The influence of career-related motivation on academic success

Freda Yeh
Rowan University
THE INFLUENCE OF CAREER-RELATED MOTIVATION
ON ACADEMIC SUCCESS

by
Freda Yeh

A Thesis

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Dr. Burton R. Sisco

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The objective of this study was to examine the relationship between career-related motivation, defined by the constructs of career insight, identity, and resilience, and academic success of undergraduate students at Rowan University, Glassboro, NJ. Influences on the development of these career and academic motivations were also studied. Furthermore, the study assessed the relationship between career-related motivation and academic success for students when grouped by academic years and major colleges.

A survey with eight demographic questions, including self-reported GPA, and 21 Likert-style items on a five-point scale was used to gather data on students’ career and academic goals. For undergraduate students at Rowan University, the relationship between career-related motivation and academic success was generally weak. The strongest influences on the development of career and academic goals, as reported by the subjects, were conversations with working professionals, professional work experience, and performance and grades in related courses.
For students clustered by academic year, only freshmen and seniors exhibited significant relationships between career motivation and GPA. Grouped by major college, only business, communication, engineering, and undeclared students displayed significant relationships between career motivation and GPA.
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CHAPTER I

INTRODUCTION

College serves various purposes for different students, but most students share several common reasons for pursuing higher education: the ability to obtain a better job, earn more money, or receive training for a specific career (Pryor, Hurtado, Saenz, Lindholm, & Korn, 2005). It is plausible to consider the idea that these reasons for enrolling in college can, in turn, motivate students to not only persist and graduate but also to succeed academically.

Statement of the Problem

The academic success of students is crucial to the overall success of any university. Academic success predicts the persistence of students, especially of freshmen, which directly impacts higher education institutions’ common goal of achieving high graduation rates (Tinto, 1975). Moreover, academic achievement benefits the students themselves in regards to obtaining a job, pursuing further education, and widening their knowledge base. Thus, it is of importance to study possible factors that influence the academic success of students at Rowan University.

Research shows that intervention programs which focus on advising, sense of identity, sense of direction, and identification of skills and talents, setting of performance goals, commitment to goals, and goal striving promote academic success (Harackiewicz, Barron, Tauer, & Elliot, 2002; Lounsby, Huffstetler, Leong, & Gibson, 2005; Pan, Guo, Alikonis, & Bai, 2008; Robbins, Allen, Casillas, Peterson, & Le, 2006; Tinto,
1975). These findings coupled with the statistics on Rowan University students which show that average grade point average (GPA) for undeclared students are lower than the average of any of the academic departments with declared students, it is feasible to hypothesize that career and academic goals play a significant role in academic success (Institutional Research and Planning: 2008 Resource Book, 2008). If this is the case, it is also of interest to study factors that are the most influential in the development of career and academic goals. Higher education administrators will then be able to directly influence the academic success of students by customizing intervention programs and career and academic advising in a way that promotes the development of career and academic goals.

Purpose of the Study

The purpose of the study was to determine if career motivation positively influenced undergraduate students’ academic success at Rowan University. The study also examined the varying forces that influenced the development of career and academic goals.

Significance of the Study

Many factors are related to academic success, such as SAT scores, high school academic performance, race and gender, and socioeconomic background, but there is little higher education administrators can do to influence these types of static variables. If career-related motivation is found to play a significant role in academic success, it may be possible that career and academic advising as well as intervention programs can have a significant impact on academic success of students. A rise in academic success could then have an effect on persistence and other college outcomes.
Assumptions and Limitations

The study was limited to current undergraduate students at Rowan University in Glassboro, NJ. The survey was designed with the assumption that the students surveyed obtained most of their career counseling and advising from Rowan University; however, in 2007, Rowan admitted around 1,500 transfer students, which accounts for about 17% of its population (Institutional Research and Planning: Common Data Set 2007-08, 2008). Results of the survey were also limited to self-reporting of students on their perceived career and academic motivations and the influences of those motivations. Of particular importance is the limitation of self-reported GPA. The participants of the study were limited to a convenience sample of those who were present on the days that the survey was distributed. Finally, there is a potential that researcher bias could impact the results of the study.

Operational Definitions

1. Academic Goal: A clearly developed intent to pursue a given academic major or area of study.

2. Academic Success: For the purposes of this study, cumulative GPA, as reported during the Spring 2009 semester.

3. Career Development: The process by which individuals establish career or academic goals.

4. Career Goal: A clearly developed intent to pursue a given occupation.

5. Career Identity: As defined by London (1983), the extent of work involvement and work seeking behavior and desire for upward mobility.
6. Career Insight: As defined by London (1983), the extent that an individual has realistic and clear perceptions about one’s own strengths and weaknesses and career goals.

7. Career Motivation: As defined by London (1983), “...the set of individual characteristics and associated career decisions and behaviors that reflect the person’s career identity, insight into factors affecting his or her career, and resilience in the face of unfavorable career conditions” (p. 620).

8. Career Resilience: As defined by London (1983), an individual’s resistance to career disruption in response to negative or changing environments.

9. Performance Goal: Intent to demonstrate competence in a given setting (Harackiewicz et al., 2002).

10. Persistence: Completion of a college degree.


12. Students: Current undergraduate students at Rowan University during the 2008-2009 academic year.

Research Questions

This study addressed the following research questions:

1. What factors influence the development of career and academic goals?

2. For undergraduate students at Rowan University, is there a significant relationship between career-related motivation and academic success in college?

3. For Rowan University undergraduates grouped by academic year and major college, are there significant relationships between career-related motivation and academic success in college?
Overview of the Study

Chapter two describes the theoretical background of career development and gives an overview of literature related to career motivation and academic success as well as the factors involved in the career decision-making process. In addition, the concept of career motivation is defined with respect to previous research. Finally, this chapter provides a theoretical framework for the current study.

Chapter three outlines the methodology and procedures used in this study. A description of the participants, the data collection instrument, the data collection method, and the statistical analysis of the data are provided.

Chapter four provides the results of the study, summarizing the important findings and answering the research questions posed in the introduction.

Chapter five discusses the implications of the results as well as recommendations for application and further research.
College students possess varying degrees of certainty about their prospective majors and careers. Higher education campuses across America typically provide academic advising and career counseling services for the purpose of helping students develop a sense of direction towards a career path. Therefore, it is of interest to investigate how the development of career-related motivation affects academic success. Moreover, it may be relevant to study the factors involved in the career decision making process, including the influence of academic and career advising.

Career Development Theories

Several career development theories formed the underpinnings of the current study. Lent and Brown’s Social Cognitive Career Theory (1996) applied the concepts of self-efficacy, outcome expectations, and personal goals from Albert Bandura’s social cognitive theory to career development. Self-efficacy is defined as an individual’s beliefs about their own capabilities, outcome expectations are an individual’s beliefs about the effects of different behaviors, and personal goals are the results that an individual strives to obtain through certain activities or behaviors (Lent & Brown). According to Social Cognitive Career Theory, personal goals are significant in helping people to maintain a consistent effort to achieve the desired outcomes (Lent & Brown). Lent and Brown’s theory also asserts that self-efficacy and outcome expectations play important roles in the setting of personal goals.
Lent and Brown’s Social Cognitive Career Theory (1996) provides solid groundwork for the current study. The achievement of career goals in a college environment is usually tied to academic success. From Lent and Brown’s theory, it may be hypothesized that the development of career goals would help students to put forth the effort needed to be successful academically. Furthermore, Social Cognitive Career Theory proposes that self-efficacy and outcome expectations are influential in the development of personal goals. Factors related to self-efficacy and outcome expectations can then be considered major components in the career decision making process for students.

Another theory that draws from elements in social cognitive theory is Future-Oriented Motivation Theory (Miller & Brickmann, 2004). Miller and Brickmann propose that personally valued future goals are instrumental in self-regulation, which is the self-monitoring of behavior and progress. In Future-Oriented Motivation Theory, outcome expectations serve as guides for behavior and sustained effort towards obtaining a goal (Miller & Brickmann). Personally valued future goals lead to the development of a framework of short-term target goals that guide self-regulation (Miller & Brickmann). When target goals are perceived to be vital to the attainment of a future goal, more value is placed upon the tasks needed to accomplish target goals (Miller & Brickmann).

Miller and Brickmann’s Future-Oriented Motivation Theory (2004) is relevant to the current study in that career-related motivation is very much related to goals that are based in the future. If future goals do indeed guide self-regulation and short-term target goals, it can be argued that career-related motivation may help to regulate the completion of tasks necessary to be academically successful. In addition, the more valued the career
goals are, the more value would be placed on academic tasks, which are usually considered necessary to the attainment of career goals to students in college.

Deci, Vallerand, Pelletier, and Ryan (1991) also posit a theory that utilizes the concept of self-regulation, called Self-Determination Theory. In Self-Determination Theory, motivation is believed to lead to engaged behavior that is intentional and self-determined (Deci et al.). Intrinsic motivation is viewed as motivation that arises from true interest and satisfaction in completing a task or striving towards a goal, and it is this type of motivation from which behavior is truly self-determined (Deci et al.). Extrinsic motivation is based upon tasks or goals that are seen as necessary in achieving a desired consequence and does not necessarily result in self-determined behavior (Deci et al.). However, Deci et al. suggest that extrinsic motivation can be internalized and lead to self-determined behavior if the behavior is identified with as instrumental to the completion of a valued goal or end result. Hence, an uninteresting action or behavior is pursued not just for the need to reach a particular outcome but also for the value that the task contributes to achieving the desired result (Deci et al.).

Career-related motivation can be considered intrinsic or internalized extrinsic motivation. In the case of intrinsic motivation, students may truly be interested in the major that they are studying and be internally motivated to do well in relevant courses. Externally motivated students may have been able to internalize their motivation and place value in doing well academically in order to reach a career or academic goal. Based on Self-Determination Theory (Deci et al., 1991), engaged and self-determined behavior would arise from either type of motivation.
Career-Related Motivation and Academic Success

Many studies have assessed the influence of career-related motivation on various outcomes. However, only a few have investigated how career-related motivation affects academic success. In a study of 1,093 second semester sophomore students at a Midwestern public university, Graunke and Woosley (2005) studied the relationship of commitment to major with academic success, as measured by GPA in the fall and spring semesters. Commitment to major was measured by a rating on a four-point Likert-type scale on certainty towards a student’s chosen major (Graunke & Woosley). If a student was not yet decided on a major, the response was coded as the lowest certainty on the scale (Graunke & Woosley). Graunke and Woosley found that commitment to major was significantly correlated with GPA in the spring semester, albeit not in the fall semester.

Graunke and Woosley’s study (2005) employed a specific type of career-related motivation, commitment to major. Furthermore, the researchers limited their study to sophomores at a particular university. Thus, the study could be expanded to other measures of career-related motivation as well as a more general population of students. Additionally, the results regarding academic success were mixed. Accordingly, further research could be conducted to explore if such results could be replicated.

Dennis, Phinney, and Chuateco (2005) performed a similar study investigating the relationship between career/personal motivation and GPA. Career/personal motivation was measured using a survey that consisted of 10 Likert-type scale items assessing attitudes towards developing intellectually through college attendance, and cumulative GPA was taken from school records at the conclusion of the spring semester (Dennis et al.). The survey was administered to 100 first-generation students attending an ethnically
diverse university that served mostly minority students who were of lower to lower-middle class (Dennis et al.). Dennis et al. found that career/personal motivation had a weak positive correlation with GPA.

Dennis et al.’s study (2005) was targeted towards a certain group of students, those who were first-generation and of an ethnic minority. This study could also be expanded upon by targeting a more general population of students. Furthermore, career/personal motivation could be defined more specifically and measured using a better validated method. Dennis et al. was unable to arrive at a solid conclusion regarding the influence of career/personal motivation on GPA. Additional research could be carried out with more clearly defined variables in order to further investigate the relationship between career-related motivation and academic success.

Lastly, Hull-Blanks et al. (2005) studied the relationship between career goals and academic performance in 305 freshmen from an introductory class that fostered academic success. Data on career goals were gathered using an open-ended question asking, “What is your career goal?” Responses were classified into one of four categories: school related, job related, value related, or unknown. Academic performance was measured by cumulative GPA at the end of the freshmen year. Hull-Blanks et al. found no significant differences between career goals and academic performance of the freshmen.

It is possible that no significant differences were found because the students being assessed were freshmen, who may have been less certain of career goals regardless of their responses. Moreover, academic performance in the freshmen year may be less correlated to career goals because courses are more general in nature in the first year. Further research could be done with a more general population of all undergraduate
students, and career motivation could be more specifically defined based on the theoretical knowledge base and previous research.

Definition and Measurement of Career Motivation

The studies reviewed all employed various methods of measurement for career-related motivation. None of the methods were described to be examined for validity. For the purposes of the current study, London’s (1983) instrument, developed on the basis of the three constructs of career identity, insight, and resilience, served as a validated measure of career motivation. London (1983) defined career motivation as “…the set of individual characteristics and associated career decisions and behaviors that reflect the person’s career identity, insight into factors affecting his or her career, and resilience in the face of unfavorable career conditions” (p. 620). Career identity is the extent of work involvement or work seeking behavior and desire for upward mobility, career insight is the extent that an individual has realistic and clear perceptions about his/her own strengths and weaknesses and career goals, and career resilience is an individual’s resistance to career disruption in response to negative or changing environments (London). London and Noe (1997) liken some of the constructs of career motivation to theories in career development. Career resilience, for example, is cited as having similarities to Bandura’s concept of self-efficacy because of the need to believe in one’s own capabilities to be resilient to change (London & Noe, 1997). Additionally, London and Noe suggest that career insight and identity can be influenced by career development.

London (1983) originally developed the definition of career motivation to apply to work situations. In the present study, the instruments based on London’s definition (1983) were modified to apply to college students. Several instruments have been
developed that are based on the three constructs of career motivation. The present study adapted items from London’s (1993) and Noe, Noe, and Bachhuber’s (1990) instruments. The instrument created by London (1993) measured career insight, identity, and reliance based on feelings and attitudes in regard to each construct. For instance, a career identity item questioned whether the respondent was aware of personal strengths or weaknesses (London, 1993). On the other hand, Noe et al. (1990) developed an instrument mostly based on behaviors. A sample item asks whether the respondent has taken courses toward a job-related degree (Noe et al., 1990). Using a factor analysis, both of the instruments exhibited internal consistency within each career motivation construct as well as distinctness between constructs (London, 1993; London & Noe, 1997; Noe et al., 1990). London’s (1993) instrument was determined to have item reliabilities exceeding .80. In addition, the London (1993) and Noe et al. (1990) measurements were found to have moderate convergent validity for each career motivation construct (London & Noe, 1997).

Although no studies have been conducted using instruments measuring London’s (1983) three constructs of career motivation to assess the relationship between career motivation and academic success, the instrument seems to be a validated assessment tool that serves the purposes of the present study. Previous studies have used only the declaration of a career goal or reported certainty of academic major as the measurement for career-related motivation. London (1993) and Noe et al. (1997) provide instruments that are better validated and researched methods for measuring career motivation.
Factors Involved in the Career Decision-Making Process

While it is important to understand how career goals affect students, college advisors and counselors would also be better able to improve their services if they are aware of the factors involved in the career decision-making process of students. In a study of 409 undergraduate students at a Southeastern university, Keller, Piotrowski, and Rabold (1990) investigated determinants of career choices. The researchers administered a survey consisting of eight questions regarding career choice and factors involved in following up the decisions. Keller et al. found that the foremost determinant of career choice for 45% of the participants was personality fit. Other highly ranked determinants were income potential and financial security (Keller et al.). In regards to factors involved in following up the decisions, meeting people in the field was the most highly ranked with 40% of all responses (Keller et al.).

Keller et al. (1990) arrived at several sound conclusions from the study. Perhaps the most applicable to higher education administrators are the factors involved in following up career decisions. College advisors and career counselors may be better prepared to serve students with knowledge of the most effective ways to help students follow through on their career decisions. However, while Keller et al. determined reasons for choice of career and methods of reinforcing career decisions, the study offered little insight into how the decision is made. The study could be expanded to include an assessment of factors that influence the actual decision-making process.

In contrast, Brown (2004) performed a qualitative study with 18 graduates of a female liberal arts college. Participants were selected according to a maximum variation sampling so that diverse backgrounds of majors, ethnicities, and use of career center were
represented (Brown). Brown conducted interviews with the participants to determine their postgraduate decision-making processes. Interview transcripts were analyzed for concepts and sorted into the larger categories of orientation to learning, experiences, interactions with others, and environment (Brown). Under the orientation to learning category, the major concepts identified were precollege biographies/values, personal identities/qualities, and attitudes towards college (Brown). The most prominent concepts in the experiences category were acquisition of a new perspective, discovery of key interests, self-reflection, challenge, and applicability (Brown). In regards to interactions with others, the most frequently discussed concepts were support and empowerment, respect of others’ opinions, feedback, and being influential to others (Brown). Finally, the foremost concepts related to the college environment were challenge and support (Brown). Brown found that the post-college decision-making process involved the steps of taking stock, evaluating emerging criteria for decision-making, making on-board adjustments, becoming connected to opportunities, and narrowing options to make a decision.

Brown’s study (2004) differed greatly from Keller et al.’s (1990) in the both the methodology and subjects involved. Brown’s study (2004) was perhaps more thorough because it employed a qualitative approach. Brown was able to gather more information on the factors influencing career choice as well as the actual decision-making process. However, Brown focused only on the postgraduate career decision-making process of students. Further study could be done in a coeducational college with students still in their undergraduate years.
Theoretical Framework

According to the theoretical base, behavior can be purposively regulated in response to motivation and goals. If that is the case, then it stands to reason that, in a college environment, goals related to a career or major may be able to help an individual regulate behavior in regards to academic tasks. It is imperative for higher education administrators to take initiatives in helping students succeed academically; accordingly, the current study may have significant implications for administrators involved in advising and career services. In addition, the theoretical base emphasizes self-efficacy and outcome expectations as important antecedents to the development of motivation and goals. Therefore, the development of career goals may not necessarily be based solely on interest in a subject, which is usually overemphasized in computerized career inventories and other methods typically used by career and academic advising centers. The career decision-making process of students is essential for college advisors and counselors to understand, if they truly want to help facilitate career goal development. The present study is important in determining if there is a relationship between career-related motivation and academic success as well as ascertaining the factors that influence the career decision-making process of students.

Many studies have been conducted in the past regarding career-related motivation and outcomes such as persistence. However, very few studies have been done to assess the relationship between career-related motivation and academic success, and the existing studies yield mixed and inconclusive results. Not only so, but the studies are primarily focused on specific groups of students, usually underclassmen. Therefore, similar studies need to be done with a general population of undergraduates. Moreover, in past studies,
career motivation has not been clearly defined or measured. In future studies, it is necessary for the measurement of career-related motivation to be well-defined and validated in order for the results and conclusions to be regarded as sound. All previous studies utilized GPA as a measurement of academic success, and it seems to be the most accurate and objective method of assessing achievement. The current study builds upon past studies by expanding the population and refining the measurement and definition of the independent variable, career-related motivation.
CHAPTER III
METHODOLOGY

Context of the Study

The study was conducted at Rowan University in Glassboro, NJ. Founded in 1923, Rowan University began as a local state college for teachers but has since transformed into a regional university (Rowan University Fact Sheet, 2008). Rowan University is a medium-sized public university currently enrolling more than 10,000 full and part-time students (Rowan University Fact Sheet). Seven colleges (business, communication, education, engineering, fine and performing arts, liberal arts and sciences, and professional and continuing education) offer 57 undergraduate majors, seven certification programs, 38 master’s degree programs, 19 graduate certification programs, and one doctoral program in educational leadership (Rowan University Fact Sheet).

As of Spring 2009, Rowan University’s the undergraduate student body of 8,465 consisted of 1,286 freshmen, 1,588 sophomores, 2,353 juniors, and 3,238 seniors (Institutional Research and Planning: 2009 Resource Book, 2009). The greatest number of majors were in the College of Liberal Arts and Sciences with 40.8% of undergraduate students, followed by the College of Education with 17.6%, the College of Business with 12.0%, and the College of Communication with 11.9% (Institutional Research and Planning: 2009 Resource Book). Undeclared students accounted for 6.8% of the
undergraduate student population (Institutional Research and Planning: 2009 Resource
Book).

The class average grade point average (GPA) as of September 2008 was 2.32 for
freshmen, 2.91 for sophomores, 3.01 for juniors, and 3.16 for seniors (Institutional
Research and Planning: 2008 Resource Book, 2008). By college, the highest average
GPA was 3.31 for the College of Education, followed by 3.25 for the College of Fine and
Performing Arts, and 3.14 for the College of Communication (Institutional Research and
Planning: 2008 Resource Book). Students who were undeclared had an average GPA of

At Rowan University, general career planning and guidance is offered through the
Career and Academic Planning (CAP) Center. Services provided are typically geared
towards undecided students and include academic advising, job search assistance, guided
self-assessments, web-based job banks, resume preparation help, various workshops, and
internship and career fairs (Rowan University Career and Academic Planning Center,
2008).

Population and Sample Selection

The target population for this study was all current Rowan University
undergraduate students during the 2008-2009 academic year. The convenience sample
consisted of students who were present at the Rowan University student center, residence
halls, and classes at the time the survey was distributed. A sample size of 300 subjects
was targeted, thus, the objective was to have at least 210 surveys completed to reach a
response rate of 70.0%. A total of 247 were distributed and returned, yielding an actual
response rate of 82.3%.
Instrumentation

The instrument used in this study was a paper survey (Appendix B) that consisted of three sections. The first section asked for demographic information, the second asked for Likert-style ratings of career motivation, and the final section asked for Likert-style ratings of possible influences on career choice. The survey consisted of five demographic questions and 21 Likert-style items.

The first section asked for demographic information that served to identify the class year and age of the students. In addition, academic major, time that the major was declared, intended occupation/job, and GPA were asked. Transfer students were also asked to identify themselves and the class year in which they transferred, in order to account for possible differences between the results and findings of transfer students and traditional students.

The Likert-style items for the second section were adapted from assessments of career motivation developed by London (1983; 1993), who defined career motivation using the three constructs of career identity, insight, and resilience. London (1983) intended for the instrument to be administered to assess career motivation among employees, so it has been adapted in the current study to be more relevant to college students. London's (1993) original survey of 17 items was found to have high inter-item reliabilities above .80. Furthermore, the instrument showed high test-retest reliability as well as construct validity with low correlations between the differing constructs of career identity, insight, and resilience (London, 1993).

In the third section, the Likert-style items used were taken from a survey used in Tay's study (1996). Tay used a survey instrument, called the Social and Career
Questionnaire (SCQ), to assess factors in the career choice of Asian international students. Although the survey was developed with certain items that addressed the emphasis of familial and parental influence in Asian culture, it also included items addressing career resources, career awareness, and personal interests that can be considered cross-national (Tay). Both types of items were suitable for the purposes of the current study. The SCQ was developed for the purposes of Tay’s study in conjunction with faculty members with experience in career counseling. It was tested for content validity through an item analysis, an exploratory factor analysis, and feedback from a pilot test given to four students.

The survey for the present study was tested on three students currently enrolled in Rowan University. The students were able to give feedback on the survey’s readability and validity. Suggestions were given in regard to the wording and formatting of the questions, and the survey was modified accordingly with respect to the feedback. None of the students took longer than 10 minutes to complete the survey. Using Statistical Package for the Social Sciences (SPSS) computer software, the reliability coefficient of the Likert-type items was calculated to be .715 for the survey’s second section measuring career motivation, which is considered to be moderately strong, and .868 for the third section assessing career influences, which is considered to be very strong.

Data Collection

Following approval from the Institutional Review Board of Rowan University (Appendix A), surveys were distributed to students present in various locations on campus in February and March of 2009, including the Rowan University student center, Mimosa Hall, Laurel Hall, Evergreen Hall, Triad Apartments, and three classes. An
incentive of a snack item was offered for the completion of a survey. Subjects finished the surveys immediately after they were received and returned them directly to the researcher. No identifying information was collected in the responses.

Data Analysis

The study addressed three research questions. In addressing the first research question, information was collected from the third section of the survey regarding possible influences on the development of career and academic goals. Data were studied using descriptive statistics and frequency distributions, computed using Statistical Package for the Social Sciences (SPSS) computer software.

For the second research question, the independent variable in this study was the career motivation of Rowan University undergraduate students. Information regarding this variable was collected in the second section of the survey using Likert-style statements on career motivation. The dependent variable was academic success, as measured by GPA, which was self-reported in the first section of the survey. Variations in the career motivation measures and GPA were analyzed using SPSS. Data were analyzed in regard to the second research question using descriptive statistics, frequency distributions, and Pearson correlations.

The data analysis for the third research question was similar to the second in terms of independent and dependent variables, except the data were split into groups based on certain demographics of the subjects (academic year and major college). The independent and dependent variables remained the same. Following each grouping, variations in the career motivation measures and GPA were analyzed using SPSS to determine possible significant relationships. For the third research question, data were
again analyzed using descriptive statistics, frequency distributions, and Pearson product moment correlations.
CHAPTER IV

FINDINGS

Profile of the Sample

The subjects for this study were selected from all undergraduate students at Rowan University, Glassboro, NJ, in February and March of 2009. Of the 300 surveys planned to be distributed, 247 were actually distributed and returned, resulting in a response rate of 82.3%.

Table 4.1 contains the demographic data of the subjects, including academic year, type of enrollment (transfer or non-transfer), major college, and time of declared major, as measured at the beginning of the Spring 2009 semester. Most students surveyed were freshmen (32.4%), enrolled as freshmen (68.8%), belonged to the college of liberal arts and sciences (36.4%), and declared their major at the time that they enrolled as freshmen (45.3%).
Table 4.1

*Demographic Data: Academic Year, Type of Enrollment, Major College, and Time of Declared Major*

<table>
<thead>
<tr>
<th></th>
<th>( f )</th>
<th>( % )</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Academic Year</strong> (( N = 247 ))</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Freshmen</td>
<td>80</td>
<td>32.4</td>
</tr>
<tr>
<td>Sophomore</td>
<td>46</td>
<td>18.6</td>
</tr>
<tr>
<td>Junior</td>
<td>65</td>
<td>26.3</td>
</tr>
<tr>
<td>Senior</td>
<td>43</td>
<td>17.4</td>
</tr>
<tr>
<td>5(^{th}) year and above</td>
<td>12</td>
<td>4.9</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>0.4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Type of Enrollment</strong> (( N = 247 ))</th>
<th>( f )</th>
<th>( % )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshmen (Non-Transfer)</td>
<td>170</td>
<td>68.8</td>
</tr>
<tr>
<td>Transfer</td>
<td>77</td>
<td>31.2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Major College</strong> (( N = 247 ))</th>
<th>( f )</th>
<th>( % )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business</td>
<td>22</td>
<td>8.9</td>
</tr>
<tr>
<td>Communication</td>
<td>31</td>
<td>12.6</td>
</tr>
<tr>
<td>Education</td>
<td>66</td>
<td>26.7</td>
</tr>
<tr>
<td>Engineering</td>
<td>15</td>
<td>6.1</td>
</tr>
<tr>
<td>Fine and Performing Arts</td>
<td>6</td>
<td>2.4</td>
</tr>
<tr>
<td>Liberal Arts and Sciences</td>
<td>90</td>
<td>36.4</td>
</tr>
<tr>
<td>Undeclared (No College)</td>
<td>17</td>
<td>6.9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Time of Declared Major</strong> (( n = 220 ))</th>
<th>( f )</th>
<th>( % )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enrollment as Freshman</td>
<td>112</td>
<td>45.3</td>
</tr>
<tr>
<td>Enrollment as Transfer</td>
<td>45</td>
<td>18.2</td>
</tr>
<tr>
<td>Freshmen Year</td>
<td>19</td>
<td>7.7</td>
</tr>
<tr>
<td>Sophomore Year</td>
<td>29</td>
<td>11.7</td>
</tr>
<tr>
<td>Junior Year</td>
<td>13</td>
<td>5.9</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>0.9</td>
</tr>
</tbody>
</table>
Analysis of the Data

Research Question 1: What factors influence the development of career and academic goals?

The influences of career and academic goals were measured using Likert-style statements. Subjects were asked to answer yes or no to a statement and rate its influence only if they answered affirmatively. The most influential experiences for Rowan University undergraduates were conversations with working professionals and professional work experience related to the major or career choice (see Table 4.2). The least influential experiences were the use of a computerized career information system and discussions of career plans with friends (see Table 4.2).
## Table 4.2

**Influences on the Development of Career and Academic Goals**

*Very Influential = 5, Between Very Influential and Moderate = 4, Moderate = 3, Between Moderate and Not Influential = 2, Not Influential = 1*

<table>
<thead>
<tr>
<th>Statement</th>
<th>Very Influential</th>
<th>Between Very Influential and Moderate</th>
<th>Moderate</th>
<th>Between Moderate and Not Influential</th>
<th>Not Influential</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have had conversations with working professionals in the academic major or career I am studying. <em>n</em> = 182, <em>M</em> = 4.07, <em>SD</em> = 0.902</td>
<td>67 27.1</td>
<td>70 28.3</td>
<td>38 15.4</td>
<td>4 1.6</td>
<td>3 1.2</td>
</tr>
<tr>
<td>I have professional work experience related to my major or career choice. <em>n</em> = 120, <em>M</em> = 4.06, <em>SD</em> = 0.901</td>
<td>43 17.4</td>
<td>48 19.4</td>
<td>24 9.7</td>
<td>3 1.2</td>
<td>2 0.8</td>
</tr>
<tr>
<td>My performances and grades in courses I took suggested what major or occupation I might be good at. <em>n</em> = 142, <em>M</em> = 4.01, <em>SD</em> = 0.871</td>
<td>44 17.8</td>
<td>63 25.5</td>
<td>29 11.7</td>
<td>4 1.6</td>
<td>2 0.8</td>
</tr>
<tr>
<td>A professor or teacher whom I respect told me what major or occupation I might be good at. <em>n</em> = 116, <em>M</em> = 3.82, <em>SD</em> = 1.116</td>
<td>37 15.0</td>
<td>40 16.2</td>
<td>27 10.9</td>
<td>5 2.0</td>
<td>7 2.8</td>
</tr>
<tr>
<td>When I made my career choice, I believed I had an obligation to respect my family's wishes as to what major or occupation they thought was best for me. <em>n</em> = 68, <em>M</em> = 3.72, <em>SD</em> = 1.077</td>
<td>18 7.3</td>
<td>24 9.7</td>
<td>18 7.3</td>
<td>5 2.0</td>
<td>3 1.2</td>
</tr>
<tr>
<td>I have used career reference books or websites to know more about a particular major or occupation. <em>n</em> = 101, <em>M</em> = 3.69, <em>SD</em> = 1.027</td>
<td>24 9.7</td>
<td>36 14.6</td>
<td>31 12.6</td>
<td>6 2.4</td>
<td>4 1.6</td>
</tr>
<tr>
<td>I have been to the CAP Center to get help in deciding what major or occupation to pursue. <em>n</em> = 60, <em>M</em> = 3.63, <em>SD</em> = 1.275</td>
<td>19 7.7</td>
<td>17 6.9</td>
<td>12 4.9</td>
<td>7 2.8</td>
<td>5 2.0</td>
</tr>
<tr>
<td>I know which academic majors and careers have good, prosperous futures. <em>n</em> = 202, <em>M</em> = 3.53, <em>SD</em> = 1.214</td>
<td>47 19.0</td>
<td>70 28.3</td>
<td>47 19.0</td>
<td>19 7.7</td>
<td>19 7.7</td>
</tr>
<tr>
<td>I have used a computerized career information system (e.g. DISCOVER, MyRoad, Strong Interest Inventory) that told me what major or occupation I might enjoy. <em>n</em> = 54, <em>M</em> = 2.93, <em>SD</em> = 1.385</td>
<td>8 3.2</td>
<td>13 5.3</td>
<td>12 4.9</td>
<td>9 3.6</td>
<td>12 4.9</td>
</tr>
<tr>
<td>I discussed career plans with my friends. <em>n</em> = 196, <em>M</em> = 2.83, <em>SD</em> = 1.162</td>
<td>15 6.1</td>
<td>35 14.2</td>
<td>86 34.8</td>
<td>22 8.9</td>
<td>38 15.4</td>
</tr>
</tbody>
</table>
Research Question 2: For undergraduate students at Rowan University, is there a significant relationship between career-related motivation and academic success in college?

The independent variables of the career motivation constructs were measured through 11 Likert-style statements. The dependent variable of academic success was measured by self-reported GPA. A Pearson product moment correlation was calculated for the relationship between the career motivation items and GPA. Table 4.3 shows the resulting significant relationships, which were all very weak in strength. The statements that were most positively correlated with GPA were “I have a specific plan for achieving my career goal” ($r = .241, p < .01$) and “I have taken classes that will help me obtain my career goal” ($r = .241, p < .01$). Overall, for the sample of Rowan undergraduate students, eight out of the 11 career motivation statements were weakly correlated with GPA (see Table 4.3).

Table 4.3

<table>
<thead>
<tr>
<th>Career Motivation Construct</th>
<th>Statement</th>
<th>$r$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insight</td>
<td>I have a specific plan for achieving my career goal.</td>
<td>.241**</td>
<td>.000</td>
</tr>
<tr>
<td>Identity</td>
<td>I have taken classes that will help me obtain my career goal.</td>
<td>.214**</td>
<td>.001</td>
</tr>
<tr>
<td>Insight</td>
<td>I have a specific career goal.</td>
<td>.196**</td>
<td>.002</td>
</tr>
<tr>
<td>Identity</td>
<td>I have looked for internships or jobs related to my major or career goal.</td>
<td>.192**</td>
<td>.003</td>
</tr>
<tr>
<td>Resilience</td>
<td>I continue to pursue my major or career goal even though I know that the process may be long or require extra schooling.</td>
<td>.186**</td>
<td>.004</td>
</tr>
<tr>
<td>Resilience</td>
<td>I continue to pursue my major or career goal despite having to take difficult classes.</td>
<td>.178**</td>
<td>.006</td>
</tr>
<tr>
<td>Insight</td>
<td>I feel I am aware of my weaknesses (things I am not so good at).</td>
<td>.169**</td>
<td>.009</td>
</tr>
<tr>
<td>Identity</td>
<td>I have joined clubs or organizations related to my major or career goal.</td>
<td>.131*</td>
<td>.042</td>
</tr>
</tbody>
</table>

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).
Research Question 3: For Rowan University undergraduates grouped by academic year and major college, are there significant relationships between career-related motivation and academic success in college?

A Pearson product moment correlation was again calculated for the relationship between the career motivation items and GPA, with the results divided into groups based on academic year and major college. Table 4.4 displays the resulting significant relationships grouped by academic year. Only the data collected on freshmen and seniors resulted in significant relationships, which were all considered weak to moderate in strength.

For the group of freshmen, the career motivation statements most positively correlated with GPA were “I have looked for internships and jobs related to my major or career goal” \( (r = .343, p < .01) \) and “I have taken classes that will help me obtain my career goal” \( (r = .307, p < .01) \). Both statements were of the career motivation construct of identity (see Table 4.4). For the group of seniors, the career motivation statements most positively correlated with GPA were “I continue to pursue my major or career goal even though I know that the process may be long or require extra schooling” \( (r = .489, p < .01) \), “I have a specific plan for achieving my career goal” \( (r = .455, p < .01) \), and “I have a specific career goal” \( (r = .404, p < .01) \). The former statement was of the career motivation construct of resilience, and the latter two statements were of the construct of insight (see Table 4.4).
### Table 4.4

**Correlations between Career Motivation Items and GPA, by Academic Year**

<table>
<thead>
<tr>
<th>Career Motivation Construct</th>
<th>Statement</th>
<th>Freshmen (n = 80)</th>
<th>Seniors (n = 41)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identity</td>
<td>I have looked for internships and jobs related to my major or career goal.</td>
<td>(r = .343)* (p = .002)</td>
<td></td>
</tr>
<tr>
<td>Identity</td>
<td>I have taken classes that will help me obtain my career goal.</td>
<td>(r = .307)* (p = .006)</td>
<td></td>
</tr>
<tr>
<td>Resilience</td>
<td>I continue to pursue my major or career goal despite having to take difficult classes.</td>
<td>(r = .289)** (p = .009)</td>
<td>(r = .489)** (p = .001)</td>
</tr>
<tr>
<td>Insight</td>
<td>I have a specific plan for achieving my career goal.</td>
<td>(r = .287)** (p = .010)</td>
<td>(r = .455)** (p = .003)</td>
</tr>
<tr>
<td>Insight</td>
<td>I feel I am aware of my weaknesses (things I am not so good at).</td>
<td>(r = .282)* (p = .012)</td>
<td>(r = .404)** (p = .009)</td>
</tr>
<tr>
<td>Resilience</td>
<td>I continue to pursue my major or career goal even though I know that the process may be long or require extra schooling.</td>
<td>(r = .267)* (p = .017)</td>
<td>(r = .314)* (p = .045)</td>
</tr>
<tr>
<td>Insight</td>
<td>I feel I am aware of my strengths (things I do well).</td>
<td>(r = .246)* (p = .028)</td>
<td></td>
</tr>
<tr>
<td>Insight</td>
<td>I have a specific career goal.</td>
<td>(r = .232)* (p = .038)</td>
<td></td>
</tr>
</tbody>
</table>

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).

Table 4.5 presents the resulting significant relationships for the students grouped by major college. Only the data collected on the colleges of business, communication, and engineering resulted in moderate to strong correlations (see Table 4.5). The data on the group of undeclared students resulted in several moderate to strong significant relationships as well (see Table 4.5).
The data on the College of Engineering students resulted in the strongest significant relationship, with the career motivation statement “I have a specific plan for achieving my career goal”, under the construct of insight, being the most positively correlated with GPA \((r = .796, p < .01)\). For the group of undeclared students, the career motivation statements most positively correlated with GPA were “I have changed my major or career goal based on new information I have discovered about myself” \((r = .733, p < .01)\) and “I have joined clubs or organizations related to my major or career goal” \((r = .524, p < .05)\), which are of the identity and insight constructs, respectively. The statements most positively correlated with GPA for the College of Communication students were “I have joined clubs or organizations related to my major or career goal” \((r = .543, p < .01)\) and “I have taken classes that will help me obtain my career goals” \((r = .436, p < .05)\), which are both under the constructs of identity. Finally, the only statement positively correlated with GPA for the College of Business students was “I continue to pursue my major or career goal even though I know that the process may be long or require extra schooling” \((r = .512, p < .05)\), on the construct of resilience.
Table 4.5

**Correlations between Career Motivation Items and GPA, by Major College**

<table>
<thead>
<tr>
<th>Career Motivation Construct</th>
<th>Statement</th>
<th>$r$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resilience</td>
<td>I continue to pursue my major or career goal even though I know that the process may be long or require extra schooling.</td>
<td>.512*</td>
<td>.015</td>
</tr>
<tr>
<td>Communication ($n = 29$)</td>
<td>I have joined clubs or organizations related to my major or career goal.</td>
<td>.543**</td>
<td>.002</td>
</tr>
<tr>
<td>Engineering ($n = 15$)</td>
<td>I have a specific plan for achieving my career goal.</td>
<td>.796**</td>
<td>.000</td>
</tr>
<tr>
<td>Undeclared ($n = 17$)</td>
<td>I have changed my major or career goal based on new information I have discovered about myself.</td>
<td>.733**</td>
<td>.001</td>
</tr>
<tr>
<td>Identity</td>
<td>I have joined clubs or organizations related to my major or career goal.</td>
<td>.524*</td>
<td>.031</td>
</tr>
<tr>
<td>Insight</td>
<td>I feel I am aware of my strengths (things I do well).</td>
<td>.494*</td>
<td>.044</td>
</tr>
</tbody>
</table>

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).
CHAPTER V
SUMMARY, DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

Summary of the Study

This study examined the relationship between career motivation and GPA of undergraduate students at Rowan University, Glassboro, NJ. In addition, the study assessed the possible sources of influence on the career and academic goals of students. The relationship between career motivation and GPA was also studied for each academic year and major college.

A survey consisting of three sections was distributed to students in the Rowan student center, four residence halls on campus, and three classes in February and March of 2009. The first section asked for demographic information, including self-reported GPA, and the second and third sections asked for Likert-style ratings of attitudes towards career motivation statements and possible influences on career choice. Of the 300 surveys intended to be distributed, 247 subjects received and returned the survey, resulting in a response rate of 82.3%.

The data gathered from the survey responses were analyzed using frequency distributions, descriptive statistics, and Pearson product moment correlations. Variations in career motivation and GPA of students were analyzed using Statistical Package for the Social Sciences (SPSS) computer software.
Discussion of the Findings

Research Question 1: What factors influence the development of career and academic goals?

This study sought to ascertain possible influences on the development of career and academic goals in Rowan University undergraduate students. It was found that the most influential factors were conversations with working professionals, professional work experience, and performance and grades in related courses. These results are consistent with the findings of the study conducted by Keller, Piotrowski, and Rabold (1990), which determined that meeting people in the field was the most highly ranked determinant of career choice by 40% of all respondents.

Interestingly, ratings of influence on goals were average to low for visiting Rowan University’s Career and Academic Planning (CAP) Center and using the computerized career inventories offered there. These results may suggest that career centers on campus might be most helpful by providing avenues for students to obtain internships or have discussions with professionals, rather than relying on rote career counseling or assessments. Discussing career plans with friends ranked as the lowest influential factor in the development of career and academic goals. Perhaps this finding is indicative that students at Rowan generally base their career and academic decisions more on the objective knowledge of information from professionals and firsthand experiences rather than opinions from peers or the need to conform. Moreover, this may imply that students generally endeavor to make decisions independently, as neither family obligations nor discussions with friends were rated as highly influential, but conversations with professionals and personal experiences were.
Research Question 2: For undergraduate students at Rowan University, is there a significant relationship between career-related motivation and academic success in college?

Although eight out of the 11 career motivation statements resulted in a significant relationship with GPA, all of the correlations were considered weak. The career motivation statements that were correlated with GPA were of all three constructs: insight, identity, and resilience. The statements with the strongest correlation to GPA were on the career motivation constructs of insight and identity and involved having a specific plan of achieving a career goal and taking classes that will help the student progress toward the career goal. These results are somewhat consistent with Graunke and Woosley’s study (2005) that determined a significant relationship between commitment to major and GPA among sophomores at a Midwestern public university. Possessing a plan of achieving a career goal and taking classes related to the career goal usually is indicative of committing to a major, so these findings support those of Graunke and Woosley’s study (2005).

As a whole, career motivation was weakly correlated with GPA for Rowan students in the 2008-2009 academic year. Dennis, Phinney, and Chuateco (2005) also found a weak positive correlation between career/personal motivation and GPA among first generation, minority students. Both of these results suggest that career-related motivation does play a role in the academic success of students, albeit most likely not a primary role. There are many other predictors of academic success, including factors that cannot be controlled, like socioeconomic status and high school academic performance.
These other variables were unaccounted for in the study and may be extraneous variables that also have a significant impact on academic success, thus interfering with the purity of the study. However, the weak positive correlations of most of the career motivation statements with GPA suggest that it still has an impact on academic success and surely cannot be a detriment to succeeding academically in college. The extraneous variables affecting academic success are generally static variables that cannot be changed. Career motivation, as shown by the results of career and academic goal influences, is a factor determining academic success that can be changed and influenced. Therefore, even with weak correlations, the findings of this study show that career-related motivation is a factor conducive to academic success and should not be disregarded.

Research Question 3: For Rowan University undergraduates grouped by academic year and major college, are there significant relationships between career-related motivation and academic success in college?

As stated already, there exist many extraneous variables that impact academic success in addition to the career motivation constructs measured in this study. There may be different extraneous variables for the individual academic years and major colleges, for each time period of a student’s academic career and each type of major is associated with different challenges to achieving academic success. Moreover, in regards to particular majors, perhaps academic success in itself may not necessarily be imperative for success in certain careers. Thus, self-regulation of academic behavior may not be seen as necessary to achieve career goals even when motivated.

In analyzing freshmen and their degree of career motivation, it was discovered that this group of students’ attitudes towards career identity were moderately correlated
with academic success. These findings were inconsistent with those of Hull-Banks et al. (2005), who determined no significant relationships between career goals and academic performance of freshmen. However, Hull-Banks (2005) did not use a validated measure of career motivation, rather, the researchers gathered data on career goals by asking the open-ended question, “What is your career goal?” Thus, the findings of the current study may be more valid than those of Hull-Banks (2005), since a reliable measure of career motivation was utilized.

The statements of career identity that were correlated with academic success were associated with searching for internships and jobs related to a career goal and taking classes that help in obtaining a career goal. This may be indicative that freshmen who are proactive in pursuing their career goal by actively looking for experience and taking relevant classes are more likely to do better academically. These findings suggest that, perhaps, freshmen would do better if they were encouraged to take relevant classes as well as finding relevant internships and jobs, rather than having to take general education courses and not necessarily being pushed to obtain work experience in the beginning of college.

Conversely, for the group of students in their senior year, it was found that career resilience and insight items were the constructs moderately correlated with GPA. The particular statements that resulted in a correlation were related to persistence in a major or career goal despite the knowledge that the process may be long, having a specific plan for achieving a career goal, and having a specific career goal. Students in their senior year are closer to graduating and the need to obtain a job. Hence, the stronger their career goal and plan for achieving the career goal, the more motivated they may be to
perform better academically. On the other hand, because academic success is measured by cumulative GPA, perhaps the high ratings of insight and resilience reflect students who have persisted in their major and career goal throughout college and have maintained a solid GPA as well. These results suggest the need for students to be supported throughout their college career, especially in their chosen major, in order to maintain the perseverance to continuing succeeding academically.

Grouped by major college, certain types of students’ ratings of career motivation constructs were strongly to very strongly correlated with academic success. In the College of Engineering, students’ ratings of having a specific plan for achieving their career goal, in the construct of insight, had a very strong relationship with GPA. This may be indicative of the need to possess a clear plan of becoming an engineer in order to be motivated enough to be successful in the major. Therefore, it may be helpful for administrators in the College of Engineering to facilitate this type of planning to better motivate their students towards academic success.

For undeclared students, the construct of insight related to changing goals based on new information discovered about oneself was most strongly correlated with GPA. Joining clubs or organizations related to a career goal on the construct of identity and being aware of strengths on the construct of insight were also moderately strong determinants of academic success. Perhaps it is those students that are most reflective and proactive, even without having made a clear choice in a major, have the best propensity for self-regulating their behavior to succeed academically. College administrators should cultivate this behavior by providing avenues of self-discovery and new knowledge of career and major options.
Students with majors in the communications college displayed a moderately strong relationship between the career motivation construct of identity and GPA. The statement regarding the identity construct involved joining clubs organizations related to a career goal. These findings may suggest that students in communications are more likely to be successful in courses if they are also motivated to engage in the college by pursuing extracurricular activities associated with their major. The communications college may help build more academically successful students by providing increased opportunities for extracurricular activities in the field.

Finally, business majors showed a moderately strong relationship between the construct of resilience, as related to persistence in a major or career goal even when the process may be long or require extra schooling, and GPA. This result could demonstrate that motivation to persist even in the face of difficulties is a necessary quality to have to succeed academically in the business school. Many times, a career in business requires further education beyond an undergraduate degree, and it may be possible that those students willing to persist over a long period of time also have the attributes necessary to succeed in their business courses. These results suggest that the College of Business as well as career services may be helpful by providing the necessary support to prepare for extra schooling as well as to develop action plans for each type of business career.

Conclusions

Based on the findings of this study, it is apparent that career motivation does impact the academic success of Rowan University undergraduate students, although the strength of the impact does vary depending on many additional factors. In particular, a strong relationship exists for undeclared students and those in the College of Engineering.
between the construct of career insight and GPA. This study validates findings in previous studies that commitment to major and career/motivation affect academic success, as measured by GPA (Graunke & Woosley, 2005; Dennis et al., 2005). Furthermore, the validity of the measurements in the present study was much more apparent than that of previous studies. Past research on the relationship between career goals and GPA only employed the self-reporting of a career goal or major as the measure for career motivation, with no examination of reliability or validity. Thus, the results of the current study have important implications for higher education administrators to consider in developing methods for increasing academic success by cultivating career and academic goals in students.

Career and academic goals seem to have an impact on the academic success of students, and it is a platform on which higher education administrators, counselors, and faculty alike can influence student motivation and success. Unlike other variables that are fixed by the time students reach college and which higher education administrators have little control over, motivation is a variable that can be influenced through various methods and programs. Especially in a college environment, where many students enroll in order to better define their goals, it is the ideal setting to help students develop such motivation. In doing so, students will be better equipped to achieve their goals, and colleges will also benefit with higher persistence and graduation rates and more academically engaged students that can contribute to the richness of the college culture.

Although the significant correlations between career motivation and academic success were generally weak, it still supports the idea that career-related goals are instrumental in the success of students in college. Career development theories (Deci,
Vallerand, Pelletier, & Ryan, 1991; Lent & Brown, 1996; Miller & Brockmann, 2004) propose that goals and motivation lead to self-regulation and determined behavior. This study focused on academic success as defined by GPA, which is a very narrow measure of the possible behavior that students could deem necessary to achieve their career or academic goals. The results imply that career motivation is one of many factors that influence GPA. Conversely, the findings also intimate that there are many other ways for students to self-regulate behavior in order to accomplish goals. Students may not even view grades as an essential means to succeeding in college or attaining goals. Academic success is most objectively defined by GPA and served the purposes of this study, but perhaps a broader definition and measurement should be developed to further investigate the relationship between career motivation and success in college.

Recommendations for Practice

The following suggestions for practice are based on the findings and conclusions of the study:

1. Career and academic advising services could be more successful in helping students develop career and academic goals through creating events in which students can have discussions with working professionals and opportunities in which students can obtain professional work experience.

2. Higher education administrators and faculty could be able to facilitate academic success in students by providing and encouraging opportunities for career and academic goal development.
3. Perhaps general education courses can be designed to be more relevant to certain career and major choices, so that students feel that they are progressing towards their goals through the courses they take.

4. Career services can improve their support of the internship and job search for undergraduate students, so that they are able to gain knowledge of various career fields as well as experience in the career goals they already possess.

5. Each academic department should provide the necessary support for students to keep them engaged and proactive in their chosen major.

6. Exploratory classes can be developed to introduce undecided students to different career fields and academic departments.

7. Career services as well as individual academic departments can hold workshops on developing action plans to pursue particular career goals, rather than just focusing on choosing a career goal.

Recommendations for Further Research

The following suggestions for further research are based on the findings and conclusions of the study:

1. The study should be expanded to larger populations to determine if the results can be replicated.

2. The study should focus on certain groups of students, such as those in specific academic years and majors, to determine the best ways to increase academic success in different times of a student’s college career and in various academic departments.
3. The study could be conducted to take into account the extraneous variables of high school academic record, SAT scores, socioeconomic status, etc., so that methods can be determined to develop a more comprehensive program of increasing academic success in students.

4. The study could be expanded to include broader definitions and measurements of success in college.
REFERENCES


APPENDIX A

Institutional Review Board Approval Letter
December 17, 2008

Freda Yeh
320 W Branch Ave
Pine Hill, NJ 08021

Dear Freda Yeh:

In accordance with the University’s IRB policies and 45 CFR 46, the Federal Policy for the Protection of Human Subjects, I am pleased to inform you that the Rowan University Institutional Review Board (IRB) has approved your project:

IRB application number: 2009-072

Project Title: The Influence of Career-Related Motivation on Academic Success

In accordance with federal law, this approval is effective for one calendar year from the date of this letter. If your research project extends beyond that date or if you need to make significant modifications to your study, you must notify the IRB immediately. Please reference the above-cited IRB application number in any future communications with our office regarding this research.

Please retain copies of consent forms for this research for three years after completion of the research.

If, during your research, you encounter any unanticipated problems involving risks to subjects, you must report this immediately to Dr. Harriet Hartman (hartman@rowan.edu or call 856-256-4500, ext. 3787) or contact Dr. Gautam Pillay, Associate Provost for Research (pillay@rowan.edu or call 856-256-5150).

If you have any administrative questions, please contact Karen Heiser (heiser@rowan.edu or 856-256-5150).

Sincerely,

Harriet Hartman, Ph.D.
Chair, Rowan University IRB

c: Burt Sisco, Higher Education, Education Hall
APPENDIX B

Survey Instrument
Undergraduate Student Survey on Career Motivation

While your participation in this survey is voluntary and you are not required to answer any of the questions herein, your cooperation and participation are important to the success of the project and are greatly appreciated. If you choose to participate, please understand that all responses are strictly confidential and no personally identifiable information is being requested. Your completion of this survey constitutes informed consent and your willingness to participate. If you have any questions or concerns, please feel free to contact the researcher, Freda Yeh, at yeh777@students.rowan.edu or the faculty sponsor, Dr. Burton Sisco, at sisco@rowan.edu.

Please fill out the following background information.

What academic year are you currently in? .......

☐ Freshmen
☐ Sophomore
☐ Junior
☐ Senior
☐ 5th Year or above
☐ Other ________________

Were you a transfer student? .................

☐ Yes
☐ No

If so, what class year did you transfer into? .......

☐ Freshmen
☐ Sophomore
☐ Junior
☐ Senior
☐ Other ________________

What is your age? ................................

____________

What is your academic major? ................

(Write 'Undeclared' if you are undecided.)

____________

If you have a declared major, when did you declare your current major? ..............

☐ Declared when I enrolled as a freshmen
☐ Declared when I enrolled as a transfer
☐ Declared freshmen year
☐ Declared sophomore year
☐ Declared junior year
☐ Other ________________

What occupation/job do you intend to pursue after college? ................................

(Write 'Unsure' if you are undecided.)

____________

What is your GPA? ............................

____________

(Write 'Unsure' if you are undecided.)
Please rate the extent of your agreement with the following statements by circling the appropriate response. If the statement does not apply to you, please leave blank.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I have a specific career goal</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>2. I have a specific plan for achieving my career goal</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>3. I feel I am aware of my strengths (things I do well)</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>4. I feel I am aware of my weaknesses (things I am not so good at)</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>5. I have changed my major or career goal based on new information I have discovered about myself or my situation</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>6. I have looked for internships or jobs related to my major or career goal</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>7. I have taken classes that will help me obtain my career goal</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>8. I have joined clubs or organizations related to my major or career goal</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>9. I continue to pursue my major or career goals despite having to take difficult classes</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>10. I continue to pursue my major or career goal despite opposition from friends or family</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>11. I continue to pursue my major or career goal even though I know that the process may be long or require extra schooling</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>
Do you know what you want to major in or the career you want to pursue?  

- Yes  
- No

Please complete the remaining questions only if you answered "Yes" to the above question.

Indicate your choice by circling the appropriate response.

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>Moderate</th>
<th>Not Influential</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I discussed career plans with my friends.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If yes, how much did it influence your career decision?</td>
<td>5</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>2. A professor or teacher whom I respect told me what major or occupation I might be good at.</td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>If yes, how much did it influence your career decision?</td>
<td>5</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>3. When I made my career choice, I believed I had an obligation to respect my family’s wishes as to what major or occupation they thought was best for me.</td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>If yes, how much did it influence your career decision?</td>
<td>5</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>4. I have had conversations with working professionals in the academic major or career I am studying.</td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>If yes, how much did it influence your career decision?</td>
<td>5</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>5. I have used a computerized career information system (e.g. DISCOVER, MyRoad, Strong Interest Inventory) that told me what major or occupation I might enjoy.</td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>If yes, how much did it influence your career decision?</td>
<td>5</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>6. I have used career reference books or websites to know more about a particular major or occupation.</td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>If yes, how much did it influence your career decision?</td>
<td>5</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>7. I know which academic majors and careers have good, prosperous futures.</td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>If yes, how much did it influence your career decision?</td>
<td>5</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>8. I have professional work experience related to my major or career choice.</td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>If yes, how much did it influence your career decision?</td>
<td>5</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>9. My performances and grades in courses I took suggested what major or occupation I might be good at.</td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>If yes, how much did it influence your career decision?</td>
<td>5</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>10. I have been to the CAP Center to get help in deciding what major or occupation to pursue.</td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>If yes, how much did it influence your career decision?</td>
<td>5</td>
<td>4</td>
<td>3</td>
</tr>
</tbody>
</table>

Thank you for taking the time to complete this survey, have a great day!