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**FACTORS INFLUENCING CHOICE OF COLLEGE MAJOR:
WHAT REALLY MAKES A DIFFERENCE?**

by
Jill Edmonds

A Thesis

Submitted to the
Department of Psychology
College of Liberal Arts and Sciences
In partial fulfillment of the requirement
For the degree of
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at
Rowan University
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Thesis Chair: Roberta Dihoff, Ph.D

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Dedication

I would like to dedicate my thesis to my family and friends, especially to my fiancé Manning for supporting me throughout the process.

Acknowledgments

I would like to express my appreciation to Dr. Roberta Dihoff and Dr. Terri Allen for their support and guidance throughout this research.

Abstract

Jill Edmonds

FACTORS INFLUENCING CHOICE OF COLLEGE MAJOR: WHAT REALLY MAKES A DIFFERENCE?

2011/12

Roberta Dihoff, Ph.D.

Master of Arts in School Psychology

The purpose of this study was to identify factors that are most influential to students when deciding their academic major. During the Spring 2012 semester students from the Rowan University subject pool and other classes (n = 60) participated in an online survey. Using a Likert scale, from 1 being extremely influential to 4 being not at all influential, participants were asked to rank a list of factors that may have influenced their decision of college major. All factors were then grouped into three subtypes of influences (practical, interpersonal, and personal) to determine where the greatest influence on students today stems from. Analysis of the data rejected the researcher's hypothesis that practical influences outweigh personal and interpersonal influences in the current economic conditions. The data yielded non significant results as there was almost no difference between the three subtypes on how they influence students. This finding was contrary to previous literature stating that the factors of each student's personal beliefs were the most influential on their decision making. Additional research is needed with a larger sample in order to apply results generally across populations, or retest the hypothesis of this research.

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Chapter 1

Introduction

For most students graduating high school, the prospect of entering college is seen as a new and exciting experience. It's the first time they are away from home, living away from their parents. It's an opportunity to meet new people and make new friends. It is leaving the comforts of high school behind for a whole new world. For some students however, the process can be extremely stressful and overwhelming. There are so many things to consider. One of course, is which college to attend. Do you choose a public or private school, is cost taken into consideration, what about your parents, is it where they want you to go? Even more important than where you go sometimes, is what you are going to study. The process of choosing a college major can be very convoluted. It is a cause of great anxiety, because for most it will likely be one of the most important life decisions they make. This study looked at the factors that influence college students' choice of major and aimed to identify the most influential.

1.2 Purpose

The purpose of this study was to better understand the different factors that influence students when choosing a college major. Additionally by identifying what most influenced students, the findings of this paper can aide colleges in marketing their programs to students more effectively. Understanding the complexities of what students consider when they make their choice can help guide colleges to finding good fits for their academic community.

1.3 Hypothesis

A virtual CEO, as cited by Dietz, 2010 said, “Don’t let a career drive you, let passion drive your life”. But in today’s day and age of economic uncertainty how realistic is it to follow, how many students entering college choose their major based on this philosophy. The hypothesis of this study was that there are various influential factors that are taken into account when students choose a college major, and the aim was to identify the most influential. Moreover there are three main categories these influences fall under, personal, interpersonal relationships, and practical. Aspects of the decision may include if the school they will be attending offers the program they are interested in, what type of career opportunities will be available after graduation, family influence, inspiration of a teacher/mentor, career counseling services, interest in the subject matter and more. Thus more specifically the hypothesis of this study was that while traditionally factors under the personal category was the most influential, that with the current economic status practical reasons were in fact more influential to students when deciding their major.

1.4 Assumptions and Limitations

A potential limitation of the study was the use of the Rowan subject pool which would limit the sample size. Additionally since the sample includes students enrolled in an Intro to Psychology, there is a higher chance that students in that class are psychology majors, so that would limit diversity and variety of subjects.

1.5 Summary

The following chapters provide a detailed review of the information that is currently available regarding decision making and the factors that influence choice of college major. The procedures and the methodology that were used will be outlined and explained in subsequent sections.

Chapter 2

Literature Review

“There is perhaps, no college decision that is more thought-provoking, gut wrenching and rest-of-your life oriented-or disoriented-than the choice of a major.” (St. John, 2000, p. 22)

Choosing a college major is arguably one of the most important life decisions an individual can make. The purpose of the current study was to identify the most influential factors involved in that decision. A review of the literature not only identified the influential factors in deciding on an academic field of study, but also addressed how individuals make decisions in general, especially those involving career.

Decision Making

Some theories view career decision making as a systematic approach in which one weighs the cost to benefit ratio of their choice compared to all alternative choices. It is viewed strictly as an objective and logical process (Murtagh, Lopes, & Lyons, 2011). More recent research however found that some individuals use a “other-than-rational” approach to deciding a career. Murtagh, Lopes, & Lyons (2011) posit that people do not use only rational measures when deciding on a career, rather emotion, intuition, and cognition work together to form the best process for decision making (Murtagh, Lopes, & Lyons, 2011). The investigators used an IPA study to determine what lead to people making a career change. Analysis of their data they determined that for most participants the change was unplanned, and that exposure to new topic opened up their eyes to different opportunities and eventually led to a new career direction. Murtagh, Lopes, &

Lyons (2011), however were limited by their narrow sample of eight exclusively female participants. While their study was taken from the point of women who were in one career and decided to change to another, the current study, conversely, intended to find data that was more generalized to people who are making an initial career decision like that of choosing an academic major. One particular finding that may be more widely generalized was their finding that many factors contribute to determining career, including environment, economy and self-perception (Murtagh, Lopes, & Lyons, 2011).

As Falk, Dunn, and Norenzayan (2010) uncovered, decision making is directly linked to expected enjoyment. People are typically motivated to make decisions based on perceived happiness in the outcome. In their study students were given course descriptions of classes and asked which ones they were more likely to take. Students were asked to give their perception on how enjoyable each course would be versus how useful each course would be and students noted they were more likely to take a course based on the expected enjoyment rather than usefulness. Courses that ranked highly however, were those that students perceived as both enjoyable and useful (Falk, Dunn, & Norenzayan, 2010). Falk and colleagues' study reinforced the notion that emotion and rationality combined affect decision making. Though their research was used to determine differences between cultures that are individualistic and collectivist, the idea that we as humans base our decisions on our feelings of expected outcome and future events holds true to all.

As individuals progress through college, the search for employment becomes increasingly important. Gati, Givon & Osipow (1995) studied the aspects and preference level that individuals consider when selecting a career. Aspects refer to the different

factors, and preference is viewed as how high a level of importance the individual placed on particular aspects. Through analyses based on monitored dialogues between their 1252 female and 751 male participants and a computer assisted career decision making system, they found out the following. Both men and women found it extremely important in choosing a career to have interest in the field, variety, opportunity for professional advancement and higher income levels (Gati, Givon & Osipow, 1995).

Understanding what factors are used to decide a career is comparable to what is used to decide an academic major as well. Since choosing an academic major is usually the first step in setting an individual on a career path, the process of deciding needs to be investigated directly. Most students choose a major when they choose an institution, it may seem to some that this is too early to make an informed decision about what to study over the course of one's college career, but it is indicative of the process most institutions follow. Certain factors that may hold different weight are the reputation of the college, location, cost, and student socioeconomic status (Yazici & Yazici, 2010R). Additionally interest in the subject, potential job opportunities, and influence from parents and teachers has also been found as influential factors (Malgwi, Howe, & Burnaby, 2005). In a study of 449 undergraduate students in Turkey showed that the student themselves was the most influential person in their choice of major. That was followed closely by parents and other family members, then school teachers and lastly friends. Other factors affecting their choice of college major students ranked interest in the subject first followed by guaranteed employment, expected earnings in the field, and prestigious career as the highest (Yazici & Yazici, 2010). The results of this study may be limited by the sample since students were from Turkey. In Turkey, career choice is extremely

important because it is directly tied to social mobility after graduation and since students are restricted from changing major during college, their initial choice holds more weight in their future than it does for students in the United States. Nonetheless these findings were further supported by Beggs, Bantham, & Taylor (2008) which separated the influences affecting college major choice into six factor categories. The first and most influential category according to their study was match with interests, followed by major attributes, then job characteristics, then financial success, psycho/social benefits, and lastly information search (Beggs, Bantham, & Taylor, 2008). The factors identified by previous research are those in which the current study used to expand upon the influences affecting college major choice. For the purposes of this study, factors were broken down into only three categories: practical reasons, interpersonal relationships, and personal reasons.

Personal

The major chosen at the start of one's college career decides more than just the coursework involved, it decides where students will spend most of their college careers. It determines who they will have classes with, what faculty they will interact with, and which of their interests and opinions will be developed throughout their time there (Porter & Umbach, 2006). Current research explores the choice of college major through an individual perspective such as experiences, environment, and competencies (Ma, 2009). Porter and Umbach (2006) posit the "Person-Environment Fit" which suggests that students will have the most successful outcomes if they choose a major that aligns with their own personality, interests, beliefs, and even political views. The alignment of these

things is to ensure students are compatible with their major choice. They tend to choose areas of study where other students will be similar to them, share their interests and ideas, in turn providing them with a sense of belonging in their academic community. Feeling a lack of this belonging leads to discomfort and in turn dissatisfaction with choice of academic major (Porter & Umbach, 2006).

Still other students feel a sense of social responsibility. They have a desire to serve others. Giving back to society as whole far outweighs their want for materialistic or monetary rewards. They find satisfaction not from income or social status, but rather making a difference in the world. These students want to take that passion for social service and parlay it into finding a major or field of study that will one day allow them to do that kind of work (Duffy & Dik, 2009)

Personality characteristics play a role in the decision as well. Some fields of study and the occupations that follow carry certain stereotypes, and students will often their major based on how closely their personalities match those stereotypes (Pringle, Dubose, & Yankey, 2010). For example majors like accounting and finance are seen to be more analytical, while marketing majors are creative and enthusiastic. The issue with choosing based on a stereotype of a major is that most are outdated and false.

Consequently, the changing nature of the business world requires people to exhibit a number of personality characteristics, and fill different roles and different times. So if one chooses a major based on a stereotype that is no longer true for that field of work, they will find themselves in a difficult situation (Porter & Umbach, 2006). Institutions need to make more of an effort in providing information on their fields of study because if students are basing their choice on perceived fit and future job

characteristics then their perceptions should be accurate (Beggs, Bantham, & Taylor, 2008). Additionally the strengths and abilities that are required by individual fields of study need to be communicated appropriately so that students may match those to their own perceived strengths and abilities (Beggs, Bantham, & Taylor, 2008).

To this point, self-efficacy is also seen as a major contributor to choice of academic major. Self-efficacy refers to the belief a student has about his or her own ability to succeed in their major field of study (Porter & Umbach, 2006). It usually stems from success or failure in previous academic situations. The more success one has in a particular area the more likely a student is to persistently pursue those areas of interest with great effort. While still other students may be influenced to choose a major that will prove to be an intellectual challenge for them (Pringle, Dubose, & Yankey, 2010), either way they choose because of how they feel they can perform. Self-efficacy is a component of one of the current theories of motivation as an academic enabler as defined by DiPerna (2006). An academic enabler is an attitude or behavior that facilitates a student's participation in, and benefit from academic instruction (DiPerna, 2006). Using a scale he created called the Academic Competence Evaluation Scales-College Edition, DiPerna assessed student's self perceptions about their own skills and behaviors (DiPerna, 2004). Four enablers were identified, motivation, study skills, interpersonal skills and engagement. Since all are important for academic success and relate students' beliefs about their levels of these enablers, for the purpose of this study, they were considered in the personal influences when deciding college major.

Students may also choose a major due to the perceived social aspect of it. For those students who thrive in social settings, finding a major that encourages working on

teams or building of strengths of the others around you is very important and can influence them in their decision (Beggs, Bantham, & Taylor, 2008). Religion plays an important role for many students. They believe that they have a calling to a certain field of study or to fulfill a sense of purpose or meaningfulness in their life and that by doing so they are following God's plan for them. They feel the interests and experiences that have shaped them into who they are was God's way of leading them down the path to do His will (Duffy & Dik, 2009).

In addition to those already mentioned, there are several other personal factors that can contribute to a student choosing their major. Even political beliefs can be influential, but either way you approach it finding a major that is consistent with the student's beliefs, values, morals or interests will promote greater academic satisfaction (Porter & Umbach, 2006). Clearly the personal interests of each student is an integral part of deciding what major to choose, however it is important to keep in mind how students' interests are formed and how their personalities are developed. Understanding that an individual is shaped by the people around them is also crucial to the process (Porter & Umbach, 2006).

Interpersonal Relationships

Research has found significant positive correlations between relationships with families and peers and a student's self-esteem, locus of control, optimism, and intellectual ability (Fass & Tubman, 2002). Studies also suggest that family and parental relationships are still largely influential on late adolescents and college students (Fass & Tubman, 2002). Families that communicate more openly promote positive influence on

the behaviors and attitudes of college-aged children (Booth-Butterfield & Sidelinger, 1998). The frequency of parent/child discussions, parental involvement in school functions, and support of extra-curricular activities can all directly and indirectly influence children. Additionally when parents demonstrate preferences for certain occupations or view some fields of study as more valuable than others they are influencing their children. Their partiality can contribute to determining their child's expectations and career aspirations over time, and may eventually shape their decision of an academic major (Ma, 2009). Parents can also sway their child's choice of major by what they as a family place importance on. If for example parents value education, learning, and intrinsic work rewards over materialistic and financial rewards, students may be more likely to choose a liberal arts major as opposed to a more skill orientated major like engineering which would make in turn create more job opportunities with higher earnings (Ma, 2009). The more open the communication between parents and their children the more likely that they will share the same attitudes, particularly when communication the communication is two-way (Booth-Butterfield & Sidelinger, 1998). Normally, as children get older parents generally back off and are not as involved in their child's life. The methods parents use in helping to form their children early on can positively affect their children throughout their adult lives. Parents who treat their children in more adult-like ways by granting them more freedom and independence, and allow them the opportunity to be more involved in the decisions that affect their daily lives, have children who with higher levels of individuality, autonomy, and a more positive self-concept (Bumpus, Crouter, & Mchale, 2001). Being raised in a certain environment exposes one to certain life experiences that lead to a unique set of beliefs or

educational expectations (Duffy & Dik, 2009). Environments where children are encouraged to search out and develop their own philosophies and opinions can influence their attitudes and behaviors. Even in adulthood, parents and peers are the most important and influential people in the student's life, and student's just entering college are especially influenced by parents (Booth-Butterfield & Sidelinger, 1998), therefore parents and peers can play a key role in the choice of an academic major. Beggs, Bantam & Taylor (2008) note that some professionals coined the term "helicopter parents" for those who hover over their children and get involved in every facet of their child's college life, they suggest that universities take advantage of this and provide parents with strategies for helping their children decide a major that is best for the student, not the parent.

Additionally peer relationships that foster acceptance and support positively affect academic success, and the more successful and confident a student feels about their capabilities the easier the transition into college will be, including their certainty with their choice of major (Fass & Tubman, 2002). Some research found that parents may indirectly affect their child's decision to major in a field because students are likely to choose a major that would allow them to follow in their parents' footsteps (Dietz, 2010). Some students may even be expected to take over a family business (Duffy & Dik, 2009). Parental or family influence may be culture bound as well. Students from collectivist cultures may have a career path already laid out for them, and since families serve as a powerful emotional and financial support system there is pressure to follow that path. When a student's own dreams and aspirations do not align with the wishes of their family a sense of shame and guilt may follow (Duffy & Dik, 2009).

While all of the above mentioned are positive influences, there are also ways that interpersonal relationships can negatively affect a student's decision making. One particular study asked students what some of the main problems within their families were and money was the top response and felt that their family was unlikely to overcome their money struggles (Gorsline, Holl, Pearson, & Child, 2006). Students may choose a major because they considered the needs of their family before their own, choosing a major that would lead to the best employment opportunity rather than their own enjoyment. Other negative influences may originate in families that do not foster an environment of open communication, students from these families may avoid selecting a major, or commit to one just to fulfill their parent's expectations (Berrios-Allison, 2005). Students whose parents are over-bearing and do not allow for autonomy may be forced into an occupation just to please their parents, whilst others may be totally reliant on their parents to make decisions (Berrios-Allison, 2005). For students who believe they have decided on a major, but that decision is not reinforced by their parents, may question their own capabilities, perceptions of themselves and even change their mind (Berrios-Allison, 2005).

Students also report that they have peers, siblings, or teachers who have chosen the major and they chose it based on what they learned about it from them (Beggs, Bantham, & Taylor, 2008). Although most of the research supports the notion that interpersonal relationships play an important role in influencing students' college major choice, there is also some that found information to the contrary. Adams, Pryor, & Adams (1994) reported only 4% of students were influenced by their parents, only 6% said they were influenced by teacher or counselors, 9% said that recommendations from

friends influenced them, and 10% chose a major because it was similar to their parents. These figures were low when compared to other similar research. The discrepancy in results may be attributed to the sample. Accounting students on average are more analytical and logical than the general population resulting in less reliance on others to lead them to the best choice for them. Consequently, most students overall stated that they and other students chose their major for “less than rational” reasons (Beggs, Banthan, & Taylor, 2008). So what are the rational reasons students choose a college major?

Practical

Research has found that the decision of college major is one of the most frequently identified life regrets for Americans (Beggs, Bantham, & Taylor, 2008), but why? Is it that people regret what they chose because they didn't feel as though it suited their personality, or because their parents didn't agree with it, or something else entirely. It could be that Americans regret their choice not because it was the wrong choice but more that they chose it for the wrong reasons. The purpose of the current study was to identify what influences students most in their choice of academic major. And as the previous research has shown, almost always the top rated influence is interest in the subject. We have however failed so far to discuss the practical reasons one might choose a major.

One of the first things that students encounter when entering college is the bombardment of information and brochures from prospective schools. While the material can be overwhelming, some students rate that information as being more influential than any career planning services they participate in (Beggs, Bantham, & Taylor, 2008). The

information provided in these materials gives students more realistic view of the program and allows for a more practical approach to deciding to major in that field. These characteristics of the program like major requirements, variety of courses, the reputation of the faculty, class size, and mentor systems are all influential to students who are deciding their major (Beggs, Bantham, & Taylor, 2008).

Additionally for most students the choice of an academic major will hopefully one day lead to employment. For business majors, employment opportunities and starting salary were ranked highest in importance and reason for choosing the major (Dietz, 2010). However, considering many graduates report being unable to find work in their major field (Dietz, 2010), accounting for this when deciding on a major may be even more important. Some programs are occupationally specific and offer training that will directly link to a job related to that major, while others have few vocational traits linked to them and do not provide a direct path to future career (Roksa & Levey, 2010). Roksa and Levey (2010) note that in the United States especially the educational system provides students with a degree with limited or no specific training for an occupation, making the transition out of college challenging for many. While specific training may help students find employment soon after graduating there is also research to support general skills training to be more beneficial in the long run. With the current structure of the economy changing employers are in demand of a more highly skilled, flexible, work force that has both technical expertise and general skills in communication, critical thinking, and reasoning (Roksa & Levey, 2010). Weighing these options out can affect students when deciding one academic major over another.

The research on importance of employment post-graduation was continued by Beggs, Bantham & Taylor (2008). They uncovered that “job characteristics” are of the top influences on students selecting a major. Factors such as starting salary, earning potential, job autonomy, prestige, work-life balance, benefits, and advancement opportunities are all important to students when considering how their major will relay in to a job opportunity (Beggs, Bantham, & Taylor, 2008). Students are also influenced by attributes of the major program such as reputation of their major in the professional world and opportunities for self-employment (Pringle, Dubose, & Yankey, 2010). Particularly in the wake of the current economic down turn thinking practically when choosing a major is all the more important. Changes in economy and market conditions can affect job opportunities and resources (Duffy & Dik, 2009). With unemployment and low wages facing many Americans, ability to be more flexible and versatile in a work situation is necessary (Gorsline, Holl, Pearson & Child, 2006). Life circumstances may also be a determining influence. For students who have experienced poverty and stigmatization, wanting to avoid such things may influence them to choose a major that will lead them out (Duffy & Dik, 2009). Thus unpredictability of life circumstances may lead more people to choose a major wisely (Duffy & Dik, 2009). Furthermore, the unstable economy combined with the rising cost of tuition only adds more pressure to making a sensible choice (Gorsline, Holl, Pearson & Child, 2006). Beggs, Bantham & Taylor (2008) found that despite belief that many students change majors frequently only 65% of students surveyed reported ever changing their major. This is due to the cost involved with the extra coursework that may be required for changing, thus the ease of changing majors and earning a degree are largely influential, otherwise students could get

stuck in a major (Beggs, Bantham, & Taylor, 2008). Programs that are more structured and rely on cumulative skills make it more difficult to suddenly decide to change major. Therefore finding a major with a base core curriculum that allows for easier movement across major fields while still allowing a student to finish all requirements in time to graduate (without having to spend more time in school than originally planned) is a desirable trait (Porter & Umbach, 2006).

Current socioeconomic status may also be largely influential and a more practical reason for students to choose their major. Studies show that students aim to reach a social class or status that is at least as high as their parents if not higher. Choosing the right major can create upward social mobility for themselves and one day their children (Ma, 2009).

College is perceived as an investment in your future, and some believe that it's better to be rational, rather than emotional when deciding something as important as a field of study. If compared to how people make investment decisions college can be viewed as a classic gain vs. loss scenario. If you make a good decision that pays off you are happy with that choice, whereas choosing poorly may lead you to regret and dissatisfaction (Xiao & Wang, 2009).

College is not only an investment of money but also of time. Choosing a major that requires additional study or graduate work may be a determining factor when making that decision. Goyette and Mullen (2006) found that four years after completing college students who majored in vocational fields were working full time, while those who majored in liberal arts were enrolled in graduate school. Studies also found that some students even choose their major with expectation that they will be attending graduate

school, know that an additional time commitment will be required (Roksa & Levey, 2010). To relate deciding a major back to making an investment decision, Xiao and Wang (2009) surveyed people about how they would distribute their money in times of a depressed economic situation and in an optimistic one. Results found that the economic economy was the main factor in influencing a person's investment decisions. In a depressed economy people were more rigid and conservative with investing, while they were more likely to spend money in optimistic economic times (Xiao & Wang, 2009). The same can be said for choosing a major, in current economic times students should invest in the major that will best set them up for a stable, secure and successful future and not on what they personally feel is the best fit for them.

Conclusion

With all the possible factors influencing college students' decisions of academic major having been reviewed; there is still uncertainty about what really makes a difference. All previous research has ranked all influences in different orders except one. Choosing a major that best fits the individual has always been found to be at the top of the list. Whether you label it their interest, desire, passion, or need to contribute to the world it all falls under the scope of personal reasons. The theories of these influences being internal and originating within the individual (Duffy & Dik, 2009), are valid except on one point. Individuals are always evolving and they are reshaped by new experiences. New world views and values are developed constantly, so personal reasons that influence a student at the start of their college career may change over the course of time (Duffy & Dik, 2009). Concurrently, the shape of the economy in the United States and across the world is also ever changing. Due to the current economic conditions and the slow

economic recovery, the hypothesis of this paper was the belief that students deciding their major were most influenced by practical reasons. This research posits that students choose a major with the intent to better compete in the changing post graduate marketplace, and that influence outweighs all others.

Chapter 3

Methods

The purpose of this study was to identify the factors that are the most influential in college student's choice of academic major. While previous research has found that personal reasons are the most influential, the stance that this paper took was that in today's current economy practical reasons weigh more heavily on the student's choice.

3.1 Participants

The participants were 60 students ranging in age from 18 to 23 with an average age of 19.36. Of these 60 students 7 were Latino/Hispanic, 46 Caucasian, 1 Asian, 3 African American, and 3 were Other/Preferred not to answer. These students were enrolled in an Introduction to Psychology class at Rowan University. They were selected from a subject pool of students that signed up to be a part of a study, and all students were considered eligible to participate. There were 30 male participants and 30 female participants. Participation was voluntary and the students were informed that their grades in class would not be affected by participation in the study. They were not compensated in any way for their participation. Of the 60 participants 32 were Freshman, 18 were Sophomores, 5 were Juniors, and 5 were Seniors.

3.2 Materials

A questionnaire was used to collect data regarding influences that affected students' choice of college major. It included a total of 50 items, a demographic sheet, items

measuring socioeconomic status, and items measuring the factors that influenced the students to choose their major. For a copy of the survey please see Appendix A.

Students were asked to rank, using a rating scale, the factors that influenced them in their decision of choosing an academic major. They were asked to use a Likert rating scale from 1-4. A neutral mid-point was eliminated so that students would be forced to place themselves on either side of each influence listed. Scores were computed by adding participants' response for each influence and then combined to make the total score for each of the three subcategories.

3.3 Design

Two mixed analysis of variance (ANOVA) were used to analyze the data. The first was used to compare the categories of influence and colleges. The independent variables were the different colleges the participants belonged to (i.e. College of Engineering, College of Education, etc.) and the categories of influence (i.e. practical, interpersonal, and personal). The dependent variable was the subject's score. The second mixed ANOVA was used to compare the categories of influence and the gender of the participants. The independent variables were the categories of influence and the participants gender (male or female). The dependent variable was the subject's score.

3.4 Procedure

Data collection for this study occurred during the 2011-2012 Spring semester. The questionnaire was administered to students through an online research tool. Students signed up to participate in the study and timeslots were administered by the researcher.

The questionnaires included a statement of consent that detailed the purpose of the study and a guarantee that all information collected would be kept confidential and anonymous. Participants were asked to sign in to receive credit for their participation; however their names were not included on or attached to the questionnaire in any way. The surveys questions were generated by the researcher based on previous research that identified influences that affected student's choice of college major. Those influences were expanded on to create the total of 45 influences listed. Those influences were further broken down into three categories, practical influences, personal influences, and interpersonal relationship influences. Students were asked to rank each influence on a 1-4 scale 1 being very influential, and 4 being not at all influential. Once the surveys were collected they were scored, the highest score meaning things that were most influential was a 15 and the lowest meaning things not at all influential was a 60. Each individual item was scored and the researcher then determined the score for each of the three categories. The data from participants was also broken down by gender (male or female) and the College in which each of the participants were enrolled. There were four categories to describe the College the participants belonged to. In the first group participants were enrolled in either the College of Liberal Arts and Sciences or the College of Fine and Performing Arts (N= 24). The second group consisted of participants in the College of Communications (N=11). Participants in the College of Education and the College of Health and Exercise Science were combined to make up the third grouping (N=10). The final group consisted of participants who were enrolled in the College of Business and the College of Engineering (N=15). The data was then analyzed.

Chapter 4

Results

The hypothesis of this research was that students currently enrolled in college choose their college major based on more practical influences than personal influence. After analyzing the data collected from the participants all results rejected the hypothesis as the data analyzed was not significant. A two-way mixed ANOVA test was run. The independent variables were the categories of influence (practical, personal, and interpersonal) and the colleges the subjects belonged to. They were compared to determine if there was any statistical significance among the categories and the colleges. The results were non significant on all of the three categories of influence as well as the colleges (see Figure 4.1 and 4.2).

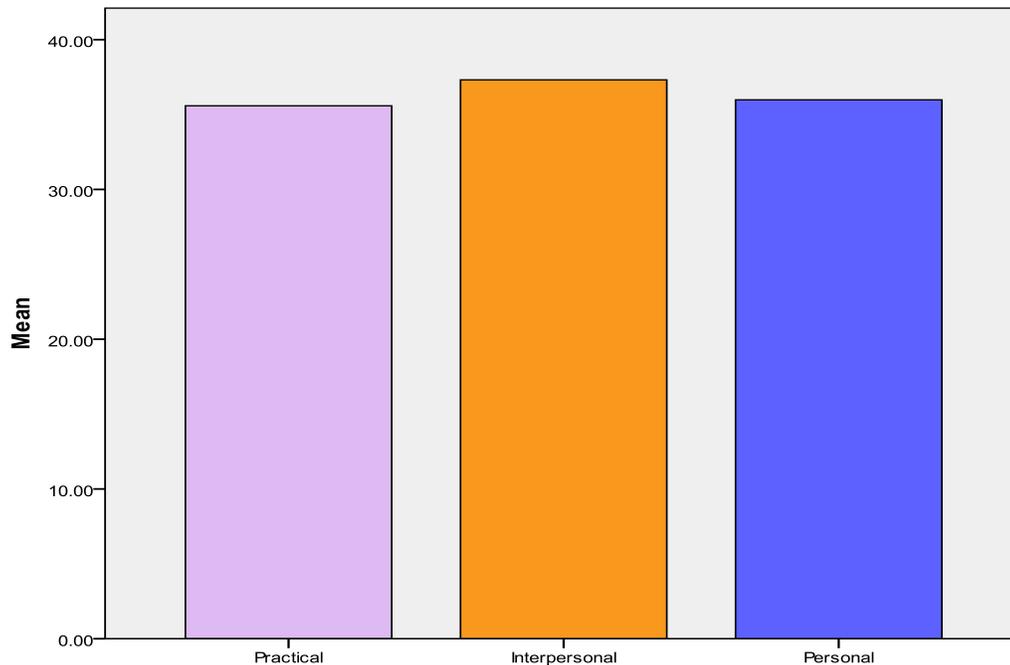


Figure 4.1 Influences

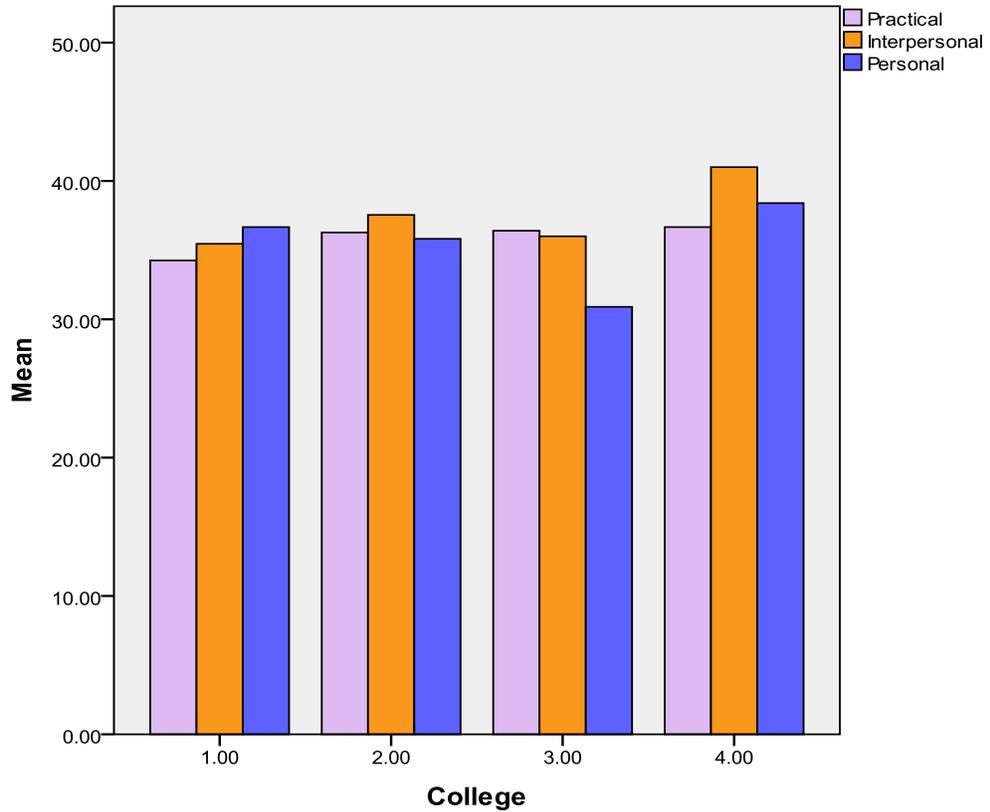


Figure 4.2 Influences by College

The second test that was run was to interpret the results of the influences on the survey as they related to gender. The independent variables were the categories of influence and the gender of the subject. They were compared to see if there was any statistical significance between the category of influence and the gender of the subject. There was an even distribution of males to females, however after analyzing the data the results also came out to be statistically non significant. Results can be seen in the Figure 4.3 below.

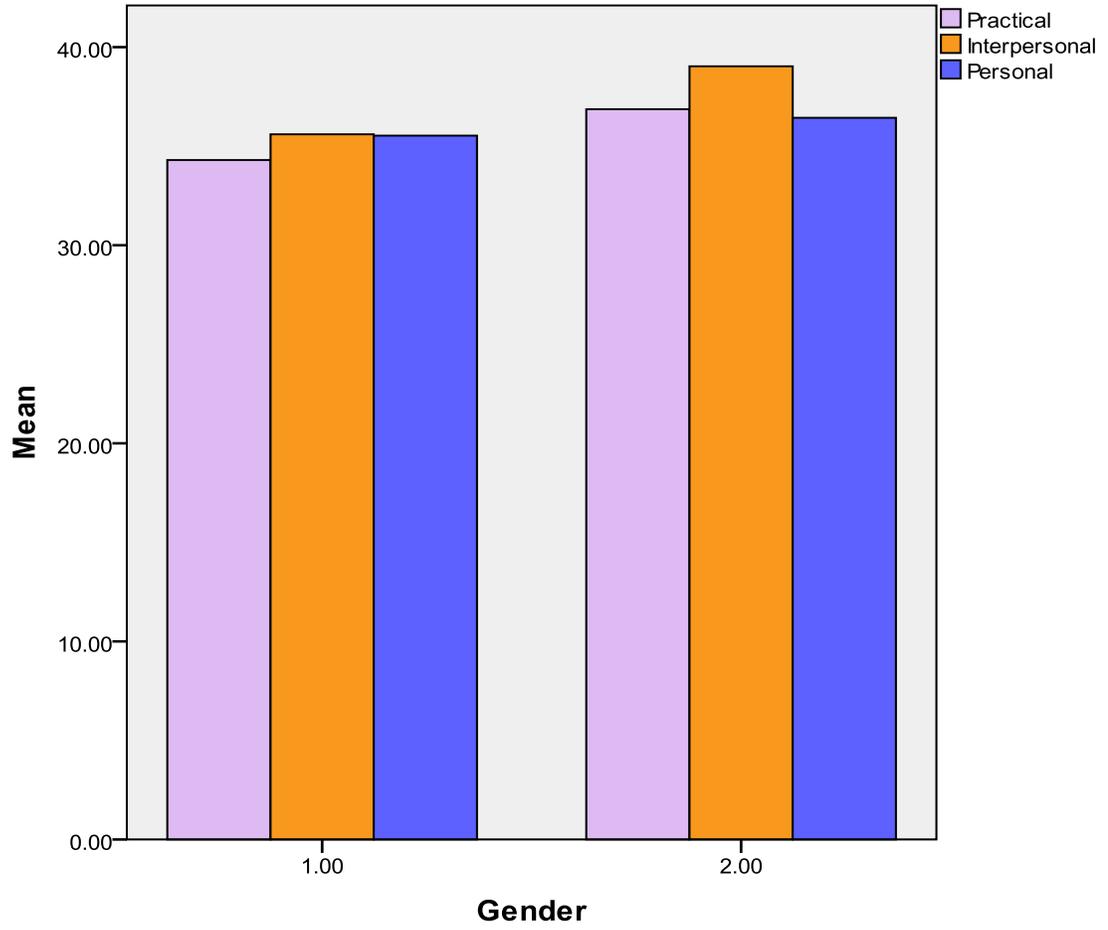


Figure 4.3 Influences by Gender

Chapter 5

Discussion

There were many considerations to take into account when reviewing the results of the present study. Though the hypothesis of this research was rejected and all results indicated not significant the research is still important to consider.

In previous literature there was some debate on which factor was the most influential to students when choosing their academic major. While most had a tendency to lead slightly more toward personal factors, interpersonal and practical reasons also largely played a part in the decision making process. The results above further prove that all areas influence students throughout the process. Though not statistically significant all three subcategories played an almost equivalent role in the participants' choice. In previous research participants often came from a single academic population like students enrolled in an Accounting program. The current research builds upon that by including students from all academic areas. Additionally while previous research generally measured the influences in general terms this research broke down the factors into three separate subcategories. While previously students may have ranked "interest in the subject" as their number one and "cost of school" as their number two, by breaking it down we can see if there is a more specific way to identify what influences students the most.

5.2 Limitations

The limitations of this study perhaps prevented a true reading of the factors that most influence students' decision of academic major. The first is the sample size. With

only 60 students responding to the survey out of a college consisting of over 10,000 students can hardly be considered a representative sample. In order to generalize the results across the population at Rowan University as well as other Universities like it more research would need to be done and on a much larger scale.

Another limitation of this study lies within the questionnaire used to obtain the results. As described previously the factors indicated by previous literature listed each one separately. The current study grouped those influences together to come up with a category of influence (i.e. practical, interpersonal, and personal). Once those categories were defined 15 separate items for each category were used on the survey for students to rank. This may have been a flaw within the methods and lead to results being non significant. As it was, some of the items in each category were very influential to students while others were not at all. By decreasing the number of items in each category the averages may have evened out a little and given a more true reading. For further research and to continue with the work started in this research, modifying the questionnaire to reduce the number of items in each category is suggested.

Lastly, the way in which data was collected limited the study. Subjects were allowed to sign up to participate in the study and take it online at their own convenience. Administering this type of survey could be more successful if done in person. If any questions arose on the influence listed, having a researcher available to answer questions or clarify the factor listed could provide more accurate data which in turn would lead to more accurate results. While this may be another limitation of the survey itself, any uncertainty about the question being asked could be addressed by the researcher.

Additionally, having a researcher present could increase accountability of the participants, and deter participants from choosing any response just to complete it.

5.3 Future Directions

While the results of this paper did not yield the answer that was searched for, still more research needs to be conducted. As Duffy & Dik, 2009 discussed a person environment fit, it is important that students find a place in higher education that will put them in the best position for the future. A better understanding of how those factors that influence students are broken down will allow institutions to assist in that process. It would provide Universities ways of getting the information students need to find the perfect fit to them through the most effective channel.

The method of retrieving the data to is yet to be determined. Further investigation into the breakdown of these factors by gender, college, or some other measure such as ethnicity or socioeconomic status is needed to build upon the literature prior to this study and the results found by the current research.

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Appendix A

This survey is being used to research the factors involved in choice of major for a Master's thesis. It will take approximately 20-25 minutes to complete. Participation in the survey is voluntary, consent will be assumed if the questions are answered. You do not need to respond to all questions. Class standing will not be affected in any way based on participation. All information will be kept anonymous and confidential. Your participation is greatly appreciated. Thank you. Researcher - Jill Edmonds – edmond56@students.rowan.edu

Faculty Sponsor - Dr. Roberta Dihoff – dihoff@rowan.edu

Demographics

- 1) Age _____
 - 2) Gender: M F
 - 3) Ethnicity: (circle one)
Caucasian African American Latino/Hispanic Asian
Other/Prefer not to Answer
 - 4) College Major or Anticipated Major
-
- 5) Year in School: (circle one)
Freshman Sophomore Junior Senior

Family Background

- 1) Growing up were your parents: (circle one)
Married Divorced Separated Other (please explain)
- 2) What was the highest education level achieved by your parents?
Mother-
Father-
- 3) Did they attend either a college or professional trade school? If so what did they study?
Mother-
Father-

4) What is your parent's occupation?

Mother-

Father-

Major Influences

1) Please rank the following factors that affected (or will affect) your choice of college major from **1** being ***extremely influential***, to **4** being ***not at all influential***

Cost of School

1	2	3	4
---	---	---	---

Availability of major at your school

1	2	3	4
---	---	---	---

Parental Influence (eg. Your parents wanted you to choose that major)

1	2	3	4
---	---	---	---

Career Counseling in High School

1	2	3	4
---	---	---	---

Role Model

1	2	3	4
---	---	---	---

Job Market (e.g. can you find a job after graduation)

1	2	3	4
---	---	---	---

Your religious beliefs

1	2	3	4
---	---	---	---

A teacher inspired you

1	2	3	4
---	---	---	---

Life Experiences (eg. You want to be a doctor, because a doctor saved someone in your family)

1	2	3	4
---	---	---	---

Starting Salary after graduation

1	2	3	4
---	---	---	---

Interest in the subject matter

1	2	3	4
---	---	---	---

Length of Schooling (eg. your major would require additional schooling like a masters degree)

1	2	3	4
---	---	---	---

Current Economy

1	2	3	4
---	---	---	---

Prove to your parents you can do it

1	2	3	4
---	---	---	---

You like to be challenged

1	2	3	4
---	---	---	---

Ease of Changing Majors

1	2	3	4
---	---	---	---

Family members other than your parents

1	2	3	4
---	---	---	---

You think you will be good at it

1	2	3	4
---	---	---	---

A Coach

1	2	3	4
---	---	---	---

Opportunities for hands on training

1	2	3	4
---	---	---	---

Reputation of your program and the faculty

1	2	3	4
---	---	---	---

Aptitude in the subject

1	2	3	4
---	---	---	---

You want to follow in your parents footsteps

1	2	3	4
---	---	---	---

You don't want to do the same thing as your parents

1	2	3	4
---	---	---	---

You believe it's what you are meant to do

1	2	3	4
---	---	---	---

You are motivated by learning

1	2	3	4
---	---	---	---

You like to work with people who are like you

1	2	3	4
---	---	---	---

You like to work with people who are different from you

1	2	3	4
---	---	---	---

Friends

1	2	3	4
---	---	---	---

A Mentor

1	2	3	4
---	---	---	---

Scholarship

1	2	3	4
---	---	---	---

Fascination with the field of study

1	2	3	4
---	---	---	---

Your political beliefs

1	2	3	4
---	---	---	---

Siblings

1	2	3	4
---	---	---	---

Career prestige

1	2	3	4
---	---	---	---

Classmates

1	2	3	4
---	---	---	---

The kind of work it will enable you to do (eg. you want to help people)

1	2	3	4
---	---	---	---

Career earning potential

1	2	3	4
---	---	---	---

Flexibility in career paths

1	2	3	4
---	---	---	---

Parental encouragement

1	2	3	4
---	---	---	---

Not wanting to hate your job when you graduate

1	2	3	4
---	---	---	---

Your belief that you can excel at it

1	2	3	4
---	---	---	---

Grandparents

1	2	3	4
---	---	---	---

Professional Partnerships (i.e. relationships with corporations that can lead to internships or job placement)

1	2	3	4
---	---	---	---

Social Peer Groups

1	2	3	4
---	---	---	---