact “some level of objectivity onto the rating scale” (para. 1).

***Distribution of qualitative data.*** I pulled the archival narrative data from each of the 83 participants and de-identified the data. Identifying information on the data included participants’ names, gender, and university classification (i.e., junior or senior). I replaced participants’ names with sequential ID numbers before distributing to the three coders. I left gender and university classification as this information, without the names, could not identify participants.

The distributed data included the narrative responses for the three questions of the CSI, which I identified in an earlier section. The first response was to the question regarding role models; the second response was to the question regarding magazines, television shows, and websites; the last response was to the question regarding high school subjects. I instructed the coders to perform a unit of analysis by which the coders read and analyzed each narrative response to each of the three CSI questions and assigned a RIASEC category based on the final Likert scale scoring. The three strongest rated RIASEC themes composed the 3-letter RIASEC theme code. Development of the RIASEC theme codes took place for each of the three narrative responses.

***Interrater reliability.*** After the coders completed their analysis of the CSI content, I assessed for interrater reliability. Stemler (2004) specified *consensus estimates* as useful in

assessing interrater reliability for nominal data and touted simple percent-agreement as the most popular computational method for interrater reliability of consensus estimates. Percent-agreement involves dividing the total number of cases that coders rated the same by the total number of cases that the coders rated altogether (Stemler, 2004). One disadvantage Stemler pointed out is that getting an artificially inflated percent-agreement is possible. He cited the labor intensive, time-consuming nature of training coders to come to precise agreement. To lessen the chance of artificially inflated percent-agreement, Stemler discussed use of a rating scale (i.e., Likert) with a range of 1-7, which is why I included a seven point Likert scale for the analysis of the narrative data in this study. Use of a rating scale eliminated the need for coders to come to precise agreement on the ratings each assigns. Both Stemler and Stemler and Tsai (2008) alleged that coders agree if their ratings do not differ by more than one point over or under the others' rating. Therefore, I instructed the coders to conduct their analysis on the provided Likert scale described above.

Upon completion by all three coders of rating the qualitative data on the 7-point Likert scale, I entered the ratings in Statistical Packages for the Social Sciences (SPSS). I organized the data in an 83 x 54 contingency table, with the rows representing each of the participants and the columns representing each coder's rating of responses to each of the three questions across all six RIASEC categories. Organizing the data in this manner allowed me to assess for intraclass correlation (ICC) on each of the six RIASEC categories for each of the three CSI questions for all participants. Specifically, I used a two-way random, average measure (ICC 2,3) as recommended by Shrout and Fleiss (1979; see also McGray & Wong, 1996; RN Lander, 2011) when one is assessing ICC for a sample and desiring generalizability to other coders. In addition,

Stemler and Tsai (2008) specified ICC as a stringent estimate of interrater reliability for which a researcher could be assured of excellent interrater reliability the closer to 1 the ICC coefficient is.

**Quantitative Analysis.** Various researchers (e.g., Miller, 1997, Prediger, 1981, 1982; Prediger, Swaney, & Mau, 1993) have spent considerable time comparing objective career counseling instruments and especially those utilizing Holland's (1973, 1985, 1997) typology (Prediger et al., 1993). In particular, Prediger (1981) developed a method for specific quantitative application to the theory of preference expressed by John Holland (Miller, 1997). By using the 4-2-1 formula Prediger (1981) developed, researchers have been able to assess agreement among career interest inventories that express vocational interest in score form (i.e., RIASEC theme codes) for the personality types found in Holland's model.

Succinctly, Prediger (1981) developed the 4-2-1 formula to help individuals identify their exact location on the world-of-work map. The world-of-work map is a diagram on which Prediger arranged groups of similar occupations based on the primary work tasks of each of those occupations. Prediger delineated the primary work tasks based on whether individuals preferred working with data, ideas, people, or things. The six general areas of work on the world-of-work map represent Holland's (1973, 1985, 1997) personality and work environment types.

Miller (1997) extended Prediger's (1981) 4-2-1 formula by developing an overall RIASEC theme code for a particular career client from a subset of RIASEC codes for that client. Miller developed the subset RIASEC codes from client responses to questions about values, abilities, personality. Miller constructed a 3 x 5 matrix for displaying the results and used a tallying system to create the overall RIASEC theme code. The overall RIASEC theme represents an averaging of the subset RIASEC codes (see Appendix C for a more complete description of Miller's method for developing the overall RIASEC theme code).

Using Miller's (1997) methodology as a framework, Savickas and Taber (2006) performed a comparison of five interest inventories to assess for individual differences in the RIASEC profile across those five interest inventories. Like Miller (1997), Savickas and Taber invoked Prediger's (1981) and Prediger et al.'s (1993) 4-2-1 formula to develop the main RIASEC codes. In addition, Savickas and Taber correlated the results utilizing the matrix design from Miller's study. One variation these authors injected came from Hutchinson's (2000) instructions for measuring agreement between multiple RIASEC theme codes for one individual. Hutchinson extended Miller's (1997) matrix process in a way that he believed generated a stronger calculation of agreement. Hutchinson compared his 4-2-1 modification to Kendall's coefficient of concordance (Siegel, 1956) and contended his addition extended Miller's *averaging* of RIASEC codes to "showing how their *degree* of agreement can be summarized" (p. 162).

To correlate the results from the data, I utilized Miller's (1997), Hutchinson's (2000) and Savickas and Taber's (2006) matrix correlation system. I converted the RIASEC theme codes that all three coders derived from the CSI narratives. Likewise, I converted the SII RIASEC theme codes. Prediger et al.'s (1993) 4-2-1 formula provided the framework for this conversion. Prediger et al. developed this formula by assigning the number "4" to the first letter in the 3-letter RIASEC theme code, the number "2" to the second letter in the 3-letter RIASEC theme code, and the number "1" to the third letter in the 3-letter RIASEC theme codes. The assignment of 4-2-1 is predicated on the idea that the value of each succeeding letter is one-half the value of its predecessor. Prediger et al. explained,

The best assignment of scores to 3-letter codes is a matter for further research; however, the assignment of scores of 4, 2, and 1 to the Holland types that rank first, second, and third has received empirical support (Prediger, 1981, 1982) (p. 423).

Prediger et al. recommended the assignment of “0” for those Holland types that do not appear in the 3-letter codes.

In converting the CSI coded results to the 4-2-1 formula, ties occurred in some cases. I addressed these ties in the manner described by Savickas and Taber (2006) wherein these authors assigned the same numerical value where the ties occurred during conversion to the 4-2-1 formula. For example, one participant in this study had a theme code of IAS, wherein the “I” and the “A” codes tied in numerical value for first and second place in the theme code. As such, I added the 4 (first letter) and the 2 (second letter) values and divided the total of “6” between the “I” and the “A”, thereby assigning a 3 to both the “I” and the “A.” I used the same tie-breaking method when ties occurred in the second and third place code letter.

After assigning numerical codes to both the coded CSI responses to each of the three CSI questions and the SII RIASEC theme codes based on the 4-2-1 formula, I took the following steps to address each of the four hypotheses associated with this study.

**Step one.** Using Miller’s (1997) method of correlation I constructed three 6 x 4 matrixes for each participant. Each of the three matrixes represents one of the three CSI questions to which participants responded. The rows represented the six RIASEC theme categories, and the columns represented the RIASEC code determined by each of the three coders on the particular question and the overall code for that particular question. Each cell contained a numerical value that represented the location of the RIASEC category in the RIASEC theme code. For example, the first letter of the RIASEC code was assigned a 4; the second letter of the RIASEC code was



assigned a 2 (half the value of the first letter); and the third letter of the RIASEC code was assigned a 1 (half the value of the second letter). The last column displayed the total calculation of the three coders combined to represent the overall RIASEC theme code for that particular question. See Table 1 and Table 2 for example correlation matrixes for the CSI responses to question one for two of the participants. Table 1 displays results for a participant whose RIASEC ratings represent a degree of congruence; Table 2 portrays results for a participant whose RIASEC ratings embodied decreased agreement. In addition, Table 2 includes an example of a tie-breaking method described on page 53.

Table 1

*Example correlation matrix for RIASEC theme codes – degree of congruence*

Question #1	CSI <sub>1</sub>	+	CSI <sub>2</sub>	+	CSI <sub>3</sub>	= Overall
	ASE		ESA		SEA	SEA
Realistic	0*		0		0	0
Investigative	0		0		0	0
Artistic	4		1		1	6
Social	2		2		4	8
Enterprising	1		4		2	7
Conventional	0		0		0	0

\* Prediger (1981) specified the use of 0 when a categorical letter does not appear in the RIASEC theme code.

Table 2

*Example correlation matrix for RIASEC theme codes – decreased congruence*

Question #1	CSI <sub>1</sub>	+	CSI <sub>2</sub>	+	CSI <sub>3</sub>	= Overall
	SAR		ASI		IRC	A/S S/A I
Realistic	1		0*		2	0
Investigative	0		1		4	1
Artistic	2		4		0	3
Social	4		2		0	3
Enterprising	0		0		0	0
Conventional	0		0		1	0

\*Prediger (1981) specified the use of 0 when a categorical letter does not appear in the RIASEC theme code.

**Step two.** I created a fourth 6 x 4 matrix for each participant. Again, the rows represented the six RIASEC theme categories, and the first three columns represented the overall RIASEC code determined by totaling the three coders' CSI-derived RIASEC codes for each of the three CSI questions. The fourth column represented the overall RIASEC code, which was determined by totaling the coded results from each of the three CSI questions.

**Step three.** Using SPSS, I organized the 4-2-1 numerical codes for each participant from both the CSI coded responses from each coder and the SII-derived theme codes in a 6 x 5 matrix. The rows represented the six RIASEC categories (Holland, 1985, 1997), and the columns represented the 4-2-1 numerical values for each of the three CSI questions, the overall CSI code, and the SII theme code. See Table 2 for an example correlation matrix for participant one.

Table 3

*Example correlation matrix for RIASEC theme codes across CSI questions, overall CSI-derived code, and SII theme code*

	P1Q <sub>1</sub>	P1Q <sub>2</sub>	P1Q <sub>3</sub>	P1_OV	P1_SII
	ASE	ESA	SEA	SEA	ASE
Realistic	0	0	0	0	0
Investigative	0	0	0	0	0
Artistic	4	1	1	1	4
Social	2	2	4	4	2
Enterprising	1	4	2	2	1
Conventional	0	0	0	0	0

Note: P1Q<sub>1</sub> = participant #1, CSI question #1; P1Q<sub>2</sub> = participant #1, CSI question #2; P1Q<sub>3</sub> = participant #1, CSI question #3; P1\_OV = participant #1, CSI overall code; P1\_SII = participant #1, SII theme code.

**Step four.** To test hypothesis one: there is no significant correlation between the RIASEC theme code derived from the CSI question #1 and the SII-derived RIASEC code, I ran bivariate correlations using Pearson’s coefficient. My variables were the CSI-derived RIASEC code to question one regarding role models and the SII theme code.

To test hypothesis two: there is no significant correlation between the RIASEC theme code derived from the CSI question #2 and the SII-derived RIASEC code, I ran bivariate correlations using Pearson’s coefficient. My variables were the CSI-derived RIASEC code to question two regarding magazines, television shows, and websites and the SII theme code.

To test hypothesis three: there is no significant correlation between the RIASEC theme code derived from the CSI question #3 and the SII-derived RIASEC code, I ran bivariate

correlations using Pearson's coefficient. My variables were the CSI-derived RIASEC code to question three regarding high school subjects and the SII theme code.

To test hypothesis four: there is no significant correlation between the overall RIASEC theme code derived from the CSI questions and the SII-derived RIASEC code, I ran bivariate correlations using Pearson's coefficient. My variables were the overall CSI-derived RIASEC code and the SII theme code.

The purpose for designing the matrixes in the fashion I designed them was to analyze the data and statistically quantify the degree to which the SII and responses to each CSI question encompass the RIASEC typology. This encompasses Miller's (1997) matrix design which Hutchinson (2000) expanded. Hutchinson utilized SPSS in "calculating the correlations between each pair of the... data columns in the" (p. 160) matrix and compared his method to Kendall's coefficient of concordance. Hutchinson invoked this method for measuring the degree of agreement between multiple three-letter Holland codes for one individual. By following Hutchinson's methodology, I expected to assess the degree of agreement on RIASEC theme codes between each CSI question response and the SII results used in this study.

Being able to assess the correlation between the pairs of data columns allowed me to respond and make a determination on all four hypotheses. I was able to compare the numerically represented RIASEC theme code from each of the three CSI questions to the objectively derived SII RIASEC theme code, as well as compare the overall CSI RIASEC theme code to the SII results, for each participant.

## **Summary**

This chapter has been a detailed description of the methods utilized in the design of this research project and the analysis of the data. The methodology is complex and tedious; however,

the methods used in this study were important to understanding whether the CSI is a credible method for providing effective career counseling to 21st century degree-seeking emerging adults.

The next chapter provides the results of the data analysis from this study.

## CHAPTER IV

### RESULTS

In this chapter, I present the results of this study. Before conducting the data analysis, I reviewed the data entry for accuracy. I used the frequency count and the explore function of SPSS to verify variables and data entry.

There were 83 valid participants for this study. Archived participant data included both a completed Career Narrative Project (CNP) and a completed Strong Interest Inventory (SII). Coders analyzed the narrative responses to three of the seven questions that composed the CNP to ascertain a three-letter RIASEC theme code according to Holland's (1985, 1997) typology. I compared those theme codes to the SII RIASEC theme codes.

The first part of data analysis was to assess for interrater reliability of the coders who coded the narrative responses of the participants to the three CSI questions. Although I did not use the results to respond to the hypotheses presented in this study, assessing for interrater reliability is important for measuring the amount of variation attributable to subjectivity of the raters (McGraw & Wong, 1996; Stemler & Tsai, 2008). I present those results first. Second, I present the results of the quantitative data analysis that will respond to each of the four hypotheses used to guide the analysis.

#### **Interrater Reliability**

There were three coders in this study. Each coder read participant responses to determine a RIASEC code for each of the three CSI questions. Assessing for interrater reliability (IRR) was an important component to this research project, and because many factors influence the

outcome of IRR, I turned to intraclass correlation (ICC). ICC takes into account factors such as rater bias and error effects. Realizing the influences of rater bias and error effects, Shrout and Fleiss (1979) delineated six ways of using ICC by grouping these six methods into three cases. The notation of a number in the first position within parentheses designates which ICC case a researcher has used (i.e., Case 1, Case 2, or Case 3). Further, Shrout and Fleiss divided each of these three cases into two forms. The notation of a number in the second position indicates the number of raters. When applied to data, each of the six methods of calculating ICC can produce enormous differences in the results because of the distinctive computational differences of each model. Shrout and Fleiss formulated Case 1 for those IRR assessments that are a one-way analysis of variance (ANOVA) and formulated Case 2 and Case 3 for two-way analysis of variance. In Case 2 and Case 3, the IRR analysis encompasses the interaction between the coders and the targets as well as the random effects of the coders. Further, researchers determine whether Case 2 or Case 3 is appropriate based on whether coders are selected randomly (Case 2) or fixed (Case 3). Finally, choosing a fixed or an average measure depends on whether the researcher desires to generalize his or her results (McGraw & Wong, 1996).

Using an ICC analysis with two-way random, average measure (ICC 2, 3), I assessed for interrater reliability. I chose the two-way random, average measure ICC because I wanted to conduct a two-way analysis of variance and be able to generalize my results to a greater population. This type of correlation ranges from 0 to 1 indicating no correlation to a perfect correlation, respectively. The use of ICC is superior to percentage of agreement (Grayson, 2001; Rust, 2001; Stemler & Tsai, 2008), a typical procedure used for interrater reliability, because the ICC formula accounts for random effects (Landers, 2011; Stemler & Tsai, 2008). Coefficients in this study, displayed in table 3, ranged from .306 to .897, with a median ICC of .710. Also

included in the table are the squared values of the coefficients indicating the amount of shared variance between the raters.

Table 4

*Intraclass correlations of coder agreement*

	Question 1 ICC (2,3)	Question 1 ICC <sup>2</sup>	Question 2 ICC (2,3)	Question 2 ICC <sup>2</sup>	Question 3 ICC (2,3)	Question 3 ICC <sup>2</sup>
Realistic	.730	.533	.897	.805	.731	.534
Investigative	.668	.446	.710	.504	.660	.436
Artistic	.772	.596	.817	.667	.883	.780
Social	.710	.504	.786	.618	.618	.382
Enterprising	.736	.542	.681	.464	.702	.493
Conventional	.572	.327	.306	.094	.706	.498

Note: question 1 = role models; question 2 = magazines, television shows, websites; question 3 = high school subjects. ICC = intraclass correlation coefficient.

**Hypotheses Testing**

To test each of the four hypotheses that directed this study, I calculated Pearson product-moment correlation coefficient (r). Prior to selecting Pearson's (r), I investigated the most suitable method for assessing correlation and experimented with Spearman's Rho. The results produce no correlation consistently, which lead me to research further into calculating correlations. Although Spearman's Rho or Kendall's coefficient of concordance are appropriate when assessing correlation between ranked items (Hinkle, Wiersma, & Jurs, 2003; Huck, 2012), those coefficients require an absolute value in each category being ranked. The 4-2-1 formula (Prediger, 1981) does not meet the definition of ranking because each of the six RIASEC categories does not have an absolute value. As noted earlier, Prediger (1981) specified the use of



zero in his 4-2-1 formula when a categorical letter does not appear in the RIASEC three-letter theme code. As such, three of the categories will contain a zero after placement of the “4” for the primary letter, “2” for the secondary letter, and “1” for the tertiary letter. In addition, Hutchinson (2000) and Savickas and Taber (2006) utilized Pearson’s (r) when calculating the correlations in their studies. Having relied heavily upon both of these studies in designing and conducting this current study, and after failed attempts with Spearman’s Rho, I selected Pearson’s (r) to analyze the quantitative portion of this research project.

Using SPSS, I organized the 4-2-1 numerical codes for each participant from the CSI-derived RIASEC theme codes across all three CSI questions, the overall CSI theme code, and the SII theme code in a 6 x 5 matrix (see Table 2 for an example). The rows corresponded to the six RIASEC categories in Holland’s (1985, 1997) typology. The first three columns corresponded to the 4-2-1 numerical values for each CSI question. The fourth column corresponded to the 4-2-1 numerical values for the overall CSI RIASEC code. The fifth column corresponded to the 4-2-1 numerical values for the SII. Organizing the matrix in this fashion allowed me to run the correlations by using the appropriate variables for each of the four hypotheses. The correlation coefficients for each hypothesis follow.

**Hypothesis #1 - There is no significant correlation between the RIASEC code derived from CSI question #1 and the SII-derived RIASEC code.** Based on both the way hypothesis #1 was written and the correlation results related to hypothesis #1, I failed to reject the null hypothesis. I ran Pearson’s (r) using the bivariate of CSI-derived RIASEC theme code to question one regarding role models and the SII RIASEC theme code for each participant. Correlations ranged from a low of  $r = -.558$  ( $r^2 = .311$ ) to a high of  $r = 1$  ( $r^2 = 1$ ), with a median correlation of  $r = .455$  ( $r^2 = .207$ ). Correlations were significant at the .01 level for 12 (14.5%)

participants and significant at the .05 level for seven (8.4%) participants equaling 19 (22.9%) participants whose correlations were significant. There was no significant correlation on the remaining 64 (77.1%) participants. As a result, I failed to reject the null hypothesis.

**Hypothesis #2 - There is no significant correlation between the RIASEC code derived from CSI question #2 and the SII-derived RIASEC code.** Based on both the way hypothesis #2 was written and the correlation results related to hypothesis #2, I failed to reject the null hypothesis. I ran Pearson's (r) using the bivariate of CSI-derived RIASEC theme code to question two regarding magazines, television shows, and websites and the SII RIASEC theme code for each participant. Correlations ranged from a low of  $r = -.636$  ( $r^2 = .404$ ) to a high of  $r = .980$  ( $r^2 = .960$ ), with a median correlation of  $r = .255$  ( $r^2 = .065$ ). Correlations were significant at the .01 level for four (4.8%) participants and significant at the .05 level for three (3.6%) participants equaling seven (8.4%) participants whose correlations were significant. There was no significant correlation on the remaining 76 (91.6%) participants. Based on these results, I failed to reject the null hypothesis.

**Hypothesis #3 - There is no significant correlation between the RIASEC code derived from CSI question #3 and the SII-derived RIASEC code.** Based on both the way hypothesis #3 was written and the correlation results related to hypothesis #3, I failed to reject the null hypothesis. I ran Pearson's (r) using the bivariate of CSI-derived RIASEC theme code to question three regarding high school subjects and the SII RIASEC theme code for each participant. Correlations ranged from a low of  $r = -.636$  ( $r^2 = .404$ ) to a high of  $r = 1$  ( $r^2 = 1$ ), with a median correlation of  $r = .066$  ( $r^2 = .004$ ). Correlations were significant at the .01 level for four (4.8%) participants and significant at the .05 level for four (4.8%) participants equaling eight (9.6%) participants whose correlations were significant. There was no significant correlation on

the remaining 75 (90.4%) participants. Based on these results, I failed to reject the null hypothesis.

**Hypothesis #4 - There is no significant correlation between the overall RIASEC code derived from the CSI questions and the SII-derived RIASEC code.** Based on both the way hypothesis #4 was written and the correlation results, I failed to reject the null hypothesis. I ran Pearson's (r) using the bivariate of overall CSI-derived RIASEC theme code and the SII RIASEC theme code for each participant. Correlations ranged from a low of  $r = -.481$  ( $r^2 = .231$ ) to a high of  $r = 1$  ( $r^2 = 1$ ), with a median correlation of  $r = .455$  ( $r^2 = .207$ ). Correlations were significant at the .01 level for 12 (14%) participants and significant at the .05 level for five (6%) participants equaling 17 (20.5%) participants whose correlations were significant. There was no significant correlation on the remaining 66 (79.5%) participants. As a result, I failed to reject the null hypothesis.

The purpose of this chapter was to provide an overview of the results of this current study. First, I offered a brief explanation of ICC and process for selecting an ICC mode. Next, I provided the ICC of coder agreement. Assessing for interrater reliability was an important part of this study and necessary to measure the quantity of variability resulting from the subjectivity of the coders. Second, I explained my selection of Pearson's (r) for assessing the correlations for each of the four hypotheses that directed this study. Third, I presented the correlation results for each hypothesis and included the distribution of correlations by participant count. In the next chapter, I discuss the results of this study and provide conclusions, implications, and suggestions for further research.

## CHAPTER V

### DISCUSSION

In this concluding chapter, I provide a summary of the study. Further, I respond to the hypotheses by discussing the results of the study and their implications. Next, I include a discussion of limitations to this study. Finally, I offer recommendations for further research.

#### **Summary of the Purpose**

I designed this research project to assess the validity of the CSI for use in career development counseling with degree-seeking emerging adults ( $N = 83$ ). Specifically, I compared coded data on three narrative responses from the CSI to the objective results of the SII to determine whether there was correlation between the 3-letter RIASEC theme codes (Holland, 1985) derived from the CSI narrative responses and the 3-letter RIASEC theme codes derived from the SII.

#### **Summary of the Procedures**

As specified in the methodology section, I approached data analysis in multiple steps. First, I secured three independent coders who read each participant CSI response to the three CSI questions under investigation. Using a chart that specified descriptors of interest and occupation types of the six RIASEC categories, coders assigned a three-letter RIASEC theme code based on ratings from a seven-point Likert scale (Stemler, 2001). I ran intraclass correlations (ICC) to assess for interrater reliability. My decision to use ICC for assessing for interrater reliability was based on both Landers' (2011) and Stemler and Tsai's (2008) proposition that ICC is the most stringent method for calculating interrater reliability and much more preferable than simple

percent-agreement (Grayson, 2001; Rust, 2001; Stemler, 2004). Second, I compared the coder-derived three-letter RIASEC theme codes to participant SII results by running Pearson's (r) correlations between the results of each CSI question against the SII results. Finally, utilizing the same correlation process, I compared the overall combined coder-derived three-letter RIASEC theme code to participant SII results to respond to each of the four hypotheses established in this study. A discussion of those results follows, beginning with the results of intraclass correlation for the qualitative portion of this study. Following the qualitative results, I discuss the findings to each of the stated hypotheses, which represent the quantitative portion of this study.

### **Summary of the Results**

In this section, I present a summary of the results of this research project. I begin by summarizing the interrater reliability results and follow with a summary of the results that addressed each of the four hypotheses that directed my research. Later in this chapter, I offer a discourse on how the findings on two of the hypotheses, in particular, compare to subjective career inventories available to career counseling professionals.

#### **Interrater Reliability.**

Overall, results of the ICC indicate a strong correlation (median = .71) in the ratings of the three coders. Of the 18 correlations, 13 (72.2%) are strong (.681-.897), four (22.2%) are moderate (.572-.668), and only one (5.5%) correlation was weak (.306). Factors attributable to such strong correlation may include the knowledge each coder possessed relative to Holland's (1985) typology (Hanson, 1995; Stemler, 2001), their experience either as a career counselor or in teaching career counseling classes, and the training session that occurred for the coders prior to distribution of the qualitative data (Lombard, Snyder-Duch, & Bracken, 2010; Stemler, 2004). Another contributing factor could be the clarity with which the wording of the CSI questions

instructed the participants to respond to each question. Such clarity prompted students to write detailed responses, which in turn, may have aided coders with inferring ubiquitous characteristics of each of the RIASEC categories with greater ease.

### **Hypotheses.**

*Hypothesis #1.* The results of the correlations between the RIASEC code derived from CSI question one regarding role models and the SII-derived RIASEC code ranged greatly, indicating weak-to-moderate negative correlation to perfect positive correlation between the two variables. There was perfect positive correlation for six participants, which indicates coders were able to assign a 3-letter RIASEC code to the CSI response to question one that matched the 3-letter SII RIASEC code perfectly for those participants. In addition, coders were able to assign a RIASEC code to the question one CSI response that matched the SII RIASEC code with a significant level of agreement for 13 additional participants. This means that the coders were able to match the first or the first two letters of the SII RIASEC code on these 13 participants. These results suggest that there was significant correlation, at least partially, for hypothesis #1.

Because there was no significant, or in some cases an inverse, correlation on the majority of the participants, concluding that there was insufficient evidence of a significant correlation overall on question one seems reasonable. Based on the median correlation, the results suggest a moderate correlation between the two variables used in testing hypothesis one.

*Hypothesis #2.* The results of the correlations between the RIASEC code derived from CSI question two regarding magazines, television shows, and websites and the SII-derived RIASEC code, again, ranged greatly, also, suggesting moderate negative correlation to strong positive correlation between the two variables. Although there were no instances of a perfect positive correlation for any of the participants, correlations were significant for seven

participants. As with hypothesis #1, this means that the coders were able to match the first or the first two letters of the SII RIASEC code on these seven participants. The small number of significant correlations indicate that there was significant correlation on very few of the participants.

Similar to the situation with hypothesis one, there was no significant, or in some cases an inverse, correlation on the majority of the participants, indicating there was insufficient evidence of a significant correlation overall on question two. Based on the median correlation, the results suggest a weak correlation between the two variables used in testing hypothesis two.

***Hypothesis #3.*** The results of the correlations between the RIASEC code derived from CSI question three regarding high school subjects and the SII-derived RIASEC code ranged greatly, much like on the first two questions. The wide range indicates moderate negative correlation to perfect positive correlation between the two variables. There was perfect positive correlation for one participant, which indicates coders were able to assign a 3-letter RIASEC code to the CSI response to question three that matched the 3-letter SII RIASEC code perfectly for that participant. In addition, coders were able to assign a RIASEC code to the question three CSI response that matched the SII RIASEC code with a significant level of agreement for seven additional participants, which again, means that coders were able to match the first or the first two letters of the SII RIASEC code on these seven participants. These results indicate that there was significant correlation on very few of the participants.

As in the situation with hypotheses one and two, there was no significant, or in some cases an inverse, correlation on the majority of the participants; therefore, concluding that there was insufficient evidence of a significant correlation overall on question three seems reasonable.

Based on the median correlation, the results suggest a weak correlation between the two variables used in testing hypothesis three.

*Hypothesis #4.* The results of the correlations between the overall RIASEC code derived from the CSI questions and the SII-derived RIASEC code ranged greatly, much like the individual CSI questions. The wide range suggests weak negative correlation to perfect positive correlation between the two variables. There was perfect positive correlation for two participants, which indicates coders were able to assign a 3-letter RIASEC code to the CSI responses, that when combined, matched the 3-letter SII RIASEC code perfectly for that participant. In addition, coders were able to assign a RIASEC code to the CSI responses in such a way that, when combined, resulted in an overall CSI RIASEC code that matched the SII RIASEC code with a significant level of agreement for 15 additional participants. Again, this means that coders were able to match the first or the first two letters of the SII RIASEC code on these 15 participants through a combination of the coding results across all three CSI questions. These results indicate that there was significant correlation on very few of the participants.

As with the preceding three hypotheses, there was no significant, or in some cases an inverse, correlation on the majority of the participants; therefore, concluding that there was insufficient evidence of a significant correlation on the resulting overall code for all three CSI questions combined seems reasonable. Based on the median correlation, the results suggest a moderate correlation between the two variables used in testing hypothesis four.

## **Discussion and Recommendations**

Being able to ascertain a RIASEC code from the CSI responses that matched the SII RIASEC code to some degree, and in some cases perfectly, is important. This may help career professionals understand why use of the CSI as an integral part of career development



intervention, namely as a self-exploration tool, is relative to their work on university campuses.

What follows are brief discussions relative to the findings for each of the four hypotheses. Included in these brief discourses are conclusions I made about the findings.

**Hypothesis #1.** Responses to CSI question one regarding role models provided coders with clues about the participants' identities. The coders in this study were able, for some participants, to determine both the participants' values and how the participants viewed their "self" in relation to others. Many times, interviewees are unaware of the many aspects of their identities. Had the coders in this study been able to meet face-to-face with the participants, the coders might have used this information to assist the participants with combining these aspects to form a more unified identity.

Although this hypothesis yielded one of the highest median correlations, the median correlation indicates that coders did not identify a matching RIASEC code on the majority of the participants. As I pondered this result, I thought back to my own childhood and could identify only two important roles models. One of those was my "phantom" paternal grandmother. I use the term "phantom" simply to indicate how little I ever saw my grandmother. She lived four states away from where I lived, so visits were rare. What I knew about my grandmother, though, was that she could type 90 words per minute. I adored this about her and determined to match her speed some day.

Most individuals know that typing is a clerical function, and those knowledgeable about Holland's (1996, 1997) typology will know that clerical functions fall in the "conventional" RIASEC category. Typing requires special attention to detail, especially if a person is going to type 90 words per minute. Therefore, upon hearing an interviewee describe how he or she

admired a role model's typing ability, the interviewer conducting the CSI might mentally file that information into the "C" category.

My 3-letter SII RIASEC code is SAE, which obviously does not contain a "C". Yet, the most salient thing I admired about my role model was a "conventional" activity. At the time of this writing, I am on the editorial board for several peer-reviewed journals. In my role on these boards, I engage in a vast number of "conventional" activities, including proofreading and copyediting. In fact, I *enjoy* "conventional" activities, yet my 3-letter RIASEC code does not reflect this interest.

Holland (1996) explained that individuals have aspects of all six RIASEC categories with their personality; the 3-letter code reflects only the most salient aspects. To look at my RIASEC code of SAE and claim I have no Conventional traits is inaccurate. The lack of a "C" in my code merely indicates that conventional activities are not the most salient aspects of my personality; social, artistic, and enterprising activities are. Perhaps, such is the case with the results of this study associated with hypothesis #1. This is not to say the question is irrelevant. As discussed in the limitations section, taking any one of the CSI questions out of the context of the entire CSI yields only a small part of the overall interviewee narrative.

**Hypothesis #2.** Responses to CSI question two regarding enjoyable magazines, television shows, and websites provided coders with clues about the preferred environments of participants (Savickas, 2011a; Taber et al., 2011). According to career construction theory (Savickas, 1998, 2005, 2011a), these environments are *spaces* where participants find enjoyment or gain a sense of implementation of "self." Responses are key indicators of the participants' preferred RIASEC environment; therefore, I expected correlations to be strongest relative to analysis of the data. However, the resulting median correlation was surprising.

Again, I turned to personal experience when contemplating the results. As noted earlier, my 3-letter SII RIASEC theme code is SAE. This code indicates that my preferred environments include people (S), especially when I am in a helping role; aesthetic spaces wherein I can be creative (A), and spaces where I can use persuasive skills (E). Some of my favorite websites (e.g., [www.facebook.com](http://www.facebook.com) [S] and [www.houzz.com](http://www.houzz.com) [A]) and favorite magazines (e.g., *This Old House* [A]) reflect preferred environments as represented by my RIASEC code. However, my RIASEC code does not reflect my absolute favorite interest, which is the forensics of true crime, an Investigative environment. Coders in this study would have assigned this compelling interest to the Investigative category of Holland's (1996, 1997) typology, yet they would have determined an unmatched RIASEC code for me, at least partially. Once again, this is not to say the question is irrelevant. To reiterate, taking any one of the CSI questions out of the context of the entire CSI yields only a small part of the overall interviewee narrative. Using the CSI in its entirety allows the career counselor to obtain more aspects of the student's identity, coping strategies, problem-solving skills, and career adaptabilities as the student expands his or her narrative. The 3-letter SII RIASEC code will not reflect all aspects from the narrative. As stated earlier, the 3-letter RIASEC code from interest inventories reflects the three strongest RIASEC categories composed of the student's varying characteristics.

**Hypothesis #3.** Responses to CSI question three regarding favorite and least favorite high school subjects provided coders with clues to the interviewee's self-concept. Specifically, coders inferred what interests, skills, and values the participant possessed and in what early experiences the participants found satisfaction.

Although I instructed participants to discuss the specifics of what they liked or disliked about a particular subject and not to include any information regarding the people teaching those

subjects, inevitably, participants discussed teacher attributes. Participant responses support what research shows, and that is, teacher characteristics have significant influence as to the degree to which a person may or may not enjoy a subject and the degree to which a person may perform academically (Bierman, 2011; Dan, Feng, & Wang, 2009; Brown et al., 2010; Desimone & Long, 2010; Koles, O'Connor, & McCartney, 2009; Lizzio et al., 2011). Many participants wrote about subjects they liked or disliked in high school and, subsequently, felt a reversal of their experience once they arrived to college. Participants attributed this to teacher characteristics many times. If able to review responses with the participants face-to-face, the coders would have had the opportunity to segregate participant experiences with teachers to inquire more about the actual subject.

#### **Hypothesis #4.**

The resulting overall moderate median correlation of .455 in this study aligns closely with the median correlation across objective interest inventories, in general, which is .50 (Savickas, Taber, & Spokane, 2002). Likewise, the resulting overall moderate median correlation from this study aligns almost perfectly with the median correlation coefficient of the SII, which is .45 (M. L. Savickas, personal communication, September 25, 2011). I provide expanded discussion regarding the correlations later in this chapter.

Making a statistical determination on each of the hypotheses proved challenging. The results of this study suggest to me that designing the research by using hypotheses was not a wise choice. To state, *carte blanche*, that the results do not support the CSI as a valid technique for providing career counseling to degree seeking emerging adults may be inaccurate. Indeed, the correlations resulting from the testing of each hypothesis lacked significance for a majority of the participants. However, the fact that there was some significance prompted me to explore further.

### **Exploration of results.**

I was working with 24 variables per participant. Making a decision by combining the 332 resulting correlations may not have been the most accurate way to explain the possible validity of the CSI. Indeed, there were significant correlations across all three CSI questions and overall. In fact, there were nine (2.7%) perfect correlations across all four hypotheses and 100 (30.1%) that rated as strong positive correlations per Cohen's (1988) measure of correlation strength. A majority (n = 150 or 45.1%) of the correlations resulting from this study rated as moderate to strong positive correlations. The remaining correlations were divided among weak positive correlations (n = 85 or 25.6%), moderate negative correlations (n = 21 or 6.3%), and weak negative correlations (n = 76 or 22.9%). These results lead me to believe that this type of research project would have yielded a greater understanding of the use of the CSI as a career counseling intervention if completed as an exploratory study untethered by one-sentence assumptions. Use of an exploratory study would allow an expanded discussion concerning the *strength* of the correlations rather than the *significance* of the correlations.

Table 5 provides a participant count across the correlations according to strength. I provide this table to give the reader some perspective on the wide range of correlations per CSI question and overall. Interesting to note is that both question one and the overall codes demonstrated the greatest number of participants (n = 29 or 34.9% and n = 32 or 38.9%, respectively) in the *strong* positive correlation category. Question two demonstrated the greatest number of participants (n = 24 or 29%) in the *weak* positive correlation category, although 21 (25.3%) participants fell in the *strong* positive correlation category. Question three demonstrated the greatest number of participants (n = 25 or 30.1%) in the *weak* negative correlation category.

Table 5

*Distribution of correlations by participant count*

Scale	Positive Correlation				Negative Correlation			
	Q <sub>1</sub>	Q <sub>2</sub>	Q <sub>3</sub>	OV	Q <sub>1</sub>	Q <sub>2</sub>	Q <sub>3</sub>	OV
0 - .339 (Weak)	20	24	20	21	15	19	25	17
.34 - .669 (Moderate)	17	13	8	12	2	6	12	1
.67 - 1 (Strong)	29	21	18	32	0	0	0	0

Note: Q<sub>1</sub> = CSI question #1; Q<sub>2</sub> = CSI question #2; Q<sub>3</sub> = CSI question #3; OV = CSI overall code.

Another reason I draw the conclusion assessing the validity of the CSI through an exploratory study rather than an hypotheses-driven study is because the results of this research project, especially the great range of correlations, are similar to the experience both Savickas et al. (2002) and Savickas and Taber (2006) had in their studies.

When Savickas et al. (2002) finished comparing the convergent validity of five normed interest inventories, their correlations ranged greatly, much like in this study. They reported that the median correlation of RIASEC scores from the five inventories they compared correlated about .60 and that the median correlation of RIASEC scores, across various normed inventories in general, correlated about .50. They concluded that expecting variation in RIASEC profiles across several inventories used for one individual was to be expected. The results in Savickas and Taber's (2006) study, which measured the amount of agreement in individual RIASEC profiles across five inventories, supported this conclusion. They wrote:

The results of this investigation forced us to conclude that for many clients it matters which interest inventory their counselor chooses to administer. In responding to different

inventories, the same individual may receive different results, at least in terms of RIASEC profiles. We were surprised by the extent of how different these profiles for the same individual may be. Of course, we expected some variation, but the results of this study revealed the possibility of *great* variation when the same individual responds to different interest inventories. (pp. 206-208, italics added)

Again, worthy to note is that the correlation coefficients resulting from this current research project ranged greatly, which is identical to the experience of both Savickas et al. (2002) and Savickas and Taber (2006) in their research projects. In addition, both sets of researchers reported that the median correlation across normed interest inventories, in general, is .50. The results on two of the four hypotheses I used to direct my research resulted in a median correlation of .455. This indicates that both the CSI question regarding role models and the CSI, overall, are as effective in assessing career interests as normed interest inventories that have been available to career professionals for decades.

Although the results of this study leaves me with more questions than answers perhaps, the results certainly confirm that formulating one's identity is an individualistic process (Ansbacher & Ansbacher, 1956; Arnett, 2000, 2007; Chickering & Reisser, 1993; Marcia, 1966, 1989; Perry, 1981, 1999; Rogers, 1961; and Savickas, 1998, 2011a). In addition, forming one's identity and the career development process have a direct relationship with one another. The more time students spend in self-exploration, the more apt they are to construct knowledge of their identity (Blustein et al., 1989).

In conclusion, I believe the results of this research project support what Savickas and Taber (2006) posited, which is:

Regarding counseling practice, it is important to remember that inventories provide only one indicator of interests. Used wisely, they suggest a road map for exploration, first in the counseling interview and then in educational and work environments. We remain convinced that the RIASEC typology is a social construction that provides clients and counselors with a comprehensive vocabulary for discussing occupations and the self, a commonsense framework with which to comprehend the world of work, and an excellent heuristic scheme for guiding educational and vocational exploration. (p. 209-210)

Savickas (1998, 2011a) never intended the CSI to act as a stand-alone career intervention any more than he believes that career interest inventories should stand alone in assessing career interests with individuals, especially for those individuals who are unclear or unsure of their identity or life direction (Savickas, 1998). The CSI is a way in which university career professionals can assist degree-seeking emerging adults with self-exploration, construction of their identities, and in gaining adaptability skills that will allow them to move more meaningfully into an increasingly changed world of work.

### **Limitations**

As with any study, several limitations exist with this current study. One limitation concerns the way in which the career story interview (CSI) took place with participants. A career counselor conducts the CSI, ordinarily, in the context of one to two private counseling sessions between the career counselor and an individual. Conducted in this manner, the counselor has time and opportunity to ask the interviewee clarifying questions. Further, the counselor will utilize counseling skills to probe and explore the content of the session with the interviewee. The process is much like mining for nuggets of gold. As the counselor and the interviewee continue to work through the CSI questions, they are able to make connections across the question



responses and build a cohesive narrative. The responses to the CSI questions used in this study came from a written classroom assignment I implemented in my career and life planning class. As such, the coders did not have liberty to spend time with the students who completed the career narrative project (CNP) nor explore the content of their narratives. Many times, the narratives were succinct and provided minimal response to the CSI question the students were answering. As such, the coders had minimal information from which to make inferences.

Another limitation to this study is that I examined only three of the seven questions composing the CSI. Career counselors conduct the CSI with a career client usually by including all of the questions that compose the CSI. I chose the three questions because of the purpose for which Savickas (1998, 2011a) designed them and their relationship to the purpose of my study. Question one, regarding admired role models, assesses for components to the interviewee's identity; question two, regarding favorite magazines, television shows, and websites, assesses for preferred environments; question three, regarding high school subjects, assesses for environments in which the interviewee has experienced success and satisfaction in the past. Used in its entirety, the CSI assesses for not only the interests of the students and aspects of their identity, but also the career ambitions, coping strategies, adaptability skills, decision-making processes, and the dilemmas or barriers students face in making career decisions. Coding and analyzing responses to only three out of the seven CSI questions may not have provided all the information coders required to make a determination regarding how students go about forming their identities, in particular, their work identities.

A third limitation relates to the SII results with which I was working. Upon completion of the SII interest inventory, assessment takers receive a 15-page report that includes raw scores representative of their results according to each RIASEC category. The computer displays these

raw scores in the order of their sums, with the greatest sum displaying first, the next greatest sum displaying second, and so forth. The 3-letter RIASEC code represents the three highest sums of the raw scores. I did not have the SII raw scores for the participants in this study; I had only their resulting 3-letter RIASEC codes. Having the raw scores would have allowed me to determine the differentiation on the SII results and use that differentiation as a moderator variable. This is important because Savickas (personal communication, September 25, 2011) posits that individuals with a high differentiation on the SII should have improved correlation with CSI results.

One final limitation to this study has to do with the differences in the type of interests both the SII and the CSI assess. The SII is an objective measurement tool that assesses for *inventoried interests*, and according to Savickas, measures those interests “with a predictive hit rate of about 45%” (personal communication, September 25, 2011). When the participants in this study took the SII, they provided “responses of ‘like,’ ‘dislike,’ and ‘indifference’ to verbal presentations of activities, objects, and types of people” (M. L. Savickas, personal communication, September 25, 2011). The computer summed those responses to generate “scaled scores on standardized profiles that depict[ed the participant’s] vocational interests in reference to some normative group” (M. L. Savickas, personal communication, September 25, 2011). The CSI, on the other hand, assesses for *manifest interests*, which are representations of “active participation in an activity or occupation. Manifest interests show the interest within social occupations that currently attracts a person” (M. L. Savickas, personal communication, September 25, 2011). Participants in this current study provided responses to the three CSI questions which aided coders in determining aspects of the self-concept, preferred environments, and past successful and satisfying endeavors representative of more dynamic constructs than the

SII. In addition, coders were able to measure those manifest interests with a predictive hit rate of 46%.

### **Implications for Further Research**

As presented earlier in this dissertation, Savickas (1998, 2005, 2011a) has modified and refined the career story interview (CSI) several times since its creation. Even at the time of this writing, Savickas is refining and introducing a new name for the interview: the Career Construction Interview (CCI; personal communication, September 25, 2011). As the CSI/CCI evolves, assessing its use for career counseling with college students, and other populations, will remain important.

Providing innovative and creative career interventions (Heppner et al., 1994; Hunt, 2010; Savickas, 1998, 2010; Shepard & Shoop, 2003) is vital as degree-seeking emerging adults prepare to transition into the protean (Hall, 1996a, 1996b; Briscoe et al., 2006) and boundaryless (Arthur & Rousseau, 1996; Briscoe et al., 2006) world of work. Although the CSI narratives in this project were in written form and, thus, presented a limitation to this study, using the CSI as a college classroom writing assignment was one way of responding to the call for career counseling innovation and creativity. Finding additional methods for conducting the CSI might provide further responses to the call. Interesting studies might include assessing the narrative results of the CSI against subjective career inventories that assess for Holland's (1996, 1997) typology (e.g., SII or Self-Directed Search [SDS]) after conducting the CSI in groups or in psychoeducational environments. Other considerations for research include using the CSI as an online career intervention, such as in a classroom chat room platform (e.g., Blackboard) or using multimedia methods, such as video recordings that capture the students' responses for viewing by the career counselor or class instructor of a career and life planning course. Attempting to

validate the CSI interview process in environments such as these could inaugurate additional ways of providing self-exploration and identity-building activities to degree-seeking emerging adults.

Another suggestion for further research includes the assessment of the CSI in its entirety rather than assessing only a selected number of questions from the CSI. Because the CSI solicits various aspects of the interviewee's identity, coping strategies, and problem-solving skills, having a holistic narrative from students could assist the university-based career counselor better in working with students in constructing a career. An interesting research project would be a longitudinal study that compares the results of an interest inventory (e.g., SII or SDS) and CSI narrative responses from students across their college experience.

A final recommendation for research is an assessment of the validity of the CSI that compares coded CSI narrative responses to the raw scores of the SII. As mentioned in the Limitations section, this would allow a researcher to compare the varying levels (i.e., high, moderate, low) of raw scores for participants as a way to determine interest differentiation from the CSI. Comparison in this way may be superior in determining validity of the CSI as opposed to the methods used in this current study, which was to compare coded CSI narrative responses to the resulting 3-letter RIASEC code from the SII. To extend this research project further, researchers might consider comparing the coded CSI responses of participants to the raw scores of multiple career interest inventories (e.g., SDS, SII, UNIACT-R) much as Savickas and Taber (2006) did in their study that compared results across five interest inventories.

## **Conclusion**

Numerous student development and career theorists (Arnett, 2000, 2007; Arnett & Tanner, 2006; Marcia, 1966, 1989; Perry, 1981, 1999; Saki & Gati, 2007; Severy, 2002) agree

with Chickering and Reisser (1993) that “many college students are all dressed up and do not know where they want to go” (p. 50). University career professionals are charged with utilizing their knowledge, skills, and training to assist students. They must be creative and innovative (Heppner et al., 1994; Hunt, 2010; Savickas, 1998, 2010; Shepard & Shoop, 2003; Skovholt et al., 1989) and continually seek to augment valid career interventions already in use (Savickas, 2005). Use of the CSI as a career intervention is one innovative way in which career professionals on college campuses can assist degree-seeking emerging adults with investigating their “self” (Murphy, et al., 2010; Pascarella & Terezini, 2005; Savickas 2011a), developing purpose (Chickering & Reisser, 1993), resolving career decision-making dilemmas (Gati & Amir, 2010; Gati et al., 1996; Pittman, 2000; Sacino, 2005), and making meaning in their lives (Perry, 1981, 1999; Savickas, 2005). In other words, university career professionals must rewrite the question, “*What* do you want to be” and aid degree-seeking emerging adults in answering a more important question, “*Who* do you want to be?” if those emerging adults are to navigate the career development process and place themselves within a 21st century world of work successfully.

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## APPENDICES

## APPENDIX A

## APPENDIX A

### CAREER STORY INTERVIEW QUESTIONS AS GIVEN TO PARTICIPANTS

Write a response to the question(s) below. Be thoughtful in your response, and limit your response to 1-2 pages. Your response should be typed, double-spaced.

#### 1. Career Narrative Question #1 (two parts)

- a. What do you see as your greatest challenge related to career? In other words, if you could get the answer to only ONE question or concern related to career, what would be that question or concern?
- b. Name three people, **other than family members if possible**, that you admired or looked up to as a hero or role model when you were growing up, and then respond to the following questions for each role model.
  - What was it about this person/character that you admired? Be specific.
  - How are you like this person?
  - How are you different from this person?

*NOTE:* this person may be a “real” person or a character from a story, movie, or television show that you remember from childhood.

#### 2. Career Narrative Question #2

- What magazines do you read regularly?
  - What do you like about these magazines?
- What television show(s) do you watch regularly?
  - What do you enjoy about this/these shows?
- What websites do you visit regularly?
  - What attracts you to these websites?

#### 3. Career Narrative Question #3

- What were your **three** favorite subjects in junior high/middle and high school?
  - What did you like about \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_?
- What **three** subjects did you dislike?
  - What did you dislike about \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_?

Please be specific in your response. For example, instead of stating, “I liked math because it was fun,” say something like “I liked math due to the complexity of the problems. I like solving problems.” (or, “I hated chemistry because the formulas were confusing for me.”)

## APPENDIX B

APPENDIX B

7-POINT LIKERT SCALE PROVIDED TO CODERS

Participant # \_\_\_\_\_

CSI # \_\_\_\_\_

	1	2	3	4	5	6	7
	Most Dissimilar	Very Dissimilar	Dissimilar	Neither Similar or Dissimilar	Similar	Very Similar	Most Similar
REALISTIC							
INVESTIGATIVE							
ARTISTIC							
SOCIAL							
ENTERPRISING							
CONVENTIONAL							

RESULTING RIASEC CODE: \_\_\_\_\_

Expressed preferred occupation, if stated: \_\_\_\_\_

## APPENDIX C

## APPENDIX C

### COMPUTING THE OVERALL RIASEC CODE

To compute an “overall” 3-letter code, one must first assign the value of 4 to all letter in Column 1, a value of 2 to all letters in Column 2, and a value of 1 to letters in Column 3 (See Figure 1.)

To calculate the total for each letter, simply count the number of times a letter is used within each column and multiply it by that column’s assigned number. For example, *R* is listed only once in the second column; the total is therefore  $1 \times 2$ , or 2. *S* is listed twice in the first column (remember the first column has a value of 4), and three times in the second column; the total is therefore  $(2 \times 4) + (3 \times 2)$ , or 14. *E* is listed once in the first column ( $1 \times 4$ ), once in the second column ( $1 \times 2$ ), and once in the third column ( $1 \times 1$ ); the total is therefore 7. In the example provided in Figure 1, the overall 3-letter code would be SAE.

#### 4-2-1 Formula

<b>Traits</b>	<b>4</b>	<b>2</b>	<b>1</b>
Values	A	S	I
Abilities	E	S	C
Personality	S	R	A
Self-Reports	S	E	A
SDS Code	A	S	E

R (Realistic) = 2      S (Social) = 14  
I (Investigative) = 1    E (Enterprising) = 7  
A (Artistic) = 10      C (Conventional) = 1

SDS = Self-Directed Search

#### FIGURE 1

#### An Example of Calculating Five Separate 3-Letter Holland Codes on a Single Client

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## APPENDIX D

APPENDIX D  
WAIVER OF IRB APPROVAL



THE UNIVERSITY OF  
MISSISSIPPI

Office of Research and Sponsored Programs  
The University of Mississippi  
103 Barn Hall  
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October 13, 2011

Ms. Susan R. Barclay  
Leadership and Counselor Education  
University, MS 38677

Dr. Lori A. Wolff  
Leadership and Counselor Education  
University, MS 38677

Dear Ms. Barclay and Dr. Wolff:

This is to inform you that your application to conduct research with human participants, ***Rewriting the Question "What Do You Want to Be when You Grow Up?" - Career Counseling with 21st Century Emerging Adults (Protocol 12-138)***, has been approved as Exempt under 45 CFR 46.101(b)(4).

Please remember that all of The University of Mississippi's human participant research activities, regardless of whether the research is subject to federal regulations, must be guided by the ethical principles in *The Belmont Report: Ethical Principles and Guidelines for the Protection of Human Subjects of Research*.

It is especially important for you to keep these points in mind:

- You must protect the rights and welfare of human research participants.
- Any changes to your approved protocol must be reviewed and approved before initialing those changes.
- You must report promptly to the IRB any injuries or other unanticipated problems involving risks to participants or others.

If you have any questions, please feel free to call me at (662) 915-7482.

Sincerely,

  
Diane W. Lindley  
Coordinator, Institutional Review Board

## VITA

Susan R. Barclay is a licensed professional counselor (LPC) and a national certified counselor (NCC) who lives in Oxford, MS with her husband, Kevin B. Stoltz, and their Chihuahua, Godzilla. Susan was a little later than most in determining who she wanted to be in life, but after 25 years in the corporate sector, she implemented a plan. Susan went to college and effected a career change. Susan has worked in higher education since 2005, where she has served as a mental health counselor, a career counselor, a student development counselor, and an instructor. Susan is active in several professional counseling, higher education, and career development organizations. In addition, she has co-authored several articles and book chapters and presents regularly at regional, national, and international conferences on issues related to student development and career.