

A RELATIONSHIP BETWEEN CAREER DECISION  
AND MOTIVATION TO PERSIST

by

PATRICIA A. FERGUSON  
B.A. University of Central Florida, 1993  
M.A. University of Central Florida, 1999

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Major Professor: Steven Sivo

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## ABSTRACT

During the past few decades, research on student retention has been primarily focused on the constructs of social integration, lack of financial support and academic under-preparedness (Astin, 1975; Bean & Metzner, 1985; Cabrera, 1993; Pascarella, 1982; Tinto, 1975). This study examined the phenomenal occurrence of low retention due to “lack of major and career direction.”

The Career Decision Scale and the Achievement Motivation Profile assessments were administered to 105 students at a comprehensive community college. Six linear regressions were conducted to determine if there were statistical relationships between: (a) career decision and the motivation to persist and; (b) career indecision and the lack of motivation to persist. Of the three regressions conducted on career decision and motivation to persist; two of the scores from the motivation profile indicated that a statistical relationship existed, whereas the third score did not. Of the three regressions conducted on career indecision and the lack of motivation to persist; two scores from the motivation profile indicated a statistical relationship between career indecision and the lack of motivation to persist, whereas the third score was not statistically significant.

Recommendations were made to community colleges and universities to cultivate an environment where major and career decision initiatives become a top priority for students. Suggestions included creating courses in career planning and one-on-one career counseling sessions.

This dissertation is dedicated to my husband, Nate.

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## TABLE OF CONTENTS

LIST OF TABLES .....	viii
CHAPTER ONE: INTRODUCTION .....	1
Statement of Problem .....	2
Research Questions .....	3
Definition of Terms .....	3
Design of Study.....	6
Participants.....	6
Instruments.....	6
Methodology.....	7
Limitations of Study .....	8
Assumptions .....	9
Significance of Study.....	9
Organization of Dissertation .....	10
CHAPTER TWO: REVIEW OF LITERATURE .....	11
History of Traditional Retention Theories .....	12
Career/Major Decision and Motivation to Persist .....	14
Motivation Leading to Persistence .....	19
Current Needs and Practices for Career Decision .....	23
Summary of Review of Literature .....	26
CHAPTER THREE: METHODOLOGY .....	28
Introduction .....	28
Statement of Problem.....	28
Research Questions.....	29
Population and Sample.....	30
Instruments .....	32
Career Decision Scale.....	32
Achievement Motivation Profile.....	33
Reliability and Validity .....	34
Career Decision Scale.....	34
Achievement Motivation Profile.....	35
Data Collection .....	36
Data Analysis.....	37
Summary .....	37
CHAPTER FOUR: ANALYSIS OF DATA.....	39
Introduction .....	39
Research Question 1 .....	39

Research Question 2.....	45
Summary of Findings.....	51
CHAPTER FIVE: CONCLUSIONS AND RECOMMENDATIONS.....	52
Conclusions .....	52
Recommendations .....	54
APPENDIX A: INSTITUTIONAL REVIEW BOARD (IRB) LETTER.....	57
APPENDIX B: VERBAL CONSENT FORM .....	59
APPENDIX C: CAREER DECISION SCALE.....	61
APPENDIX D: ACHIEVEMENT MOTIVATION PROFILE.....	65
LIST OF REFERENCES. ....	70

## LIST OF TABLES

Table 1: Fall to Fall Re-enrollment with SLS 1101 and SLS 1301C .....	26
Table 2: Fall to Fall Re-enrollment .....	30
Table 3: Descriptive Statistics for Research Question 1 .....	40
Table 4: Independent Samples Test Results for Career Certainty.....	41
Table 5: ANOVA for Career Certainty Score and ACH.....	42
Table 6: Regression for Career Certainty Score and ACH.....	42
Table 7: ANOVA for Career Certainty Score and MOT.....	43
Table 8: Regression for Career Certainty Score and MOT.....	43
Table 9: ANOVA for Career Certainty Score and GOAL.....	44
Table 10: Regression for Career Certainty Score and GOAL.....	45
Table 11: Descriptive Statistics for Research Question 2 .....	46
Table 12: Independent Samples Test Results for Career Indecision.....	46
Table 13: ANOVA for Career Indecision Score and ACH.....	47
Table 14: Regression for Career Indecision Score and ACH.....	48
Table 15: ANOVA for Career Indecision Score and MOT.....	48
Table 16: Regression for Career Indecision Score and MOT.....	49
Table 17: ANOVA for Career Indecision Score and GOAL.....	50
Table 18: Regression for Career Indecision Score and GOAL.....	50



## CHAPTER ONE: INTRODUCTION

Student persistence from first year to second year is a concern at most institutions of higher learning. For the last few decades, reasons such as social integration, family issues, lack of financial resources and academic under-preparation have been the focus of most studies done on retention (Astin, 1975; Bean & Metzner, 1985; Cabrera, 1993; Pascarella, 1982; Tinto, 1975). The focus of this study is the phenomenal occurrence of a student's "lack of major and career direction" as it relates to low retention at institutions of higher learning.

In response to the research conducted on retention, programs such as first-year orientations, college success classes, academic tutoring, and mentoring have been implemented at institutions across the nation (Astin, 1984; Bean, 1980; Bean & Eaton, 2002; Berger & Milem, 1997; Tinto 1987). Even though these programs have rendered meaningful statistical information on retention, the possibility for improvement exists.

According to the National Longitudinal Study of the High School Class of 1972 (1994), the most common response for leaving school was, "I wasn't really sure of what I wanted to do." When asked why they left college, seventy-three percent of students from four-year institutions and eighty-one percent at community colleges, gave the response "lack of focused career goals," (Ramist, 1981). Noted educator and retention scholar Alexander Astin's (1975) contention in *Preventing Students from Dropping Out*, is that students with higher education and career goals are more likely to remain until

graduation. Sprandel (1985) cited that three out of twelve reasons for students dropping out of college correlated with their “lack of career and/or major direction.”

### Statement of Problem

Students are leaving institutions of higher education because of lack of major or career goals. Can a relationship between having made a career decision and the motivation to persist in higher education be ascertained? If so, are there retention strategies that could decrease the phenomenon of students leaving because of a lack of major or career goals?

In the 1980s, scholars added new research findings to educational literature regarding choosing a major and persistence. Parnell’s (1985), *The Neglected Majority*, presented to educators that if high school students chose “general studies” instead of college preparation or vocational courses, their chance of graduating from high school was approximately thirty percent.

At the collegiate level, studies involving declared and undeclared majors indicated those students who had declared a major were more likely to persist and engage in their education (Foote, 1980; Hilton, 1982). When students believed their major would lead them to a secure career, they were more likely to persist than those students that believed that their education was not worthwhile (Orndorff & Herr, 1996; Peterson & delMas, 2001; Sandler, 2002). Berger and Milem (1999) offered that when students decided on a major or career plan they were more involved academically and therefore were more likely to persist.

Community colleges and universities are equipped with the resources to assist students with major and career decisions; and in higher education, the two are not separate. When students select a major, they must first find out which career they are pursuing in order to determine the best major for that career. Research supports that assisting students with their career decision process, increases their motivation to persist (Pascarella, 1982; Sandler, 1998). The result of that student support action may be an increase in retention rates.

### Research Questions

1. Is there a relationship between career decision and motivation to persist in higher education?
2. Is there a relationship between career indecision and the lack of motivation to persist in higher education?

### Definition of Terms

The following terms and assessments were used in this study:

Attrition – The normal loss of personnel, as by retirement (Agnes, 2003). For the purpose of this study, attrition refers to a term used in higher education to indicate the loss of students re-enrolling. Most often examined from Fall to Fall semester re-enrollment.

Achievement Motivation Profile –AMP – Designed by Jotham G. Friedland, Harvey P. Mandel and Sander I. Marcus (1995); is an assessment that measures a

student's motivation to achieve. The responses define 18 characteristics from five different constructs.

Career Decision – To make a career choice. For the purpose of this study, Career Decision is used to indicate that a student has made a decision on what career they would like to pursue.

Career Decision Scale (CDS) – Designed by Samuel H. Osipow, Clarke G. Carney, Jane Winer, Barbara Yanico, and Maryanne Koschier (1987); is an assessment that determines Career Certainty and Career Indecision. The assessment is composed of 19 items of which the first 18 are self-rated and of the Likert type, the 19<sup>th</sup> requires an open-ended response.

Goal – The object of a person's ambition or effort; a destination (Oxford dictionary, 2002). For the purpose of this study, goal is synonymous with career decision. A student has a goal of graduating college in order to obtain employment in his or her field, which would indicate that a career decision was made before entering the intended major of study.

Motivation – The act or process of stimulating to action; to impel or incite (Morris, 1982). For the purpose of this study, motivation refers to the institutional stimulation of a student to persist through college.

Persistence – To continue firmly despite obstacles (Oxford dictionary, 2002). For the purpose of this study, persistence refers to the action of a student re-enrolling term after term. Persistence is the action and retention is the result of that action.

Retention – To keep possession and not lose (Oxford dictionary, 2002). A popular term used in higher education to describe students re-enrolling from Fall to Fall semester; also used for completion rates in some studies. For the purpose of this study, it refers to Fall to Fall re-enrollment.

Self-Efficacy – To believe that one has the skills and abilities to do a specific task (Bandura, 1977), such as: “I will be able to learn how to play the piano,” or “I can pass this math class.”

Self- Esteem - The opinion one holds of themselves. The two most important constructs that define self-esteem is worthiness and competency. Competency means that you feel competent of producing desired results, have the ability to think and make right choices and decisions. Worthiness is more of the psychological component of self-esteem and it measures how much you value yourself (Brandon, 1987). For the purpose of this study, self-esteem pertains to the level of confidence students need to complete their goals.

Seminole Community College – A comprehensive community college located in Sanford, Florida, offering two-year Associate of Arts transfer degrees, two-year Associate of Science degrees, College Credit Certificates, Vocational Diplomas, Adult High School and a General Education Diploma (GED) program.

## Design of Study

### *Participants*

The participants for this study were freshman and sophomore level male and female students at Seminole Community College in Sanford, Florida. The students were not selected at random. They varied in age from 18 and up; however, the majority of the students were under the age of 24. The students were enrolled in six college success classes, all taken at Seminole Community College. A total of 105 students were administered two assessments.

### *Instruments*

One of the testing instruments administered was the Career Decision Scale (CDS) (Osipow, Carney, Winer, Yanico, & Koschier, 1987). Composed of 19 items, the first 18 are self-rated and of the Likert type. Response ratings range from 1, indicating low similarity of the student to the item, to a rating of 4, indicating a high similarity to the student. The last item, #19, is an open-ended question.

Questions 1 and 2 comprise the Certainty Scale. These items are related to the degree of certainty students feel about a career decision. Questions 3 through 18 comprise the Indecision Scale, a measure of their indecision about a career.

The Career Decision Scale is appropriate for college level, male and female students and can be administered in individual or group settings. Relatively simple to administer and score, the Career Decision Scale Manual indicates that numerous studies have been conducted to verify the reliability and validity of the Career Decision Scale (Osipow et al., 1987).

The second instrument administered was the Achievement Motivation Profile (AMP) (Friedland, Mandel & Marcus, 1995). The purpose of the profile was to measure students' motivation to achieve. The responses defined 18 characteristics from five different constructs: (a) Response-style; includes Inconsistent Responding, Self-Enhancing and Self-Critical, (b) Motivation for Achievement; includes Achiever, Motivation, Competitiveness and Goal Orientation, (c) Inner Resources; includes Relaxed Style, Happiness, Patience and Self-Confidence, (d) Interpersonal Strengths; includes Assertiveness, Personal Diplomacy, Extroversion and Cooperativeness, and (e) Work Habits; includes Planning and Organization, Initiative and Team Player. The AMP is appropriate for ages 14 and older. Like the Career Decision Scale, the AMP can be given in a group setting and can be scored by the administrator.

### *Methodology*

Each college success class selected for the study was informed of the particulars of the study. Each participant read and signed the consent forms required by the University of Central Florida's Institutional Review Board (UCFIRB). The first assessment administered was the Career Decision Scale (Osipow et al., 1987). The second assessment was the Achievement Motivation Profile (Friedland et al., 1995).

Three linear regressions were conducted to determine if there is a relationship between career decision and motivation to persist. The Certainty score from the CDS was the independent variable; and the scores from the AMP, which included the Achiever, Motivation and Goal scores from the Motivation for Achievement section, were the respective dependent variables.

Three additional linear regressions were conducted to determine if there is a relationship between career indecision and the lack of motivation to persist as defined by this study. The Indecision score from the CDS was the independent variable; and the scores from the AMP, which included the Achiever, Motivation and Goal scores from the Motivation for Achievement section, were the respective dependent variables.

### Limitations of Study

There were limitations to the study. The study analyzed only one student population group; freshman and sophomores at a community college. The students were all enrolled in the same school and the same campus.

Another limitation was the small number of students involved in the study. There were only 105 students. Students in all six classes varied in age, Grade Point Average (GPA) and socioeconomic status. The Career Decision Scale and the Achievement Motivation Profile have been tested for validity and reliability, but still have their limitations.

There is a limitation to the findings in this study in that the direction of causality is not analytically testable; though the theory behind the study suggests the expected direction. Another limitation is the data from the assessments are only quantitative; this study could have been stronger if a qualitative study had also been performed.



### Assumptions

The study assumes that: (a) the best six college success classes for the study were selected; (b) the students were truthful in their responses on all of the assessments given; (c) the results whether positive or negative would be helpful to the institution regarding motivation and persistence; (d) the students in the six college success classes selected were a true representation of students throughout higher educational institutions across the country and; (e) the two assessments used for this study were the best measurements for career decision and motivation to persist for this type of research.

### Significance of Study

The significance of this study was to highlight that the retention topic of “lack of major or career goal” had not been adequately researched. Decades of research has been performed on retention that focuses on college success classes, first –year orientations, academic tutoring and mentoring programs (Astin, 1984; Bean, 1980; Bean & Eaton, 2002; Berger & Milem, 1997; Tinto 1987).

In a study titled, “Campus Practices for Student Success: A Compendium of Model Programs,” the programs for student success and retention at 68 state colleges and universities were briefly described for each school. Out of the 68 schools in the study, only 22%, 15 schools, offered career classes or mandatory career counseling. The remaining schools put their retention emphasis on college success classes, first-year orientations, academic tutoring and mentoring programs (American Association of State Colleges and Universities, 1994).

If career decision is linked to the motivation to persist, institutions of higher learning may be able to raise their retention rates by implementing career classes and/or career counseling for its students.

### Organization of Dissertation

Chapter Two of this study examines the review of literature and encompasses: (a) History of traditional retention theories and programs, (b) Research that reveals the impact of making a career and/or major choice and the motivation to persist as it relates to attrition and retention, (c) Research that illustrates a relationship between motivation and persistence in higher education and (d) Research that indicates the need for career development programs and examples of career programs currently in place. Chapter Three reviews the methodology employed by the Career Decision Scale and the Achievement Motivation Profile. In Chapter Four, the results of the assessments are evaluated. Chapter Five, includes discussions of findings and recommendations based on those findings.

## CHAPTER TWO: REVIEW OF LITERATURE

The review of literature provides the foundation for investigative research and is presented in four sections: (a) History of Traditional Retention Theories, (b) Career/Major Decision and Motivation to Persist, (c) Motivation Leading to Persistence and (d) Current Needs and Practices for Career Decision.

In addition, the review of literature is sequenced to provide a historical, theoretical and practitioner overview. History of Traditional Retention Theories examines major retention theories and their role in retention programs throughout institutions of higher learning.

Career/Major Decision and Motivation to Persist examines research as it pertains to: (a) How having an educational goal or career/major decision can positively result in persistence in college and, (b) How the lack of educational goals can negatively impact students' college careers in terms of dropping out of school.

Motivation Leading to Persistence explores research and studies that relate to how motivation can influence persistence in higher education. Current Needs and Practices for Career Decision examines research that indicates the need for career development programs and provides an overview of several career programs currently in place.

### History of Traditional Retention Theories

Many current retention practices in higher education today evolved from the innovative theories of two men; Vincent Tinto and Alexander Astin. Their theories, independent of each other, started the retention movement in higher education. Tinto (1975) contended that students must be socially and academically integrated to college to persist. He also believed that they had to successfully remove themselves from their past life and make the transition to the new, academic life. Then they must incorporate themselves in the social and academic activities of the higher education setting.

In the same year, Astin (1975) stated that students persist when they are involved with college life, and on the converse would depart from school if they were not involved. Both Astin and Tinto would later expand their theories to include behavioral and motivational factors that surround social and academic interaction (Astin, 1984; Tinto, 1987).

Along with social and academic integration which resulted in a “student-institution fit,” both theories spoke to the construct of “institutional commitment.” Institutional commitment refers to the student’s overall satisfaction with the school, the feeling of educational quality, sense of belonging and the readiness to attend the school again (Sandler, 2002; Strauss & Volkwein, 2004).

Updated theories of Astin and Tinto led to other research on the psychological aspects of retention. Bean and Eaton (2002) conducted a study based on four psychological theories: Attitude-Behavior Theory, Coping Behavioral Theory, Self-Efficacy Theory and Locus of Control Theory. They believed that successful retention

programs that addressed these psychological needs of the students would keep them socially and academically integrated.

Berger and Milem (1997) were the first to empirically test a conceptual model of student persistence that integrated the behavioral constructs of Astin's work to further specific aspects of Tinto's research. The basic premise of Tinto's and Astin's research remained the same; however, more of the behaviors, emotions and the motivation of the students were included in the research. The results of this study furthered the conclusion that student involvement in the social and academic aspects of college leads to persistence.

The Illinois Community College System collected retention practices from the 49 colleges of that state. Analysis of the retention practices revealed that; 32 colleges enhanced the counseling/advisement procedure, 30 colleges practiced mandatory testing for placement, eight colleges mentioned mentoring, 14 colleges had revised orientation programs, eight indicated that they offered workshops and seminars on student retention, 15 colleges mentioned using statewide retention programs, while another eight went into detail on specific programs (Illinois Community College Board, 1995). Unlike the other compilation of retention practices mentioned in Chapter One, "Campus Practices for Student Success: A Compendium of Model Programs" (The American Association of State Colleges and Universities, 1994), there is no mention of any career counseling or career planning classes.

In separate studies, Fenwick and Hutto (2002) and Glenn (2001), conducted research involving minority students at four-year and two-year schools, and listed

freshman-only advising, orientation classes, mentoring, tutoring, counseling and advising and a full service student services program, as reasons for high retention at the schools studied.

The aforementioned research indicates the majority of current programs in place for student retention, fall under one of the following categories: first-year orientation, college success classes, mentoring programs, tutoring, learning communities and intense advising/counseling sessions. These programs respond to the social and academic needs of the students regarding student-institution fit and institutional commitment.

#### Career/Major Decision and Motivation to Persist

This portion of the review of literature examines how a lack of goal or career/major decision can negatively impact students' desire to persist. In addition, it explores how having a goal or making a career/major decision can positively affect students' desire to persist. In *Understanding Dropouts*, a perceived lack of relevance of school was one of the main reasons for students dropping out of high school (Beatty, Neisser, Trent, & Heubert, 2001).

At the collegiate level, studies involving declared and undeclared majors showed that those students who had declared a major were more likely to persist and engage in their education (Foote, 1980; Hilton, 1982). In a study by Kalsner (1991), one of the four recurrent themes for student withdrawal was uncertainty both about what to expect from college and its rewards.

In a study performed at City University of New York (CUNY), surveys were given to students who persisted and received their degree and to students who did not persist. The results of the survey showed that the persisters had higher educational aspirations and goals than did the non-persisters (Heller, 1982).

In O'Banion's (1972), Advising Model, the first three out of five steps an Academic Advisor in Student Service divisions are implored to examine with students are: (a) exploration of life goals, (b) exploration of career goals, and (c) selection of a major or program of study. O'Banion further contended if the goal is established early, then the more likely the student will be engaged and motivated.

Twelve years after writing the catalyst for student retention, Dropout from Higher Education: A Theoretical Synthesis of Recent Research, Tinto (1987) encouraged colleges and universities to assist students in major and career development during their freshman year in order to improve retention.

An extensive cohort study involving two community colleges and 2981 students, examined the relationship between educational goals and retention. The researcher wanted to determine which student characteristics would best predict retention and tested the hypothesis that educational goals were important determinants for persistence at the community college level. Two different cohorts from two community colleges were used: A cohort of 1,844 students enrolled during Fall 1997 from one college, and a cohort of 1,137 students enrolled at another school also enrolled for the Fall 1997 semester (Goel, 2002).

Each cohort was followed every Spring and Fall semester until 2001. The students of the cohort were identified as either persisters, dropouts, those in good standing, transfers, employed or graduates. Multiple regressions were conducted using several independent variables such as: gender, age, part-time/full time status (as an indicator of contact), educational objective, ethnicity, employment status, placement test status, residency status, and first semester GPA (Goel, 2002).

The first year of the study revealed just how much “a lack of an educational goal” affected retention. By the spring of 1998, from the first community college, 1,219 students out of the initial 1,844 cohort remained; which represented a 66% retention rate. Almost all of the students who left had indicated that their educational objective was not known (no percentage was provided from study). Also by the spring of 1998, from the second community college, 844 students out of the initial 1,137 cohort remained; which represented a 45.8% retention rate. Again, almost all of the students who left stated that their educational objective was not known (Goel, 2002).

Pascarella (1982) investigated Tinto’s “Model of College Withdrawal” by studying a number of measures of institutional involvement. In the study, many constructs under institutional involvement were used. In the findings, the author cited that participation in career counseling programs had a direct positive effect on persistence.

Several studies found that when students felt their major would lead them to a secure career, they were more likely to persist than those students that felt that their



education was not worthwhile (Killeen, Sammons, & Watts, 1999; Orndorff & Herr, 1996; Peterson & delMas, 2001; Sandler, 1998).

In Sandler's (1998) Career Decision-Making Self-Efficacy and an Integrated Model of Student Persistence, he introduced the construct of career decision-making self-efficacy (CDMSE). His study "identifies the degree of confidence students express about their competency or self-efficacy to embark upon informational, educational, and occupational goal planning activities." Sandler's study concluded that when a student made a career decision and had a goal, along with the self-efficacy to complete this goal, they would have the strength to complete that goal.

Peterson and delMas (2001) expanded on Tinto's theoretical integration model on social integration and commitment to persistence. The purpose of their study was to determine if there was a causal relationship between career decision-making self-efficacy and persistence. The Career Decision-Making Self-Efficacy (CDMSE) and the Institutional Integration Scale (IIS) were the instruments utilized for the study. The researchers wanted to examine direct paths to persistence. The results concluded that the top four areas that can be linked as a direct path to persistence behavior are; from highest to lowest: (a) Academic Performance, (b) Intent to Persist, (c) Academic Integration, and (d) Degree Utility. This is one of few studies that actually indicated a direct relationship between scoring high on Intent to Persist and actual persistence.

In Orndorff's and Herr's (1996) study, the Career Decision Scale and the Survey of Career Development were used for the quantitative portion of the study and interviews made up the qualitative portion. They attempted to determine the differences between

declared and undeclared students as it related to career decision and clarification of goals. The study did suggest that declared students were more involved in clarifying their values, interests and abilities than undeclared students. Declared students also possessed more career certainty than did the undeclared students.

In their study, Berger and Milem (1999) wanted to expand on the constructs of Tinto's Integration Model, and Astin's Theory of Involvement. Berger and Milem concluded that students with a major or career plan were more involved academically and therefore more likely to persist. The method of research included three surveys taken at different periods of time. A social security match enabled the data to be compiled to run a path analysis. Again academic integration, which includes having an academic goal, was shown to have a causal relationship with persistence.

In a qualitative study on a freshman orientation course, one of the twelve students interviewed for the study, claimed that going to the career center (part of the freshman orientation course) and discovering her major, strengthened her resolve to stay enrolled in school. The selection of a major helped her feel that she was working toward something worthwhile (Robles, 2002).

In one study on student success and retention, one of the main recommendations was to assist students in establishing an education goal; the rationale being that in order to persist in getting a degree or obtaining an educational goal, one must first have an educational goal (Tracy-Mumford, 1994).

### Motivation Leading to Persistence

Psychological studies on the emotional states of students, including self-esteem, self-efficacy and locus-of-control, point to motivational constructs that will lead students to persistence (Bandura, 1989; Braxton, Hirschy, & McClendon, 2004; Guindon, 2002). Several studies concluded that relevance and goals strengthened motivation in high school and college level students (Allen, 1999; Hardre & Reeve, 2003; Parnell, 1996).

Allen (1999) examined the structural relationships among four constructs: (a) motivational factors, (b) academic performance, (c) student background factors and (d) persistence. The purpose of the study was to explore the role of these four constructs among minority and non-minority students and sought to: (a) assess the direct and indirect effects of motivation on persistence behavior and academic performance and (b) determine the extent that motivation differs in its influence on persistence and academic performance for minorities and non-minorities.

Furthermore, during the Fall semester of 1994, freshman students at a public, four-year college in the southwest were asked to complete the College Student Inventory (CSI). This instrument, designed by Noel and Levitz, has 194 survey questions used to assess both risk level and student needs. Allen then gathered the background variables from university records and ran a two-step structural equation modeling procedure and a polyserial/polychoric correlation matrix. The main assertion found among the results were that background variables and desire to persist in college played a key role in the actual persistence of those students (Allen, 1999).

In Hardre and Reeve's (2003) research, a motivational model based on a self-determination theory, was designed to determine the motivation factor of those students that persisted as opposed to those students who dropped out. Even though this study was performed in a rural high school setting, the results were the same; when students were more motivated, they were more likely to persist.

Strauss and Volkwein (2004) concluded that persistence was higher at four-year schools as compared to two-year schools, with motivation being cited as one of the reasons. This study used a cross-sectional research design on a 1997 multi-campus database containing 23 four-year and 28 two-year institutions involving 8,217 students. A multivariate analysis was conducted using Hierarchical Linear Modeling.

In a qualitative study on African-American college students (Echols, Hwang, Konstantinos, & Wood, 2001), motivational factors were examined as they related to career choices and educational values. There were sixty participants from one university that included 21 males, 37 females, and two missing with a mean age of 26.22. On the question; What does education mean to you?; at least 48.3% of the students said opportunity for getting a good job, success or better life in the future, 43.3% said self-fulfillment and only 5% said money. This result indicated that students are willing to work hard at education for four years because they know there will be a "treasure at the end of the rainbow." It gives the students reason and purpose. This exemplifies a quote from Nietzsche; "He who has a why to live, can bear with almost any how."

Bluestein and Duffy (2005) conducted a rare study, in which the relationship between spirituality, religiousness and career adaptability was examined. The purpose of

the study was to determine if higher levels of religiousness and spirituality could predict higher levels of career adaptability which was defined by career decision self-efficacy and career choice commitment. The study consisted of four instruments and was given to 144 college students at a mid-sized northeastern, private Roman Catholic university. A correlation and a multiple regression were run using the subsets of the spirituality and religiousness instruments as the independent variables.

The results indicated that there was a relationship between several constructs contained in the spirituality assessment, the religiousness assessment and career adaptability assessment. The results also indicated that career adaptability could be predicted from several dependent variables. The researchers also observed how career self-efficacy was higher in those that scored high on intrinsic religiousness. Although this study had spirituality and religiousness as the independent variables and career self-efficacy as the dependent variable, it relates to the theory of motivation in that a person must feel he or she has the strength to persist in order to obtain a career of choice (Blustein & Duffy, 2005).

An interesting study performed at a university in Spain, proposed to create a model that begins with motivational orientation (goals); that would lead to learning strategies that would lead to persistence and effort, and finally to academic achievement. The participants included 614 students, 26% male and 74% female, between 18 and 23 years old. The instruments included The Learning Strategies Inventory (LASSI), which was used to assess cognitive activities for learning strategies, the Questionnaire to Measure Achievement Goal Tendencies, for the evaluation of the goals, and a

questionnaire developed by the researchers to gather information on “persistence in academic tasks” (Cabanach, Valle, Nunez, Gonzalez-Pienda, Rodriquez, & Pineiro, 2003).

A structural equation analysis was conducted to analyze the viability of the proposed model mentioned above. The results confirmed the researchers’ hypothesis; positive self-image leads to motivation, which leads to positive learning strategies, which leads to persistence and achieving goals (Cabanach et al., 2003).

In a study on goal theory, Covington (2000) compiled an extensive review of literature from dozens of educators, including Dewey, psychologists, social theorists, including Erikson, and other known theorists. He merged the research to illustrate the links between self-worth and self-efficacy, self-efficacy and motivation, motivation and persistence, self-efficacy and self-esteem and self-esteem and motivation. He quoted one of the theorists, “There are three things to remember about education. The first one is motivation. The second one is motivation. The third one is motivation.”

True motivation achievement assessments are rare. One researcher in Australia designed his own motivation assessment using the Extended Logistic Model of Rasch. This assessment was based on a conceptual model of motivation, that was composed of three constructs: (a) Striving for Excellence; includes standards, goals, tasks, efforts, values and ability, (b) Desire to Learn; includes interest, learning from others and responsibility for learning, and (c) Rewards; includes extrinsic, intrinsic, and social. The researcher states that it is important to create an interval level, unidimensional scale of motivation, with attitude items linked to behavior items (Waugh, 2001).

### Current Needs and Practices for Career Decision

Results from a study by Gordon (1985) mentioned the need to provide career self-assessment programs for students. By incorporating the career self-assessments into the curriculum, the institution has a better chance at reaching students, rather than hoping the students will recognize their uncertainty and seek out career assessments on their own. In a study on career development, Goodson (1985) contended that guidance is still needed by students even if they have picked a major; guidance is still needed to connect the major to the career.

From the findings of a ten-year longitudinal study on students' career decision from the 2<sup>nd</sup> through the 12<sup>th</sup> grades, Helwig (2004) discovered that the biggest year for career decision-making happened in the 12<sup>th</sup> grade and students cited individual teachers, not the school, as being instrumental in their career decision-making. The resources provided to the students included assessments and a career/major resource office.

In Gati and Saka's (2001) study on high school students' career decision difficulties, they cited a lack of career readiness stemming from inconsistent information and dysfunctional beliefs affected many students. They contended that students need an academic approach to career decision in order to synthesize what they have learned. In a similar study for high school students, a social cognitive approach was implemented for career counseling (Gibbons & Shoffner, 2004).

In order to assist high school guidance counselors with a systematic method of career counseling, two researchers in Boston developed a computerized career assessment that incorporated the student's interests, work values, subject matter

preferences, and self-estimates of abilities along with career information. This assessment enabled the guidance counselors to meet the vast needs of the students as it relates to career guidance for the students' transition to the college setting (O'Shea & Harrington, 2003).

Several studies focused on the importance of working with the student, either in a classroom setting with a career planning curriculum, or in one-on-one counseling sessions on career/major development. The results for all three studies showed statistical significance with improved retention (Hirsch & Rajasekhara, 2000; O'Brien & Quimby, 2004; Wilner, 1979).

Career readiness and career decision have been critical topics at the high school level in the past decade. Career centers, private and public, also understand that career readiness is an important part of career decision and have designed programs to address those issues (Sampson, Peterson, Reardon, & Lenz, 2000).

Two researchers believed just giving a student a career assessment was not enough to guide and ready the student to make a career decision. The researchers described ten additional steps for the student to do: (a) volunteer or do an internship in selected major, (b) get involved with a career mentor, (c) describe a dream job scenario, (d) complete field research, (e) read about job descriptions on the Internet, (f) look at hobbies that may lead to a career, (g) join groups that link the student with a professor in that field, (h) look for ideas in a company's directory, (i) learn how to implement creativity and persistence, and (j) read books about career decision making (Lewis & Sabedra, 2001).



An important study was performed on the reasons students could not make a career decision. A three year longitudinal study using the Career Decision Scale (CDS) and four other scales were used to understand the reasons students were undecided. Students with career indecision were divided into two groups, chronically undecided and developmentally undecided. Once that was established, the authors of the study contended that students could be assisted according to their type of indecision. Several strategies were adequately described and appear practical to deliver (Deschne, Guay, Larose, Ratelle & Senecal, 2006).

In one study, the researchers examined the statistical results from assessments given to students in a life/career planning class. Students who took these classes were able to make career decisions. The authors of this study concluded that having a class designed to assist students with career/major decisions can meet the needs of more students than the occasional one-on-one career counseling (Johnson, Nichols, Buboltz & Riedesel, 2002). Furthermore, the shrinking budgets of most institutions of higher learning constrict the amount of time counselors can actually spend with students, therefore making the life/ career planning course cost efficient as well.

Table 1 represents retention data at Seminole Community College and includes Fall to Fall Re-enrollment rates for four years. The retention rate for students who never took the College Success class, SLS 1101, or the Life/Career Planning class, SLS 1301C, ranged from 44.1% to 44.8% for all four years. However, the retention rate goes up if the students took either SLS 1101 or SLS 1301C to 54.1% - 75.9%. When students took

both classes the retention rate was even higher 65.6% - 88.2%, nearly double the retention rate for students who took neither class.

Table 1

*Fall to Fall Re-enrollment with SLS 1101 and SLS 1301C.*

	Enrolled Fall 02 Re-enrollment Fall 03	Enrolled Fall 03 Re-enrollment Fall 04	Enrolled Fall 04 Re-enrollment Fall 05	Enrolled Fall 05 Re-enrollment Fall 06
Passed SLS 1101 with A, B, C Never took SLS 1301C	65.5%	62.5%	66.5%	58.7%
Passed SLS 1301C with A, B, C Never took SLS 1101	60.8%	56.8%	75.9%	54.1%
Passed SLS 1101 with A, B, C Took SLS 1301C in Same/Prior Term	70.0%	80.4%	88.2%	82.8%
Passed SLS 1301C with A, B, C Took SLS 1101 in Same/Prior Term	65.6%	70.4%	83.3%	73.7%
Never Took SLS 1101 or SLS 1301C	44.8%	44.7%	44.1%	44.7%

Source: Craig SAS Program- Seminole Community College: includes all degree-seeking students

Summary of Review of Literature

During the preparation for this study, obtaining research related to the subjects of career decision and motivation, and its use for retention, was scarce. This further strengthens the argument that more research for the topic of career decision and its relationship to persistence and retention is needed.

Based on the studies from this review of literature, this researcher agrees with Waugh (2001) about the need for an interval level scale for Motivation. In order to run

valid data for studies on motivation, many of the researchers had to use questionnaires in concert with other instruments.

Statistically researchers have found that students who have not made a career/major decision drop out of school at higher rates. Statistically researchers know that students who have made a career/major decision usually persist until graduation.

Even though motivation to persist is a hard concept to evaluate and quantify, educators, psychologists and researchers know that a student, or person, who is not motivated in whatever they are attempting to accomplish, will do one of two things: (a) give a poor and uninspired effort, or (b) abandon the task.

## CHAPTER THREE: METHODOLOGY

### Introduction

This chapter describes the method utilized to answer the two research questions proposed for this study. This includes the statement of the problem, the research questions, the make up of the population used for the study, details of the instruments used and the method in which the data will be analyzed.

### Statement of Problem

Students are leaving institutions of higher education because of lack of major or career goals. Can a relationship between having made a career decision and the motivation to persist in higher education be ascertained? If so, are there retention strategies that could decrease the phenomenon of students leaving because of a lack of major or career goals?

In the 1980s, scholars added new research findings to educational literature regarding choosing a major and persistence. Parnell's (1985), *The Neglected Majority*, presented to educators that if high school students chose "general studies" instead of college preparation or vocational courses, their chance of graduating from high school was approximately thirty percent.

At the collegiate level, studies involving declared and undeclared majors indicated those students who had declared a major were more likely to persist and engage in their education (Foote, 1980; Hilton, 1982). When students believed their major would

lead them to a secure career, they were more likely to persist than those students that believed that their education was not worthwhile (Orndorff & Herr, 1996; Peterson & delMas, 2001; Sandler, 2002). Berger and Milem (1999) offered that when students decided on a major or career plan they were more involved academically and therefore were more likely to persist.

Community colleges and universities are equipped with the resources to assist students with major and career decisions; and in higher education, the two are not separate. When students select a major, they must first find out which career they are pursuing in order to determine the best major for that career. Research supports that assisting students with their career decision process, increases their motivation to persist (Pascarella, 1982; Sandler, 1998). The result of that student support action may be an increase in retention rates.

### Research Questions

The research performed will answer the following questions:

1. Is there a relationship between career decision and motivation to persist in higher education?
2. Is there a relationship between career indecision and the lack of motivation to persist in higher education?

Although the two research questions appear to be asking the same question by examining two halves of a whole; it technically measures two different scores. Research Question 1 uses the Certainty score derived from the first two questions on the Career

Decision Scale (CDS), while Research Question 2 uses the Indecision score derived from questions three through eighteen from the CDS.

### Population and Sample

The participants for this study were freshman and sophomore level male and female students at Seminole Community College in Sanford, Florida. The students were not selected at random. They varied in age from 18 and up; however, the majority of the students were under the age of 24. The students were enrolled in six different College Success classes at Seminole Community College. A total of 105 students took both assessments.

The supposition that the students used for this study best represents all students in all institutions of higher learning was listed as one of the assumptions in Chapter One. Table 2 illustrates how Seminole Community College’s retention rates compare to the retention rates of the other 27 community colleges in Florida (Florida Community College System -FCCS), the retention rates of community colleges nationwide, and to the State University System in Florida.

Table 2

*Fall to Fall Re-enrollment*

Schools	Fall 03	Fall 04	Fall 05
SCC Fall to Fall Re-enrollment rate <sup>1</sup>	57.2%	55.4%	55.5%

FCCS Fall to Fall Re-enrollment rate <sup>2</sup>	57.6%	57.0%	Not available
National Community College Fall to Fall Re-enrollment rate <sup>3</sup>	61.7%	Not available	Not available
State University System Fall to Fall Re-enrollment <sup>4</sup>	87.2%	87.3%	Not available

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Sources and Notes:

<sup>1</sup> Student database and SAS headcount analysis: includes all degree-seeking students

<sup>2</sup> FCCS Microcomputer database and SAS routines: includes all degree-seeking students

<sup>3</sup> US Dept of Education, National Center for Educational Statistics, Profile of Undergraduates in US Post-secondary Education Institutions, 2003-2004: includes all degree-seeking students

<sup>4</sup> SUS Factbook: Table 56 Retention Rates for all first time in college students in State University System

The re-enrollment rates for Seminole Community College are slightly less than the other Florida community colleges and 4% lower than nationwide community colleges. The State University System (SUS) shows the highest retention rate exceeding those of the community college. The reason for this difference is that the Fall to Fall re-enrollment rates for SUS are for First Time in College (FTIC) students only. The re-enrollment rates for the community colleges measure all degree-seeking students whether they are FTIC or not; which include students of all ages and from different educational backgrounds. In summary, the students of the population used for this study, closely resembled other students in the Florida community college system.

## Instruments

### *Career Decision Scale*

One of the measurement instruments administered was the Career Decision Scale (CDS) (Osipow, Carney, Winer, Yanico & Koschier, 1987). Composed of 19 items of which the first 18 are self-rated and of the Likert type. Response ratings range from 1, indicating low similarity of the student to the item, to a rating of 4, indicating a high similarity to the student. The last item, #19, is an open-ended question.

Questions 1 and 2 comprise the Certainty Scale that measures the degree of certainty students have about a career decision. Questions 3 through 18 comprise the Indecision Scale, a measure of students' indecision about a career.

The Certainty scale T- scores range from 6 to 100, with distinctions in scoring based on gender and class placement; freshmen, sophomore, juniors and seniors. The Indecision scale T-scores range from 5 to 100, also with distinctions in scoring based on gender, and class placement; freshmen, sophomore, juniors and seniors.

For a linear regression analysis, the Certainty score was used as the independent variable and the three scores from the Achievement Motivation Profile (AMP) as the dependent variables; to determine if there is a relationship between career decision and motivation to persist as defined by this study. In another linear regression analysis, the Indecision score was used as the independent variable and the three scores from the AMP as the dependent variables; to determine if there is a relationship between career indecision and the lack of motivation to persist as defined by this study.



### *Achievement Motivation Profile*

The second instrument was the Achievement Motivation Profile (AMP) (Friedland, Mandel & Marcus, 1995). The purpose of this profile was to measure the student's motivation to achieve. The responses defined 18 characteristics from five different constructs. Response-style; includes Inconsistent Responding, Self-Enhancing and Self-Critical. Motivation for Achievement; includes Achiever, Motivation, Competitiveness and Goal Orientation. Inner Resources; includes Relaxed Style, Happiness, Patience and Self-Confidence. Interpersonal Strengths; includes Assertiveness, Personal Diplomacy, Extroversion and Cooperativeness. Work Habits; includes Planning and Organization, Initiative and Team Player.

For the purpose of this study the Motivation for Achievement subset was the only subset evaluated, using only three of the four scales from that subset; the Achiever (ACH), Motivation (MOT), and Goal (GOAL) in the data analysis. The Achiever scale was derived from 13 items and assesses the student's view of his or her academic achievement and his or her attitude toward school. The Motivation scale consisted of 11 items and measures a student's need to achieve and motivation to succeed. It evaluated the student's energy level, effort, optimism and degree of follow-through. The Goal scale contained seven items and measures a student's sense of purpose and the degree of his or her satisfaction with goal attainment (Friedmand et al., 1995). All three scales used T-scores that ranged from 20-80.

The Achiever, Motivation, and Goal scores were used in three separate linear regressions. They were used as dependent variables with the Certainty score of the CDS

as the independent variable to determine if there is a relationship between career decision and motivation to persist as defined by this study. Three more linear regressions were performed with the Achiever, Motivation, and Goal scores again as dependent variables and the Indecision score of the CDS as the independent variable to determine if there is a relationship between career indecision and the lack of motivation to persist as defined by this study.

### Reliability and Validity

#### *Career Decision Scale*

According to the test manual for the Career Decision Scale, several studies have been done to evaluate reliability. Two studies have reported test-retest correlations of individual items and Indecision scores (Osipow et al., 1987). They reported two retest correlations of .90 and .82 for the Indecision Scale for two separate samples of college-level students. The number of students was 50 and 59, respectively. The item correlations for the Certainty and Indecision Scales ranged from .34 to .82, with the majority of the scores falling in the range of .60 and .80.

Another test was performed to confirm the test-retest reliabilities over a period of six weeks for the Certainty and Indecision Scale items. The findings also resulted in a high correlation. (Osipow et al., 1987).

Validity studies on the Career Decision Scale fall into four major methodological approaches: (1) group comparisons and correlations with instruments that measured the construct of indecision, (2) treatment studies, (3) relationships with other personality

variables, and (4) relationships with demographic variables. All studies performed supported the validity of the Career Decision Scale (Osipow et al., 1987).

The Career Decision Scale is appropriate for college level, male and female students and can be given in an individual or group setting. It is relatively simple in its administration and scoring.

#### *Achievement Motivation Profile*

Two types of tests were used to evaluate the reliability of the AMP: one for internal consistency and a test-retest formula. Internal consistency was used for the AMP subscales and was calculated with Cronbach's alpha. The results for the scales showed a range of .58 to .84 with the median at .75. The test-retest was examined by using 122 Canadian high schools students who took the test 60 days apart. The results fell into the range of .61 to .89 with the median being .83 (Friedland et al., 1995).

A construct validity study was performed on the interscale relationships of the AMP subsets. In addition, a number of studies were performed examining the relationship of the AMP and several other psychological instruments. A discriminant validity was also performed using actual student data and the results of the AMP. The creators of the Achievement Motivation Profile assert that the AMP is a valid measure of validity.

The Achievement Motivation Profile was reviewed by Owen (2001) in the Fourteenth Mental Measurements Yearbook. Owen was concerned with construct validity evidence because they were based on correlations that are partly an artifact of multiple- used items. He contended in his summary that the AMP will appeal to

clinicians and counselors with a propensity toward the psychodynamic aspects of assessments. He suggested that the AMP should eliminate some of its measures in order to get a clearer picture on the remaining constructs, especially the motivation to persist aspect (Owen, 2001).

The Achievement Motivation Profile is appropriate for ages 14 and older. Like the CDS, the AMP can be administered in a group setting. The assessment can be scored by the administrator.

#### Data Collection

A total of 105 students participated in the study. The students were from six college success classes at the Sanford, Lake Mary campus of Seminole Community College. The author of the study informed each class selected for the study of the details of the study. They read and signed the consent forms required by the University of Central Florida's Institutional Review Board (UCFIRB) standards. The tests were numbered 1 through 105. Places for names were marked out on each assessment to ensure the students would not accidentally put their name on any of the assessments. A sheet containing the names of the students is kept in a different secure area than the assessments; and there is no place where the students' names are correlated with their assessment numbers. The first assessment administered was the Career Decision Scale (CDS) (Osipow et al., 1987). The second assessment administered was the Achievement Motivation Profile (AMP) (Friedland et al., 1995). It took the students from each respective class, one class period, approximately one hour and fifteen minutes, to

complete both assessments. Both assessments were hand-scored by the researcher and put into an SPSS data base by the researcher.

### Data Analysis

To answer Research Question 1, is there a relationship between career decision and motivation to persist in higher education; three linear regressions were conducted to determine if a relationship exists. The Certainty score from the CDS was the independent variable and the scores from the AMP, which include the Achiever, Motivation, and Goal scores from the Motivation for Achievement section, were the respective dependent variables.

To answer Research Question 2, is there a relationship between career indecision and the lack of motivation to persist in higher education; three linear regressions were conducted to determine if a relationship existed between career indecision the lack of motivation to persist. The Indecision score from the CDS was the independent variable and the scores from the AMP, which include the Achiever, Motivation, and Goal scores from the Motivation for Achievement section, were the respective dependent variables. All statistical tests will be evaluated at a .05 criteria level of significance.

### Summary

Motivation to persist is a construct that is difficult to quantify. However, after years of research on the subject of motivation, and the assessments used to ascertain motivation, the author of this study believes the Achievement Motivation Profile was the

best-fit assessment for this study. The Career Decision Scale has been utilized by the author in previous studies and has proven its worth. The author feels comfortable with the data gathered from this assessment.

## CHAPTER FOUR: ANALYSIS OF DATA

### Introduction

The purpose of this study is to determine if there is a relationship between career decision and motivation to persist in higher education. Two assessments were administered to 105 college freshmen and sophomore students. Linear regressions were conducted with data gathered from both assessments.

This chapter presents the results of that data review as it relates to providing answers to:

- (a) Research Question 1: Is there a relationship between career decision and motivation to persist in higher education?
- (b) Research Question 2: Is there a relationship between career indecision and the lack of motivation to persist in higher education?

### Research Question 1

The descriptive statistics are presented in Table 3. An independent samples t-test was conducted on each variables of the AMP: Achiever (ACH), Motivation (MOV), and Goal (GOAL) and the Certainty score from the CDS. Scores from the subset of the AMP of below 50 and above 50 are indicated for each score. According to the results of Levene's test for equality of variances, variances for each group were not the same; therefore equal variances were not assumed. Given that the group sample sizes are also unequal, this can be of concern. Upon review of the standard deviations, it is the opinion

of the researcher that the difference in variation is trivial substantively, owing to the overall larger total sample size, and so the t-tests results will be interpreted.

Table 3

*Descriptive Statistics for Research Question 1*

	CDS CERT	N	Mean	Standard Deviation	Stand. Error Mean
ACH	.00	36	45.56	9.63	1.60
	1.00	69	51.16	9.94	1.20
MOT	.00	36	46.25	9.48	1.58
	1.00	69	50.28	10.19	1.23
GOAL	.00	36	45.56	9.86	1.64
	1.00	69	52.96	10.84	1.30

In Table 4, the results indicate there was a slight difference in scores for each group. For ACH scores below 50 ( $M = 45.56$ ,  $SD = 9.6$ ) and scores above 50 ( $M = 51.16$ ,  $SD = 9.9$ ):  $t(74) = 2.8$ ,  $p < .05$ . For MOT scores below 50 ( $M = 46.25$ ,  $SD = 9.5$ ) and scores above 50 ( $M = 50.28$ ,  $SD = 10.19$ ):  $t(76) = 2.0$ ,  $p < .05$ . For GOAL scores below 50 ( $M = 45.56$ ,  $SD = 9.9$ ) and scores above 50 ( $M = 52.96$ ,  $SD = 10.8$ ):  $t(77) = 3.5$ ,  $p < .05$ .



Table 4

*Independent Samples Test Results for Career Certainty*

		F	Sig.	t	df	Sig. 2-tailed	Mean Difference	Std. Error Difference	95% Confidence Interval of Difference		
										Lower	Upper
ACH	Equal variances assumed	.272	.603	-2.770	103	.007	-5.60	2.02	-9.62	-1.59	
	Equal variances not assumed			-2.799	73.739	.007	-5.60	2.00	-9.59	-1.61	
MOT	Equal variances assumed	.507	.478	-1.967	103	.052	-4.03	2.05	-8.08	3.40	
	Equal variances not assumed			-2.012	75.739	.048	-4.03	2.00	-8.01	-4.06	
GOAL	Equal variances assumed	.048	.828	-3.423	103	.001	-7.40	2.16	-11.69	-3.11	
	Equal variances not assumed			-3.528	77.252	.001	-7.40	2.10	-11.58	-3.22	

Linear regression analyses were conducted to evaluate the relationship between career decision and motivation to persist based on the Certainty Score from the CDS.

Table 5 reflects the Achiever Score from the AMP as the dependent variable. The independent variable entered into the regression procedure explained 08% of the variation in the dependent criterion,  $F(1, 103) = 10.12, p = .002, \alpha = .05$ .

Table 5

*ANOVA for Career Certainty Score and ACH*

Model	SS	df	Mean Square	F	Sig.
Regression	957.979	1	957.979	10.115	.002
Residual	9755.068	103	94.709		
Total	10713.048	104			

a. Predictors: (Constant), CDS-CER

b. Dependent Variable: ACH

In Table 6, the 95% confidence interval for the slope, .037 and .160, does not contain the value of zero, and therefore the Achiever score is significantly related to the Career Certainty score. The accuracy in predicting motivation to persist was little, with a correlation between Career Certainty and Achiever score with beta at .299.

Table 6

*Regression for Career Certainty Score and ACH*

Variable	B	Standard Error	Beta
(Constant)	42.978	2.186	
CDS- CER	9.850	.031	.299

a. Dependent Variable: ACH

Table 7, a statistically significant difference among the group means was not found, suggesting that the assumption that the null hypothesis is true is valid,  $F(1, 103) = 2.6, p = .110, \alpha = .05$ .

Table 7

*ANOVA for Career Certainty Score and MOT*

Model	SS	df	Mean Square	F	Sig.
Regression	260.574	1	260.574	2.598	.110
Residual	10331.273	103	100.304		
Total	10591.848	104			

- a. Predictors: (Constant), CDS-CER  
 b. Dependent Variable: MOT

In Table 8, the 95% confidence interval for the slope, -.012 and .115, does contain the value of zero, and therefore the Motivation score is not significantly related to the Career Certainty score. The accuracy in predicting motivation to persist was little, with a correlation between Career Certainty and the Motivation Score with beta at .157.

Table 8

*Regression for Career Certainty Score and MOT*

Variable	B	Standard Error	Beta
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(Constant)	45.630	2.249	
CDS- CER	5.137	.032	.157

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a. Dependent Variable: MOT

Table 9, reflects the Goal Score from the AMP as the dependent variable. The independent variable entered into the regression procedure explained 15% of the variation in the dependent criterion,  $F(1, 103) = 18.8, p < .000, \alpha = .05$ .

Table 9

*ANOVA for Career Certainty Score and GOAL*

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Model	SS	df	Mean Square	F	Sig.
Regression	1960.288	1	1960.288	18.829	.000
Residual	10723.274	103	104.109		
Total	12683.562	104			

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- a. Predictors: (Constant), CDS-CER  
b. Dependent Variable: GOAL

In Table 10, the 95% confidence interval for the slope, .077 and .205, does not contain the value of zero, and therefore the Goal score is significantly related to the Career Certainty score. The accuracy in predicting motivation to persist was low, with a correlation between Career Certainty and Goal with beta at .393.

Table 10

*Regression for Career Certainty Score and GOAL*

Variable	B	Standard Error	Beta
(Constant)	41.464	2.291	
CDS- CER	.141	.032	.393

a. Dependent Variable: GOAL

Research Question 2

The descriptive statistics are presented in Table 11. An independent samples t-test was conducted on each variable of the AMP; Achiever (ACH), Motivation (MOV), and Goal (GOAL) and the Career Indecision score from the CDS. Scores from the subset of the AMP of above 50 and below 50 are indicated for each score. According to the results of Levene's test for equality of variances, variances for each group were not the same; therefore equal variances were not assumed. As with Research Question 1, given that the group sample sizes are also unequal, this can be of concern. Upon review of the standard deviations, it is the opinion of the researcher that the difference in variation is trivial substantively, owing to the overall larger total sample size, and so the t-tests results will be interpreted.

Table 11

*Descriptive Statistics for Research Question 2*

	CDS IND	N	Mean	Standard Deviation	Stand. Error Mean
ACH	.00	49	50.31	10.76	1.54
	1.00	56	48.30	9.58	1.20
MOT	.00	49	50.47	10.34	1.48
	1.00	56	47.52	9.76	1.30
GOAL	.00	49	54.22	10.81	1.54
	1.00	56	47.09	10.22	1.37

In Table 12, the results indicate there was a slight difference in scores for each group. For ACH scores above 50 (M = 50.31, SD = 10.76) and scores below 50 (M = 48.30, SD = 9.6):  $t(97) = 1.0, p > .05$ . For MOT scores above 50 (M = 50.47, SD = 10.34) and scores below 50 (M = 47.52, SD = 9.76):  $t(99) = 1.5, p > .05$ . For GOAL scores above 50 (M = 54.22, SD = 10.81) and scores below 50 (M = 47.09, SD = 10.22):  $t(99) = 3.5, p < .05$ .

Table 12

*Independent Samples Test Results for Career Indecision*

		F	Sig.	t	df	Sig. 2-tailed	Mean Difference	Std. Error Difference	95% Confidence Interval of Difference		
										Lower	Upper
ACH	Equal variances assumed	.068	.795	1.009	103	.315	2.00	1.99	-1.93	5.94	
	Equal variances not assumed			1.001	96.938	.319	2.00	2.00	-1.97	5.97	
MOT	Equal	1.242	.268	1.504	103	.136	2.95	1.96	-94	6.84	

	variances assumed			1.498	99.331	.137	2.95	1.97	-.96	6.86
GOAL	Equal variances not assumed	.005	.945	3.474	103	.001	7.14	2.05	3.06	11.21
	Equal variances assumed			3.461	99.375	.001	7.14	2.05	3.04	11.23
	Equal variances not assumed									

Linear regression analyses were conducted to evaluate the relationship between career indecision and lack of motivation to persist based on the Indecision Score from the CDS.

Table 13, reflects the Achiever Score from the AMP as the dependent variable. The independent variable entered into the regression procedure explained 3% of the variation in the dependent criterion,  $F(1, 103) = 4.4, p = .038, \alpha = .05$ .

Table 13

*ANOVA for Career Indecision Score and ACH*

Model	SS	df	Mean Square	F	Sig.
Regression	439.208	1	439.208	4.403	.038
Residual	10273.840	103	99.746		
Total	10713.048	104			

- a. Predictors: (Constant), CDS-IND  
b. Dependent Variable: ACH

In Table 14, the 95% confidence interval for the slope, -.123 and -.003, does not contain the value of zero, and therefore the Achiever score is significantly related to Career Indecision. The accuracy in predicting the lack of motivation to persist was little, with a correlation between Career Indecision and Achiever with beta at .202.

Table 14

*Regression for Career Indecision Score and ACH*

Variable	B	Standard Error	Beta
(Constant)	53.050	2.062	
CDS- IND	-.063	.030	-.202

a. Dependent Variable: ACH

Table 15, a statistically significant difference among the group means was not found, suggesting that the assumption that the null hypothesis is true is valid,  $F(1, 103) = 2.8, p = .100, \alpha = .05$ .

Table 15

*ANOVA for Career Indecision Score and MOT*

Model	SS	df	Mean Square	F	Sig.
Regression	276.362	1	276.362	2.759	.100
Residual	10315.485	103	100.150		



Total                      10591.848              104

---

a. Predictors: (Constant), CDS-IND  
b. Dependent Variable: MOT

In Table 16, the 95% confidence interval for the slope, -.110 and .010, does contain the value of zero, and therefore the Motivation score is not significantly related to Career Indecision. The accuracy in predicting the lack of motivation to persist was little, with a correlation between Career Indecision and Motivation with beta at .162.

Table 16

*Regression for Career Indecision Score and MOT*

---

<u>Variable</u>	<u>B</u>	<u>Standard Error</u>	<u>Beta</u>
(Constant)	51.919	2.066	
CDS- IND	-.050	.030	-.162

---

a. Dependent Variable: MOT

Table 17, reflects the Goal Score from the AMP as the dependent variable. The independent variable entered into the regression procedure explained 16% of the variation in the dependent criterion,  $F(1, 103) = 21.2, p < .000, \alpha = .05$ .

Table 17

*ANOVA for Career Indecision Score and GOAL*

Model	SS	df	Mean Square	F	Sig.
Regression	2167.317	1	2176.317	21.228	.000
Residual	10516.245	103	102.099		
Total	12683.562	104			

a. Predictors: (Constant), CDS-IND

b. Dependent Variable: GOAL

In Table 18, the 95% confidence interval for the slope, -.201 and -.080, does not contain the value of zero, and therefore the Goal score was significantly related to Career Indecision. The accuracy in predicting the lack of motivation to persist was low, with a correlation between Career Indecision and Goal with beta at .413.

Table 18

*Regression for Career Indecision Score and GOAL*

Variable	B	Standard Error	Beta
(Constant)	58.887	2.086	
CDS- IND	-.140	.030	-.413

a. Dependent Variable: GOAL

### Summary of Findings

For Research Question 1; is there a relationship between career decision and motivation to persist in higher education? Findings from the linear regressions conducted with scores from the Career Decision Scale and the Achievement Motivation Profile partially met the alternative hypothesis; the Achiever and Goal scores from the AMP as the dependent variables, and the Certainty score from the CDS as the independent variable, were statistically significant in illustrating a relationship between career decision and motivation to persist. However, the Motivation score of the AMP was not statistically significant, and therefore, could not be used to determine a relationship between career decision and the motivation to persist.

For Research Question 2; is there a relationship between career indecision and the lack of motivation to persist in higher education? The findings from the linear regressions conducted with scores from the Career Decision Scale and the Achievement Motivation Profile partially met the alternative hypothesis; the Achiever and Goal scores from the AMP and the Indecision score from the CDS were statistically significant in demonstrating a relationship between career indecision and the lack of motivation to persist. However, the scores from the Motivation portion of the AMP were not statistically significant, and therefore, could not be used to demonstrate a relationship between career indecision and the lack of motivation to persist.

## CHAPTER FIVE: CONCLUSIONS AND RECOMMENDATIONS

### Conclusions

Based on the scores of the Career Decision Scale (CDS) and the Achievement Motivation Profile (AMP), the results of this study partially confirm the alternative hypothesis that there is a relationship between career decision and the motivation to persist in higher education. For Research Question 1, is there a relationship between career decision and the motivation to persist in higher education? There was statistical significance with the Certainty score from the CDS and the Achiever and Goal scores from the Motivation for Achievement subset of the AMP, which indicates such a relationship exists.

For Research Question 2, is there a relationship between career indecision and the lack of motivation to persist in higher education? There was statistical significance with the Indecision score from the CDS and low scores on the Achiever and Goal scores from the AMP, which illustrates the possibility of a relationship.

There is a limitation to the findings in this study in that the direction of causality is not analytically testable; though the theory behind the study suggests the expected direction.

Past research performed on this subject substantiates the findings of this study. In Berger and Milem's research (1999), students who had a major or career plan were more academically involved and in turn, more likely to persist. Peterson and delMas (2001), conducted research on the causal relationship between career decision-making self-

efficacy and persistence and in their results, Intent to Persist, one of the constructs evaluated, was directly linked to actual persistence. In Sandler's study (1998), the results demonstrated when students make a career decision, and have the self-efficacy to complete the goal; they would have the strength to complete the goal.

The results of this study coincide with Parnell's (1985) assertion that when students have no goal, they have no motivation, and when there is no motivation, there is usually no persistence. Several studies performed on current practices of one-on-one career counseling or a career planning curriculum, showed a rise in retention rates (Hirsch & Rajasekhara, 2000; O'Brien & Quimbly, 2004; Wilner, 1979).

Recent statistics from Seminole Community College in Sanford, Florida, illustrate a current relationship between career decision and motivation to persist in higher education as noted in Table 1 -*Fall to Fall Re-enrollment with SLS 1101 and SLS 1301C* from Chapter Two of this study. The retention rates for students who never enrolled in the College Success class, SLS 1101 or the Life/Career Planning class, SLS 1301C, ranged from 44.1% to 44.8% for all four years of Fall to Fall Re-enrollment. The retention rate nearly doubled when students took both College Success and Life/Career Planning to 65.6% - 88.2%. Even though retention rates went up when students took either College Success or Life/Career Planning, the impact of taking both classes indicated that there was an astonishing increase in retention. However, since College Success and Life/Career Planning are both elective classes, it is possible that these students were self-motivated and therefore already had the propensity to persist.

## Recommendations

Since the results of this study corroborate a relationship between career decision and motivation to persist, it seems appropriate to recommend programs that would assist students with their career decision. Community colleges and universities can both benefit from such programs. As stated in Chapter One of this study, career decision and major decision are synonymous: a student needs to know what career they are pursuing in order to know what to declare as their major.

There are two effective strategies that can assist students with their career decision; one-on-one career counseling and career planning classes. Most community colleges and universities have the resources needed to provide career counseling and career planning classes.

Some schools include life planning in their career planning classes. These life/career planning classes assist the student with improving their self-esteem and thereby strengthening their motivation to persist (Smith, Myers & Hemsley, 2002).

A compendium of model programs (American Association of State Colleges and Universities, 1994) mentioned in Chapter One of this study stated that only 15 schools out of 68 state colleges and universities offered or participated in any type of career classes or mandatory career counseling. The Illinois Community College System gathered data regarding retention from the 49 colleges of that state and none of the colleges mentioned any type of career counseling or career planning classes being used for retention purposes. (Illinois Community College Board, 1995).

Community colleges and universities must cultivate an environment where major and career decision is a vital part of a student's academic plan. As most community colleges and universities are equipped with career resource centers and counseling and advising departments, the implementation of one-on-one career counseling or career planning classes could be a seamless process.

Offering career planning classes is a more feasible choice for larger schools where one-on-one career counseling would exhaust most of the budget and consume the majority of staff time. Currently there are few schools that combine career planning with their college success class; however, most schools do not offer any type of career planning classes (American Association of State Colleges and Universities, 1994; Illinois Community College Board, 1995). By implementing career planning classes, the institution would be able to assist the greatest amount of students in the least amount of time. A career planning class could be a one, two, or three credit hour class that would count as elective credit. It could also be mandatory for undecided or undeclared students.

One-on-one career counseling would be more realistic in smaller colleges and universities. The career resource center can work with the counseling and advising department in creating referrals to one another depending on students' needs. If students do not know what to declare as a major, the counselors or advisors can refer them to the career resource center for career testing. The career resource center would then refer students back for advising to ascertain which major would best correlate with the career or careers determined by the career assessment.

The next recommendation based on the results of this study, is the need for more research on the topic of career decision and motivation to persist. A qualitative study that examines how career decision is linked to motivation and persistence would be valuable to this research topic. In addition, more studies on motivation, self-esteem and self-efficacy would be useful. Although students may have chosen a career and major, they may not have the self-esteem or self-efficacy needed to motivate themselves to persist.

This researcher believes it is the obligation of institutions of higher learning to create the opportunity for students to discover their career. Institutions of higher learning are also obligated to offer the educational tools and direction on how to obtain that career. Administrators and educators alike should continually seek new ways to reach and assist students; if not, a number of those students will become just another statistic in the attrition column on the school's yearly report.



APPENDIX A: INSTITUTIONAL REVIEW BOARD (IRB) LETTER



Office of Research & Commercialization

February 7, 2006

Patricia Ferguson  
P.O. Box 653686  
Lake Mary, FL 32795-3686

Dear Mrs. Ferguson:

With reference to your protocol #05-3157 entitled, "**Motivation that Leads to Persistence through Career Decision,**" I am enclosing for your records the approved, expedited document of the UCFIRB Form you had submitted to our office. **This study was approved on 2/6/06. The expiration date will be 2/5/07.** Should there be a need to extend this study, a Continuing Review form must be submitted to the IRB Office for review by the Chairman or full IRB at least one month prior to the expiration date. This is the responsibility of the investigator. **Please notify the IRB office when you have completed this research study.**

Please be advised that this approval is given for one year. Should there be any addendums or administrative changes to the already approved protocol, they must also be submitted to the Board through use of the Addendum/Modification Request form. Changes should not be initiated until written IRB approval is received. Adverse events should be reported to the IRB as they occur.

Should you have any questions, please do not hesitate to call me at 407-823-2901.

Please accept our best wishes for the success of your endeavors.

Cordially,

*Barbara Ward*

Barbara Ward, CIM  
UCF IRB Coordinator  
(FWA00000351 Exp. 5/13/07; IRB00001138)

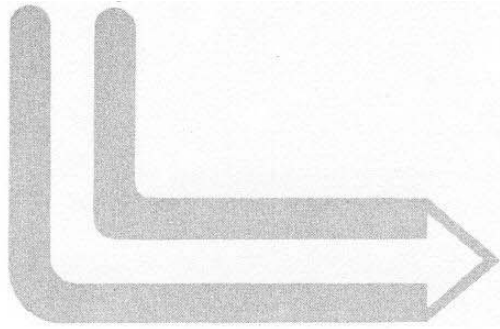
Copies: IRB File  
Stephen Sivo, Ph.D.

BW:jm

APPENDIX B: VERBAL CONSENT FORM



## APPENDIX C: CAREER DECISION SCALE



# CAREER DECISION SCALE

THIRD REVISION (1976)

by Samuel H. Osipow, Clarke G. Carney, Jane Winer,  
Barbara Yanico, and Maryanne Koschier

NAME \_\_\_\_\_

DATE OF BIRTH \_\_\_\_\_ AGE \_\_\_\_\_

CLASS/GRADE \_\_\_\_\_ SEX \_\_\_\_\_

This questionnaire contains some statements that people commonly make about their educational and occupational plans. Some of the statements may apply to you; others may not. Please read through them and indicate how closely each item describes you in your thinking about a career or an educational choice by *circling* the appropriate number on the answer sheet. An example is given below:

	Exactly like me	Very much like me	Only slightly like me	Not at all like me
I am excited about graduating and going to work.	4	3	2	1

If you are excited about going to work and feel no hesitation about it you would circle "4" to indicate that the description is exactly the way you feel. If the item is very close, but not exactly the way you feel — for example, you're generally excited about going to work after you graduate, but are experiencing some minor concerns about it — you would circle the number "3." You would circle "2" if the item describes you in some ways, but in general it is more unlike than like your feelings; for example, if you are generally more concerned than excited about work after graduation. Finally, you would circle "1" if the item does not describe your feelings at all; that is, you are experiencing a great deal of concern and no excitement about graduation and work.

Please be sure to give only *one* response to each item and answer *every* item.

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Printed in the U.S.A.

This form is printed in green ink on gray paper. Any other version is unauthorized.

REMEMBER — 4 is *exactly like me*, 3 is *very much like me*, 2 is *only slightly like me*, and 1 is *not at all like me*.

	<b>CIRCLE ANSWER</b>			
	Like Me	Not Like Me		
1. I have decided on a career and feel comfortable with it. I also know how to go about implementing my choice.	4	3	2	1
2. I have decided on a major and feel comfortable with it. I also know how to go about implementing my choice.	4	3	2	1
3. If I had the skills or the opportunity, I know I would be a _____ but this choice is really not possible for me. I haven't given much consideration to any other alternatives, however.	4	3	2	1
4. Several careers have equal appeal to me. I'm having a difficult time deciding among them.	4	3	2	1
5. I know I will have to go to work eventually, but none of the careers I know about appeal to me.	4	3	2	1
6. I'd like to be a _____, but I'd be going against the wishes of someone who is important to me if I did so. Because of this, it's difficult for me to make a career decision right now. I hope I can find a way to please them and myself.	4	3	2	1
7. Until now, I haven't given much thought to choosing a career. I feel lost when I think about it because I haven't had many experiences in making decisions on my own and I don't have enough information to make a career decision right now.	4	3	2	1
8. I feel discouraged because everything about choosing a career seems so "iffy" and uncertain; I feel discouraged, so much so that I'd like to put off making a decision for the time being.	4	3	2	1
9. I thought I knew what I wanted for a career, but recently I found out that it wouldn't be possible for me to pursue it. Now I've got to start looking for other possible careers.	4	3	2	1
10. I want to be absolutely certain that my career choice is the "right" one, but none of the careers I know about seem ideal for me.	4	3	2	1
11. Having to make a career decision bothers me. I'd like to make a decision quickly and get it over with. I wish I could take a test that would tell me what kind of career I should pursue.	4	3	2	1
12. I know what I'd like to major in, but I don't know what careers it can lead to that would satisfy me.	4	3	2	1

**REMEMBER** — 4 is *exactly like me*, 3 is *very much like me*, 2 is *only slightly like me*, and 1 is *not at all like me*.

	<b>CIRCLE ANSWER</b>			
	Like Me	Not Like Me		
13. I can't make a career choice right now because I don't know what my abilities are.	4	3	2	1
14. I don't know what my interests are. A few things "turn me on" but I'm not certain that they are related in any way to my career possibilities.	4	3	2	1
15. So many things interest me and I know I have the ability to do well regardless of what career I choose. It's hard for me to find just one thing that I would want as a career.	4	3	2	1
16. I have decided on a career, but I'm not certain how to go about implementing my choice. What do I need to become a _____ anyway?	4	3	2	1
17. I need more information about what different occupations are like before I can make a career decision.	4	3	2	1
18. I think I know what to major in, but I feel I need some additional support for it as a choice for myself.	4	3	2	1
19. None of the above items describe me. The following would describe me better: (write your response below).				

	Total 1-2	Total 3-18	Normative Group	% ile
Cer				
Ind				



APPENDIX D: ACHIEVEMENT MOTIVATION PROFILE

# AMP

## Scoring Summary Sheet

Jotham Friedland, Ph.D., Sander Marcus, Ph.D.,  
and Harvey Mandel, Ph.D.

Published by  
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Los Angeles, CA 90025-1251  
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REMOVE THIS SHEET BEFORE COMPLETING FORM

### Instructions

Before scoring, be sure that the student has given only one response to each item. The AMP should not be scored if 15 or more item responses are missing or double-marked.

To begin scoring the AMP, tear off the perforated strip along the right side of the AutoScore™ form and discard the carbonized tissue sheet. The circles marked by the student on the outside of the AutoScore™ form to indicate responses to the AMP items have been transferred via the carbonized tissue to indicate corresponding score values on the inside pages. One of the inside pages is a 2-sided scoring grid. On the other inside page, one side is used to determine the student's Response Style (ENH and CRT) scores; the other side is used to calculate the Career Interest (RIASEC) scores.

### Raw Scale Scores

The circled score value next to each numbered item on the scoring grid page should be copied by hand to the unshaded column spaces in the same row as that item. The columns correspond to the 15 AMP scales. (NOTE: For Items 62, 65, and 80, the unshaded spaces for the PAT and COOP columns are marked to indicate that you should enter the actual response value circled by the student on the outside of the AutoScore™ form instead of the circled score value on the scoring grid page.) If a response is missing, copy the median value for that item, which is in red.

Once you have copied score values into all the unshaded spaces, add up the values in each column. At the bottom of the AMP Profile Form found on the other side of this page, spaces are provided for you to enter column subtotals for each side of the scoring grid page. Sum each pair of column subtotals to obtain the total raw score for each scale. On the AMP Profile Form, circle the raw scores in the appropriate columns, and write them in the spaces at the bottom of the page.

### ENH, CRT, and Career Interest Scores

Follow the instructions on the Response Style scoring page to calculate the raw ENH and CRT scores. Record the ENH and CRT scores in the corresponding columns on the Profile Form.

Follow the instructions on the Career Interest Areas page to calculate the Career Interest (RIASEC) scores. Enter the Career Interest scores in the spaces on this page (above right). Information from Table 3 in the AMP Manual is reproduced here for use in evaluating the Career Interest scores.

### INC Score

The INC score is a count of the number of INC item pairs that differ by more than 1 point. The item pairs used to calculate the INC score are listed in the box at the right. Locate the items in each INC item pair on the scoring grid page and compare their circled score values. Enter the absolute value of the difference in score values for each INC item pair in the corresponding spaces on this page. (For example, if the score value for Item 3 is 4 and the score value for Item 39 is 5, the absolute value of the difference in these score values is 1, so 1 would be entered in the space beside "INC Pair 1.") Place a check beside each pair whose difference is greater than 1. Then count the number of checks and enter the result in the "INC Score" space.

### Plotting Profile and Obtaining T-Scores and Percentiles

Connect the circled scores on the Profile Form to plot the student's profile. The T-score and percentile rank that correspond to the obtained raw score value for each scale can be found along the left and right margins of the profile in the same row where the raw score appears. AMP T-scores are standard scores with a mean of 50, and a standard deviation of 10. Thus a T-score below 40 on any scale falls at least one standard deviation below the mean, and a score above 60 falls at least one standard deviation above the mean.

### Career Interest Areas

	Low ≤	High ≥
<b>R = _____ (Realistic)</b> Technical or activity orientation (e.g., skilled trades, engineering, armed services, police, firefighting)	14	23
<b>I = _____ (Investigative)</b> Academic or scientific orientation (e.g., medicine, education, computers, science)	16	26
<b>A = _____ (Artistic)</b> Aesthetic orientation (e.g., graphic arts, writing, advertising, music, fine arts)	20	30
<b>S = _____ (Social)</b> Educational or social orientation (e.g., teaching, social work, recreation, counseling)	17	26
<b>E = _____ (Enterprising)</b> Legal, political, or business orientation (e.g., marketing, management, merchandising)	28	39
<b>C = _____ (Conventional)</b> Conventional business orientation (e.g., accounting, banking, office work, office management)	23	35

### INC Score

	Difference	Check here if difference is greater than 1
INC Pair 1: Items 3 and 39	_____	<input type="checkbox"/>
INC Pair 2: Items 4 and 116	_____	<input type="checkbox"/>
INC Pair 3: Items 5 and 17	_____	<input type="checkbox"/>
INC Pair 4: Items 6 and 27	_____	<input type="checkbox"/>
INC Pair 5: Items 11 and 32	_____	<input type="checkbox"/>
INC Pair 6: Items 12 and 124	_____	<input type="checkbox"/>
INC Pair 7: Items 33 and 92	_____	<input type="checkbox"/>
INC Pair 8: Items 37 and 40	_____	<input type="checkbox"/>
INC Pair 9: Items 44 and 52	_____	<input type="checkbox"/>
INC Pair 10: Items 46 and 107	_____	<input type="checkbox"/>
INC Pair 11: Items 49 and 63	_____	<input type="checkbox"/>
INC Pair 12: Items 60 and 93	_____	<input type="checkbox"/>
INC Pair 13: Items 69 and 75	_____	<input type="checkbox"/>
INC Pair 14: Items 82 and 127	_____	<input type="checkbox"/>
INC Pair 15: Items 122 and 139	_____	<input type="checkbox"/>

**INC Score** \_\_\_\_\_  
(Number of pairs whose  
difference is greater than 1)

INC scores of 5 or above suggest an unusual lack of consistency in item responses.

**AMP Profile Form**

Student's Name: \_\_\_\_\_

Percentile	T	Response Style		Motivation for Achievement				Inner Resources				Interpersonal Strengths				Work Habits			T	Percentile		
		ENH	CRT	ACH	MOT	COMP	GOAL	RLX	HAP	PAT	SCN	AST	DIPL	EXT	COOP	PLAN	INI	TEAM				
80		205	225	65	54	73	35	57		55	53	40	66	50	45	35	69	80				
79		185-200	220		53					53-54		39		44		68	79					
78		180	215	64		72				52	52	38				67	78					
77		175	210		52			56					65	49	43		77					
76			205				34		45	51		37			34	66	76					
75		155-170	190-200	63		71		55			51				65	50	75					
99	74	150	185		51	70				50			64	42		64	99					
73		140-145	180				33				49		63	48			73					
72		135	175	61	50	69		54	44	49		36	62		41	33	63	72				
98	71	125-130	165-170	60		68	32	53			48							71	98			
70		120	160							48	47	35	61	47		32	62	49	70			
97	69	115	155	59	49	67	31	52	43	47				40					69	97		
96	68	110	145-150								46	34	60	46		61				68	96	
95	67	105	140	58	48	66		51	42	46	45		59	39	31		48			67	95	
94	66	95-100	130-135	57	47	65	30	50			44	33				60				66	94	
93	65	90	120-125							45	44		58	45	38	30	59			65	93	
91	64	85	115	56	46	64	29	49	41	44			57				47			64	91	
90	63	80	110	55	45	63		48			43	32	44	37	29	58				63	90	
88	62		105						40	43	42		56							62	88	
86	61	70-75	95-100	54	44	62	28	47				31	43	36		57	46			61	86	
84	60		90	53		61			39	42	41		55		28	56				60	84	
81	59	60	85	52	43			46		41		30	54	42	35					59	81	
78	58		80			60	27	45	38		40					55	45			58	78	
75	57	55	75	51	42	59				40	39		53	41	34	27	54			57	75	
72	56	50	70	50		58	26	44	37	39	38	29					44			56	72	
69	55	45	65		41			43					52	40	33	26	53			55	69	
65	54	40	60	49	40	57			36	38	37	28	51	39			43			54	65	
61	53		55	48		56	25	42	35	37	36				32	25	52			53	61	
57	52	35	50		39			41				27	50	38		51				52	57	
53	51		45	47		55	24		34	36	35				31	24	42			51	53	
50	50	30	40	46	38	54		40			34		49	37		50				50	50	
46	49	25	35	45			23	39	33	35		26			30	49	41			49	46	
42	48				37	53			32	34	33		48	36	29	23				48	42	
38	47	20	30	44	36	52		38			32	25	47			48	40			47	38	
34	46		25	43			22	37	31	33	31			35	28	22		39		46	34	
31	45	15	20		35	51			30	32			46			47				45	31	
27	44			42		50	21	36		31	30	24		34	27	46	38			44	27	
24	43		15	41	34			35	29		29		45	33		21				43	24	
21	42			40		49			28	30		23	44	26		45	37			42	21	
18	41	10		39	33	48	20	34		29	28			32	25	20				41	18	
16	40		10					33	27	28	27		43	31		44	36			40	16	
13	39			38	32	47	19		26		26	22	42	24		19	43			39	13	
11	38			37	31	46		32	25	27	25			30			35			38	11	
9	37	5	5	36			18	31	24	26	24	21	41	29	23	18	42	34		37	9	
8	36				30	45		30		25	24		40	28	22	41	33			36	8	
6	35			35	29	44	17	29	23		23					17	40			35	6	
5	34			34		43			22	24	22	20	39	27	21		39	32		34	5	
4	33				28		16	28	21	23						38	31			33	4	
3	32			33	27	42		27	20	22	21	19	38	26	20	16		30		32	3	
	31		0	32		41	15	26		21	20			25	19		37	29		31		
2	30			31	26	40			19			18	37			15	36	28		30	2	
	29		0	30	25	39		25	18	20	19		36	24	18		35	27		29		
	28			29	24	38	14	24	17	19		17	35	23		14	34			28		
1	27				37	13		23	16	18	18			22	17		33	25-26		27	1	
	26			28	23	36	12	22	15	17	17	16	34	21		13		24		26		
	25			26-27		35	11		14				32-33	20	16		32	23		25		
	24			25	22	34		21		16	16	15	31		15	12		22		24		
	23			24	19-21	33	10		13	15	15	14	30	19	14		31	21		23		
	22			23	18	32		20	12		14		28-29	18			20			22		
	21			22	16-17	31	9	19	11			13	27	17	13	11	30	19		21		
	20			21	15		8	18	10	14	13	12	26	16	12	10	29	18		20		
Subtotals (Items 1-70)		N/A	N/A																			
Subtotals (Items 71-140)		N/A	N/A						N/A													
Total Raw Scores																						
T-Scores																						
		ENH	CRT	ACH	MOT	COMP	GOAL	RLX	HAP	PAT	SCN	AST	DIPL	EXT	COOP	PLAN	INI	TEAM				

Mark scores higher than 80T and lower than 20T along the corresponding edge of the profile.

1=ALWAYS TRUE 2=MOSTLY TRUE 3=SOMETIMES TRUE AND SOMETIMES FALSE 4=MOSTLY FALSE 5=ALWAYS FALSE

- 1 2 3 4 5 1. I like working outdoors.
- 1 2 3 4 5 2. I worry about decisions I have made.
- 1 2 3 4 5 3. I am at ease talking to people.
- 1 2 3 4 5 4. I am nervous.
- 1 2 3 4 5 5. People like me.
- 1 2 3 4 5 6. I am happy.
- 1 2 3 4 5 7. I am afraid of being rejected.
- 1 2 3 4 5 8. I am as happy as others.
- 1 2 3 4 5 9. I take risks.
- 1 2 3 4 5 10. I am a workaholic.
- 1 2 3 4 5 11. I am sociable and outgoing.
- 1 2 3 4 5 12. I finish what I start.
- 1 2 3 4 5 13. I am sarcastic.
- 1 2 3 4 5 14. I plan for the future.
- 1 2 3 4 5 15. I say what I feel.
- 1 2 3 4 5 16. Throughout my life I have kept up with my peers socially.
- 1 2 3 4 5 17. Others respect me.
- 1 2 3 4 5 18. I hide my feelings.
- 1 2 3 4 5 19. I like my work.
- 1 2 3 4 5 20. I have a wide range of interests.
- 1 2 3 4 5 21. I like(d) school.
- 1 2 3 4 5 22. I like to draw or sketch.
- 1 2 3 4 5 23. I find life boring.
- 1 2 3 4 5 24. I am easily discouraged.
- 1 2 3 4 5 25. I feel bad about thoughts I have.
- 1 2 3 4 5 26. I find I am depressed for no reason at all.
- 1 2 3 4 5 27. I like this period of my life.
- 1 2 3 4 5 28. My success is up to me.
- 1 2 3 4 5 29. I give my time, energy, and/or resources to others in need.
- 1 2 3 4 5 30. I like to advise or counsel people.
- 1 2 3 4 5 31. I have a good memory.
- 1 2 3 4 5 32. I am shy.
- 1 2 3 4 5 33. I try to do my best.
- 1 2 3 4 5 34. I feel guilty.
- 1 2 3 4 5 35. I have initiative.
- 1 2 3 4 5 36. I trust myself.
- 1 2 3 4 5 37. I argue with people I care about.
- 1 2 3 4 5 38. My moods change.
- 1 2 3 4 5 39. I make new friends easily.
- 1 2 3 4 5 40. I am argumentative.
- 1 2 3 4 5 41. I get blamed for things I didn't do.
- 1 2 3 4 5 42. I am able to manipulate others.
- 1 2 3 4 5 43. I like to risk starting and managing new activities.
- 1 2 3 4 5 44. I achieve(d) in school.
- 1 2 3 4 5 45. I enjoy learning how things work.
- 1 2 3 4 5 46. I have close friends.
- 1 2 3 4 5 47. I wonder what people are thinking about me.
- 1 2 3 4 5 48. I worry about what I am going to do with the rest of my life.
- 1 2 3 4 5 49. I feel that I am a successful person.
- 1 2 3 4 5 50. I am easily manipulated by others.
- 1 2 3 4 5 51. I like to sell.
- 1 2 3 4 5 52. Throughout my life I have kept up with my peers academically.
- 1 2 3 4 5 53. I am sensitive to others' feelings.
- 1 2 3 4 5 54. I can concentrate well.
- 1 2 3 4 5 55. I lose interest in things.
- 1 2 3 4 5 56. I am easy to get along with.
- 1 2 3 4 5 57. I have stepped on others to get ahead.
- 1 2 3 4 5 58. I am optimistic.
- 1 2 3 4 5 59. I waste time.
- 1 2 3 4 5 60. I get depressed easily.
- 1 2 3 4 5 61. I am able to love.
- 1 2 3 4 5 62. I am aggressive.
- 1 2 3 4 5 63. I have confidence in myself.
- 1 2 3 4 5 64. I am afraid of failing.
- 1 2 3 4 5 65. I get what I want.
- 1 2 3 4 5 66. I have become depressed for weeks at a time.
- 1 2 3 4 5 67. I sleep very well.
- 1 2 3 4 5 68. I like to compete.
- 1 2 3 4 5 69. I get angry.
- 1 2 3 4 5 70. I like to speak in front of a group.

continue on back

W-299A

## AMP AutoScore™ Form

Jotham Friedland, Ph.D., Sander Marcus, Ph.D.,  
and Harvey Mandel, Ph.D.

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Fill in the background information before marking responses to the statements. If you don't know your ID number or the examiner's, ask your examiner about them.

Student's Name: \_\_\_\_\_

Student ID Number: \_\_\_\_\_

Administration Date: \_\_\_\_\_

Age: \_\_\_\_\_ Gender:  M  F

Grade/Year:  <7  7  8  9  
 10  11  12  13  
 14  15  16  >16

Ethnicity:  Asian  Black  Hispanic  
 Native American  White  
 Other: \_\_\_\_\_

Name of School: \_\_\_\_\_

Examiner's Name: \_\_\_\_\_

Examiner ID Number: \_\_\_\_\_

### Directions

The purpose of the AMP is to describe your perceptions of yourself and your motivations on a typical day. The AMP consists of 140 statements that can be true in describing you, false in describing you, or somewhere in between. For each statement, circle the number that corresponds to your response as follows:

Answer 1 if the statement is ALWAYS TRUE.

Answer 2 if the statement is MOSTLY TRUE.

Answer 3 if the statement is SOMETIMES TRUE AND SOMETIMES FALSE.

Answer 4 if the statement is MOSTLY FALSE.

Answer 5 if the statement is ALWAYS FALSE.

If you wish to change a response to any statement, cross it out with an X, and circle the new response you have chosen. There are no right or wrong answers. Just answer as accurately as possible. Please answer ALL items.

**Please press hard when circling your response.**

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1=ALWAYS TRUE 2=MOSTLY TRUE 3=SOMETIMES TRUE AND SOMETIMES FALSE 4=MOSTLY FALSE 5=ALWAYS FALSE

- 1 2 3 4 5 71. I am capable of leadership.
- 1 2 3 4 5 72. I am well organized.
- 1 2 3 4 5 73. I am capable of creativity.
- 1 2 3 4 5 74. I think clearly.
- 1 2 3 4 5 75. My temper gets out of hand.
- 1 2 3 4 5 76. I am self-conscious.
- 1 2 3 4 5 77. I am jealous of others.
- 1 2 3 4 5 78. People talk about me behind my back.
- 1 2 3 4 5 79. I am money-motivated.
- 1 2 3 4 5 80. I believe that life is a big game to be played to win.
- 1 2 3 4 5 81. I've "got my act together."
- 1 2 3 4 5 82. To me the future looks good.
- 1 2 3 4 5 83. I understand my feelings.
- 1 2 3 4 5 84. I want to be the best.
- 1 2 3 4 5 85. I procrastinate.
- 1 2 3 4 5 86. There are people I can depend on.
- 1 2 3 4 5 87. I trust others.
- 1 2 3 4 5 88. I am willing to compromise.
- 1 2 3 4 5 89. I like to fix or repair things.
- 1 2 3 4 5 90. When I make a promise, I keep it.
- 1 2 3 4 5 91. I feel like I'm "just going through the motions."
- 1 2 3 4 5 92. I work hard.
- 1 2 3 4 5 93. I am satisfied with who I am.
- 1 2 3 4 5 94. I believe most people care for each other.
- 1 2 3 4 5 95. I learn(ed) quickly in school.
- 1 2 3 4 5 96. I hurt people I love.
- 1 2 3 4 5 97. I am lonely.
- 1 2 3 4 5 98. I like a career in which things are always changing.
- 1 2 3 4 5 99. I like to express myself through writing.
- 1 2 3 4 5 100. I get up easily in the morning.
- 1 2 3 4 5 101. I do things to attract attention.
- 1 2 3 4 5 102. I have friends of the opposite sex.
- 1 2 3 4 5 103. I like writing letters or reports.
- 1 2 3 4 5 104. I am a changing and growing human being.
- 1 2 3 4 5 105. I have lots of energy.
- 1 2 3 4 5 106. I feel stress or pressure.
- 1 2 3 4 5 107. I have close friends of the same sex.
- 1 2 3 4 5 108. I work well with others.
- 1 2 3 4 5 109. I am critical of others.
- 1 2 3 4 5 110. I resent being told what to do.
- 1 2 3 4 5 111. I like to be left alone to "do my own thing."
- 1 2 3 4 5 112. My attention wanders.
- 1 2 3 4 5 113. I am afraid of being blamed or punished.
- 1 2 3 4 5 114. Time pressures bother me.
- 1 2 3 4 5 115. I am bothered when I see others perform better than I do.
- 1 2 3 4 5 116. I get so nervous I can hardly function.
- 1 2 3 4 5 117. I am pessimistic.
- 1 2 3 4 5 118. I like to work.
- 1 2 3 4 5 119. I like to work with numbers.
- 1 2 3 4 5 120. I am lucky.
- 1 2 3 4 5 121. I am lazy.
- 1 2 3 4 5 122. I feel competent.
- 1 2 3 4 5 123. My friends have done well in school.
- 1 2 3 4 5 124. When I take on new responsibilities, I follow through and complete them.
- 1 2 3 4 5 125. I believe I am intelligent.
- 1 2 3 4 5 126. I find it easy to relax.
- 1 2 3 4 5 127. I am "right on course" in attaining my career goals.
- 1 2 3 4 5 128. I lie to protect people.
- 1 2 3 4 5 129. I get "good reviews" at work.
- 1 2 3 4 5 130. My grades in school reflect(ed) my abilities.
- 1 2 3 4 5 131. I am able to influence others to my way of thinking.
- 1 2 3 4 5 132. I can solve problems in many areas.
- 1 2 3 4 5 133. I can handle stress or pressure.
- 1 2 3 4 5 134. I apply my energies consistently to study or to work.
- 1 2 3 4 5 135. I am emotionally stable.
- 1 2 3 4 5 136. I let others influence my decisions.
- 1 2 3 4 5 137. I like crossword puzzles, chess, bridge, or other "thinking" games.
- 1 2 3 4 5 138. I get my work in on time.
- 1 2 3 4 5 139. Others perceive me as being competent.
- 1 2 3 4 5 140. I get to appointments on time.

Please press hard  
when circling  
your response.

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