

PURPOSE IN LIFE AND CAREER INDECISION AS PREDICTORS OF ACADEMIC
SUCCESS IN COLLEGE

by

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ABSTRACT

GALINA OLIVERA-CELDRAN. Purpose in life and career indecision as predictors of academic success in college. (Under direction of DR. PHYLLIS POST)

The purpose of this study was to examine how purpose in life (exciting life and purposeful life) and career indecision (lack of structure and confidence, perceived external barriers, approach-approach conflict, and personal conflict) related to cumulative GPA and persistence of college freshmen. A total of 101 freshmen students from a southern public university were included in this research study. Participants completed two paper and pencil instruments which included the Purpose in Life Test (Crumbaugh & Maholick, 1969), the Career Decision Scale (Osipow, Carney, Winer, Yanico, & Koschier, 1976), and a demographic questionnaire. Students' cumulative GPA and persistence to the sophomore year were assessed through the Registrar's Office and were used as the dependent variables. Standard multiple regression and logistic regression were conducted to analyze the data. The analyses indicated that two of the six independent variables made a statistically significant contribution to the prediction of cumulative GPA, purposeful life ($\beta = .39; p < .01$) and approach-approach conflict ($\beta = .26, p < .05$). There were no statistically significant relationships found in prediction of students' persistence. These findings suggest that college freshmen who are more purposeful are more likely to have higher cumulative GPAs at the end of their freshman year. Additionally, the degree to which individuals experienced having approach-approach conflict, signifying difficulty in choosing from several viable occupational options, also influences cumulative GPA.

The findings also suggest that: (a) career counselors, student affairs staff, and higher education administrators need to gain a deeper understanding of how purpose in life and career indecision influence students academic performance, (b) career counselors need to be trained in existential approaches to career counseling, specifically in how to help students choose careers that will align with their life purpose, (c) career counselors need to pay more attention to differentiating between the reasons for career indecision and work with other departments on campus to have the best outcomes in working with students, and (d) since results of this study pointed out to approach-approach conflict as statistically significant predictor of cumulative GPA, both career counselors and academic services need to be aware of the importance of motivating students by making them aware of how many more options they will have open based on their academic performance.

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DEDICATION

To my husband Guillermo, the love of my life, whose support and patience made this achievement possible.

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CHAPTER 1: INTRODUCTION

Administrators of higher education are interested in identifying effective predictors of academic success in college that they can use in the admission process to determine the applicants' likelihood of successfully completing their degrees (Gifford, Briceño-Perriott, & Mianzo, 2006). Accepting an individual to be a student to attend a particular university is more than just adding another name to the roster or another number to an annual report to show the numerical growth of the institution. Every admission decision is an investment that a college makes on many levels, with all the risks and rewards involved, depending on how accurate the prediction of the outcome is.

The failure, just like success, of one student affects the student, the institution, and the society (Brunsden, Davies, Shelvin, & Bracken, 2000; DeBerard, Spielmans, & Julka, 2004). As a result of dropping out, the student may have to deal with lower self-esteem, loss of status, loss of dreams associated with college life or obtaining a certain degree, strained relationship with family, lack of meaning, depression, and reevaluation of life goals and aspirations. According to U.S. Census data, over a work lifetime, individuals who have a bachelor's degree would earn on average \$2.1 million - about one third more than workers who did not finish college, and nearly twice as much as workers with only a high school diploma (U. S. Census Bureau, 2002).

The institution overall suffers financially from unrealized tuition, fees, and alumni contributions (DeBerard, Spielmans, & Julka, 2004) which indirectly impacts the faculty

and staff through budget cuts, salary freezes, and lack of opportunities for advancement. Retaining students then also means maintaining high-quality faculty and staff and less need for government support and financial assistance for the institution. On the societal level, Watts (2001) identified several major social benefits, at both the individual and public levels, that are tied to earning a college degree. Those benefits include “decreased reliance on public assistance, increased tax revenues, lower demands on the criminal justice system, greater civic participation, better health status through improved lifestyle choices, improved parenting skills, increased entrepreneurial activity” (Watts, 2001, p. 9). So, with every college drop-out all parties involved suffer from certain repercussions of an admission decision that was made without proper consideration of all factors that predict either success or failure.

On the other hand, just predicting the success is not enough. Maintaining students’ motivation and monitoring their progress is equally important, especially in the first year of school which is considered to be the defining time for the rest of their college career (Tinto, 1993). Therefore, the predictors of college success could be classified into three categories: pre-college, at-college, and in-college predictors (Gifford et al., 2006). Pre-college predictors include student and family characteristics, such as college or university preparedness, SAT scores, high school GPA, study skills, academic ability, adaptability, parents’ level of education, and socioeconomic status. At-college predictors of success include the quality and quantity of services delivered to the student by the institution that increase the likelihood of student’s retention: classroom experience, academic advising, extracurricular activities, financial aid, and faculty involvement. In-college predictors include the outcomes of students’ interaction (or lack of it) with

college environment, like social adjustment, academic adjustment, commitment to institution, interaction with faculty, involvement in extracurricular activities. In-college predictors are very individual depending on each student's personal characteristics and level of motivation to achieve educational goals (McKenzie, Gow, & Schweitzer, 2004; Snyder et al., 2002). Research on investigating the impact of variables that motivate or de-motivate students to achieve academically (particularly purpose in life and career indecision, which are two variables of interest in this study) on persistence and academic performance is scarce, even though theory and research emphasize the importance of motivation for academic success (Allen, 1999; Allen, Robbins, Casillas and Oh, 2008; Astin, 1993; Gifford et al., 2006; Lotkowski, Robbins, & Noeth, 2004; McKenzie et al., 2004; Snyder et al., 2002; Stage, 1989). These predictors could be overlooked by the institutions because of the variability of factors that have to be taken into account and tenacity associated with the process of making adjustments in the system that is often inflexible and unaccommodating.

Importance of Motivational Factors in Academic Success

Internal motivational factors and their relationship to academic success and retention need to be considered in the development of strategies for success because intelligence and ability are not the only determinants of students' classroom successes, with many talented young people failing to achieve at levels that are consistent with their academic potential (Balduf, 2009; Dweck, 1999). That is why factors that deal with students' motivation, such as purpose in life and career indecision, maybe the key to students' persistence that help those who "made the admission cut" overcome or avoid problems with integration or other difficulties encountered in the social or academic

culture of the institution to attain an acceptable level of academic achievement and stay in school (Harackiewicz, Barron, Tauer, & Elliot, 2002; Mansfield, Pinto, Parente, & Wortman, 2009).

Freshman students rank the highest in attrition rates, with only 73.9% returning for their sophomore year, with most of them dropping out of college completely and some of them transferring to other institutions (American College Testing [ACT], 2010). According to the National Center for Education Statistics [NCES] (2003), 23.2% of all of the 1995-96 first-time beginning students in four-year institution transferred to another institution by the end of the sixth year which resulted in six-year retention rate of 55.3% in the first institution and 62.7% when subsequent institutions were included (NCES, 2003). Taking into account the negative consequences of leaving college without getting a degree for the students (e.g., lower wages over lifetime) and for the institutions (e.g., financial losses from unrealized tuition) (Brunsdon, Davies, Shelvin, & Bracken, 2000; DeBerard, Spielmans, & Julka, 2004), it is important to investigate the factors that contribute to students' college academic success of achieving academically and persisting to their second year. Some of the predictors of students' success, such as social and academic adjustment (Brady & Allingham, 2007; Roderick & Carusetta, 2006; Tieu & Pancer, 2009; Yazedijian, Purswell, Sevin, & Toews, 2007) and past academic performance (Gifford et al., 2006; McKenzie et al., 2004) have been researched extensively and well documented. More research needs to be done to identify the underlying factors of these predictors – what stands behind the success or failure of each individual in adjusting or performing well academically (Pang, 2009).

This study of college freshmen will investigate the relationship of purpose in life and career indecision to students' academic success as indicated by their cumulative graduate point average (GPA) and persistence to their sophomore year. The author proposes that purpose in life, which is considered by existential psychology to be the main motivational drive and an indicator of mental health of an individual (Frankl, 1992), contributes to students' academic success. Given that students report that their number one goal for attending college is to prepare for an occupation (Astin, Korn, & Riggs, 1993), being career undecided, which means having difficulty finding or committing to long-term career goals, may increase students' risk for attrition (Shearer, 2009).

Introduction of Variables

Purpose in Life

According to existentialist Victor Frankl (1992), people inherently strive to find meaning and purpose in their lives. The research on the purpose in life among college students so far has been focused mainly on its relationship to the psychological issues that may indirectly impact students' retention or attrition – anxiety, depression, self-esteem, engagement in college campus activities, and self-efficacy (DeWitz, Woolsey, & Walsh, 2009; Molasso, 2006). Another indirect impact that purpose in life may have on retention is a sense of direction and goal orientedness that are inherent to a purposeful life - the higher students' commitment to goals and future plans, the greater the likelihood of college persistence (Alexander, 1982; Tinto, 1993). In this study purpose in life is a latent variable with the corresponding manifest variables of exciting life and purposeful life (see Figure 1).

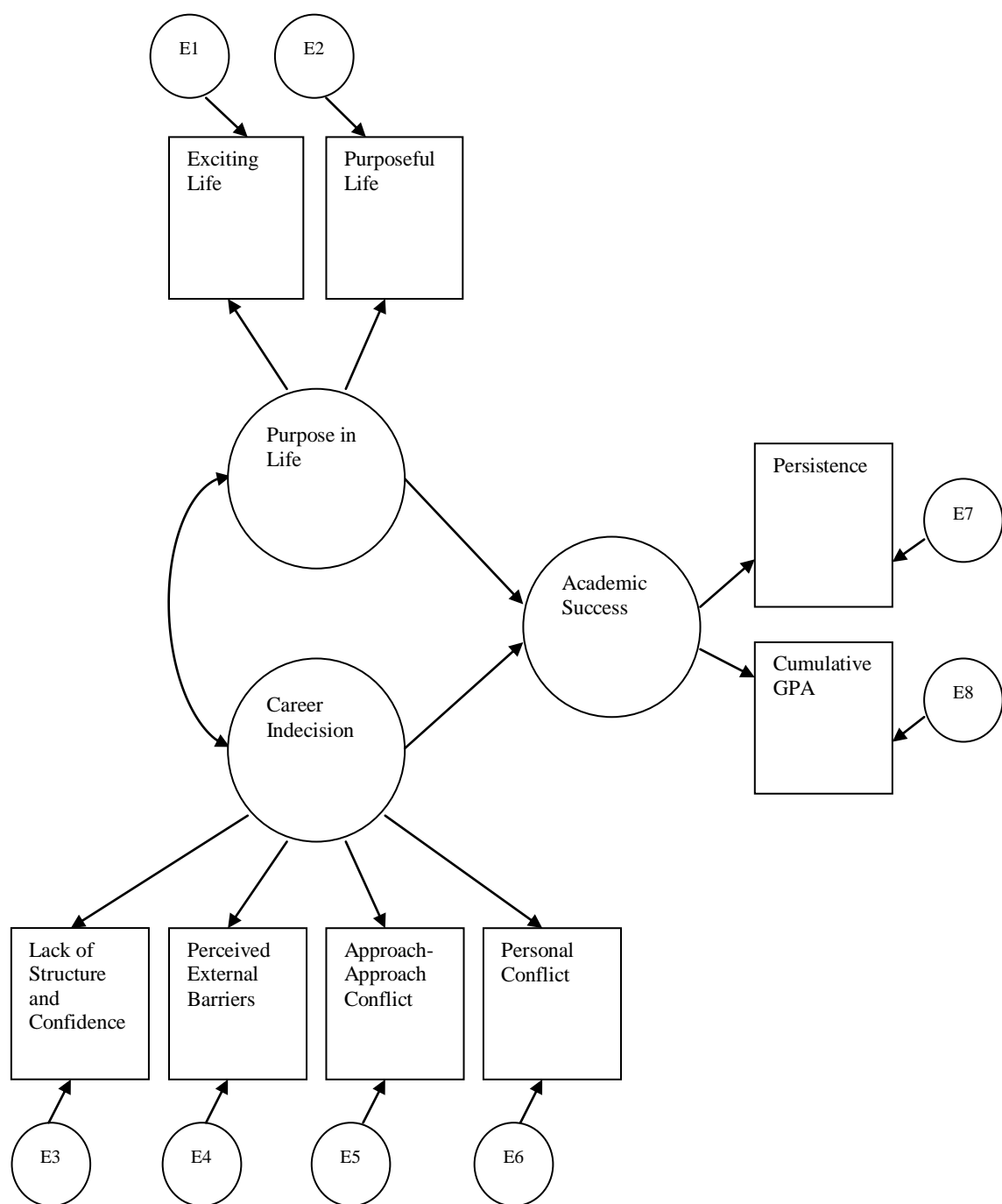


FIGURE 1:
Path Diagram of Purpose in Life and Career Indecision Affecting Academic Success

Career Indecision

Given that students report their number one goal for attending college to be preparing for an occupation (Astin, Korn, & Riggs, 1993), career indecision might be one of the risk factors for college students' attrition. Career undecided students tend to lack awareness of their interests and abilities, and since they do not have specific goals that a college degree would help them achieve, they may also be less enthusiastic about finishing their degree as well. Career indecision may lead to a perceived loss of control, powerlessness, inefficacy, or helplessness (Newcomb & Harlow, 1986). Therefore, career indecision in this study is comprised of the manifest variables of lack of structure and confidence, perceived external barriers, approach-approach conflict, and personal conflict (see Figure 1).

Academic Success

Academic success is the third latent variable for the proposed study, and it is measured by the students' cumulative GPA and persistence to the second year. There is a consistent relationship between college academic achievement and retention, with higher performing students persisting in their studies to a greater degree than those who are on a lower end (McGrath & Braunstein, 1997; Ryland, Riordan, & Brack, 1994). Those who achieve academically are less likely to drop out of college, are more ambitious in setting their life goals, have more confidence in achieving their goals, and are more likely to pursue careers that are more challenging in their nature. In the study on differential effects of motivational factors, academic skill, self-management, and social factors when predicting college outcomes (Robbins, Allen, Casillas, Peterson, & Le, 2006), general determination and goal striving were found positively correlated with retention. In this

study the latent variable of academic success is comprised of manifest variables of cumulative GPA and persistence to the second year (see Figure 1).

Significance of the Study

This study is significant because there is no research to determine if purpose in life and career indecision predict academic success of college students. Because lack of direction and decidedness about one's future career contributes to high stress level and is counterproductive to high academic performance, colleges that want the students to succeed will have to encourage their students to gain self-awareness and, as a result, direction that they want to choose in pursuing their college degree. Lack of purposefulness in life may lead to losing interest in pursuing a college degree altogether, therefore causing high drop-out rates and low retention. The results of this study may lead to developing and implementing a strategy for raising life meaning and purpose in life as a part of career counseling and retention programs for college students.

Research Questions and Hypotheses

The null and alternative hypotheses for the following research questions are:

$$H_0: \Sigma_T = \Sigma_E$$

$$H_A: \Sigma_T \neq \Sigma_E$$

where, Σ_T is the implied covariance matrix for the conceptual model and Σ_E is the empirical covariance matrix. For this study it is not desirable to reject the null hypothesis.

1. Is the conceptual model of purpose in life supported by empirical data?

Specifically, does the latent variable of Purpose in Life relate to the manifest variables of (a) exciting life and (b) purposeful life?

2. Is the conceptual model of career indecision supported by empirical data?
Specifically, does the latent variable of Career Indecision relate to the manifest variables of (a) lack of structure and confidence, (b) perceived external barriers, (c) approach-approach conflict, and (d) personal conflict?
3. Is the conceptual model of Academic Success supported by empirical data?
Specifically, does the latent variable of Academic Success relate to the manifest variables of (a) persistence and (b) cumulative GPA?
4. Is the conceptual model of career indecision and purpose in life predicting academic success supported by empirical data? Specifically, do the latent variables of Career Indecision and Purpose in Life predict Academic Success, also a latent variable?

Delimitations

The delimitations of the study are:

1. The first phase of the study included only those students whose professors agreed to have the study conducted in their class.
2. Budget and time conflicts limited the number of participants in the first phase.
3. Attempt to have a diversity of colleges represented in the study impacted which classes were chosen in the first phase.
4. The study in the first phase was conducted with traditional freshman students who were enrolled in their second semester at the University of North Carolina at Charlotte.
5. The second phase of the study will include only those students that participated in the first phase.

Limitations

The limitations of the study are:

1. The sample of this study is a purposive sample; therefore, generalizability of the outcomes of this study to other institutions is limited due to the study's sample being students of one specific university in the state of North Carolina.
2. Participants are volunteers and their responses might differ from those who chose not to participate.
3. The number of the participants and the diversity of the participants in the second phase is determined by the number and diversity in the first phase of the study.

Assumptions

The following assumptions are made in the implementation of the study:

1. It is assumed that students participated willingly and honestly.
2. It is assumed that students who participated in the first phase of the study were first-year traditional students (18-25 years old).
3. It is assumed that data for academic success (GPA and persistence) that will be obtained through Registrar's Office is correct.

Threats to Internal and External Validity

Internal validity refers to the degree to which observed differences between group responses on the dependent variable are directly related to the independent variables, and not to uncontrolled variables. The author has selected the instruments with reported satisfactory reliability and validity to control for the instrumentation threat that might be the biggest threat to internal validity of the studies of this design.

External validity refers to the extent to which the results of a study can be generalized from the sample to the population. To minimize the threat to the external validity of the selection-treatment interaction this study was conducted with students in different colleges of the university, so the sample could be more diverse and therefore more representative of the target population of the freshman college students.

Operational Definitions

Purpose in Life is defined as a sense of direction and intentionality that contributes to the feeling that life is meaningful and exciting as measured by scores on two subscales of Purpose in Life Test (PIL; Crumbaugh & Maholick, 1969): Exciting Life and Purposeful Life.

Exciting Life is defined as sense of life satisfaction and enthusiasm that comes from perceiving life as full of purpose and meaning as measured by scores on Exciting Life subscale of PIL.

Purposeful Life is defined as presence of meaningful life goals as measured by Purposeful Life subscale of PIL.

Career Indecision is defined as individuals' inability to make appropriate career choices, including lack of awareness of what is required to make a career decision and the degree to which one's choices are both realistic and consistent over time as measured by scores on four subscales of the Career Decision Scale (CDS; Osipow, Carney, Winer, Yanico, & Koschier, 1976): Lack of Structure and Confidence, Perceived External Barriers, Approach-Approach Conflict, and Personal Conflict.

Lack of Structure and Confidence is defined as lack of self-knowledge and career knowledge that leads to students' lack of confidence in making an appropriate career choice as measured by scores on Lack of Structure and Confidence subscale of CDS.

Perceived External Barriers is defined as perceived events or conditions that may hinder the progress of career goal attainment as measured by External Barriers subscale of CDS.

Approach-Approach Conflict is defined as difficulty choosing between multiple attractive career options as measured by scores on Approach-Approach Conflict subscale of CDS.

Personal Conflict is defined as a sense of hopelessness and anxiety about making a career choice as indicated by scores on Personal Conflict subscale of CDS.

Academic Success is defined as students' ability to progress toward completing their degree as demonstrated by persistence toward obtaining a college degree and higher GPA scores.

Persistence is defined as students' continuous enrollment from Fall 2009 through Fall 2010 semesters.

Cumulative GPA is defined as students' average grade points for all courses taken from Fall 2009 through Spring 2010.

Summary

This study of college freshmen will investigate if the variables of purpose in life and career indecision predict academic success in their second year of college as indicated by persistence and cumulative graduate point average (GPA). The first phase of

the study was conducted with college freshmen in their second semester of school. The data was collected on students' purpose in life and career indecision. The second phase of the study will involve gathering information from Registrar's Office on the participants' indicators of academic success: cumulative GPA and persistence to the second year.

Organization of the Study

This dissertation is presented in five chapters. Chapter 1, the Introduction, familiarizes the reader with the research topics of purpose in life, career indecision, and academic success of college students, and provides an overview of the study, its purpose, significance, hypotheses, research questions, delimitations, limitations, assumptions, threats to validity, and operational definitions. Chapter 2, the Literature Review, presents the theoretical literature and empirical research on the variables of interest. Chapter 3, Methodology, addresses the participants, the procedures, the instruments, and the data analysis in the implementation of the study.

CHAPTER 2: REVIEW OF RELATED LITERATURE

The purpose of this study is to examine if purpose in life and career indecision are related to academic success of college freshmen students as indicated by cumulative GPA at the end of their freshmen year and persistence to their sophomore year. This chapter is divided into three parts that correspond to the three variables of the study: academic success, purpose in life, and career indecision. The first part begins with an examination of persistence models and factors that contribute to students' persistence and academic performance in their first two years of college. This is followed by a section that examines the theory and research on purpose in life, with particular attention paid to such indicators of purpose in life as exciting life and purposeful life. The third part of the chapter covers the research on career indecision and its relationship to academic success in college. The summary will present a supportive argument for the use of purpose in life and career indecision as possible predictors of academic success in college.

Academic Success

This section of the chapter will review the theory and research on academic success with major focus on persistence and GPA. Academic performance and persistence are often viewed as indicators of overall student success in college. Theories of human development though point to the importance of the holistic development of the student, which cannot be judged by academic performance and persistence alone.

Empirical studies on academic performance and persistence suggest the importance of motivational factors in academic success and therefore support the need for this study,

Human Development Theories

During the stage of college years for traditional students (18-25) the major tasks recognized by theorists (Erikson, 1929; Sanford, 1962) can be categorized into four groups: intellectual tasks that involve reasoning and knowledge, social tasks that have to do with relating to others, cultural tasks that allow effectiveness in cultural aspect of the environment, and interpersonal tasks that deal with self-knowledge, self-confidence, and goal clarification (Winston & Miller, 1987). Chickering's updated version of his original developmental theory (1969) includes seven vectors: developing competence, managing emotions, moving through autonomy toward independence, developing mature interpersonal relationships, establishing identity, developing purpose, and developing integrity (Chickering & Reisser, 1993). These categories encompass the full range of human functioning in the society with each category affecting other areas in some way. This means that academic success, which belongs to the group of intellectual tasks, would be impacted by the student's success in relating to others, knowing oneself, and having specific goals, and vice versa. The research on academic success, though, is primarily focused on the variables that belong to the same category of intellectual tasks, e. g. study skills, time management, and high school GPA. There is a need for more studies that focus on the holistic nature of human development where student success in one area contributes to success in another area, which is the essence of this study that investigates the purpose in life and career indecision as predictors of academic success in college.

Predictors of Persistence and GPA

College persistence indicates students' progress toward degree completion. Retention is closely related to persistence, with "persistence" referring to the students persisting in their studies, and "retention" referring to the institution retaining students who persist. Because the emphasis of this study is on the student and not on the institution, the preference is given to using "persistence" over "retention," even though the theories and research studies reviewed in this chapter apply to both retention and persistence. Students' academic performance describes achievement in class or subject and is measured by cumulative grade point average (GPA). Academic performance is an important indicator of students' success in achieving their goals for higher education (Pascarella & Terenzini, 1991) and is also often used as a measure and a predictor of students' progress and persistence (Bean, 1980, 1990; Gifford et al., 2006; Lufi, Parish-Plass, & Cohen, 2003; McGrath & Braunstein, 1997; McKenzie et al., 2004; Ryland, Riordan, & Brack, 1994; Tinto, 1975, 1993). Lufi, Parish-Plass, and Cohen (2003) examined student persistence in higher education and found that academic persistence was positively associated with college grades. The persistent group had significantly higher GPA than the non-persistent group. It was concluded that success in college contributes to the ability to persist while lower grades hinder the ability to persist in college.

Empirical attention received by the determinants of academic success in college is overwhelming. Pascarella and Terenzini (1991) identified 3,000 studies that addressed theories and models of college student performance and persistence. According to them, the most researched variables included academic factors, family background variables,

student demographic variables, personality variables, mental health, social support, self-efficacy, institutional commitment, and integration. Recently, Lotkowski et al. (2004) found 109 studies addressing predictors of academic performance and retention. Their meta-analysis included nine categories of predictors based on the research studies examined: Academic factors such as ACT Assessment score and high school grade point average; non-academic factors (academic goals, achievement motivation, academic self-confidence, academic-related skills, contextual influences, general self-concept, institutional commitment, social support, and social involvement), as well as socioeconomic status. Little work has been done in investigating the impact of motivational variables (particularly purpose in life and career decidedness) on persistence and academic performance, even though the theory (Astin, 1993) and several research studies emphasize the importance of motivation for academic success (Allen, 1999; Allen, Robbins, Casillas & Oh, 2008; Gifford et al., 2006; Lotkowski et al., 2004; McKenzie et al., 2004; Snyder et al., 2002; Stage, 1989).

Most of the research on college persistence can be traced back to Tinto's (1975) seminal work on college dropout that was built upon Durkheim's theory of suicide (1951). According to Durkheim (1951), suicidal behavior was a result of individual's unsuccessful integration into the society. Likewise, students' departure from college relates to insufficient integration with the social and academic domains of college life (Tinto, 1975).

The basic structure of Tinto's model (1975, 1993) includes the pre-college (individual student's background characteristics) and in-college (outcomes of interaction of individual's and college characteristics like integration and commitment) variables.

Individual characteristics relevant to persistence included background characteristics (such as social status, high school experiences, community of residence, individual attributes like gender and race/ethnicity). Individual's educational goal commitment and institutional commitment were the two main factors determining dropout decision and depended on the individual's academic and social integration in the college. Using the concept of congruency, Tinto (1975) explains that the degree of academic integration is determined by the congruency between a student's intellectual development and the intellectual climate of the institution. Social integration is based on the congruency between student's characteristics and his or her social environment in college. When a student fails to integrate into the academic and social subsystems in the college, he or she would drop out, either voluntary or by academic dismissal.

Role of Motivational Factors in College Persistence and GPA

While Tinto's (1987, 1993) theory focuses on important factors such as student pre-college characteristics (pre-college predictors of retention) and institutional characteristics (at-college predictors of retention), it dismisses the motivational factors that underlie the students' educational goal commitment, institutional goal commitment, and integration (McKenzie et al., 2004; Snyder et al., 2002). Astin (1993), the author of student involvement model of retention, stated that focus of higher education should be shifted from course content, teaching techniques, and student activities to motivating and involving students in the learning process. Bean's (1990) student attrition theory emphasizes the importance of students' beliefs and attitudes in college students' persistence and how those beliefs and attitudes are changed by students' interactions with college environment. The need for motivating student is also supported by research

findings that intelligence and abilities are not a guarantee for students' success because many intelligent and highly capable of succeeding students fail to realize their potential and perform poorly academically or drop out of school altogether (Bailey, Hughes, & Karp, 2003; Balduf, 2009; Dweck, 1999; Maxwell, 2007; Reis & McCoach, 2000).

Empirical Research on Motivational Factors Predicting Persistence and GPA

In spite of the assertions by theorists and researchers about the importance of including the measures of an individual's motivation in studies on student outcomes, little work has been done in investigating the supposition that motivational factors are predictive of college grades and persistence. One of the most prominent works that supported the importance of motivation in college persistence was Stage's (1989) study on motivational orientations. Stage used the motivational orientation construct as a blocking factor to analyze college withdrawal within the Tinto's framework (1975; 1993). In Stage's study, most students fell into three categories based on the motivational orientation scale: (a) certification—motivated by practical reasons such as earning a degree or finding a job; (b) cognitive—motivated by academic reasons such as seeking knowledge; and (c) community service—motivated by gaining skills to help others. Different "persistence patterns" were observed among the three subgroups. For the certification and the cognitive subgroups, academic integration and later institutional commitment were the most significant predictors of persistence. For the community service subgroup, later goal commitment and institutional commitment had significant influences on persistence.

An important contribution from Stage's study (1989) is that she uses motivational factors rather than traditional student demographic or socioeconomic characteristics to

classify students for group comparison analyses. The outcomes of her study show that firstly, having purpose in life (to serve, to learn, to have a good career) is an important variable in students' persistence and secondly, that students' motivation depends on their conscious or subconscious sense of what makes their life meaningful. Those students that are motivated by high academic performance might stay in college because of the satisfaction they derive from achieving their academic goals. On the other hand, those who are motivated by the future career options or by their desire to obtain skills to help others will also stay in college in order to achieve those goals. Staying in college then, is about whether being in college and obtaining a degree serves overall students' present (satisfaction from academic achievement) or future purposes (career or service goals), therefore linking persistence to students' level of perceived purpose in life and career goals.

Allen (1999) examined the structural relationships among motivation, student background factors, academic performance, and persistence for minority and non-minority undergraduates. Motivation in Allen's study was operationalized as desire to finish college and was measured by six Likert-scale items that reflected student's motivation for degree completion (e.g. "I am strongly dedicated to finishing college no matter what obstacles get in my way," "I often wonder if a college education is really worth all the time, money, and effort that I'm asked to spend on it"). While it was found that motivation failed to impact academic performance for either racial subgroup, a significant motivational effect on persistence was found for minorities but not for non-minorities.

Contrary to Allen's (1999) findings, a meta-analysis of 109 studies on the effect of academic and non-academic factors on college students' performance and retention (Lotkowski et al., 2004) showed that achievement motivation, a non-academic factor, had a weak relationship to retention but strong relationship to academic performance. The findings of the study demonstrate that the overall relationship to retention and performance was stronger when academic and non-academic factors were combined. The authors conclude that although many programs take a limited approach to identifying potential drop-outs when they rely exclusively on traditional academic factors, they miss students that are at risk due to non-academic factors, like achievement motivation. Furthermore, the findings support Astin's (1993) statement about motivating students as one of the major tasks in institutional retention efforts. The authors assert that retention programs should take into account the contribution that motivation may play in addressing the longer-term rather than immediate deficiencies, without ignoring the importance of academic factors that are effective in improving college retention and performance.

In another more recent study of 6,872 students representing 23 four-year universities and colleges, Allen, Robbins, Casillas, and Oh (2008) were testing the effects of motivation and social connectedness on college persistence beyond the second year. They operationally defined motivation as academic self-discipline and college commitment. The researchers found that academic self-discipline had indirect effect on retention via greater first-year academic performance, while college commitment had direct effect on retention.

Application for the Present Study

The findings from the review of the small number of existing studies that link motivation to academic performance and persistence/retention are controversial. Some researchers found motivation to be related to academic performance (Lotkowski et al., 2004). Others found motivation to predict persistence but not academic performance (Allen, 1999). In another study motivation was related to persistence via greater academic performance (Allen et al., 2008). These discrepancies in findings point to either (a) differences in operationalizing and, as a result, in measuring motivation or (b) differences in students' motivational orientations described by Stage (1989) with highly motivated students in either category (i.e., certification, cognitive, and community service) persisting in college but not necessarily showing greater academic performance.

Several different operational definitions for motivation have been researched: desire to finish college (Allen, 1999), level of motivation to achieve success (Lotkowski et al., 2004), and academic self-discipline and college commitment (Allen et al., 2008). Each of these motivational factors comes from different theories on motivation. Although motivation in general can be defined as the forces that account for the arousal, selection, direction, and continuation of behavior, different theoretical orientation will give different explanations as to why some students are motivated to learn and stay in college and others are not (Biehler & Snowman, 2003). Furthermore, each theoretical interpretation can serve as a basis for the development of techniques for motivating students.

The theoretical foundation for such factors as desire to finish college (Allen, 1999), achievement motivation (Lotkowski et al., 2004) academic self-discipline, and

college commitment (Allen et al., 2008) lies in behavioral and cognitive view of motivation. The behavioral view of motivation states that students are motivated to complete a task by being promised a reward of some kind – praise, a grade, or a degree (Biehler & Snowman, 2003). Cognitive views stress that human behavior is influenced by the inherent need to construct an organized and logically consistent knowledge base, one's expectations for successfully completing a task, the factors that one believes account for success and failure, one's beliefs about the nature of cognitive ability, and one's need for achievement (Biehler & Snowman, 2003). The last approach is the humanistic view of motivation based on Maslow's theory of self-actualization that refers to self-fulfillment or the need to develop all of one's potential talents and capabilities (Biehler & Snowman, 2003). The scarcity of research on motivational factors, especially those that are based on the humanistic view of motivation, presents a need for investigating additional forces for students' motivation to stay in college and perform academically. Purpose in life and career decidedness/indecision, the proposed predictors of academic success in this study, belong to the motivational factors rooted in humanistic view of motivation because both of these factors are based on students' needs to realize their potential talents and capabilities. Purpose in life is considered to be the main motivational drive and an indicator of mental health of an individual by existentialists such as Frankl (1992). Given that students report that their number one goal for attending college is to prepare for an occupation (Astin et al., 1993), being career undecided, which means having difficulty finding or committing to long-term career goals, may increase students' risk for attrition and poor academic performance (Shearer, 2009).

The inconclusiveness of the findings about the direction and magnitude of impact that motivation has on college outcomes of persistence and academic performance also points out the need for the study that will examine an alternative to the three models examined. In this study, the latent variable of academic success is comprised of two manifest variables - persistence and GPA. In summary, the need for this study is dictated both by the scarcity of research on the role of motivational factors in students' academic success and by inconclusive findings of the existing research.

Purpose in Life

This section of the chapter will focus on theory and research studies related to the purpose in life. The main tenets of logotherapy as the basis for purpose in life construct will be discussed, which will be followed by the introduction of Purpose in Life Test (PIL; Crumbaugh & Maholick, 1969) used in this study to measure students' purpose in life. Two subscales of the instrument include exciting life and purposeful life and will be described in detail. Throughout the section, the relevance of certain theoretical tenets or empirical findings to the present research will be pointed out.

Theoretical Basis for PIL Test

The theoretical basis for PIL test can be found in logotherapy which was created by Viktor Frankl (1992). Frankl is considered to be one of the most prominent names in the theory of development of meaning and purpose in life (Zika & Chamberlain, 1992). His personal experience in the concentration camp during World War II, described in his book *Man's Search for Meaning* (1992), reinforced the previously developed ideas of meaning in life. Frankl believed that discovery of meaning came about in three ways. First, individuals create a product or do something of personal significance while

engaged in work, school, or other daily activities. Second, individuals may also find meaning by experiencing something or encountering someone through their social relationships. Thirdly, individuals find meaning by coping with or overcoming suffering (Frankl, 1992). Frankl believed that personal belief that one's life serves some higher purpose has enormous value, "There is nothing in the world, I venture to say, that would so effectively help one to survive even the worst conditions as the knowledge that there is meaning in one's life" (Frankl, 1992, p. 126). Believing that every individual had an innate desire to find meaning ("will to meaning"), Frankl stated that individuals who failed to experience meaning in life were in an "existential vacuum" or "existentially frustrated" (Frankl, 1992). Existential vacuum, according to Frankl, is primarily manifested as boredom, distress or anxiety. An existential vacuum for students is particularly problematic in modern times as values and traditions become less clear (Frankl, 1988).

Empirical Literature

Existential meaning, like happiness (Frankl, 1988, 1992), cannot be pursued directly or be imposed but emerges from relating to the world, others, and oneself (Yalom, 1980, 2002). Wong (1998) uncovered eight sources for discovering meaning: achieving valued goals, engaging in self-transcendent activities, perceiving a rough degree of fairness in the world, accepting their limitations, engaging in intimate emotional relationships with others, being sociable and well liked, having a relationship with a higher power, and experiencing positive emotions. Some other sources of meaning are work, love and marriage, childbirth, and engagement in independent and avocational activities (Baum & Stewart, 1990). Possession of meaning and purpose in life has been

positively correlated with measures of emotional health: greater happiness and fewer psychological problems (Steger, Frazier, Oishi, & Kaler, 2006); lower anxiety, depression, higher self-esteem, engagement in college campus activities, and self-efficacy (Molasso, 2006; DeWitz, Woolsey, & Walsh, 2009); life satisfaction (Steger, Kawabata, Shimai, & Otake, 2008); work satisfaction and deeper engagement with jobs (Kosine, Steger, & Duncan, 2008; Steger & Dik, 2010); level of hope and depressive symptoms (Mascaro & Rosen, 2005); less alcohol use (Minehan, Newcomb, & Galaif, 2000), and self-efficacy (DeWitz, Woolsey, and Walsh, 2009). While these findings confirm the postulates of existential theory that emphasize the role of connectedness with people and engagement with life as prerequisites to meaning and purpose in life (Yalom, 1980), the empirical literature fails to address the relationship of purpose of life to academic success.

As can be seen from the reviewed literature, purpose in life can serve as a great motivational force for people's engagement with each other and their environment, which is a cornerstone of most models and research studies on students' persistence (Astin, 1993; Harackiewicz, Barron, Tauer, & Elliot, 2002; Mansfield, Pinto, Parente, & Wortman, 2009; Tinto, 1979; 1983). Nevertheless, no studies were found that investigated students' purpose in life as related to academic success in college, as indicated by academic performance and persistence. Two studies that investigated the relationship between these two variables were done with a sample of high school and graduate students. Martin and Martin (1977) found a significant correlation between purpose in life and such measures of academic success as GPA and mental ability with a small sample of 24 high school students. The Purpose in Life Test was the selected instrument

for measuring purpose in life construct. Another study by Benejam (2006) investigated the association between meaning in life and academic performance among 139 graduate students. Meaning in life (measured by Life Regard Index, a 28-item Likert scale) showed significant correlation to academic performance as measured by students' GPA. The construct of purpose in life demands attention based on the theoretical and empirical foundation for its value. More empirical evidences are needed with undergraduates to substantiate the theoretical claim of the positive effects of the presence of meaning and purpose in someone's life.

Purpose in Life Test Description

Crumbaugh and Maholick (1969) developed their Purpose in Life (PIL) test to measure meaning and purpose in life. Realizing that the items on the instrument are designed to assess more than one measure of purpose in life, researchers proposed and investigated different factors of PIL test over the years since its first publication. Among the factors that have been reported were despair and enthusiasm (Walters & Klein, 1980), life satisfaction and life purpose (Dufton & Perlman, 1986), meaning in life and meaning in existence (Shek, 1988), happiness and meaning (McGregor & Little, 1998), and exciting and purposeful life (Morgan & Farsides, 2009). In a recent study by Schulenberg and Melton (2010), data from 620 undergraduates was utilized to test ten different factor-analytic models of PIL test. The support was found for the two-factor model (exciting life and purposeful life) of Morgan and Farsides (2009), which will be used in this study. Exciting life corresponds to life satisfaction (e.g. "Facing my daily task is a painful and boring experience/source of pleasure and satisfaction"). Purposeful life corresponds to having life goals (e.g. "In achieving life goals, I have made no progress

whatsoever/progressed to complete fulfillment). This factor structure is also supported by Reker (2000) who defines meaning and purpose in one's existence as the pursuit and attainment of worthwhile goals, and accompanying sense of fulfillment.

Exciting Life

As stated earlier, the "exciting life" variable is operationally defined as a sense of life satisfaction and enthusiasm that comes from perceiving life as full of purpose and meaning. Purpose in life is thought to be essential to people's satisfaction in their lives and career (Kosine et al., 2008). Life satisfaction is a result of someone living his or her life purposefully, which entails taking responsibility for both discovering his or her life's purpose and living up to it. Life satisfaction is different from happiness because of it being a more general and lasting cognitive judgment about one's life and not as intense and circumstantial as the feeling of happiness. The satisfaction in life is a result of one's successful discovery of purpose based on knowledge of self, understanding of what makes him or her tick and what brings ultimate meaning in his or her existence, which is universally important to experiencing well-being and living a satisfying life (Steger & Kashdan, 2007).

However, though experiencing meaning in life is important to life satisfaction (Steger et al., 2008) the level of well-being and life satisfaction may differ depending on each person's values (Sagiv & Schwartz, 2000) and motives (Brunstein, Schultheiss, & Graessman, 1998). For those who live up to their perceived purpose, life satisfaction is drawn from them setting and achieving the goals that are aligned with that purpose. They also tend to be satisfied if they experience success in the areas that are both meaningful and motivating to the individual. If students experience dissatisfaction with their lives

during college it may point out to the lack of meaning they derive from preparing for their future career or them seeing their future career as simply a way to make money. Students may be more committed to their studies and perform better academically if they perceived their time in college as the beginning stage of their career. To draw a parallel, research shows that viewing work as a source of meaning helps workers to be more deeply engaged with their jobs, have stronger commitment to their employment, be better team players, and derive greater satisfaction from their work (Kosine et al., 2008; Steger & Dik, 2010).

To date, there is only one study that investigated the relationship of overall life satisfaction to students' performance. Rode, Arthaud-Day, and Mooney (2005) proposed that satisfaction levels within specific domains (leisure satisfaction, family satisfaction, university satisfaction, housing satisfaction) are the antecedents of life satisfaction, and that overall life satisfaction mediates the relationship between domain satisfactions and performance. Life satisfaction was significantly related to GPA, after taking into account the effects of IQ, gender, and country of citizenship. The authors conclude that life satisfaction has both statistical and practical significance in relation to student performance. Overall life satisfaction combining all domains of satisfaction was a better predictor of academic performance than was university satisfaction alone, which means that students' performance may be influenced by many variables other than satisfaction with university setting and classroom experiences. In summary, just as work performance can be affected by workers' satisfaction with the work environment and other overall life satisfaction, life satisfaction has influence on academic performance. Additional research

is needed to identify the contexts that lead to life satisfaction (like higher level of purpose in life and lower career indecision) in order to create effective learning environment.

Purposeful Life

Purposeful life is operationally defined as presence of meaningful life goals. Life's purpose is fulfilled through accomplishment of much smaller but highly valued goals. Several studies have shown student motivation in achieving their goals to be a strong predictor of persistence (McKenzie et al., 2004; Robbins, Allen, Casillas, Peterson, & Le, 2006; Snyder et al., 2002) and performance oriented goals to be predictors of academic performance (Barron & Harackiewicz, 2003). Whereas these findings support the effect of overall goal motivation and orientation in students' performance and persistence, this study is focused on life goals that are based on the person's beliefs and values about what is important in life. Such life goals also determine what kind of impact students want to have on the world. The attainment of those goals helps people to achieve their true potential and bring them deep satisfaction (Kosine et al., 2008).

The learning in college is more than just acquiring knowledge and skills with hopes to gain employment in a certain career field after graduation. The college environment, fostered by programs, policies, and services, intends to maximize the student development. Because research supports that having purpose in life contributes to developing strong values, beliefs, and healthy mental attitudes (Moran, 2001), a more focused study on how purpose in life predicts academic success among beginning college students is needed to raise an interest of student affairs administrators about the role of this construct in the holistic development of college students.

Career Indecision

This section will start with the definition of career indecision and the consequences of career indecision for college students. This section will be followed by the description and purpose of Career Decision Scale (CDS; Osipow, Carney, Winer, Yanico, & Koschier, 1976) that was used in this study to measure the level of career indecision. The section will conclude with the review of literature on the four antecedents of career indecision that are also four factors on CDS and their relationship to academic success in college: lack of structure and confidence, external barriers, approach-approach conflict, and personal conflict.

Definition of Career Indecision

Deciding on a career is one of the most important decisions that college students need to make, but up to 50% of college students express difficulties with selecting and committing to a career (Gianakos, 1999). Students who remain undecided may be at risk for poor adjustment, personal distress, academic failure, and attrition (Feldt et al., 2010). Tinto (1987) indicated a lack of clear academic focus and career goals as factors for students “stopping” or dropping out. Research on student retention shows that students who have low aspirations or lack of commitment to educational and occupational goals are more likely to leave college (Hull-Blanks et al., 2005; McKenzie et al., 2004; Noel, Levitz, & Saluri, 1985; Shearer, 2009; Snyder et al., 2002) and prolonged indecisiveness was shown to be empirically associated with increased risk for attrition (Feldt et al., 2010; Janasiewicz, 1987). A few studies supported a positive relationship between career maturity and academic performance. Healy, Mourton, Anderson, and Robinson (1984) found a significant positive relationship between career maturity and grade point average

in a sample of community college students. A study by Perry, Cabrera and Vogt (1999) showed that career maturity did not have a significant direct effect on persistence, although it was found to be positively related to GPA. The findings of these studies indicate that career related variables have impact on academic success, but there has not been a study that was done investigating career indecision as a predictor of academic success, specifically as it is indicated by academic performance and persistence.

Career indecision can be defined as difficulties encountered by a person when attempting to make career related decisions (Chartrand, Rose, Elliott, Marmarosh, & Caldwell, 1993). First considered a dichotomous construct (decided/undecided), career indecision was later viewed as comprised of multiple subtypes (Larson, Heppner, Ham & Dugan, 1988). Holland and Holland (1977) suggested the presence of three types of indecision in college students: students who do not feel pressured to make a decision; students who are slightly to moderately immature, incompetent, or anxious; and students who are moderately to severely immature, incompetent, or anxious. In contrast to an analysis of types, the Career Decision Scale (CDS) was developed to identify the antecedents that preclude the career indecision and to assist in counseling students with educational and vocational decision making (Osipow, Carney, Winer, Yanico, & Koschier, 1976). In their initial study examining the factor structure of the CDS (Osipow, Carney, & Barak, 1976), the researchers identified four factors that underlie indecision: lack of structure and confidence, perceived external barriers, approach-approach conflict, and personal conflict.

Lack of Structure and Confidence

“Lack of structure and confidence” is defined as lack of self-knowledge and career knowledge that leads to students’ lack of confidence in making an appropriate career choice. Self-knowledge and career knowledge have been considered to be the essential components of career decision making in career development literature. Parsons believed that for a sound vocational choice, a person needs a clear understanding of oneself, knowledge of the conditions of success, and true reasoning on how these two groups of facts relate to each other (Phillips & Paziienza, 1988). Lack of self-knowledge and career knowledge lead to students’ lack of confidence in making an appropriate career choice. Confidence in one’s ability to successfully make career-related decisions is generally known as career decision-making self-efficacy (Patton, Creed, & Watson, 2003), rooted in Bandura’s self-efficacy theory (1997). Bandura defined self-efficacy beliefs as one’s confidence about his or her ability to perform a specific task or behavior. Although general self-efficacy (Mutton, Brown, & Lent, 1991; Zajacova, Lynch, & Espendshade, 2005) and academic self-efficacy (Kitsantas, Winsler, & Huie, 2008; Spitzer, 2000) were shown to be positively correlated with students’ academic success, the research on career decision making self-efficacy found no difference for a sample of undergraduate persisters and non-persisters (Satterfield, 2000) but found a significant positive relationship to social and academic integration. Taking into account that social and academic integration has been documented to be the predictors of persistence (Astin, 1985; 2001; Belch, Gebel, & Maas, 2001; Tinto, 1975; 1993), more research on the role of lack of structure and confidence in students’ performance and persistence seems important.

Perceived External Barriers

Career barriers in general can be defined as any event or condition that may hinder the progress of career development (Swanson & Woitke, 1997). High school and college students perceive a substantial number of barriers to career goal attainment (Patton, Creed, & Watson, 2003), including ethnic and sex discrimination, financial problems, family attitudes, social support, perceived lack of ability, lack of fit, and lack of interest (Lent, Brown, & Hackett, 2000; Lent et al., 2002; Luzzo, 1993, 1995, 1996; Luzzo & Hutcheson, 1996; Luzzo & McWhirter, 2001; Swanson, Daniels, & Tokar, 1996). Patton, Creed, and Watson (2003) investigated the relationship between work related perceived barriers and the possible existence of a relationship between career maturity, career decision-making, and career decision-making self-efficacy for high school students. Results showed no support for the influence of gender, culture, socioeconomic status, grade, or work experience on levels of perceived career barriers. However, a relationship between perception of career barriers and the career development variables was evident, with generally less career maturity and higher career indecision being reported the greater the perception of barriers. Lent, Brown, and Hackett (2000) were investigating the role of contextual supports and barriers in the career choice process and divided the barriers into four conceptual clusters: (a) social or family influences (e.g., “receive negative comments or discouragement about your major from family members”); (b) financial constraints (e.g., “have too little money to afford things [like computer software or tutoring] that you might need to do well in your coursework”); (c) instructional barriers (e.g., “have poor-quality teachers in your math and science-related courses”); and (d) gender and race discrimination (e.g., “receive unfair treatment

because of your gender”). Barriers were found to moderate interest-choice relations and were indirectly linked to career choice via the impact on self-efficacy. Lent et al. (2002) conducted structured interviews to identify the perceived barriers for students’ career choices, factors that enabled and deterred them in implementing their choice options, and the methods they had used to cope with choice implementation barriers. The most cited responses about career barriers were categorized into the following categories: financial concerns, personal (nonability) difficulties (e.g., problems adjusting to college, depression, time management), ability considerations (e.g., problems with academic progress), and negative social/family influences.

Many of these barriers that students believe currently exist or will exist in the future are not necessarily grounded in reality (Luzzo, 1999). Even though “perceived” barriers may have no reality basis, they still directly impact the career decision-making process of the individual (Luzzo, 1999). Believing in the present or future obstacles may erode students’ self-confidence and discourage the students in pursuing their career goals, which might also negatively impact students’ intent on getting a college degree. Because the relationship of perceived career barriers to academic performance and persistence has not been addressed in the previous research, there is a need to examine that relationship.

Approach-Approach Conflict

Approach-approach conflict signifies difficulty choosing between multiple attractive options and is a major factor in indecision (Osipow, 1987; Grier-Reed & Skaar, 2010). Some of the activities used in career counseling that are designed to promote self-exploration and positive uncertainty may actually exacerbate students’ career decision making process (Krumboltz & Levin, 2004). Students may feel overwhelmed by the

number of existing options and delay the actual career decision until it is absolutely unavoidable.

Very often highly capable students are plagued by career indecision (Maxwell, 2007). These young people are paralyzed by all the viable career choices, as well as the external and internal pressures. Making an actual choice would mean relinquishing other possibilities that seem to be equally attractive and have the potential for success. The regular approach to career counseling of narrowing the options by identifying the strengths and interests of the individual and pairing them with existing careers would not work with multitalented students who have many interests and are good in doing many things. In some cases, gifted students fail to elect a career at all and remain as "professional students" where success is practically assured (Maxwell, 2007).

Paradoxically, those students who have an approach-approach conflict as the main antecedent for their career indecision may be the only group among undecided that perform well academically. Nevertheless, because of their uncertainty about the future, they may experience psychological difficulties and lack of satisfaction or future direction, and drop out because of those reasons. Additional research is needed to have a better picture of the "too many viable options phenomena" and its relationship to academic outcomes and persistence.

Personal Conflict

Personal conflict is defined as the presence of depression, anxiety, or discouragement on the individual's part that is beyond the normal level of disappointment or worry. It is characterized by a sense of hopelessness and desire to "give up" as indicated by the item description on the CDS. Existential psychology differentiates

between normal and neurotic anxiety (May, 1983). Normal anxiety is proportionate to the situation confronted, does not require repression, and can be used creatively to identify the dilemma out of which the anxiety arose. Neurotic anxiety is not appropriate to the situation, is destructive, and does not stimulate creativity; it arises “out of the patient’s fear of his own powers, and the conflicts that arise from that fear” (May, 1983, p. 17).

Because anxiety is characterized by the tendency to worry, be fearful, tense, or nervous, it can have a negative effect on a student’s decision-making process in multiple ways. If a student has a tendency towards anxiety, this worry and fear may cause him or her to delay making a choice or become completely unable to make a career decision due to uncertainty in oneself. Researchers have found evidence for a relationship between anxiety and career indecision, which indicates that if a student must make a career related decision, this responsibility may increase anxiety as the student’s fear of making an incorrect career choice (Campagna & Curtis, 2007; Hawkins, Bradley, & White, 1977; Kimes & Troth, 1974). In Campagna and Curtis’ (2007) study, 110 first-year university students completed the State-Trait Anxiety Inventory (STAI) and Career Decision Scale (CDS) to measure anxiety and career indecision. Regression analyses revealed that state and trait anxiety made independent contributions to career indecision and that state anxiety is a much stronger predictor of career certainty than is trait anxiety.

Choice anxiety may prevent clients from continuing career counseling and thus prevent them from the very actions that would relieve their indecision and reduce their anxiety (Weinstein, Healy, & Ender, 2002). Some of the apparent advantage in reducing choice anxiety for persons with perceived high control may stem from their use of problem-focused, rather than emotion-focused, coping. Lazarus (2000) proposed that

persons with high perceived control over a stressor, such as career indecision, are likely to use more problem-focused coping versus distancing themselves from the stressor. High control then will result in reduced anxiety and increased career decision making abilities of the student. Researchers have found perceived control and anxiety to have impact on academic success of college students, (Ruthig, Perry, Hall, & Hladkyj, 2004; Ruthig et al., 2008). The theory and empirical research then support the path proposed in this study where career indecision is tested as a possible predictor of academic success.

In addition to anxiety, researchers have investigated the relationship between depression and career indecision (Saunders, Peterson, Sampson, & Reardon, 2000). In their study of 215 students who completed career indecision, career thoughts, and depression measures, the researchers found that dysfunctional career thoughts were significant components of career indecision and that depression was significantly associated with career indecision as well. Depression is characterized by a loss of interest in activities, loss of energy, low self-esteem, negative self-image, and depressed mood (American Psychiatric Association, 2000). Because of these symptoms, a person may have difficulty concentrating on daily tasks or even be unable to make decisions due to a lack of interest or lack of confidence in oneself.

In addition to having difficulties making career related decisions, depression, as a constituent of the personal conflict factor on CDS, has been found to be a significant predictor of lower GPA and increase the probability of dropping out in the study with random sample of 2,800 undergraduate and graduate students (Eisenberg, Golberstein, & Hunt, 2009). In the same study depression also appeared to interact with anxiety where the association between depression and academic outcomes was particularly strong

among students who also had anxiety disorder. These findings indicate that this particular factor of career indecision also points to the option of using career indecision as a possible predictor of academic success.

Summary

This chapter provided an in-depth examination of the current literature relating to academic success, purpose in life, and career indecision. Models of college retention and existing predictors of academic success were presented, with specific attention paid to the role of purpose in life and career indecision in college students persisting to their sophomore year. The second part of the chapter described the theory and empirical research on purpose in life, with in-depth examination of PIL subscales of exiting life and purposeful life. The literature that was presented in general supports positive associations between those factors and academic success. The third part of the chapter provided the definition of and empirical research on career indecision with the emphasis of its relationship to academic success. In conclusion, even though theory and empirical research emphasize the importance that purpose in life and career indecision have in college students' persistence and academic performance as motivational factors, there have been no studies found where the researchers had examined how purpose in life and career indecision are related to academic success among college students. The review of the literature supports the need for identifying motivational predictors for academic success. The literature also points out that purpose in life and career indecision could be important but overlooked predictors of academic success. Chapter Three will outline the methodology to be used in conducting this research.

CHAPTER 3: METHODOLOGY

This study assessed the effect of purpose in life and career indecision on academic success in college. In particular, the study addressed how purpose in life and career indecision related to academic success of college freshmen as indicated by their cumulative GPA and persistence to the sophomore year. This chapter will describe the research methodology in sections devoted to the participants, procedures, instrumentation, and data analysis associated with the study.

Participants

The target population for this study included an intentional mix of students enrolled in liberal arts and professional disciplines during their second semester in a large southern public university. The first stage of the study was conducted during the Spring 2010 semester and included a total of 144 participants. The participants were male (67%) and female (23%), whose mean age was 18.77 ($SD = 1.52$). The participants' ethnicity included 71% Caucasian, 15% African American, 7% Hispanic, 5% Asian, and 2% other. Five percent of the students were enrolled part-time and the remaining 95% were full time students. The same students from the first stage were used for the second stage which assessed how purpose in life and career indecision measured during Spring 2010 were associated with students' cumulative GPA at the end of Spring 2010 semester and their persistence to Fall 2010 semester.

After eliminating respondents with missing data or invalid student identification numbers ($n=43$) a total number of 101 participants were included in this study. Demographic data indicated that of the total number of participants 70 (69.3%) were male and 31 (30.7%) were female. Seventy-seven (76.2%) participants self-identified their race as being Caucasian. Twelve (11.9%) self-identified themselves as African American, 4 (4%) were identified as Asian, 6 (5.9%) were identified as Hispanic, 2 (2%) self-identified themselves as being Other. There were a total of 28 (27.72%) students who did not persist to their sophomore year and 73 (72.28%) who persisted. Mean cumulative GPA for 101 freshmen was 2.92 ($SD = .66$).

Procedures

There were two stages in current research study. The first stage was gathering data during Spring 2010 semester with second semester freshmen. The second stage was gathering data from the Registrar's Office on cumulative GPA at the end of the first year and enrollment status in the beginning of the second year. In the first stage, the researcher used a convenience sampling to assess approximately 150 freshmen college students. The investigator had explored the study question with several faculty in the Fall 2010 semester who expressed strong interest in having their students participate, contingent upon Institutional Review Board (IRB) approval of the project. After the study was approved by IRB, the investigator contacted those instructors, who represented several colleges in the university, to collect data in their classes.

The instructors told their students about the possibility of participating in this study at the end of their class and the instruments were administered during the last 30 minutes of class period to those who volunteered to participate. The investigator read the

Informed Consent form aloud first, telling the students about the purpose of the study and the criteria for participation. There was no extra credit for participation and there was no impact on the grade for not participating in the study. The students signed the Informed Consent form to acknowledge that their participation in the study was voluntary and to give investigator permission to check the self-reported GPA and enrollment against their college records for Fall 2009, Spring 2010, and Fall 2010 semesters. Students had the opportunity to ask questions regarding their participation before signing the Informed Consent form and filling out the assessments. The measurements were administered as a paper-and-pencil survey. Total administration time for the Demographic Data Sheet and two measurements was approximately 15 minutes.

In the second stage of the study the investigator made copies of Informed Consent forms that participants signed giving their permission to check their GPA and enrollment status through Fall 2010. The copies were delivered to the Registrar's Office where the investigator was given information pertaining to students' GPA and enrollment status for those students who had valid student identification numbers on the consent forms. This data then was entered to be used in this study with already existing data from the participants on their Purpose in Life Test and Career Decision Scale scores.

Instruments

The Demographic Information Sheet was administered with the purpose of gathering information about the participants and to assure that they met the criteria for participation in this study. The criteria for participation included being a second semester freshman between 18 and 25 years old. Two additional instruments were administered to the students: Purpose in Life Test (PIL) and Career Decision Scale (CDS) to assess the

level of the self-reported purpose in life and career indecision. Each instrument is described in more detail below.

Demographic Information Sheet

Participant demographic information was gathered as part of the study, including their gender (male/female), race, enrollment status (part time or full time), year in college, major, self-reported GPA, and age. The students also provided their Student Identification Number on the demographic sheet for the investigator to check their self-reported GPA and enrollment against their students records.

Purpose in Life Test

The PIL is a self-administered assessment of purpose and meaning in life and has three parts: objectively scored Part A that consists of 20 questions; 13 incomplete sentences in Part B, and essay on life goals, ambitions, hopes, future plans in Part C. For the purposes of this research only Part A was used; the participants did not respond to Part B or C. Answering the questions, respondents indicated on a 7 point Likert scale how much they experienced the content described by the item, e.g. “completely bored” for 1, “exuberant, enthusiastic” for 7 or 4 for neutral. Higher scores on the PIL indicate a greater sense of purpose in life.

The original split-half reliability of the PIL reported using the odd-even method was .81, Spearman-Brown corrected to .90; test-retest correlations have been between .68 and .83 (Hill & Hood, 1999). The PIL also appeared to be a reasonably valid measure with its ability to predict membership in clinical versus nonclinical populations, inmates and non-inmates and correlated with therapist's ($r = .38$) and clergy ($r = .47$) ratings of individual possession of meaning or purpose in life (Crumbaugh, 1968). The assessment

is viewed as an indirect measure of depression, since there has been a reported high negative correlation between the PIL and depression ($r = -.65$; Crumbaugh, 1968).

A variety of factor models of the PIL have been proposed which included such factors as despair and enthusiasm (Walters & Klein, 1980); life satisfaction and life purpose (Dufton & Perlman, 1986); meaning/purpose in life and excitement related to daily living (Molcar & Stuempfig, 1988); quality of life and meaning of existence (Shek, 1988); happiness and meaning (McGregor & Little, 1998); and exciting and purposeful life (Morgan & Farsides, 2009). In a recent study, Schulenberg and Melton (2010) utilized data from 620 undergraduates to test 10 different factor-analytic models of PIL test. Support was found for the two-factor model (exciting life and purposeful life) of Morgan and Farsides (2009), and this model was used in this study. Exciting life corresponds to life satisfaction (e.g. "Facing my daily tasks is a painful and boring experience/source of pleasure and satisfaction") and includes items 2, 5, 7, 10, 17-19. Purposeful life corresponds to having life goals (e.g. "In achieving life goals, I have made no progress whatsoever/progressed to complete fulfillment) and includes items 3, 8, 20. Maximum likelihood estimation was used in the analyses. Fit indices that were used to determine a reasonable fit to the data included the comparative fit index (CFI), the goodness of fit index (GFI), the adjusted goodness of fit index (AGFI), the normed fit index (NFI), and the Tucker–Lewis index (TLI), root mean square residual (RMSR), the root mean square error of approximation (RMSEA) and the ratio of χ^2 to degrees of freedom (χ^2/df). Ultimately, the two-factor model (exciting life, purposeful life) proposed by Morgan and Farsides (2009) stood out as the strongest model, with all indices except χ^2/df and RMSEA falling within acceptable standards: $\chi^2/df = 4.23$, RMSR = 0.06, GFI =

0.96, AGFI = 0.93, CFI = 0.95, RMSEA = 0.07, TLI = 0.93, and NFI = 0.93. Internal consistency reliability coefficient alphas were 0.79 for factor 1 and 0.75 for factor 2.

These factors shared approximately 42% of the variance.

Career Decision Scale

The target populations of the Career Decision Scale (Osipow, Carney, Winer, Yanico, & Koschier, 1976) are high school and college students who are in the process of deciding on a career or major. The CDS was normed on a sample of 383 male high school students (251 ninth grade; 132 twelfth grade) and 107 male college students (31 freshman; 76 juniors). In addition, the Indecision Scale was normed on 81 adults (including men and women) seeking continuing education and 67 women returning to college. Test-retest reliability coefficients range from .70 to .90 in two separate studies.

The CDS consisted of 19 items. Sixteen of the items (Items 3 to 18) measured the components of career indecision. These 16 items on the Indecision scale represented 16 different reasons for career indecision based on interview experiences with clients (Osipow, Carney, Winer, Yanico, & Koschier, 1976). The first item (Item 1) measured the decidedness that students felt regarding their career choice. The second item (Item 2) measured the decidedness that students felt regarding their academic major. The final item (Item 19) had an open-response format that allowed students to add personalized descriptions of their reasons related to their indecision. For the purposes of this study only 16 items on the Indecision scale were used (items 3 through 18).

The assessment was comprised of items using a 4-point Likert scale ranging from 4 to 1 (4 = exactly like me, 3 = very much like me, 2 = only slightly like me, and 1 = not at all like me). Higher numerical scores reflected higher degrees of career indecision. The

CDS was used to assess four manifest variables of career indecision: lack of structure and confidence, perceived external barriers, approach-approach conflict, and personal conflict. These subscales of CDS were based on the results of the factor analysis study by Osipow, Carney, and Barak (1976): Factor 1 (Lack of Structure and Confidence) consisted of items 5, 7, 8, 10, 11, 13, 14, 17; Factor 2 (Perceived External Barriers) consisted of items 3, 12, 16, and 18; Factor 3 (Approach- Approach Conflict) consisted of items 4 and 15; and, Factor 4 (Personal Conflict) consisted of item 6. Only items with a factor loading equal to or greater than .40 were included in the computation in Osipow, Carney, and Barak's study (1976). The first factor consisted of elements involving lack of self-knowledge and career knowledge that led to students' experiencing lack of confidence in making an appropriate career choice. The second factor concerned the possibility of an external barrier to a preferred choice. The barriers were defined as perceived events or conditions that might hinder the progress of career goal attainment by the students. The third factor suggested difficulty selecting from several possibly attractive career opportunities. Those opportunities presented viable career options for the students and students were experiencing dilemma in choosing which career would be the best fit for their abilities and aspirations. The fourth factor indicated personal conflict of some type surrounding the career decision, usually manifested in the students feeling hopeless or anxious about making a career choice. Feldt et al. (2010) conducted a study with undergraduate college students comparing one-, three-, and four factor structures of the Indecision scale of the CDS. The covariance matrix was the input matrix with maximum likelihood estimation. Results of confirmatory factor analysis ($N = 686$) indicated adequate fit for the four-factor structure based on relatively small χ^2/df ,

RMSEA, and AIC values, in addition to larger TLI, CFI, and PCFI values ($\chi^2/df = 3.53$; TLI = 0.94; RMSEA = 0.06; CFI = 96; PCFI = 0.70; AIC = 269.15).

Overall Research Questions

The research questions for this study were as follows:

1. *How do exciting life, purposeful life, lack of structure and confidence, external barriers, approach-approach conflict, and personal conflict relate to cumulative GPA among traditional college freshmen?*
2. *How do exciting life, purposeful life, lack of structure and confidence, external barriers, approach-approach conflict, and personal conflict relate to persistence among traditional college freshmen?*

Data Analysis

The primary data analysis method for this study was Structural Equation Modeling (SEM). However, SEM failed to test the proposed model (see Figure 2) due to small sample size, violation of multivariate normality, and subsequent poor fit of the hypothesized model for the data. Therefore, two other methods were utilized to test the relationship of the factors of purpose in life and career indecision to academic success: multiple regression and logistic regression. Multiple regression was used to analyze the relationship of the factors of purpose in life and career indecision to cumulative GPA. Logistic regression was used to analyze the relationship of the factors of purpose in life and career indecision to persistence.

The data was entered to the Statistical Package for the Social Sciences (SPSS) software. This software was used to screen the data, gather descriptive statistics, and

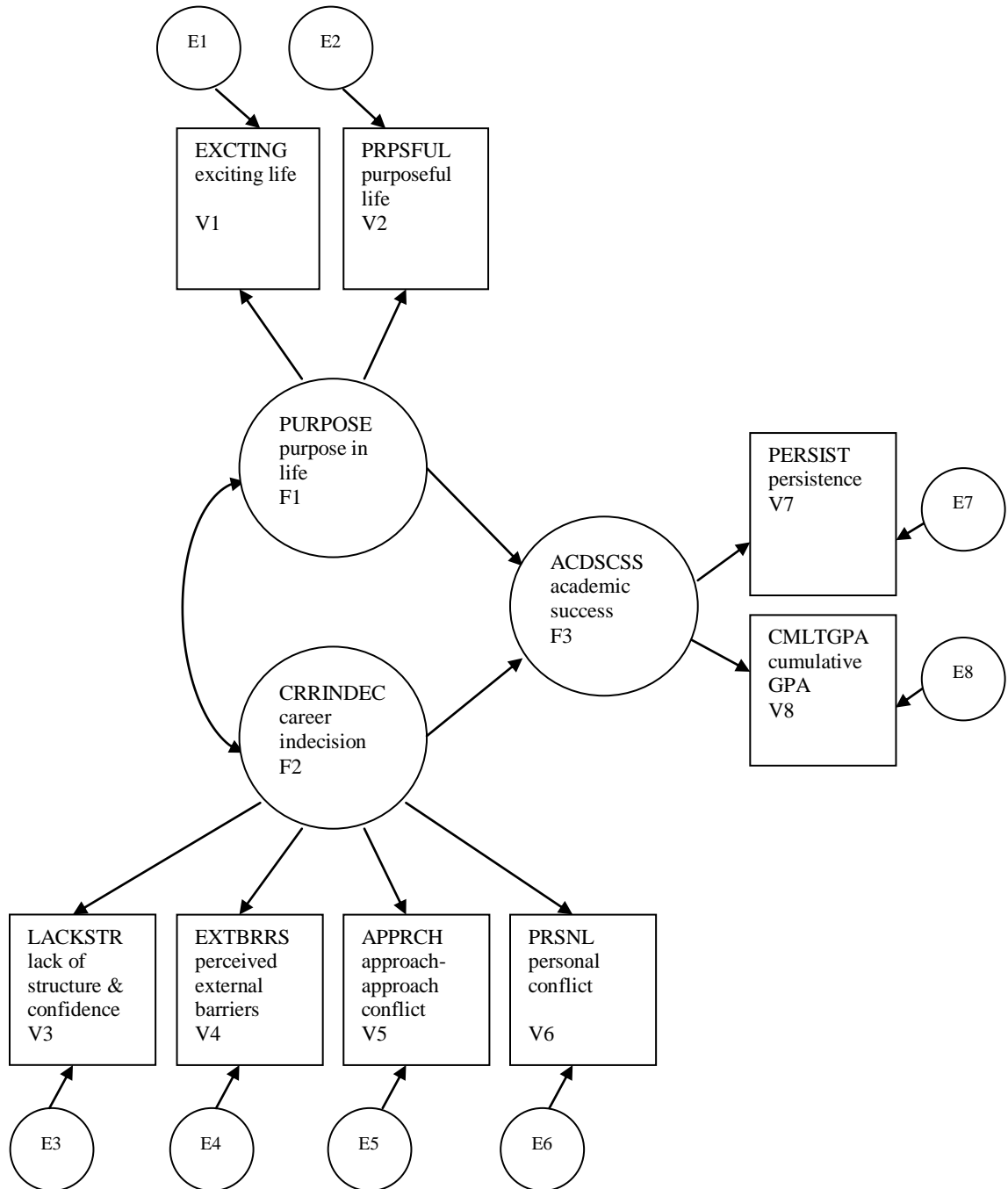


FIGURE 2:
Hypothesized Model for Purpose in Life and Career Indecision Affecting Academic Success

conduct a standard multiple regression for the outcome variable of cumulative GPA and logistic regression for the outcome variable of persistence.

Screening Data

Prior to running the major analysis, data were screened. The screening process examined all variables for accuracy of data entry, outliers, missing values, and normality of distribution. Additionally, assumptions related to standard multiple regression and logistic regression were addressed.

Descriptive Statistics

Descriptive statistics were used to describe the participants who take part in this study. Information regarding gender and race will be analyzed.

Standard Multiple Regression and Logistic Regression

A standard multiple regression and logistic regression were used to analyze the data. Regression analyses assess the relationship between one dependent variable and several independent variables. Regression techniques can be applied to a data set in which independent variables are correlated with one another and with the dependent variable to varying degree. In the standard, or simultaneous, model, all independent variables enter into regression equation at once, each one is assessed as if it had entered the regression after all other independent variables had entered. Each independent variable is evaluated in terms of what it adds to prediction of dependent variable that is different from the predictability afforded by all the other independent variables.

Logistic regression is a statistical method for analyzing a dataset in which there are one or more independent variables that determine an outcome. The outcome, or dependent variable, is measured with a dichotomous variable (in which there are only two

possible outcomes). The goal of logistic regression is to find the best fitting (yet reasonable) model to describe the relationship between the dichotomous characteristic of interest (dependent variable = response or outcome variable) and a set of independent (predictor or explanatory) variables. In logistic analysis, the predictors do not have to be normally distributed, linearly related, or of equal variance within each group. The predictors can be any mix of continuous, discrete and dichotomous variables.

Summary

This chapter presented the methodology of this study. The participants and the method for recruitment were initially described. The procedures of the study and descriptions of the instruments to gather demographic data and to measure purpose in life, career indecision, and academic success were presented. This chapter concluded with an explanation regarding the analysis of the data.

CHAPTER 4: RESULTS

The purpose of this research study was to examine how purpose in life and career indecision are related to academic success of traditional college freshmen. Specifically, this study explored the relationship between exciting life, purposeful life, lack of structure and confidence, external barriers, approach-approach conflict, personal conflict, and academic success indicated by cumulative GPA and persistence to the sophomore year. This chapter presents the results of this study. The first section in this chapter will provide a description of the participants in this study. The second section will describe the results from the statistical analyses used to examine the research question. This chapter will then conclude with a summary.

Description of Participants

The target population for this study included an intentional mix of students enrolled in liberal arts and professional disciplines during their second semester in a large southern public university. The first stage of the study was conducted during the Spring 2010 semester and included a total of 144 participants. The same students were used in the second stage which assessed how purpose in life and career indecision measured during Spring 2010 were associated with students' cumulative GPA at the end of Spring 2010 semester and their persistence to Fall 2010 semester. The cumulative GPA and persistence were gathered with the help of the Registrar's Office for those students who gave correct student identification numbers on their consent forms. After eliminating

respondents with missing data or invalid student identification numbers ($n=43$) a total number of 101 participants were included in this study. Demographic data indicated that of the total number of participants 70 (69.3%) were male and 31 (30.7%) were female. Seventy-seven (76.2%) participants self-identified their race as being Caucasian. Twelve (11.9%) self-identified themselves as African American, 4 (4%) were identified as Asian, 6 (5.9%) were identified as Hispanic, 2 (2%) self-identified themselves as being Other. There were a total of 28 (27.72%) students who did not persist to their sophomore year and 73 (72.28%) who persisted. Mean cumulative GPA for 101 freshmen was 2.92 ($SD = .66$).

Data Screening

The Statistical Package for the Social Sciences (SPSS) was used for data screening, standard multiple regression, and logistic regression analyses. LISREL was used for Structural Equation Modeling analysis. Prior to running the analysis, all variables were examined for outliers, missing data, normality, linearity, and homoscedasticity of residuals, and collinearity. Forty-three cases were deleted due to invalid student identification numbers ($n = 6$) or missing data ($n = 37$). The Registrar's Office was unable to provide the cumulative GPAs and persistence data for those students that did not provide valid identification numbers, therefore these cases were dropped from analysis. The missing data were determined to be missing at random, with students not noticing that the PIL instrument was double-sided and failing to fill out the second part of the instrument on the other side. Outliers were examined and considered to be acceptable because the outliers were not due to typos but represented the diversity of students in their purpose in life, career indecision, and academic performance scores.

Therefore, the data were not transformed. The means, standard deviations, skewness, and kurtosis for the variables are reported in Table 1. An examination of the skewness values and a visual inspection of frequency distributions suggested that the distributions of most of the variables were approximately normally distributed, with the exception of personal conflict, which was positively skewed. Examination of bivariate scatterplots indicated that there were linear relationships between all the variables. The correlation coefficients among the variables are reported in Table 2.

Table 1
Descriptive Statistics

	<i>M</i>	<i>SD</i>	Range	Minimum	Maximum	Skewness	Kurtosis
Cumulative GPA	2.92	.66	0 - 4	1.11	4	-.24	-.43
Exciting Life	36.64	5.29	7 - 49	23	48	-.59	.14
Purposeful Life	16.44	2.83	3 - 21	7	21	-.96	1.07
Lack of Structure	15.08	5.45	8 - 32	8	31	.54	-.51
External Barriers	8.61	2.78	4 - 16	4	15	.16	-.87
Approach-Approach	4.89	1.67	2 - 8	4	8	.19	-.69
Personal Conflict	1.60	.94	1 - 4	1	4	1.39	-.78

N = 101

Bivariate Correlations

A Pearson product-moment coefficient was conducted using the predictor variables (exciting life, purposeful life, lack of structure and confidence, external barriers, approach-approach conflict, and personal conflict) and the outcome variable (cumulative GPA). The Pearson correlation matrix is displayed in Table 2. The purposeful life was statistically significantly correlated with cumulative GPA ($r = .24, p < .01$). This

Table 2
Bivariate Correlations Between GPA, Persistence, Exciting Life, Purposeful Life, Lack of Structure and Confidence, Perceived External Barriers, Approach-Approach Conflict, Personal Conflict

	GPA	Persistence	Exciting Life	Purposeful Life	Lack of Structure	Perceived External Barriers	Approach-Approach Conflict	Personal Conflict
GPA	---	.22**	.07	.24**	-.09	-.14	.12	-.11
Persistence	.22**	---	.10	.13	-.16	-.21*	-.10	-.18
Exciting	.07	.10	---	.72**	-.35**	-.17*	-.14	-.20**
Purposeful	.24**	.13	.72**	---	-.36**	-.20*	-.16	-.19**
Lack	-.09	-.16	-.35**	-.36**	---	.60**	.45**	.53**
External	-.14	-.21*	-.17*	-.20*	.60**	---	.49**	.42**
Approach	.12	-.10	-.14	-.16	.45**	.49**	---	.20*
Personal	-.11	-.18	-.20*	-.19*	.53**	.42**	.20*	---

Note. * Indicates significant correlation at $p < .05$ level (2-tailed); ** Indicates significant correlation at $p < .01$ level (2-tailed)

relationship suggests that the more purposeful students are in their lives, the more likely they are to perform better academically. Persistence had a statistically significant relationship with GPA ($r = .22, p < .01$) and perceived external barriers ($r = -.21, p < .05$). These relationships indicate that the persons with higher GPA and lower perceived external barriers are more likely to persist to the sophomore year. An examination of the exciting life, lack of structure and confidence, perceived external barriers, approach-approach conflict and personal conflict variables indicated were no significant relationships with the cumulative GPA variable. The exciting life variable was significantly negatively correlated with the variables of lack of structure and confidence ($r = -.35, p < .01$), perceived external barriers ($r = -.17, p < .05$), and personal conflict ($r =$

-20, $p < .05$). The purposeful life variable was significantly negatively correlated with lack of structure and confidence ($r = -36$, $p < .01$), perceived external barriers ($r = -20$, $p < .05$), and personal conflict ($r = -19$, $p < .05$). Those relationships indicate that when freshmen have higher level of purposefulness in life, they are less likely to experience career indecision.

Structural Equation Modeling

Structural Equation Modeling was conducted using LISREL to examine the predictors of academic success of college freshmen. The hypothesized model is in Figure 2. Circles represent latent variables, and rectangles represent measured variables.

Academic success was a latent variable with two indicators (persistence and cumulative GPA). It was hypothesized that a latent variable of purpose in life (with exciting life and purposeful life as indicators) and latent variable of career indecision (with lack of structure and confidence, perceived external barriers, approach-approach conflict, and personal conflict as indicators) predicted academic success. Additionally, it was hypothesized that there was a correlation between purpose in life and career indecision.

The assumptions of multivariate normality and linearity were evaluated through SPSS. The assumption of multivariate normality was violated because of one of the variable of personal conflict being positively skewed. The assumption of linearity was met. After deleting the cases with missing values and cases with invalid student identification numbers ($n = 43$), the sample size was reduced to 101 participants.

Maximum likelihood estimation was employed to estimate all models. The independence model that tests the hypothesis that all variables are uncorrelated was easily rejected, $\chi^2(28, N = 101) = 259.63$, $p < .01$. The hypothesized model was tested next and

even though some support was found for the hypothesized model, $\chi^2 (17, N = 101) = 40.63, p = 0.001$, comparative fit index (CFI) = .86, the overall results showed that both the measurement and structural models were a poor fit for the data: (1) goodness of fit index (critical value = $0.9 < GFI < 1$) equaled 0.91, (2) adjusted goodness of fit index ($0.9 < AGFI < 1$) equaled 0.80, (3) root mean square error of approximation (critical value = $0 < RMSEA < .08$) equaled 0.12, (4) standardized root mean square residual (critical value = $0 < SRMR < 0.5$) equaled 0.42, (5) normed fit index ($0.9 < NFI < 1$) equaled 0.81, (6) non-normed fit index, or Tucker-Lewis index ($0.9 < NNFI < 1$) equaled 0.78, (7) comparative fit index ($0.9 < CFI < 1$) equaled 0.86.

Therefore, taking into consideration that SEM may not be the best choice for analyzing the data due to small sample size and violation of multivariate normality, and subsequent poor fit of the hypothesized model for the data, standard multiple regression was used to examine how exciting life, purposeful life, lack of structure and confidence, perceived external barriers, approach-approach conflict, and personal conflict related to cumulative GPA. Logistic regression was used to see the relationship of the same dependent variables to persistence.

Standard Multiple Regression

A standard multiple regression was conducted to predict cumulative GPA from (a) exciting life, (b) purposeful life, (c) lack of structure and confidence, (d) external barriers, (e) approach-approach conflict, and (f) personal conflict. Analysis was performed using SPSS REGRESSION.

The unstandardized regression coefficients (B) and intercept, the standardized regression coefficients (β), and semipartial correlations (sr_i) are reported in Table 3. The

Table 3
Unstandardized Regression Coefficients (B) and Intercept, the Standardized Regression Coefficients (β), Semipartial Correlations (sr_i), t-values, and p-values

<u>IV s</u>	<u>B</u>	<u>β</u>	<u>sr_i</u>	<u>t-value</u>	<u>p-value</u>
Intercept	2.38			4.04	.00
PIL: Exciting Life	-.03	-.22	-.15	-1.59	.12
PIL: Purposeful Life	.09	.39	.27	2.83	<.01
CDS: Lack of Structure and Confidence	.00	.01	.00	0.05	.96
CDS: Perceived External Barriers	-.05	-.21	-.15	-1.62	.11
CDS: Approach-Approach Conflict	.10	.26	.22	2.29	.02
CDS: Personal Conflict	-.03	-.05	-.04	-.40	.69

variance accounted for (R^2) equaled .15 (adjusted $R^2 = .09$), which was significantly different from zero ($F = 2.65, p < .05$), which means that purpose in life and career indecision factors account for 15% of the variance of academic performance outcome variable. Even though the results were statistically significant, this contribution to the variance is small, because the rest 85% of the variance in academic performance cannot be explained by the variables employed in this study

Purposeful life had the largest positive standardized beta and semipartial correlation coefficient. Approach-approach conflict had similar positive standardized beta and semipartial correlation coefficient. Whereas exciting life was hypothesized to be positively related to cumulative GPA, the relationship was negative and not statistically significant. Lack of structure, external barriers and personal conflict were hypothesized to be negatively related to GPA. The results showed that the relationships were not

statistically significant, the standardized betas and semipartial correlation coefficients were very close to zero for lack of structure and personal conflict.

Direct Logistic Regression

A direct logistic regression analysis was performed on persistence as outcome (coded 0= not persisted and 1= persisted) and six predictors: exciting life, purposeful life, lack of structure and confidence, external barriers, approach-approach conflict, personal conflict. Analysis was performed using SPSS. There were a total of 28 students who did not persist to their sophomore year and 73 who persisted.

Table 4
Logistic Regression Coefficients, Standard Errors, Wald Statistics, and Odds Ratio of PIL and CDS Factors

<u>Predictors</u>	<u>B</u>	<u>S.E.</u>	<u>Wald</u>	<u>df</u>	<u>Sig.</u>	<u>Odds Ratio</u>
Exciting Life	.014	.062	.048	1.0	.83	1.014
Purposeful Life	.025	.116	.048	1.0	.83	1.026
Lack of Structure and Confidence	.021	.063	.112	1.0	.74	1.021
Perceived External Barriers	-.202	.112	3.245	1.0	.07	.82
Approach-Approach Conflict	-.003	.165	.000	1.0	.99	1.00
Personal Conflict	-.239	.276	.752	1.0	.39	.79
Constant	1.953	2.172	.809	1.0	.39	7.05

A test of the full model with all six predictors against a constant-only model was not statistically significant, $\chi^2(6, N = 101) = 8.19, p > .05$, indicating that the predictors did not reliably distinguished between students who persisted and did not persist. The variance in persistence accounted for is small, with Cox and Snell R^2 equal to .08 and Nagelkerke R^2 equal to .11. Predicted success was not adequate for non-persisters but

adequate for persisters, with 18% of the non-persisters and 95% of the persisters identified correctly and an overall success rate of 73%.

Table 4 shows the regression coefficients, Wald statistics, statistical significances, and odds ratios for each of the six predictors. According to the Wald criteria none of the predictors reliably predicted persistence. The odds ratio indicated that for every additional point indicating exciting life, students were 1.014 times more likely to persist. For every additional point indicating increase in purposeful life students were 1.026 times more likely to persist.

Summary

The purpose of this research study was to examine how exciting life, purposeful life, lack of structure and confidence, perceived external barriers, approach-approach conflict and personal conflict related to cumulative GPA and persistence among college freshmen. Demographic data, bivariate correlations, standard multiple regression, and logistic regression were included in this section.

An analysis of the demographic data indicated that of the 101 participant the majority were male and Caucasian. A standard multiple regression was performed on cumulative GPA as an outcome and logistic regression performed on persistence as an outcome. The standard multiple regression indicated that the model was statistically significant, with purposeful life and approach-approach variables contributing significantly to the prediction of cumulative GPA. Finally, the logistic regression results revealed that the predictors did not reliably distinguish between students who persisted and did not persist.

CHAPTER 5: DISCUSSION

This research study sought to examine how purpose in life and career indecision were related to academic success of traditional college freshmen. Specifically, this study explored the relationship between exciting life, purposeful life, lack of structure and confidence, external barriers, approach-approach conflict, personal conflict, and academic success indicated by cumulative GPA and persistence to the sophomore year. Therefore, the results of this study are discussed in this chapter. The sections include the overview, discussion of the results of the study, contributions and limitations of this research study, implications of the findings, recommendations for future research, and concluding remarks.

Overview

Freshman students rank the highest in attrition rates, with only 73.9% returning for their sophomore year, with most of them dropping out of college completely and some of them transferring to other institutions (American College Testing [ACT], 2010). Taking into account the negative consequences of leaving college without getting a degree for the students (e.g., lower wages over lifetime) and for the institutions (e.g., financial losses from unrealized tuition) (Brunsdon, Davies, Shelvin, & Bracken, 2000; DeBerard, Spielmans, & Julka, 2004), it is important to investigate the factors that contribute to students' college academic success of achieving academically and persisting to their second year. Some of the predictors of students' success, such as social and

academic adjustment (Brady & Allingham, 2007; Roderick & Carusetta, 2006; Tieu & Pancer, 2009; Yazedijian, Purswell, Sevin, & Toews, 2007) and past academic performance (Gifford et al., 2006; McKenzie et al., 2004) have been researched extensively and well documented. More research needs to be done to identify the underlying motivational factors of these predictors – to better understand what stands behind the success or failure of each individual in adjusting or performing well academically (Pang, 2009).

Therefore, this study of college freshmen investigated the relationship of purpose in life and career indecision to students' academic success as indicated by their cumulative graduate point average (GPA) and persistence to their sophomore year. As was concluded from the examination of the related literature, even though theory (Astin, 1993) and empirical research emphasize the importance that motivational factors have in college students' persistence and academic performance (Allen, 1999; Allen, Robbins, Casillas & Oh, 2008; Gifford et al., 2006; Lotkowski et al., 2004; McKenzie et al., 2004; Snyder et al., 2002; Stage, 1989), there have been no studies found where the researchers had examined how such motivational factors as purpose in life and career decidedness/indecision are related to academic success among college freshmen.

The target population for this study included a convenience sample of students enrolled in liberal arts and professional disciplines during their second semester in a large southern public university. The original study was conducted during the Spring 2010 semester and included a total of 144 participants who filled out the Purpose in Life Test (Crumbaugh & Maholick, 1969) and Career Decision Scale (Osipow, Carney, Winer, Yanico, & Koschier, 1976). The same students from the original sample were used for

this study which assessed how purpose in life and career indecision measured during Spring 2010 were associated with students' cumulative GPA at the end of Spring 2010 semester and their persistence to Fall 2010 semester. The cumulative GPA and persistence were gathered with the help of the Registrar's Office for those students who gave correct student identification numbers on their consent forms. After eliminating respondents who did not have correct student identification numbers and those with missing data ($n = 43$) a total number of 101 participants were included in this study.

Discussion of the Results

Discussion of Demographic Data

An examination of the demographic data indicated a lack of diversity regarding the college freshmen who took part in the study. There was a lack of variability within the sample since most of the participants were male (69.3%) and Caucasian (76.2%). According to the National Center for Educational Statistics (NCES, 2009), percentage of males and females enrolled in the higher education institutions is 43% for males and 57% for females. UNC at Charlotte had 47% of males and 53% of females enrolled as of Fall 2009 (UNC Charlotte, 2010a). Therefore, the study's sample is not representative of the college population in the United States and of the university where the study was conducted. This could be attributed to the majority of this study's participants (68.3%) being enrolled in such professional disciplines as Mechanical Engineering, Computer Science, and Electrical Engineering. The rest of the participants were enrolled or considering Liberal Arts majors (31.7%).

Seventy-seven (76.2 %) participants self-identified their race as being Caucasian, twelve (11.9%) self-identified themselves as African American, 4 (4%) were identified as

Asian, 6 (5.9%) were identified as Hispanic, and 2 (2%) self-identified themselves as being Other. These results confirm the statistics provided by NCES (2009) regarding the representation of minorities in the college population, with majority of the students (64.4%) being White and 32.2% being minority students. According to the statistics on the demographics of UNC at Charlotte (2010b) the percentage of the university population for Fall 2010 was as following: 63.4 % Caucasian, 24.6% African-American, 4.6% Asian, 2.6% Hispanic, 4.7% non-resident alien, and 0.1% Native American.

Participants' mean cumulative GPA at the end of their freshman year was 2.92 ($SD = .66$). This sample's cumulative GPA is higher than average for college freshmen. For example, first-year mean cumulative GPA of 3,072 participants from 15 four-year universities was 2.73 as mentioned in one of the recent studies (Allen & Robbins, 2010). Higher cumulative GPA of this sample might also be attributed to the majority of the participants (68.3%) being enrolled in professional disciplines that tend to be more competitive in their admission process. Therefore, students' admission and further enrollment depend on their previous and ongoing academic performance.

Regression Analyses

A standard multiple regression was conducted to predict cumulative GPA from (a) exciting life, (b) purposeful life, (c) lack of structure and confidence, (d) external barriers, (e) approach-approach conflict, and (f) personal conflict. The variance accounted for (R^2) equaled .15 (adjusted $R^2 = .09$), which was significantly different from zero ($F = 2.65, p < .05$) which means that purpose in life and career indecision factors account for 15% of the variance of academic performance outcome variable. Even though the results were statistically significant, this contribution to the variance is small,

because the rest 85% of the variance in academic performance cannot be accounted for by the variables employed in this study. The standardized regression coefficient for purposeful life ($\beta = .39; p < .01$) shows that for one unit increase in purposeful life score, cumulative GPA will increase by 0.35 units. Standardized regression coefficient for approach-approach conflict ($\beta = .26, p < .05$) indicates that for 1 unit increase in approach-approach conflict score, cumulative GPA score will increase by 0.26 units. The semi-partial correlations for purposeful life equaled .27 and for approach-approach conflict equaled .22 which were statistically significant but weak correlations.

A direct logistic regression analysis was performed on persistence as outcome (coded 0 = not persisted and 1 = persisted) and six predictors: exciting life, purposeful life, lack of structure and confidence, external barriers, approach-approach conflict, personal conflict. A test of the full model with all six predictors against a constant-only model was not statistically significant, $\chi^2(6, N = 101) = 8.19, p > .05$, indicating that the predictors did not reliably distinguished between students who persisted and did not persist. The variance in persistence accounted for is small, with Cox and Snell R^2 equal to .08 and Nagelkerke R^2 equal to .11. Predicted success was not adequate for non-persisters but adequate for persisters, with 18% of the non-persisters and 95% of the persisters identified correctly and an overall success rate of 73%. According to the Wald criteria none of the predictors reliably predicted persistence. The discussion of the results for each variable is included in this section.

Discussion of Exciting Life and Purposeful Life

The regression indicated that overall combination of the factors that constitute purpose in life and career indecision constructs make a statistically significant

contribution to academic performance of college freshmen. This is an important finding when taking into consideration that this study is the first one that combined the variables of purpose in life and career indecision to predict cumulative GPA. Purpose in life construct was represented by two variables in this study: exciting life and purposeful life. Exciting life was operationally defined as a sense of life satisfaction and enthusiasm that comes from perceiving life as full of purpose and meaning and was measured by the items on Purpose in Life Test (e.g. “Facing my daily task is a painful and boring experience/source of pleasure and satisfaction”, “I am usually completely bored/exuberant and enthusiastic”). Purposeful life corresponded to having life goals (e.g. “In achieving life goals, I have made no progress whatsoever/progressed to complete fulfillment”, “I have discovered no mission or purpose in life/clear-cut goals and a satisfying life purpose”). Even though strong correlation between these two variables indicated their belonging to the same construct ($r = .72, p < .01$), their contribution to cumulative GPA differed. Purposeful life was the largest positive predictor of cumulative GPA according to standard multiple regression results, with exciting life making a negative but statistically non-significant contribution. These results confirm that even though having purpose in life is likely to be accompanied by exciting life, exciting life alone without clear-cut goals to achieve one’s purpose does not lead to high academic achievement. It may also mean that sometimes fulfilling one’s life purpose may not produce immediate satisfaction but in the end produces the desired outcome. For example, studying for the test is not as much “fun” for some students, but getting a good grade on the test brings the feelings of joy and satisfaction.

The problem in evaluating exciting life also stems from the different perspective students may have about whether their life is “boring” or “exciting.” Exciting life was operationally defined as a sense of life satisfaction and enthusiasm that comes from perceiving life as full of purpose and meaning. Some of the students though may describe their life as “exciting” when it involves partying, drinking, and socializing. Whereas such a lifestyle may be perceived as highly satisfactory by some, it is understandable that it may not be conducive to high academic performance, as several studies have shown in the past (DeBerard et al., 2004; Jeynes, 2002). Academic performance is highly related to the development of the habits (or routine) that maximize one’s use of time and discipline students to do things that they do not necessarily enjoy to achieve their goals. The study skills programs in the universities emphasize the necessity of self-regulation, which includes managing student resources, such as time and study environment, and managing cognitive learning strategies, such as organizing, rehearsing, and deep processing (Kitsantas, Winsler, & Huie, 2008). Overall, the success to effective studying seems to be discipline and determination. It is understandable then that purposeful life variable, which corresponds with having highly valued goals and plans on how to achieve them, relates to higher academic performance than excitement in life variable.

The fact that purposeful life was a statistically significant predictor of cumulative GPA but not a statistically significant predictor of persistence may be due to several reasons. First, it has been pointed out by the researchers that high performing students may have goals to transfer to other institutions that are more prestigious or offer programs that are more aligned with their career goals. According to the National Center for Education Statistics [NCES], 2003), 23.2% of all of the 1995-96 first-time beginning

students in four-year institution transferred to another institution by the end of the sixth year which resulted in six-year retention rate of 55.3% in the first institution and 62.7% when subsequent institutions were included (NCES, 2003). Secondly, as students discover their sense of purpose, they may also realize that the achievement of their purpose does not require an attainment of a bachelor's degree, and therefore they drop out to pursue their goals outside of college (Bean, 1990). In both of these scenarios the outcome of non-persisting with the certain institution is not necessarily a negative outcome, but a success. The overall success is determined by what the success is to each individual. Transferring to another higher education institution of one's choice may reflect negatively on the institution's finances but is ultimately beneficial for the student and for the society. In the same way, dropping out of college to pursue one's aspirations that are based on a person's self-discovery and self-direction shows that students succeeded in finding their purpose in life and the institution succeeded in helping them with that process.

As indicated by these results, academic performance and persistence are separate outcomes. Therefore, they cannot be combined for evaluation of students' academic success, as was seen in the example of different patterns in the relationship between the variables of exciting life, purposeful life, and cumulative GPA and persistence. The results of this study added a valuable contribution to the theoretical literature by providing empirical data that measured the direction and the strength of the relationship between those variables. Additionally, the results pointed out the necessity of developing the instruments for measuring purpose in life construct more objectively, not through self-report.

Discussion of Lack of Structure and Confidence, Perceived External Barriers, Approach-Approach Conflict, and Personal Conflict

Lack of structure and confidence, perceived external barriers, approach-approach conflict, and personal conflict are variables that comprise the career indecision construct. Lack of structure and confidence was defined as lack of self-knowledge and career knowledge that leads to students' lack of confidence in making an appropriate career choice. Perceived external barriers variable was defined as perceived events or conditions that may hinder the progress of career goal attainment. Approach-approach conflict was defined as difficulty choosing between multiple attractive career options. Personal conflict was defined as a sense of hopelessness and anxiety about making a career choice. All of these variables were measured by corresponding subscales on Career Decision Scale (Osipow, Carney, Winer, Yanico, & Koschier, 1976).

Based on the literature review, the variables were hypothesized to be negatively related to exciting life and purposeful life, and negatively related to cumulative GPA and persistence. Bivariate correlations results showed that all of the variables were negatively correlated with exciting life and purposeful life. All of the correlations were statistically significant ($p < .05$) except for correlations for approach-approach conflict with exciting life ($r = -.14, p = .08$) and purposeful life ($r = -.16, p = .06$). Even though due to the nature of correlation determining which causes which is impossible, the conclusion can be made that negative correlation between purpose in life and career indecision variables implies the mutual influence that these indicators have on each other. These results strengthen the previous findings that purpose in life is often fulfilled though pursuing certain careers,

therefore the certainty about one's career choice may lead to higher purpose in life and vice versa (Kosine et al., 2008; Steger & Dik, 2010).

The results of standard multiple regression indicated that approach-approach conflict was the only predictor that made a significant contribution to the outcome of cumulative GPA ($\beta = .26, p = .02$). These results support the findings by some researchers that some high achieving and talented students can be plagued by career indecision due to having too many options open to them (Maxwell, 2007). The logistic regression results though indicated that approach-approach conflict was not a statistically significant predictor of persistence ($B = .003, p = .99$). With Wald statistics equaling practically zero, approach-approach conflict cannot be used as a predictor of persistence. Again, this points out to cumulative GPA and persistence being two separate outcomes and therefore different variables need to be used to predict them. Also, different strategies need to be employed to improve students' academic performance and retention rates. While investing in the resources to help students discover their talents and abilities, it is also equally important to invest in providing ample opportunities for the students to see the best options for maximizing those talents and abilities through a satisfying career.

Contributions of the Study

It is first important to note that this research study was the first in the literature to combine two motivational factors of purpose in life and career indecision to examine their relationship to cumulative GPA and persistence among college freshmen. Previous research investigated the relationship between purpose in life and GPA of high school students with a sample of 28 students (Martin & Martin, 1977). While the study found positive correlation between purpose in life and high school GPA, the mentioned above

study was conducted with high school students only. As a result, this study added to the empirical literature base by investigating the relationship between purpose in life and academic performance and persistence of college freshmen.

Second, this study expanded the current knowledge base by providing a deeper understanding as to how unique purpose in life and career indecision factors relate to academic success of college freshmen as indicated by cumulative GPA and persistence to sophomore year. Specifically, this research study was the first in the literature on academic success to specifically examine how exciting life, purposeful life, lack of structure and confidence, perceived external barriers, approach-approach conflict, and personal conflict relate to cumulative GPA and persistence among college freshmen. Previous research in the literature did examine how some similar factors, like life satisfaction (Rode, Arthaud-Day, and Mooney, 2005), student motivation in achieving their goals (McKenzie et al., 2004; Robbins, Allen, Casillas, Peterson, & Le, 2006; Snyder et al., 2002), performance oriented goals (Barron & Harackiewicz, 2003), career maturity (Healy, Mourton, Anderson, & Robinson, 1984; Perry, Cabrera, & Vogt, 1999), depression (Eisenberg, Golberstein, & Hunt, 2009), and anxiety (Ruthig, Perry, Hall, & Hladkyj, 2004; Ruthig et al., 2008) related to either academic performance or retention. However, the studies were not specifically designed to focus on college freshmen, the investigation of purpose-related variables was not based on the existential approach, and career-related variables were not specific to career indecision.

Third, this research study added an important consideration for career counselors in how they can better serve the population of college freshmen who are career undecided. For example, the results of this study may encourage career counselors to

differentiate between different reasons for career indecision and apply specific strategies to help the students with deciding on a career depending on the assessed reasons for indecision. Also, the results of this study indicate that the higher students' purpose in life is, the lower is their career indecision. Therefore, training career counselors on how to help the students discover their purpose in life may be one of the additional professional development ideas for college career counselors.

Fourth, the results of this study added to the understanding of the factors that contribute to academic performance and persistence among college freshmen. Since the results of this study indicate that a combination of purpose in life and career indecision factors are statistically significant in predicting cumulative GPA of college freshmen, higher education administrators need to consider raising students' sense of purpose and promoting career related services as ways to help students achieve academically. Although the tested model of purpose in life and career indecision factors did not prove to be overall statistically significant in predicting college freshmen persistence, perceived external barriers emerged as the predictor that was the closest to being statistically significant in predicting students' persistence. Identifying those perceived barriers to accomplishing one's career goals and helping the students to find the ways to overcome them could be an important strategy for drop-out prevention programs.

Limitations of the Study

There are several notable limitations in this study. First the study utilized a convenience sample of freshmen students from one southern public university whose professors agreed to participate in the research. This omitted participants who were not enrolled in those particular courses or that particular university. Therefore,

generalizability of the results is limited to the particular university where the study was conducted.

Another limitation in this study was that the study used a convenience sample which was not representative of the population of college freshmen for the USA nor of the particular university where the study was conducted in terms of the gender and race of the participants. Specifically, majority of the participants in this study were male (69.3%) and Caucasian (76.2%). However, the percentage of male students is representative of the colleges that offer technical majors (like College of Engineering).

Third, the surveys were self-report measures and the participants were at risk of giving answers that were socially desirable. Although the participants were informed in advance that their answers would be kept anonymous and confidential, they may have still responded in a manner that would not be indicative of their true feelings. As a result, the respondents may have responded to purpose in life or career indecision questions based on what they felt would be the most positive or acceptable answer.

Fourthly, this is a correlational study, therefore the direction and the causality of the relationship between the variables cannot be determined by the results of this study. The findings of this study show that cumulative GPA of college freshmen is related to purposeful life and approach-approach conflict. However, it cannot be concluded that higher cumulative GPA is caused by higher purposeful life or approach-approach conflict.

Finally, a limitation in this study is that it includes only variables that are related to purpose in life and career indecision, omitting other important variables that could have influenced one's purpose in life and career indecision and have been found to be

related to academic performance and persistence, like socioeconomic status, high school GPA, race, etc. Therefore, the results of this study should be interpreted with caution.

Conclusions of This Study

This study sought to understand the relationship between purpose in life and career indecision factors and academic success as indicated by cumulative GPA and persistence among college freshmen. The results of this study confirm that there are specific factors from purpose in life and career indecision constructs that have a statistically significant relationship to cumulative GPA. While exciting life, lack of structure and confidence, external barrier, and personal conflict did not show significant relationships, two variables revealed significant relationships. The research found that there was a statistically significant positive correlation between purposeful life and cumulative GPA. This finding suggests that college freshmen who are more purposeful are more likely to have higher cumulative GPA at the end of their freshman year. Contrastingly, participants who were less purposeful in their lives were more likely to have lower cumulative GPA at the end of their freshman year. Additionally, the degree to which individuals experienced having approach-approach conflict, signifying difficulty to choose from several viable occupational options, also influences cumulative GPA. Approach-approach conflict was positively correlated with cumulative GPA. This implies that those who are career undecided due to having too many future possibilities are more likely to perform better academically. Conversely, if students believe they do not have many options open to them, they are more likely to perform worse academically. Additionally, the model including all purpose in life and career indecision variables predicting persistence was not statistically significant, indicating that purpose in life and

career indecision constructs were better predictors of academic performance than persistence. The significance of these relationships between cumulative GPA and purpose in life and career indecision factors affirms the assertion of previous research that these variables are important to consider when examining the predictors of academic success of college freshmen.

Implications of the Findings

The results from this study contribute to the career counseling, college retention, and academic counseling literature base by providing empirical research that illustrated the importance of understanding how purpose in life and career indecision factors related to academic performance and persistence of college freshmen.

The results of this study have important implications for career counselors, academic advisors, student affairs staff, and higher education administrators to gain a deeper understanding of how purpose in life and career indecision influence students' academic performance and persistence. While the current strategies of improving academic performance for college students include the study skills workshops, peer tutoring, time management skills, increasing students' motivation by helping them discover their life purpose, breaking it down into small specific goals, and developing the plan on how to achieve them might be the piece that is missing in the puzzle of academic achievement of college students.

Secondly, career counselors need to be trained in existential approaches to career counseling, specifically in how to help students who may experience career indecision due to having lack of purpose in their lives or cannot recognize how their talents and interests are related to career options that will be satisfying and will be fulfilling their life

purpose. This might mean incorporating purpose in life inventories into regular practice for career counseling purposes. Then, depending on the results, career counselor may discuss with the student the experiences that are meaningful to them, the big life goals that they have based on those experiences, and explore options of particular careers that might fit students' life goals, values, and aspirations.

Thirdly, career counselors also need to pay more attention to differentiating between the reasons for career indecision and work with other departments on campus to have the best outcomes in working with students. Based on the results of this study, there is a statistically significant correlation between perceived external barriers and persistence. Therefore, cooperation with academic services or student affairs staff might be the key to success in working with the student with high scores on perceived external barriers subscale. Identifying those barriers with the student and then trying to make a plan for overcoming them with the assistance from other college personnel will help the student to both decrease career indecision and stay in college.

Fourthly, since results of this study pointed out to approach-approach conflict as statistically significant predictor of cumulative GPA, both career counselors and academic services need to be aware of the importance of motivating students by making them aware of how many more options they will have open based on their academic performance. On the other hand, examining the deeper reasons for not being able to choose from many options may help to find the ways to solving the career indecision problem. Because the results of this study indicated approach-approach conflict have two of the strongest correlations with perceived external barriers and lack of structure and confidence, the problem for students with many options may not be the number of

options but their lack of confidence to pursue the most desired options and not wanting to settle for the other ones. Therefore, raising students' confidence in achieving their goals and helping students to come up with an action plan to achieve those goals could be the best solution for approach-approach conflict. Additionally, approach-approach conflict maybe a necessary and an important stage for students in the beginning of their college studies when they are learning about a lot of options for their future career. As a result of being aware of many available options, they can make a better choice than not being aware of them.

This study found that purposeful life and approach-approach conflict were major variables that contributed to cumulative GPA of college freshmen. Career counselors, academic advisors, and higher education administrators, during their training and practice, must continue to work on gaining a deeper understanding of how these motivational factors influence academic performance of college students. Specifically, career counselors must know how to help students discover their purpose in life and practically apply that knowledge in choosing a particular career path and establishing short and long term goals in fulfilling their purpose. Academic advisors and student affairs personnel need to incorporate raising students' sense of purpose and raising students' awareness of available options for increasing students' academic performance. Higher education administrators need to focus on reaching students individually to identify their perceived external barriers to achieving their goals and help them with overcoming those in order to increase students' persistence.

Recommendations for Future Research

This research study has offered contributions and implications to the career counseling, college retention, and academic advising literature base. As a result, some important questions for future research emerge. This study found that purposeful life and approach-approach conflict are significantly related to cumulative GPA of college freshmen. While this outcome is noteworthy, there are also other essential considerations that need to be made for future research.

First, this research study was conducted using convenience sample of freshman students in one of the southern public universities, which is not generalizable to all college freshmen in the USA nor to the university where the study was conducted. Therefore, future research could focus on a more inclusive group of participants from different universities across the country. Future research could also focus on including more students who are female, minorities, and from a wider selection of academic departments.

Second, future research could examine what purposeful behaviors students are engaging in, since purposeful life was the strongest of six predictors on cumulative GPA outcome variable. The question that could be asked is what purposeful life behaviors do freshman students engage in and what factors influence those behaviors? While this study measured purposeful life based on students' self-report, a more objective way to look at purposeful life would be to look at the students' behaviors as being purposeful or not.

A third consideration is to examine how students' background and personal characteristics influence their purpose in life and career indecision. Are gender, socioeconomic status, race, and high school GPA reflected in their career indecision level

or their purpose in life? Will the variance that purposeful life and approach-approach conflict account for in predicting cumulative GPA change if these background variables are controlled for?

A fourth recommendation is to create interventions for increasing students' purpose in life, increasing their awareness about the career options that are open to them, and increasing their confidence in career decision making. The effectiveness of such interventions could be tested in an experimental study that will measure students' academic performance and persistence for controlled and experimental groups of freshman students.

A fifth recommendation is to look at whether the GPA of persisters and non-persisters is different and then include the variables of purpose in life and career indecision with students' cumulative GPA to compare how much variance each of the variables contribute to students' persistence. This study included only variables of purpose in life and career indecision in predicting persistence, therefore additional research is needed to further investigate their contribution to students' persistence in comparison with other variables that are currently widely used by institutions to predict college persistence, one of them being students' cumulative GPA.

A final recommendation is to create instruments and surveys that are specifically written and designed for more objective measurement of purpose in life and career indecision constructs. The instruments used in this study measured students' purpose in life and career indecision based on students' self-report. The instruments could focus on the activities that college freshmen are expected to be involved in on daily basis or on certain areas of college life that demonstrate student's attitudes and choices. For example,

instruments could include a scenarios of what the students do with their free time or have students make a choice between a party or studying for a test, or have students check the things that they have accomplished so far on the list of activities that promote self-knowledge and career related decisions, like internships, job shadowing, seeing a career counselor, etc.

It is evident that the results of this study have created many more questions for future research studies. Clearly, while there is a lack of empirical research related to this topic to date, there are many more potential studies that can contribute to the body of literature. Future research studies will only further the understanding of the impact of purpose in life and career indecision on academic performance and persistence among college freshmen.

Concluding Remarks

College experience may not be the same for every college student, but most would agree that it was a defining time for the rest of their life, since it is through college experiences that most students polish their life goals and prepare for their future career. A success or failure of college students impacts not only them but their educational institutions, their families, their friends, and ultimately – the whole society. Therefore, it is of highest importance to find out what would help students succeed academically and persist to graduation. While there has been a lot of research on what attributes to college academic achievement and persistence, there was a gap on how such important motivational factors as purpose in life and career decidedness related to academic performance and persistence.

The results of this research study imply that the variables of purpose in life and career indecision constructs do, indeed, either promote or hinder students' success in college. Specifically, this study found that purposeful life and approach-approach conflict influence academic performance the most. These findings are significant considering that academic performance is one of the most addressed issues in college education and retention.

Consequently, career counselors, academic advisors, student affairs personnel and higher education administrators must re-evaluate their current practices to include interventions that promote purposeful life and educate students on the available career options. More personal approach that would examine each particular student's perceived barriers to setting or achieving their career goals might be a good drop-out prevention strategy to apply with at-risk students. Creating programs that provide students with ample opportunities to discover their gifts and talents and how they could practically apply them by choosing an appropriate career path would be another strategy to implement on college campuses.

In closing, this research study found that purpose in life and career indecision factors are important to consider regarding college freshmen academic success. With these findings, continued research should concentrate on expanding the empirical literature base. Conducting this type of research will only better serve the student population in achieving their goals in life.

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APPENDIX A: INFORMED CONSENT FORM



Informed Consent for
How Is Sense of Purpose Related to Career Decidedness and Academic Success Among
College Freshmen?

My name is Galina Olivera-Celdran and I am a doctoral student in counseling at the University of North Carolina at Charlotte. I invite you to participate in my research study titled, "How Is Sense of Purpose Related to Career Decidedness and Academic Success Among College Freshmen?" This study is an attempt to further investigate what motivates students to stay in college by focusing on the relationship between sense of purpose, career decidedness and academic performance. This study has been approved by UNC-Charlotte's Institutional Review Board.

I am inviting freshmen students in their second semester who are between 18 and 25 years of age to participate in this study. If you meet the inclusion criteria and choose to participate in this study, please, fill out the information on the bottom of this consent form acknowledging your voluntary participation and fill out the demographic information sheet. By signing this consent you give us permission to check your self-reported GPA and enrollment status against your student records during the Spring 2010 and Fall 2010 semesters, as well as to be informed about the overall results of this study and recommended services of the University Career Center. After you sign the consent form and fill out demographic information sheet, you may proceed to answering the questions on two instruments: Purpose in Life Test and Career Decision Scale. The time to complete those inventories is estimated between 20 to 30 minutes.

Through participation in this study, no major psychosocial harm is foreseen. As a participant, you are welcome to stop participating and opt out of the research at anytime. No adverse actions will be taken against you for opting out.

There are no direct material benefits to participating in this study. However, on a larger scale, the society will benefit by gaining more insight into students' reasons for persisting in college and help college career centers to strengthen career related services and resources they provide for their students.

All data collected will be stored in a secure place. Only the two investigators conducting the study will have access to them. Any information about your participation, including your identity, is completely confidential. Any and all information obtained during the course of this study will remain confidential, to the extent allowed by the law. Each participant will be assigned a code when the data is entered to ensure that data is deidentified after entering. All paper records will be stored in a locked office in the University Career Center and all electronic data saved on either a password-protected USB thumb drive that will be kept in a locked desk of the investigator or on a password-protected computer that will be kept in a locked office. All hardcopy data will be shredded three (3) years after completion of the proposed work. All electronic data will be destroyed three (3) years upon the completion of the proposed work via specialized computer software that permanently destroys data. Presentation or publication of the results will not include real names or any links back to the participants of this study.

The research protocol of this study has been approved by UNC Charlotte's Institutional Review Board which oversees research with human subjects. UNC Charlotte wants to make sure that you are treated in a fair and respectful manner. Contact the university's Research Compliance Office (704-687-3309) if you have questions about how you are treated as a study participant. If you have any questions about the actual project or study, please contact the principal investigator Galina Olivera-Celdran (704-649-6468, gfedun@uncc.edu) or Denise Dwight Smith (704-687-2380, ddsmith@uncc.edu) who is the Responsible Faculty for this project.

By signing this informed consent, you acknowledge that you have read and understood the aforementioned information and your participation is voluntary.

Name (first, last): _____

Student ID# _____

Email address: _____

Signature: _____ Date: _____

APPENDIX B: DEMOGRAPHIC INFORMATION SHEET



Demographic Information

For the Study on "How Is Sense of Purpose Related to Career Decidedness and Academic Performance Among College Freshmen?"

Student ID # _____

Gender: M/F

Race/ethnicity: African-American, Asian, Hispanic, White, Other _____

Enrollment: Part-time or Full-time

Year in college: Freshman, Sophomore, Junior, Senior

Were you enrolled in Fall 2009? YES NO

If DECLARED, please indicate major: _____

UNDECLARED, list likely majors considered: _____

GPA (college): _____

Age: _____

Have you participated in any service/internships experiences in the last 3 years? YES NO

If YES, indicate the type of service or internship: _____

APPENDIX C: PURPOSE IN LIFE TEST

Please, complete each item by marking a single response

1. I am usually:

	1	2	3	4	5	6	7
completely bored							exuberant, enthusiastic
2. Life to me seems:

	1	2	3	4	5	6	7
completely routine							always exciting
3. In life I have:

	1	2	3	4	5	6	7
no goals or aims at all							very clear goals and aims
4. My personal existence is:

	1	2	3	4	5	6	7
utterly meaningless, without purpose							very purposeful and meaningful
5. Every day is:

	1	2	3	4	5	6	7
exactly the same							constantly new and different
6. If I could choose, I would:

	1	2	3	4	5	6	7
prefer never to have been born							like nine more lives just like this one
7. After retiring, I would:

	1	2	3	4	5	6	7
loaf completely the rest of my life							do some of the exciting things I have always wanted to do
8. In achieving life goals, I have:

	1	2	3	4	5	6	7
made no progress whatsoever							progressed to complete fulfillment
9. My life is:

	1	2	3	4	5	6	7
empty, filled only with despair							running over with exciting good things

10. If I should die today, I would feel that my life has been:
 1 2 3 4 5 6 7
 completely worthless very worthwhile
11. In thinking of my life, I:
 1 2 3 4 5 6 7
 often wonder why I exist always see a reason for my being here
12. As I view the world in relation to my life, the world:
 1 2 3 4 5 6 7
 completely confuses me fits meaningfully with my life
13. I am a:
 1 2 3 4 5 6 7
 very irresponsible person very responsible person
14. Concerning man's freedom to make his own choices, I believe man is:
 1 2 3 4 5 6 7
 completely bound by limitations of heredity and environment absolutely free to make all life choices
15. With regard to death, I am:
 1 2 3 4 5 6 7
 unprepared and frightened prepared and unafraid
16. With regard to suicide, I have:
 1 2 3 4 5 6 7
 thought of it seriously as a way out never given it a second thought
17. I regard my ability to find a meaning, purpose, or mission in life as:
 1 2 3 4 5 6 7
 practically none very great
18. My life is:
 1 2 3 4 5 6 7
 out of my hands and controlled by external factors in my hands and I am in control of it

19. Facing my daily tasks is:

	1	2	3	4	5	6	7
a painful and boring experience							a source of pleasure and satisfaction

20. I have discovered:

	1	2	3	4	5	6	7
no mission or purpose in life							clear-cut goals and a satisfying life purpose

APPENDIX D: CAREER DECISION SCALE

On the following pages, there are statements describing career decision-making behaviors. Please use the rating scale below to indicate the degree to which each statement describes your thinking related to educational or career choice. Describe yourself as you generally are now, not as you wish to be in the future. Describe yourself as you honestly see yourself. So that you can describe yourself in an honest manner, your responses will be kept in absolute confidence. Please read each statement carefully, and then fill in the line next to the question with the number that most accurately describes you using the following scale:

NOT AT ALL	SOMEWHAT	MOSTLY	EXACTLY
LIKE ME	LIKE ME	LIKE ME	LIKE ME
1	2	3	4

_____ 1. 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.

_____ 2. Several careers have equal appeal to me. I'm having a difficult time deciding among them.

_____ 3. I know I will have to go to work eventually, but none of the careers I know about appeal to me.

_____ 4. 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.

_____ 5. 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 don't have enough information to make a career decision right now.

_____ 6. 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.

_____ 7. 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.

_____ 8. 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.

NOT AT ALL	SOMEWHAT	MOSTLY	EXACTLY
LIKE ME	LIKE ME	LIKE ME	LIKE ME
1	2	3	4

_____ 9. 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.

_____ 10. I know what I'd like to major in, but I don't know what careers it can lead to that would satisfy me.

_____ 11. I can't make a career choice right now because I don't know what my abilities are.

_____ 12. I don't know what my interests are. A few things "turn" me on but I'm not sure that they are related in any way to my career possibilities.

_____ 13. 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.

_____ 14. I have decided on a career, but I'm not certain how to go about implementing my choice. What do I need to do to become a _____ anyway?

_____ 15. I need more information about what different occupations are like before I can make a career decision.

_____ 16. I think I know what to major in, but I feel I need some additional support to make that choice for myself.