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MAKING A MAJOR DECISION: UNDECLARED STUDENT RETENTION AND THE
PROCESS OF CHOOSING AN ACADEMIC MAJOR
AT ROWAN UNIVERSITY

by
Rachael M. Scharen

A Thesis

Submitted in partial fulfillment of the requirements of the
Master of Arts in Higher Education Administration
of
The Graduate School
at
Rowan University
May 18, 2010

Thesis Chair: Burton R. Sisco, Ed.D.

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ABSTRACT

Rachael M. Scharen
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THE PROCESS OF CHOOSING AN ACADEMIC MAJOR
AT ROWAN UNIVERSITY

2009/10

Burton R. Sisco, Ed.D.
Master of Arts in Higher Education Administration

The purpose of this study was to gain insight into the rationale of college major selection for undeclared students. The study focused on determining if undeclared students were influenced by outside resources and factors to aid in their decision to declare a particular major. Approximately 300 freshmen undecided students and five sophomore undecided students at Rowan University in January through March of 2010 participated in this study. Data on the influences and factors were collected through a survey using 31 Likert scale items and four open ended questions as well as using interviews and asking a series of questions about the major(s) of interest, why they are of interest, and how the selection process was for the participant. Demographics of the data suggest that the majority of subjects were male (60.2%) freshmen (93.4%) students. Data analysis suggests that the majority of selected students felt that having a personal interest in the program, personal skills in their area of study, and having preparation for desired career were the top reasons for choosing an academic major. Data analysis suggest that the majority of selected students felt that resources within the institution, family member encouragement, and knowing someone in the related field were the top influences for choosing an academic major.

ACKNOWLEDGMENTS

This work is dedicated to my family for their never ending support in all I do. I am so blessed to have such a caring and devoted family. My parents have raised me to always do the best I can in my endeavors, and to appreciate those who have helped along the way. I owe my father and mother everything I am today. To my sisters, Denise, Emily, and Rebecca, and to my little brother Gregory, for always bringing a smile to my face while at school to keep me level-headed and focused on the task at hand.

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CHAPTER I

Introduction

The process of selecting an academic major is an overwhelming and exciting time for any undeclared college student. The idea of choosing from dozens of possible career paths can also be a very intimidating obstacle for many to face. Many undeclared students look to different means of resources and guidance when selecting a major. Resources can vary from conducting research online, speaking with various academic college departments, or seeking advice from personal contacts and professional experts. The majority of undeclared students look to support in declaring their given major.

Statement of the Problem

Undeclared students who spend too much time contemplating over which major to choose will ultimately prolong the timeframe in which to graduate. These students who wait until the last moment to declare a major have already dedicated their time and finances to previous semesters with a high likelihood that general course will not count toward their chosen major. Rather, additional time and money will be spent by these students, and thus they become frustrated with their college's education. This frustration could result in students transferring to another institution that will honor these course, or withdrawing from college altogether. This loss can greatly impact students and their future career endeavors.

Purpose of the Study

The purpose of this study was to gain insight into the rationale of college major selection for undeclared students by determining if students are influenced by outside resources to aid in their decision to declare a particular major. Of related interest was learning about the major factors of choosing a major at Rowan University.

Significance of the Study

This study examined the various amounts of influence different factors had on an undeclared college student when choosing a major. The findings of this study could be beneficial and provide insight for college personnel working in career and academic services based on learning about different measures the undeclared students at Rowan University and how their services could be enhanced to better this process for students. This study could also help the undeclared students of Rowan University because they may receive insight on their own decision making experience and reflect on their journey of choosing a college major.

Assumptions and Limitations

This survey was administered in the 2010 spring semester to a convenient group of college freshmen students who were currently undeclared at Rowan University in Glassboro, New Jersey. Only those freshmen who returned the survey were included in the study. It is assumed that all students who completed this survey made the decision to declare a chose major of their own *free will* and answered the questions truthfully. Findings in this study were limited to self reporting survey of the degree of influence different factors played in the students' major choice selection process. There is also

potential for researcher bias while conducting this study through various interactions with the college freshmen students from the Career and Academic Planning Center and through the residence halls.

Operational Definitions

1. Deciding College Student: The term used to describe the students who are deciding on a major in college (McDaniels Carter, Heinzen, Candrl, & Wieberg, 1994).
2. Freshmen Students: Rowan University full-time undergraduate freshmen students residing in Chestnut Hall during the spring 2010 academic term.
3. Influence: A student who is being influenced in regards to the academic major selection process; can be factored by parents, siblings, friends, extended family, peers, faculty, and high school staff.
4. Sophomore Students: Rowan University full-time undergraduate sophomore undeclared students residing in Edgewood Park Apartments during the spring 2010 academic term.
5. The Decision-Making Process: Five different ways deciding college students reach a decision. There are rational decision makers, intuitive, dependent, avoidant, and spontaneous decision makers.

Research Questions

The study sought to address the following research questions:

1. What are the driving reasons that influenced selected undecided freshmen and sophomore students to declare a particular major?

2. What are the driving sources of information that influenced selected undecided freshmen and sophomore students to declare a particular major?
3. Is there a significant relationship between the reasons that influenced selecting a major and the demographic variables of gender, college, class level, and number of times major is changed?
4. How confident are students in making the decision to declare their chosen academic major?
5. Are students satisfied with their declared academic major?

Overview of the Study

Chapter II provides a review of scholarly literature related to the study including insight into the processes in which deciding college students declare their major.

Chapter III describes the study methodology and the procedures used in the study. The following details are discussed in the chapter: the context of the study, the population of the sample selection, demographics, instruments used for the data collection, the data collection process, and an analysis of the data collected.

Chapter IV presents the results of the study. This chapter focuses on addressing the research questions stated in the introduction of the study. Narratives as well as statistical analysis are used to summarize the data in this chapter.

Chapter V summarizes and also discusses the significant findings of the study, including conclusions and recommendations for practice and further study.

CHAPTER II

Review of the Literature

Declaring a Major as a “Deciding” College Student

As undeclared students enter college, their first big decision is what their major will be for the next four to five years. According to McDaniels, Carter, Heinzen, Candrl, and Wieberg (1994) nationally there are about 77% of students who are deciding on a major in college. The term “deciding” is currently used to describe the students who are determining which academic college major is for them. The term originally was called the “undecided” student, but having a negative connotation, the expression has been changed to a more positive term for the students, faculty, and administration. An “undecided” student is a student who is investigating personal options at the academic institution to determine the most suitable major. “Undecided” students may also be quite indecisive and could be struggling to narrow down their preferences to a particular program of study, if the student has an interest in a multitude of fields (McDaniels et al., 1994, p.135).

These “deciding” students have a great deal to think about when choosing a college major. There are great emotional as well as financial strains that a “deciding” student endures while choosing on a major. According to Koeppel (2004) the annual cost for students to attend a public college on average is around \$11,354, which is an increase from the previous year. A private college costs about \$27,516, also an increase from the

previous year. Students are worried about the financial burden that if they do not choose a major soon, courses that they took will not count toward their chosen degree. If this occurs, the student will have to spend more time and more money to make up for missing required courses (Koeppel, 2004). This financial strain can lead to further upset for the student as well as an overwhelming sense of pressure to choose a major quickly before it costs more money to graduate.

College Choice Selection Phases and Its Impact on Choosing a Major

According to Cabrera and La Nasa's (2000) article citing Nora and Cabrera's article in 1992, there is a framework which high school students use to select their college choice institution. The framework is set up in three different phases: the predisposition phase, the search phase, and the choice phase. This framework can be applied to deciding college students because the steps that are taken to declare a major are comparable to that of choosing a college institution. The predisposition phase is the first stage that high school students encounter on their path to college decision making. The predisposition phase can start as early as 7th grade until 9th grade for some students. Students who have entered the predisposition phase have developed a sense of a future occupation and the realization that in order to obtain this dream job, a college education is needed. Involved parents of children going through the predisposition phase begin the necessary steps to ensure their child's future education. Through personal encouragement and support, parents help to establish a college bound track for a child, including taking college preparatory courses in high school, creating a savings account for college, and partaking in extracurricular activities geared toward the child's future

occupation (Cabrera & La Nasa, 2000). For college students declaring a major, they have also come to the realization of their desired field to study, and will look to other sources to confirm this decision.

The second phase of the college choice process, usually occurring between the 10th and 12th grade of high school, is the search phase. During the search phase, often heavily influenced by the parents, the active search of possible institutions is explored. Prospective students attend college open houses, college fairs, and begin talking with friends and family about different experiences at particular institutions. Inquiring for information about different colleges helps to narrow the search and bring the student closer to choosing their desired school. As the individual spends more time searching colleges, their ideal institution becomes more apparent. Students are able to decide what they like and/or dislike about an institution (Cabrera & La Nasa, 2000). The second phase for a college student choosing a major is a researching period; the student often speaks with other students in the program, as well as meets with an academic advisor to validate decisions before officially choosing a major.

The third and final phase of the college selection process, occurring typically for students in grade 11 and 12 of high school, is the choice phase. During this phase the student has already submitted college applications to desired schools and now must make the decision of which institution to attend. Students in this phase are also determining financial needs to attend desired institution due to tuition and possibly housing on campus (Cabrera & La Nasa, 2000). For college students choosing a major in this phase students declare their major and register for the respective courses for the upcoming

semester. The deciding student confides in friends and family about different experiences they had at particular institutions. Inquiring for information about different colleges helps to narrow the search and bring students closer to choosing his/her desired school. As individuals spend more time searching colleges, their ideal institution becomes more apparent. Students are able to decide what they like and/or dislike about an institution. Students in the choice phase are also determining financial needs to attend desired institution due to tuition and possibly housing on campus (Cabrera & La Nasa, 2000).

The Decision-Making Process when Deciding to Declare a Major

According to Galotti, Ciner, Altenbaumer, Geerts, Rupp, and Woulfe (2006) “deciding” students go through five different ways of making a decision, particularly when deciding on a major. Some students are rational decision makers. These individuals use logic and carefully conduct a full search before declaring a major. Another kind of decision making strategy is intuitive, meaning that the student relies on his/her instincts or feelings about deciding on a major in college. A third type of decision making approach is dependent, which is relying on advice and directions from others. A fourth way of making a decision about choosing a college major is avoidant; these “deciding” students make every effort to avoid declaring a major for as long as possible. Finally the fifth form of decision making is spontaneous. This is when the student makes an instant decision in order to bypass the effort involved with declaring a major in college (Galotti et al., 2006). J. Beggs, J. Bantham and S. Taylor (2008) cite Roese for their study on the topic. They found that many students regret deciding on their declared major and felt trapped into the major they chose (Beggs, Bantham, & Taylor, 2008).

According to Andrews (2006), she states that most colleges ask their students to declare their major by the spring semester of their sophomore year. Therefore, Andrews believes that while freshmen and sophomore students in college decide on a major, they will need to take many different courses, interact with professors, and discuss major programs with upperclassmen. They will also need to visit the institution's career counseling office, attend seminars and workshops pertaining to choosing a major, talk to professionals in the field which you may have an interest in, and consider becoming a double major if you cannot narrow your interests further (Andrews, 2006). Once the students has declared a major "junior year courses in the major will help [you] determine if the declared major will hold [your] interests" (Andrews, 2006, p. 8).

Factors to Consider when Choosing a College Major: Student Involvement and Student Engagement Theories

For many "deciding" students, there are several different factors that go into declaring a college major. Many "deciding" college students become involved with activities and organizations on campus which they have an interested in, to help in making this decision. According to Evans, Forney, and Guido-DiBrito (1998) Astin defined student involvement as "the amount of physical and psychological energy that the student devotes to the academic experience" (p. 26). He enhanced this statement by explaining that involvement is more behavior based on the actual involvement itself, rather than thoughts or feelings about the involvement (Evans, Forney & Guido-DiBrito, 1998). Willis (1993) notes that Astin has six different forms of student involvement: residence involvement, athletic involvement, student politics involvement, honors

program involvement, student faculty interaction, and academic involvement. These six categories can be combined into two main focuses: institution involvement and academic involvement (Willis, 1993).

Astin (1999) describes the five postulates of his involvement theory: the investment of physical and psychological energy in objects, different degrees based on the student, it has both quantitative and qualitative aspects, learning from involvement in and out of the classroom, and finally “the effectiveness of any educational policy or practice directly related to the capacity of that policy or practice to increase student involvement” (Astin, 1999, p. 519). The fourth postulate explains that students’ learning and personal growth is connected to their involvement on campus. By being active in clubs and activities, the “deciding” students gain more exposure to different people who major in different fields. This involvement helps the student in directing their interests in campus life, and to a declaration of a particular major (Astin, 1999).

According to Pike and Kuh (2005), student engagement “has a positive effect on student learning and success during college” (pp.185-186). Student engagement is derived from the learning that takes place both in and out of the classroom. Engagement is linked to better student grades and an increase in critical thinking; by being active on campus students expand their thinking as they make a connection to the college. Living on campus and living in learning communities have been shown to have a positive correlation with student engagement. Students who live on campus are much more likely to be engaged to the campus because of their location and availability. Unlike commuter

students who have a more difficult time engaging themselves in the campus life because they travel to and from college for classes only (Pike & Kuh, 2005).

With regards to students in the process of choosing a major, student engagement and involvement are factors in providing students with information about a specific program or major outside of the classroom. Students may be able to become involved in academic clubs to learn more about a given major, or through social connections, hear about other's experiences in their choice major. If students are unable to make a connection to the campus (whether social or academic) they are likely to not chose a major, as well as withdraw from the college altogether.

Studies on Students Declaring an Academic Major

A study conducted by Beggs, Bantham, and Taylor (2008) focused on discovering if undergraduate students rely more on their indecisiveness or by using decision making strategies when declaring a major. The sample consisted of 852 college students from a large Midwest public university. The study revealed that among the 852 students, the three highest ranked factors for choosing a college major were the following: matched with interests, job characteristics, and major attributives. This study confirmed that in fact students are declaring majors through using cognitive decision making strategies. They were making a connection to the institution through involvement and engagement which helped students declare their major. These students are looking toward the future and connect their career paths with their college major. Finally they are also finding the importance of their major as a critical factor for student retention. If the student does not

declare a major, they will declare their major at another institution or drop out of college altogether (Beggs, Bantham, & Taylor, 2008).

Another interesting finding was that the lowest ranked factor for the students declaring a major was lack of information. This indicates that students are doing limited searches to obtain the information about given majors. Perhaps they are acquiring this information through discussions with family, friends, and/or faculty. Not only are students avoiding the information available to them on given majors, but according to the results of the study, Beggs, Bantham, and Taylor (2008) noted that 65% of the survey sample never once changed their major. This finding has both positive and negative consequences. In terms of the negative, it is a possibility students are not changing their major because they cannot financially afford to or are unaware of how to declare a new major. Looking at this finding in a positive stance, the data verify that students are confident and content in their decision in choosing their major and do not wish to change it (Beggs, Bantham, & Taylor, 2008).

Another study by Legutko (2007) focused on determining if a workshop on declaring a major was beneficial to five students at a small private, urban, religious institution. The study found that out of the five students who went through the workshop on declaring a major, they were all able to declare their own majors and remain steadfast in their chosen program. The findings determined that the students were able to make better informed decisions about choosing a major and the workshop discouraged students from making poor decisions in their college major decision. This study helped to show the importance of academic workshops on the best student, assist in student retention, and

heightened students' confidence in making an educated decision when it comes to selecting their college major (Legutko, 2007).

A third study by Porter and Umbach (2006) observed students' college major decision process in order to determine if personality and/or cultural background had an influence over the chosen major. The study observed the Holland personality test, which is used to determine a student's possible career through a self-assessment focused on the student reacts to their environment. Porter and Umbach's (2006) study focused on three different cohorts of full-time freshmen undeclared students who all graduated within six years.

The conclusions from this study were that political views as well as the Holland personality scale were strong factors for students choosing a major. Another finding was that racial and gender differences play a role in college major decision. In the areas of science, females are more likely to choose a social science major over a science major, while more African American students are more likely to declare an interdisciplinary major over White students (Porter & Umbach, 2006). This study helped to validate that both internal (such as a student's personality) and external (such as cultural background) are important factors when declaring a college major.

Resources Available at Rowan University's Career and Academic Planning Center

A large factor in college institutions wanting to aid in many ways to "deciding" students and their quest to declare a major is for retention. Retention helps to keep students at their institution through providing the appropriate resources to accommodate

to their needs. At Rowan University's Career and Academic Planning (CAP) Center (2009), it serves a wide range of student needs.

Focusing on the undeclared students on campus, the CAP center has advising, a resource center with over 700 publications and other various resources pertaining to major exploration, and several different self assessments on which major would be the best decision based on student's interests. The CAP Center also offers events such as Ask an Alum Career Exploration Night, Internship Opportunities, and various job fairs both on and off campus (CAP Center Services, 2009). Workshops also focus on the sophomore undeclared students with titles such as "Google Your Major," "Major Myth Busters," "Dare to Declare," and "Looking at You: What you can Learn Through Self-Assessment" (Rowan University, 2009). The CAP Center at Rowan University provides a plethora of guidance, resources and opportunities for undeclared students to find the major of their dreams. Students have the option to take a direct or indirect route in deciding on a career path through declaring a major. The CAP Center is a remarkable avenue for students who are "deciding" on a major to become confident in a particular field. It provides both the resources and well as the support of advisors to assist deciding students to declare a major. This enables the deciding student to move in right direction toward his/her future career goals.

Summary of the Literature Review

Choosing a college major is a very big decision, one that takes time and energy from the deciding student. Ultimately, the college choice decision rests in students' hands as to their major in college ultimately leading them on their future career pathways.

Along the way there are many different outlets for information about different major programs of study, which may provide a degree of influence on the final college major decision. Parents, siblings, extended family, peers, academic advisors, and the Career and Academic Planning Center at Rowan University bring all different kinds of information which the student may consider when selecting a major. Students may be influenced more heavily in one aspect as compared to another. Students may also take into consideration their own research conducted to determine the career path for them, through declaring a major.

If students are unable to declare a major within the respective timeframe by the institution, they may not graduate on time, or not graduate from college at all. In order to help undeclared students reach their program major, it is vital to be aware of the process which students go about to reach their decision on declaring a major, and provide appropriate resources which will be most beneficial in aiding in the process. If deciding college students are not getting the information they need about degree programs in order to declare their preferred major, student retention will decrease, and the institution as well as the deciding students will suffer. If students do not understand the process in which they took in declaring their college major, they may continue to struggle with making decisions in the future.

For college administrators, learning about students' decision making process in declaring a major is vital to student retention. In order to continue to have students attending their college, resources need to be available to students which support this

decision. If administrators do not tend to the needs of their deciding college students, they will go to another institution that will.

Students' inability to declare their major within the allotted amount of time is a serious problem due to the fact that students will not be able to continue on as a student at the institution. Their indecisiveness will lead to a setback in education progress by not being able to take upper level academic courses and continue on in an academic program. Students who resist declaring a major will not only suffer academically, but financially as well; the cost to continue in college without a major prolongs their graduation date and driving up the costs. Lastly, if students are slow in declaring their academic major, this resistance to make a serious decision could have a lasting impact on their overall decision-making into their adulthood; if undeclared students cannot determine what major is best for them, they may struggle in the future with their profession and personal lives in terms of decision-making.

CHAPTER III

Methodology

Context of the Study

The study was conducted at Chestnut Hall and Edgewood Park Apartments in Rowan University, Glassboro, NJ. Rowan University, founded in 1923 as a teacher training school, is a four year liberal arts institution with many different academic departments and colleges specializing in education, engineering, communications, and the arts. Chestnut Hall is a predominately freshmen residence hall, accommodating close to 400 students. For every 20-35 students, a Resident Assistant tends to the social and physical needs of the residents to ensure a happy and a healthy living environment in the building.

Every carpeted bedroom is equipped with cable television as well as wireless internet usage, and is furnished with a twin bed, mattress, dresser, desk, desk chair, and wardrobe. Each gender specific suite has a communal lounge and bathroom which are cleaned by Rowan University housekeeping. There is an outdoor courtyard, laundry facility, and a building lounge available to all residents of Chestnut Hall (Rowan University, 2009).

Edgewood Park Apartments is an upperclassmen apartment complex which houses close to 400 residents. Broken into four separate buildings identical in structure, Edgewood Park has 24 same gender apartments per building. Each apartment bedroom is

equipped with cable television as well as wireless internet usage, and is furnished with a twin bed, mattress, dresser, desk, desk chair, and wardrobe. Living room furniture as well as kitchen furniture appliances are all available to the students in the apartment (Rowan University, 2009).

Population and Sample

The target population for this study was all freshmen students and 100 sophomore students living at Rowan University during the 2009 – 2010 academic year. The available population was all freshmen students residing in Chestnut Hall and sophomore students residing in Edgewood Park Apartments at Rowan University in Glassboro, NJ for the 2009 – 2010 academic year. Chestnut Hall currently houses roughly 300 students in the building and Edgewood Park Apartments currently houses roughly 350 students in the building for the spring 2010 academic year. The convenient sample for the quantitative portion of the data collection was focused on all 354 freshmen living in Chestnut Hall. The targeted number of students to receive this survey was 300. Surveys were distributed to the residents of Chestnut Hall. The qualitative portion of the data collection was focused on sophomores living in Edgewood Park Apartments who were choosing a college major at Rowan University; five students in Edgewood Park Apartments were selected purposefully based on their undeclared academic status as of January 2010.

Instrumentation

The instrument that was used to assess the student process of choosing a major was based upon survey items from Galotti et al. (2005), Schultz (1997), and Corley (1991). Galotti et al. (2005), developed topics for their survey to determine if different

variables helped to shape the decision making process in terms of choosing a college major. Their method had the subjects first complete a survey, and then react to how they were feeling about the selected answers for the survey in the form of open ended questions. The survey was broken down into *decision-making styles, attitudes towards thinking and learning, planning, and free-response questions*. The internal reliability for this survey was a .77, .82, .87, .81, and .87 for Rationale, Intuitive, Avoidant, Dependent, and Spontaneous scales (Galotti et al., 2005).

The second survey was developed by Marian Schultz (1997) for her thesis focused on how adult undergraduate students choose their college major. This qualitative interview focused on when subjects decided to come to college, to choose their major, how the major affected their learning, personal rewards from the major, the impact the major, and influences which may have directed the subject to a given major. The third survey instrument developed for Sallie Corley's (1991) dissertation looked at the factors which influenced students to choose a particular major based on various sources of information. This survey was divided into three sections using a Likert scale: Background of Student, Reasons for Choosing Major, and Influences when Choosing Major. Open ended questions were also provided focusing on additional forms of information which were beneficial to the subject.

These three surveys were revised to best work for this study's research questions. Due to the fact that this study determined the influences of a students' college major selection process, some aspects of the other three surveys were omitted. The instrument used by Galotti et al. (2005) used student reactions to decision-making survey. This was omitted from the survey because the focus was on the process of choosing a college

major, and not on thoughts of the actual study instrument. Schultz's (1997) instrument focused on the adult undergraduate student, while this study focused on the traditional college student. Corey's survey instrument focused more on obtaining the sources of information obtained by then subject to declare a major, and therefore that section would be omitted from this study.

The Survey and Interview Instruments

Following approval from the Institutional Review Board of Rowan University (See Appendix A) a survey was administered to freshmen residents of Chestnut Hall and interviews took place in Edgewood Park Apartments with selected sophomore residents in the building.

The first instrument is a cross sectional survey which consists of 31 Likert scale items and four open ended questions pertaining to the decisions and influences when selecting a college major. The survey was administered to residents of Chestnut Hall, a freshmen residence hall. The survey consists of three sections: Background Information, Reasons for Choosing Area of Study, and Sources of Information.

The Background Information section had six items; the six items focused on if students had declared a major and if so what college did they belong to, as well as the number of times they have changed their academic major, and gender. The second section with 12 items focused on Reasons for Choosing an Academic Major focused on various statements and the students' level of agreement when choosing their academic major. Examples of reasons focused on intrinsic motivations, skills and/or interest in field, and preparation for graduation, and obtaining a job. The third section in the survey was the Source of Information, consisting of 17 statements. Students were asked to rate

various sources based on importance when declaring their academic major; examples of sources were faculty and/or family influence, information available through Rowan University, and peers in the respective major (See Appendix B).

To determine the survey's content and validity, a small pool of convenient upperclassmen students residing in Chestnut Hall at Rowan University examined the survey for efficiency and formatting. The upperclassmen students of Chestnut Hall found grammatical errors which were corrected prior to data collection. The reliability of the 31 Likert scale items is .804 according to Cronbach's Alpha, indicating that the survey instrument is stable and internally consistent.

The second instrument was a series of interviews based on research in which several undeclared sophomore students from Edgewood Park Apartments were purposely selected to participate over the course of three months. Students were asked several questions about the major(s) of interest, why they are of interest, and how the selection process was for the individual. Students were interviewed a total of three times; the first interview was based on thoughts about the decision process in deciding on a major to pursue. The second interview focused on how the student came to the decision of the chosen major he/she will pursue. The third and final interview looked at the journey of declaring the chosen major and the student's overall satisfaction in the major selected.

Data Collection

The survey was delivered by the Resident Assistants of Chestnut Hall to the subjects on Wednesday January 19, 2010. Subjects were made aware that any information collected from the survey would remain anonymous. Once the subjects completed the survey they were asked to either return it to the Chestnut Hall Staff Office

or to their Resident Assistant in the area. Survey data collection took approximately one month to complete and there were no incentives for students to complete survey.

The interview portion of this study was first based on collecting subjects from Edgewood Park Apartments. A mass building e-mail was sent inviting undeclared sophomore students to participate in the study. Initially eight potential subjects responded to the e-mail, indicating their interest and experience as an undeclared student at Rowan University. However, of those eight subjects, only five remained steadfast to participate in the study. There was a total of three interviews per subject throughout the months of January, February, and March. Interviews were conducted in person in the Edgewood Park Apartment Staff Office and in interviewees' apartments.

During an interview session, each participant was asked a series questions pertaining to their current process in selecting an academic major. The interviews averaged about 15 to 20 minutes to conduct in Edgewood Park Apartment complex. The subjects generally appeared to be in a pleasant mood and eager to answer questions. Data were collected from each interviewee through an audio recording as well as notes taken by me serving as the interviewer. Once the interview was complete, the audio responses were transferred into typed text. This written text was then compared to the other subjects' responses in order to determine common themes found throughout all subjects' interviewing sessions.

Data Analysis

The independent variables for the survey portion of this study included if the subjects declared a major, and if yes what college were they currently enrolled in, grade level in college, the amount of times the subjects changed majors, and gender. The

dependent variables for the survey portion of this study included reasons for choosing an academic major and the influences in choosing an academic major. The independent variables for the interview portion of this study were gender. The dependent variables of the interview portion of the study were the process in choosing an academic major. Data were analyzed using descriptive statistics. The independent variables' impact on the dependent variables was studied using cross-tabular analysis which were obtained through the Statistical Package for the Social Sciences (SPSS) computer software program. Percentages and frequency distributions were used to examine the data in regards to the research questions.

To analyze the typed data from audio tapings of the interview recordings, the rules and procedures for logical analysis was used to examine the data in regards to the research questions (Sisco, 1981). The typed responses from the subjects during the interview portion of the data collection were analyzed using content analysis procedures and examining dialogue for themes throughout subjects' answers (See Appendix D).

CHAPTER IV

Findings

Profile of the Survey Sample

The subjects for this study were conveniently selected based on the freshmen students residing in Chestnut Hall for the 2009-2010 academic school year. Of the 300 surveys distributed, 181 completed surveys were returned, yielding a response rate of 60%. There were 109 (60.2%) male and 71 (39.2%) female students that responded to the survey. As Table 4.1 displays, of the 181 students surveyed, 169 (93.4%) were freshmen, eight (4.4%) were sophomores, two (1.1%) were both juniors and seniors.

Table 4.1

Class Standing (N=181)

Class Standing	<i>f</i>	%
Freshmen	169	93.4
Sophomore	8	4.4
Junior	2	1.1
Senior	2	1.1

In terms of those who had already declared a major, 125 (69.1%) had done so, while 56 (30.9%) were still undecided. Since arriving at college, 157 (86.7%) have not changed from their declared major, 21 (11.6%) changed their declared major once, and three (1.7%) have changed their major twice. Based on the students who declared their major, Table 4.2 shows that 47 (26%) were enrolled in the College of Education, 47 (26%) were either

undecided or unsure, 17 (9.4%) were enrolled in the College of Communications, 12 (6.6%) were enrolled in the Rohrer College of Business and in the College of Engineering, and seven (3.9%) were enrolled in the College of Fine and Performing Arts.

Table 4.2

College Enrollment at Rowan University (N=181)

College	<i>f</i>	%
Unsure/Undeclared	47	26
College of Education	47	26
College of Liberal Arts and Sciences	39	21.5
College of Communications	17	16
Rohrer College of Business	12	6.6
College of Engineering	12	6.6
College of Fine and Performing Arts	7	3.9

Profile of the Interview Sample

The subjects for the interview portion of the study were purposefully selected based on the sophomore students residing in Edgewood Park Apartments for the 2009-2010 academic school year. Of the five students interviewed, four reside in New Jersey, while one student is from Zimbabwe, Africa. Three of the interviewees were female, and the other two interviewees were males. Four of the interviewees had an interest in pursuing the education field, and one interviewee had an interest in pursuing engineering. Four of the interviewees began their college careers at Rowan University, while one interviewee was a transfer student from a community college.

Subject 1 is a white female student from New Jersey who chose to attend Rowan University because her parents as well as older sisters attended the college and she was

interested in running track for the college. Subject 2 is an African American male international student from Zimbabwe, Africa who chose to attend Rowan University because it has a strong liberal arts and sciences program and American football. Subject 3 is a white female from New Jersey who chose to attend Rowan University because a neighbor who was an alumnus recommended the college to her. Subject 4 is a white male from New Jersey who decided to attend Rowan University because it appeared to be a good college and his brother attended the institution. Subject 5 is a white female student from New Jersey who selected Rowan University because she heard it had good programs, particularly in education.

Analysis of Data

Research Question 1: What are the driving reasons that influenced selected undecided freshmen and sophomore students to declare a particular major?

An overall driving reason that influenced the selected undecided freshmen students was personal interest in the program of study. As shown in Table 4.3, 88% of students either agreed or strongly agreed that having an interest in their chosen program was an important influence when it came to declaring a major. Another strong influence for the undecided freshmen students was having personal skills in the area of study. Eighty-two percent of students in Chestnut Hall either agreed or strongly agreed that having skill in the area they were to pursue is important. Eighty-one percent of Chestnut Hall students agreed or strongly agreed that preparation for desired career is important, as well as having job opportunities after graduation when declaring their academic major. Seventy-one percent of students either agreed or strongly strongly agreed that having the opportunity to help others was important when declaring an academic major.

Table 4.3

Major Reasons Influencing Selected Undecided Freshmen Students to Declare a Particular Major

Strongly Agree = 5, Agree = 4, Neither Agree nor Disagree = 3, Disagree = 2, Strongly Disagree = 1

Statement	Strongly Agree		Agree		Neither		Disagree		Strongly Disagree	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
Personal interest in program. <i>N=181, M=4.36, SD=.863</i>	98	54.1	62	34.3	13	7.2	5	2.8	3	1.7
Personal skills in my area of study. <i>N=181, M=4.10, SD=.901</i>	65	35.9	83	45.9	23	12.7	6	3.3	4	2.2
Preparation for desired career. <i>N=180, M=4.17, SD=.954</i>	79	43.6	67	37	24	13.3	5	2.8	5	2.8
Job opportunities after graduation. <i>N=180, M=4.11, SD=.921</i>	69	38.1	77	42.5	22	12.7	9	5	3	1.7
Opportunity to help others. <i>N = 181, M=3.88, SD=1.034</i>	57	31.5	71	39.2	33	18.2	15	8.3	5	2.8

Research Question 2: What are the driving sources of information that influenced selected undecided freshmen and sophomore students to declare a particular major?

As shown in Table 4.4, 76% of subjects either strongly agreed or agreed that resources within the university were important sources of information. Seventy-four percent of subjects either strongly agreed or agreed that family member encouragement was an important factor when declaring a major. Seventy percent of subjects either strongly agreed or agreed that knowing someone who works in the related position as well as the internet and/or the university's website were important sources of information when declaring a particular academic major. Sixty-eight percent of subjects felt that other students enrolled in the same program is an important factor when declaring a major.

For the qualitative data presented in Table 4.5, a common theme which was found from all five participants during interviewing was self awareness of desired major to declare. Many of the participants had already conducted some degree of self reflection and based on their own understanding were aware of the major they wanted to declare, without outside influences. Another common theme found from the interview portion of the study was the impact of family influence. Many of the participants had held discussions with family members, or observed their siblings at Rowan University prior to declaring their academic major. The third common theme collected from interviewing participants was the knowledge of the academic programs at Rowan University. The interviewees had an understanding that the majors they were pursuing had academically strong programs and were highly respected. The last two themes found during the interviews were the importance of campus resources in terms of assisting to influence students to declare a certain major, as well as sports being a factor when declaring a major.

Table 4.4

Main Sources Influencing Selected Undecided Freshmen Students to Declare a Particular Major

Not Applicable = 5, Extremely Important = 4, Important = 3, Somewhat Important = 2, Not Important = 1

Statement	Not Applicable		Extremely Important		Important		Somewhat Important		Not Important	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
Resources within the university. <i>N=180, M=3.26, SD=.971</i>	9	5	75	41.4	62	34.3	22	12.2	12	6.6
Family member encouragement. <i>N=180, M=3.84, SD=1.000</i>	23	12.7	74	40.9	59	32.6	14	7.7	10	5.5
Someone I know who works in a related position. <i>N=180, M=3.37, SD=1.088</i>	18	9.9	83	45.9	42	23.2	22	12.2	15	8.3
Internet/University website. <i>N=180, M=3.17, SD=1.103</i>	11	6.1	73	40.3	53	29.3	22	12.2	21	11.6

Table 4.4 (continued)

Students enrolled in similar program. <i>N=180, M=3.11, SD=1.162</i>	12	6.6	69	38.1	53	29.3	19	10.5	27	14.9
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Table 4.5

Themes of Driving Sources of Information Influencing Selected Undecided Sophomore Students to Declare a Particular Major During Interview

Theme	Sub Theme	Frequency	Rank
Self-awareness	Knowing independence	14 times stated	1
Family influence	Siblings in college/parents	13 times stated	2
Rowan University's academic program	College of education program academically strong institution	10 times stated	3
Rowan University's resources	Resources offered by the Career & Academic Planning Center	4 times stated	4
Sports	Sports spectator and participating in sports	3 times stated	5

Research Question 3: Is there a significant relationship between the reasons that influence selecting a major and the demographic variables of gender, college, class level, and number of times major is changed?

A Pearson product moment was calculated for the relationship between which college at Rowan University the subject was enrolled in and influences in declaring an academic major (See Table 4.6). A weak positive correlation was found between which college at Rowan University the subject was enrolled in and the influence of success in prior course in the program ($r = .149, p < .05$), and also a weak positive correlation between which college at Rowan University the subject was enrolled in and the influence of a graduate of a similar program ($r = .164, p < .05$).

Table 4.6

Correlation Between Declaring Academic Major with Opportunity to Improve the Quality of Life and Graduate of a Similar Program (N=181)

Statement	<i>r</i>	<i>p</i>
Which college at Rowan University are you currently enrolled in through your academic major and <i>success in prior course in the program</i>	.149	.046
Which college at Rowan University are you currently enrolled in through your academic major and <i>graduate of a similar program</i>	.164	.028

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

A Pearson product moment was calculated for the relationship between the number of times subject changed their academic major and influences in declaring an academic major (See Table 4.7). A weak positive correlation was found between the number of times subject changes their academic major and the opportunity to work with people ($r = .221, p < .01$) as well as a weak negative correlation was found between the number of times subject changes their academic major and job opportunities after college ($r = -.226, p < .01$).

Table 4.7

Correlation Between Number of Times Subject Changes Major to Opportunity to Work with People and Job Opportunities After Graduation (n=180)

Statement	<i>r</i>	<i>p</i>
How many times have you changed your academic major since you first enrolled at Rowan University and <i>opportunity to work with people</i>	.221	.003
How many times have you changed your academic major since you first enrolled at Rowan University and <i>job opportunities after graduation</i>	-.226	.002

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

A Pearson product moment also was calculated for the relationship between the number of subjects' class level and influences in declaring an academic major, and no correlation was detected. A Pearson product moment also was calculated for the relationship between subjects' gender and influences in declaring an academic major, which can be found in Table 4.8. There was a weak negative correlation between subjects' gender and resources within the University ($r = -.193, p. <.01$), advisor in major department ($r = -.248, p. <.01$), knowing someone who works in a related position ($r = -.219, p. <.01$), and knowing another student enrolled in similar program ($r = -.241, p. <.01$).

Table 4.8

Correlation Between Gender to Resources within the University, Advisor in Major Department, Knowing Someone Working in Related Position, and Knowing Another Student Enrolled in Similar Program (n=179)

Statement	<i>r</i>	<i>P</i>
Gender and <i>resources within the University</i>	-.193	.010
Gender and <i>advisor in major department</i>	-.248	.001
Gender and <i>someone I know who works in a related field</i>	-.219	.003
Gender and <i>student enrolled in similar program</i>	-.241	.001

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

Research Question 4: How confident are students in making the decision to declare their chosen academic major?

Based upon the data collected from the interviews, participants reported an average of 8.9 out of a 10 in confidence in making the decision to declare their chosen academic major (See Table 4.9). One participant stated with vigor "Twenty...but a ten if I have to,"

indicating a very strong confidence in declaring the particular major. One participant gave the lowest score of a seven because “I’m pretty sure I will enjoy this major, but I won’t know for sure until I’m in the profession.” During the final interviews, participants on average had a 9.1 out of a 10 in confidence when making the decision to declare their given academic major (See Table 4.10). Some participants still did not feel 100% confident, but content with their decision, but two participants were excited about giving a 10 rating in confidence for choosing their academic major.

Table 4.9

Confidence Level Before Choosing an Academic Major of Selected Undecided Sophomore Students
1=No Confidence – 10=Extreme Confidence

Confidence	Rationale for Confidence	Frequency	Rank
9	Currently confident of choosing major	2	1
10	Complete confidence	1	2
9.5	Not 100% of lifetime career	1	2
7	Not sure until in the field	1	2

Table 4.10

Confidence Level After Choosing an Academic Major of Selected Undecided Sophomore Students
1=No Confidence – 10=Extreme Confidence

Confidence	Rationale for Confidence	Frequency	Rank
10	Strong sense of knowing	2	1
9.5	Not 100% of lifetime career	1	2
9	Not 100% confident in sticking with major	1	2
7	Not sure until in the field	1	2

Research Question 5: Are students satisfied with their declared academic major?

Through the interview sessions with five participants over a three month span, two major themes of satisfaction emerged with their decision to choose a respective major. One common theme was an overall interest in the academic major declared. Participants felt that they had made a good decision in declaring their academic major and were looking forward to begin the program. One participant stated with great enthusiasm, “I am so excited that I have chosen my major. I can’t wait ‘til I finish my degree and can teach my own class!” This statement displays that not only is this subject pleased with her given major, but that she looks forward to entering into the workplace and using the degree in her profession.

The second common theme, found in Table 4.11, was an internal satisfaction with oneself upon declaring an academic major. One participant stated, “I feel that I am on the right path and that I am better able to see my future now that I am declared.” This participant felt that making the decision to declare her major was a step in the right direction for she had a better sense of clarity over her future and career aspirations. Participants also felt more confident and better about themselves in knowing that they had declared their respective majors; the majority stated that it made them feel better knowing that they solidified their major, and were even beginning to achieve further academic aspirations such as adding on additional minors and certifications to their degrees.

Table 4.11

Common Themes of Satisfaction After Choosing an Academic Major of Selected Undecided Sophomore Students

Theme	Sub Theme	Frequency	Rank
Internal satisfaction	Confidence, sense of being on the right path, planning for future	9	1
Interest in academic major	Interest in working with children, strong academic program	8	2

CHAPTER V

Summary, Discussion, Conclusions, and Recommendations

Summary of the Study

This study investigated the reasons, influences, and factors for selected students at Rowan University, Glassboro, New Jersey when declaring an academic major. The subjects in this study were undergraduate college freshmen students living in Chestnut Hall and five selected sophomore undecided students living in Edgewood Park Apartments.

Data collection took place in the form of a survey for the freshmen subjects of Chestnut Hall and an interview for the selected sophomore students of Edgewood Park Apartments. The survey consisted of 31 Likert scale items and four open ended questions pertaining to the decisions and influences when selecting a college major. The interview portion of the data collection was a series of interviews over a three month span. The interviews focused on participants' thoughts before, during and after declaring their academic major at Rowan University. A total of 300 surveys were distributed and 181 surveys were returned yielding a response rate of 60%.

Percentages, frequency distributions, and Pearson product moment correlations were used to analyze quantitative data using the Statistical Package for the Social Sciences (SPSS) computer software. In regards to analyzing interview data, the rules and procedures for logical content analysis were used to examine the data looking for common and different themes.

Discussion of the Findings

Based upon an analysis of the quantitative data, students at Rowan University made the decision to declare their academic major based upon both the resources within the institution, outside influences (such as family members), and personal intuition. These findings support Beggs, Bantham, and Taylor's (2008) study who found personal interest in major, and job characteristics as most significant in choosing a major. At Rowan University, 88% of the freshmen students living in Chestnut Hall reported that interest in the program was a factor when declaring an academic major. Not only does this interest help keep students' motivation to continue in the major, but also shows that students need to genuinely enjoy their major. Once students declare a major, they become immersed in the field through classes and learning experiences outside of the classroom (such as internships). Therefore, it is vital that students are happy in their major in order for success.

Beggs, Bantham, and Taylor's (2008) research also supports a high percentage of students who have never changed their major; they found that 65% of students never changed their academic, while 87% of Chestnut Hall residents of Rowan University have also never changed their declared major. This finding suggests that students are content in their chosen major and found the major to be a good fit.

The findings that students at Rowan University made the decision to declare their academic major based upon both the resources within the institution, outside influences (such as family members), and personal intuition also supports Cabrera and La Nasa (2000) who state that students confide in family when declaring an academic major; the study at Rowan University found that 74% of students relied on family member

encouragement. As pivotal role models for many students, family members' influence on declaring a major plays a large role for students when declaring a major. Family input carries more weight for many of the students at Rowan University; some take suggestions from family especially if the family members are alumni of the institution or are in a profession the students have an interest in pursuing.

Findings in student confidence after declaring an academic major supports Legutko's findings (2007). Legutko (2007) found that three-out-of-four of their students interviewed had increased confidence once declaring a major. In this study, participants mentioned having strong confidence in a major once it was declared. Students were able to be more at ease in the decision making process of declaring a major and reported having more self-assurance knowing that they had chosen the right major.

Surprisingly, there were no significant relationships between subjects' class level and influences in declaring an academic major. Rather, correlations were noted between the number of times subjects changed their academic major and the influence of having the opportunity to work with people, and job opportunities after college. Students reported changing their major multiple times in order to meet their growing needs in terms of future job opportunities after graduation.

Unlike Porter and Umbach's (2006) study, which found that gender differences played a role in declaring an academic major, in this study at Rowan University, there was a weak correlation between subjects' gender and resources within the university, influences from advisor in academic major, knowing someone in the related field, and knowing students enrolled in the similar program. This weak correlation is counter to Porter and Umbach's (2006) findings that gender did not have an impact on students'

academic major selection major process, but rather other areas were of greater importance such as personal interest, and influence from family members.

Conclusions

The results of this study generally confirmed the majority of the findings of previous related studies. Overall the students believed that their own personal needs, skills, and occupation outlook played a factor when choosing an academic major. Influences for selected undecided students who were in the process of declaring a major were resources within the institution as well as family, students in the major, and people already in the field. Students expressed wanting to learn from themselves as well as from those who have experience in making the decision to declare a major. It is important to note that the correlation between the numbers of times students changed their declared major related to wanting to work with people and having job opportunities after graduation, confirms that students look inward in deciding what to do after graduation. Students are looking ahead and realizing what are important factors for them once they graduate. However, they realize that in order to achieve goals post-graduation, they need to be enrolled in an academic program which will support these ambitions.

Subjects were asked during the survey to state what they believed to be the most important type of information about their major which should be advertised to prospective students of the major, and 52% of students either strongly agreed or agreed that career information was most important. This supports McDaniels, Carter, Heinzen, Candrl, and Wieberg's (1994) focus on career planning as a factor when undecided students are declaring a major; students are concerned about selecting a major that will be worth something after graduation that leads to employment. Students need to be

informed about career opportunities within their majors in order to have an understanding of the field and how to better prepare themselves to be successful in the profession. Students should have an understanding of what the major will prepare them for in terms of future careers before declaring the major; if undeclared students knew the types of careers which come from certain majors before declaring a major, it may help in terms of building student confidence to declare the major if the student knows the future career he/she has in mind.

Based upon the interviews, participants stated that they were happy in making their academic major decision. The students found the process of declaring a major to be involved and simple, and now looked to professional futures in the field. Before declaring a major, the participants were anxious to choose their academic major, wondering if this was the right major for them. However, they wanted the process of declaring a major to be completed as soon as possible, in order to move forward in their respective academic program. Upon declaring the major, the participants had more confidence in their academic major decision and stated that they were relieved knowing that they were now in their chosen academic major. The students of Rowan University have different ways in which they reach the decision of the academic major they wish to declare, but what is most important in terms of student retention, is that the students are satisfied and happy in their chosen major. Once the students are happy in the major, they can grow into the pre-professionals that will hopefully lead to a successful post graduation.

Recommendations for Practice

Based on the findings and conclusions of the study, the following suggestions are presented:

1. The Career and Academic Planning (CAP) Center should provide their own survey for students when declaring a major to determine further factors and influences.
2. The College of Liberal Arts and Studies could implement courses for exploratory studies on various majors within the institution.
3. Professors could engage in more classroom discussion with their freshmen students about why they chose their respective academic major.
4. Provide undecided students of Rowan University with more information about career information through the academic majors of interest.
5. College major exploration should be introduced to college bound senior high school students who do not know what they would like to major in yet.
6. The Career and Academic Planning (CAP) Center should consider piloting a career course for entering undeclared freshmen students.
7. The Summer Orientation for incoming undeclared freshmen students should provide an opportunity for students to explore possible career opportunities through online assessment programs.
8. Provide additional career counseling workshops for undeclared students through the Career and Academic Planning Center (CAP).
9. Provide a workshop for undeclared students on the process of declaring an academic major.

10. Additional collaboration between the Career and Academic Planning Center (CAP) and the College of Liberal Arts & Sciences to improve advertisements of workshops for the undeclared students of Rowan University.

Recommendations for Further Research

Based on the findings and conclusions of the study, the following suggestions are presented:

1. Further studies should be conducted with a larger population to verify findings from this study.
2. A follow-up study could be conducted with participants from the interview portion of study who are now in their junior and senior years at Rowan University to determine if they are still satisfied with their chosen major.
3. Future research could be used to study the degree obtained at graduation matches the students' declared major.
4. Future research could be conducted to determine if alumni of the institution are in professions in which their degree is a requirement of the position.
5. Conduct a similar study at a private institution to compare and contrast the academic major selection process.
6. Conduct a study to determine the successfulness of academic advising sessions with undeclared students at Rowan University when these students are in the process of declaring an academic major.
7. Determine if undeclared students who are housed in learning communities in their freshmen year have more success declaring their academic major.

8. Conduct a study observing past alumni of the institution and the academic major selection process.
9. Conduct a study with academic advisors of undeclared students to determine what they feel would help students to declare an academic major.
10. Evaluate undeclared students' grade point average prior to attending Rowan University to determine if academic performance would be a factor in selecting an academic major in college.

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APPENDIX A

Institutional Review Board Approval Form



December 16, 2009

Rachael Scharen
201 Mullica Hill Road
PO Box 1562, Student Center
Rowan University
Glassboro, NJ 08028

Dear Rachael Scharen:

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: 2010-084

Project Title: Making a Major Decision: Undeclared Student Retention and the Process of Choosing an Academic Major at Rowan University

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,

A handwritten signature in cursive script that reads "Harriet Hartman".

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

c: Burton Sisco, Educational Leadership, Education Hall

Office of Research
Bole Hall Annex
201 Mullica Hill Road
Glassboro, NJ 08028-1701

856-256-5150
856-256-4425 fax

APPENDIX B
Survey Instrument

CHOOSING AN ACADEMIC MAJOR SURVEY

The information presented to you in this voluntary survey is being requested to gain a better understanding of why you chose your academic major and the sources of information that may have been helpful in the decision process, for the purpose of master's thesis publication. The information gathered from the survey will be used for statistical reporting purposes only. You are assured that all of your responses will be kept anonymous and not affect class standing with the university. If you have any questions please contact Rachael Scharen at 856-256-6875 (Schare58@students.rowan.edu) or Dr. Burton Sisco at 856-256-3717 (Sisco@rowan.edu). Thank you for your participation in this survey!

PART I. Background Information: Please check one appropriate response for each item or answer the question as asked.

1. Have you declared your academic major at Rowan University?
 Yes No

2. Which college at Rowan University are you currently enrolled in through your academic major?
 Rohrer College of Business College of Communication
 College of Fine & Performing Arts College of Engineering College of Education
 College of Liberal Arts & Science Unsure/Undeclared
 Other, please specify: _____

3. What is your class level:
 Freshmen (0 - 23.99 credits) Sophomore (24 - 57.99 credits)
 Junior (58 - 89.99 credits) Senior (90 credits and above) Unsure

4. How many times have you changed your academic major since you first enrolled at Rowan University?
 0 1 2 3 4 5 or more

5. If you have changed your academic major one or more times, please specify your current academic major: _____

6. Your gender: Female Male

PART II. Reasons for Choosing an Academic Major: An academic major is main field of specialization during your college studies focusing on a core curriculum of instruction. Circle the following number between 1 – 5 based on your level of agreement with each statement pertaining to choosing your academic major.

1 = Strongly Disagree (SD), 2 = Disagree (D), 3 = Neither agree nor disagree (N), 4 = Agree (A), 5 = Strongly Agree (SA)

- | | | | | | | |
|-----|---|---|---|---|---|---|
| 7. | Opportunity to improve quality of life | 1 | 2 | 3 | 4 | 5 |
| 8. | Opportunity to work with people | 1 | 2 | 3 | 4 | 5 |
| 9. | Related careers pay well | 1 | 2 | 3 | 4 | 5 |
| 10. | Career would be easy to combine with family | 1 | 2 | 3 | 4 | 5 |
| 11. | Opportunity to help others | 1 | 2 | 3 | 4 | 5 |
| 12. | Personal interest in the program | 1 | 2 | 3 | 4 | 5 |
| 13. | Personal skills in my area of study | 1 | 2 | 3 | 4 | 5 |
| 14. | Information is of personal use | 1 | 2 | 3 | 4 | 5 |

- | | | | | | | |
|-----|--|---|---|---|---|---|
| 15. | Job opportunities after graduation | 1 | 2 | 3 | 4 | 5 |
| 16. | Preparation for desired career | 1 | 2 | 3 | 4 | 5 |
| 17. | Success in prior course in the program | 1 | 2 | 3 | 4 | 5 |
| 18. | Is there one other reason that you consider to be of extreme importance? If so, please indicate the reason here: _____ | | | | | |

PART III. Sources of Information: Below are a number of people and materials which may have produced information which was of importance to you when choosing an academic major. Please indicate the importance of each item as a source of information by circling the number which corresponds to the degree of importance for each source.

1 = Not Important, 2 = Somewhat Important, 3 = Important, 4 = Extremely Important, 5 = Not Applicable

- | | | | | | | |
|-----|---|---|---|---|---|---|
| 19. | Resources within the University | 1 | 2 | 3 | 4 | 5 |
| 20. | Graduate of a Similar Program | 1 | 2 | 3 | 4 | 5 |
| 21. | High School Counselor | 1 | 2 | 3 | 4 | 5 |
| 22. | College Catalog | 1 | 2 | 3 | 4 | 5 |
| 23. | Advisor in Major Department | 1 | 2 | 3 | 4 | 5 |
| 24. | College Professor in Another Department | 1 | 2 | 3 | 4 | 5 |
| 25. | Community College Counselor | 1 | 2 | 3 | 4 | 5 |
| 26. | Someone I know who works in a Related Position | 1 | 2 | 3 | 4 | 5 |
| 27. | University Advisor Outside the Major Department | 1 | 2 | 3 | 4 | 5 |
| 28. | Brochure/Flier/Poster | 1 | 2 | 3 | 4 | 5 |
| 29. | College Professor in the Major Department | 1 | 2 | 3 | 4 | 5 |
| 30. | Internet/University Website | 1 | 2 | 3 | 4 | 5 |
| 31. | Student Enrolled in Similar Program | 1 | 2 | 3 | 4 | 5 |
| 32. | High School Teacher | 1 | 2 | 3 | 4 | 5 |
| 33. | Family Member Encouragement | 1 | 2 | 3 | 4 | 5 |

34. Please indicate the one source of information you consider to be of highest importance:

35. What do you believe are the most important types of information about your academic major that should be presented to prospective students? (Example: career information, starting salary, course requirement)

**Thank you for your time and feedback.
Please return survey to your RA or the Chestnut Hall Staff Office!**

APPENDIX C

Interview Instruments

**Informed Consent Form for CHOOSING AN ACADEMIC MAJOR
INTERVIEW**

Participants over the age of 18

I agree to participate in a study entitled Making a Major Decision: Undeclared Student Retention and the Process of Choosing an Academic Major at Rowan University, which is being conducted by Rachael Scharen, Graduate candidate in the Higher Education-Administrative Track Mater's Program, supervised by Dr. Burton Sisco of the Educational Leadership Department, Rowan University.

The purpose of this study is to gain insight into the rationale of college major selection for undeclared students by determining if students are influenced by outside resources to aid in their decision to declare a particular academic major. Of related interest was learning about the major factors of choosing an academic major at Rowan University. The data collected in this study will be combined with data from previous studies and will be submitted for publication for Master's Research Thesis.

I understand that I will be required to attempt to solve a logic problem, and I will be assigned to work either individually or as part of a group. My participation in the study should not exceed one hour.

I understand that my responses will be anonymous and that all the data gathered will be confidential. I agree that any information obtained from this study may be used in any way thought best for publication or education provided that I am in no way identified and my name is not used.

I understand that there are no physical or psychological risks involved in this study, and that I am free to withdraw my participation at any time without penalty.

I understand that my participation does not imply employment with the state of New Jersey, Rowan University, the principal investigator, or any other project facilitator.

If I have any questions or problems concerning my participation in this study, I may contact Rachael Scharen at (856) 256 - 6240 (Schare58@students.rowan.edu) or Dr. Burton Sisco at (856) 256- 3717 (Sisco@rowan.edu).

(Signature of Participant)

(Date)

(Signature of Investigator)

(Date)

CHOOSING AN ACADEMIC MAJOR INTERVIEW

The information presented to you in this voluntary interview is being requested to gain a better understanding of why you are choosing your academic major and the sources of information that may have been helpful in the decision process, for the purpose of master's thesis publication. The information gathered from the interview will be used for statistical reporting purposes only. You are assured that all of your responses will be kept confidential and not affect class standing with the university. If you have any questions please contact Rachael Scharen at 856-256-6875 (Schare58@students.rowan.edu) or Dr. Burton Sisco at 856-256-3717 (Sisco@rowan.edu). Thank you for your participation in this interview!

Part 1 of 3: January 2010

1. We are going to begin this interview by looking back on your experience before coming to Rowan University. Reflect back to the time you decided to attend college. Can you tell me about this?
2. Can you describe for me what life experiences prepared you for this choice?
3. How did you reach this decision?
4. Why a four year college?
5. Why Rowan University?
6. What types of factors played in making the decision to come to Rowan University?
7. How have you felt being an undeclared student here at Rowan University?
8. Do you feel that the services provided to here at Rowan University have helped you in determining a major?
9. Which factors have played a larger role in declaring a certain major?
10. Do you feel that you will be declaring you major in the near future?

CHOOSING AN ACADEMIC MAJOR INTERVIEW

The information presented to you in this voluntary interview is being requested to gain a better understanding of why you are choosing your academic major and the sources of information that may have been helpful in the decision process, for the purpose of master's thesis publication. The information gathered from the interview will be used for statistical reporting purposes only. You are assured that all of your responses will be kept confidential and not affect class standing with the university. If you have any questions please contact Rachael Scharen at 856-256-6875 (Schare58@students.rowan.edu) or Dr. Burton Sisco at 856-256-3717 (Sisco@rowan.edu). Thank you for your participation in this interview!

Part 2 of 3: February 2010

1. This part of the interview will be observing the events that have brought you to consider declaring the major of your choice. What was the turning point for you in considering your chosen major here at Rowan University?
2. What life experience has prepared you to declare this major?
3. What campus experiences have prepared you for this choice?
4. How do you feel now that you know the major you intend on declaring?
5. Did you consider any other majors? If yes why were those majors ultimately not the major for you?
6. On a scale of one (not sure) to ten (very sure), how sure are you about this choice? Why?
7. When are you declaring this chosen major?
8. Do you know how to declare this major?

CHOOSING AN ACADEMIC MAJOR INTERVIEW

The information presented to you in this voluntary interview is being requested to gain a better understanding of why you are choosing your academic major and the sources of information that may have been helpful in the decision process, for the purpose of master's thesis publication. The information gathered from the interview will be used for statistical reporting purposes only. You are assured that all of your responses will be kept confidential and not affect class standing with the university. If you have any questions please contact Rachael Scharen at 856-256-6875 (Schare58@students.rowan.edu) or Dr. Burton Sisco at 856-256-3717 (Sisco@rowan.edu). Thank you for your participation in this interview!

Part 3 of 3: March 2010

1. Now that you have you declared your major, this interview will look at how satisfied you are in this decision. Describe for me how your major has affected your decision to complete your degree.
2. What has your choice of an academic major taught you about yourself?
3. How has your choice of an academic major affected (impacted) your life?
4. What significant messages have you received in your life that influenced your decision about your major?
5. What messages would you give to other deciding students who are in the process of choosing their majors?
6. When you were in high school thinking about what you wanted to be...did you ever see yourself pursuing what you are now?
7. On a scale of one (not sure) to ten (very sure), how sure are you now about this chosen major? Why?
8. How was the process in going about to declare this major?
9. Do you plan on declaring a second major/minor/concentration/certification? If yes in what and why?
10. Are you overall satisfied in your decision to declare your major at Rowan University?

APPENDIX D

Rules and Procedures for Logical Analysis of Written Data

RULES AND PROCEDURES FOR LOGICAL ANALYSIS OF WRITTEN DATA

The following decisions were made regarding what was to be the unit of data analysis (Sisco, 1981):

1. A phrase or clause will be the basic unit of analysis.
2. Verbiage not considered essential to the phrase or clause will be edited out (e.g. articles of speech, possessives, some adjectives, elaborative examples).
3. Where there is a violation of convention syntax in the data, it will be corrected.
4. Where there are compound thoughts in a phrase or clause, each unit of thought will be represented separately (unless one was an elaboration of the other).
5. Where information seems important to add to the statement in order to clarify it in a context, this information will be added to the unit by using parentheses.

The following decisions were made regarding the procedures for categorizations of content units:

1. After several units are listed on a sheet of paper, they will be scanned in order to determine differences and similarities.
2. From this tentative analysis, logical categories will derive for the units.
3. When additional units of data suggest further categorization, they will be added to the classification scheme.
4. After all the units from a particular question responses are thus classified, the categories are further reduced to broader clusters (collapsing of categories).
5. Frequencies of units in each cluster category are determined and further analysis steps are undertaken, depending on the nature of the data – e.g. ranking of categories with verbatim quotes which represent the rages of ideas or opinions (p.177).

From: Sisco, B.R. (1981). A study of the attitudes of selected academics and selected decision makers towards adult learners. Unpublished doctoral dissertation, Syracuse University.