

**CHANGING A COLLEGE MAJOR: A COMPARISON OF STUDENT AND
FACULTY VIEWS**

by

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In writing this paper, I felt that it was acceptable and quite appropriate to interject some of my own personal feelings about faculty members. That being said, when I saw this quote from Parry (2012), "Campuses are places of intuition and serendipity" (p.1), I thought about Dr. Hamilton. I also thought about my committee chair member, Dr. Thomas Brinthaup, and I wrote...

"There is a richness and a serendipitous aspect to college life which allows for things to occur by discovery and by chance, as part of the natural occurrences that come to be on college campuses among highly intellectual individuals, and the novices following in their footsteps..."

Dr. Brinthaup was the first person I met with when I came to MTSU, and the last person I spoke to as a student at MTSU. Honestly, I wouldn't have it any other way. I would not have arrived to this point without his guidance, mentorship, and friendship. I am very thankful that he gave me the opportunity to take chances here. In the end I think the results far outweigh the risks that we took because we will be conducting research together for a long time to come. On that note, Tom, here's to us!

ABSTRACT

Participants were college students and faculty members from a large public university in Tennessee. Each group completed a self-report measure and demographic questions. Each measure was comprised of a question or scenario pertaining to changing an academic major. Results showed that student and faculty views were similar regarding changing an academic major due to a change in career goals. However, student and faculty views were dissimilar when it pertains to changing an academic major recommended by others. Results also showed that student and faculty views are similar regarding the amount of effort exerted by students. Conversely, student and faculty views were dissimilar when rating measures regarding, GPA, grades, and teachers as curricular reasons to change an academic major. Implications for future research include examining the role that required effort of students plays in their decisions to change academic majors.

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CHAPTER ONE:

INTRODUCTION AND REVIEW OF THE LITERATURE

Since the 1960s, numerous attempts have been made to refine higher education and improve college student learning and retention (Menand, 2011). Extensive research literature exists pertaining to these goals, including supplemental instruction (Drake, 2011), academic support (Thompson, 2008), freshman interest groups (Tinto & Goodsell, 1994), academic advising (Shriner, 2010; Tinto 1999), student expectations (Zafar, 2011), learning communities (Zhao & Kuh, 2004), and selecting or changing academic majors (Keyes, 2010; Tomer, 2010; Zafar, 2012). However, researchers agree that many questions remain unanswered pertaining to students' retention and successful completion of their chosen major programs of study.

Public universities and community colleges have made a college education more accessible now than at any time in history. However, even though public institutions of higher learning are more accommodating and many high school graduates who want to attend college can do so, many college students do not graduate (Menand, 2011). Ronan (2005) reported that 40% of undergraduates enrolled in four-year college programs are still enrolled after year six. More recently, the U.S. Department of Education (May, 2015) reported that only 59% of undergraduates completed their degree in six years, which suggests that there has been no change over a ten year period.

It is clear that, between access to a college, and the selection and completion of an academic major, problems still exist for ensuring student retention and success. In fact, on a national scale, 80% of undergraduate students enter college with undeclared majors (Ronan, 2005). In addition, more than 50% of undergraduate students change their major

at least once during the course of their education (Brooks, 2012). Moreover, some undergraduate students change their majors two to three times during their course of study (Ronan, 2005). Even students considered to be academically “gifted” have experienced challenges with selection and completion of their majors (Grant, 2000).

The goal of this study is to compare faculty and student views regarding the disadvantages and the advantages of changing academic majors. There is abundant research literature devoted to examining college students' choices to change academic majors (e.g., DeMarie & Aloise-Young, 2003; Galotti, 1999; Grant, 2000; Nauta, 2007). However, there is very little research comparing faculty and student views on this subject matter. First, I will review the literature on how students decide upon their academic major. Second, I will review the literature on why students change academic majors. I will then review literature and devote purposeful attention to factors that could be disadvantages and advantages of changing academic majors. Finally, I will review the literature pertaining to faculty views of college students and their academic majors.

Deciding on an Academic Major

Being unprepared, having unrefined goals (Adams, 2011; Daley, 2010; Mbuva, 2011; Tinto, 1999), and vocational indecision (Slaney, 1980) are some reasons that cause many students to experience difficulty with their choice of academic major and with academics overall. Some entering college students give very little thought to the notion of selecting a major upon entering college (Galotti et al., 2006). Galotti (1999) pointed out that, for some students, the notion of selecting a college major seems foreign. She stated "students may have maladaptive expectations about what effective real-life decision

making should be" (p.1). Perhaps, some students are so inexperienced at this function, they cannot feasibly envision all that the results of their decision will encompass.

In essence, we are observing many high-school students, individuals who are very inexperienced at making significant life choices on their own – make their first long-term commitment (Galotti et al., 2006). Bank, Biddle, and Slavings (1992) found that more than half of entering freshman students' hopes were social and personal, with less thought given to academic goals. Thompson and Orr (2007) suggested that the transition for first year freshman students can be so stressful in itself, that the thoughts of academics during that stage become secondary. According to Galotti (1999), another problem for some of these students who are new to the college environment may be the sense of finality that accompanies the task of deciding on a college major. Hoover (2011) categorizes some undecided students as people with many interests, who actually want to explore before they commit.

Researchers have noted that taking one's time in selecting a major is not a bad thing. For example, Lee (2007) suggested that some students are better off taking their time and exploring their options. She pointed out that for students who are unsure about their academic goals, the most beneficial choice would be to take general education studies upon entering college. In addition, by taking this route early in a college career, no money or time is wasted. Many college advisors share similar advice with students (Berret, 2012; Hoover, 2011; Sobec, 2013). In situations of un-decidedness, items of most importance at this early stage of college life are becoming engaged in university life (Kuh, 2007; Schnall, 2013) and maintaining one-on-one advising with an academic advisor to create a career path (Lee, 2007; Schnall, 2013; Sobec, 2013).

Berret (2012a) reported a graduation rate of 83 % for students who entered undecided, yet declared a major prior to the end of their sophomore year. He stated that students fared well by taking the time to gather information prior to making a choice. This helps to explain why many academic advisors recommend delaying a choice of academic major for at least the first year, and it helps to explain why some institutions have a policy of delaying declaration of an academic major until the sophomore year is nearly completed (Gahagan & Hunter, 2006; Galotti et al., 2006).

On the other hand, taking too much time to declare a major can decrease the odds of a successful outcome. Hecklinger (1972) and Muskat (1979) found that extensive indecisiveness can lead to academic failure. In fact, there is a much higher risk of not completing academic programs for college students who have no personal commitment to an academic program compared to those who do (Muskat, 1979). Moreover, Berret (2012a) reported a graduation rate of 63% for students waiting until their junior year or beyond to select a major.

Waiting too long to declare a major can cause concern. Hoover (2011) categorizes late-declaring students as profoundly undecided and suggested that it is derived from a lack of direction. According to Schnall (2013), the issue of deciding on a major has to be recognized by students as much more than semester to semester planning – it is planning for the long-term, life's goals, and a career. This is why the help of professional academic advisors is considered by many to be crucial for students (Allen & Smith, 2008; Carney & Savitz, 1980; Kelly, 1995; Sobec, 2013). Academic advising can help students to remain enrolled, engaged, and on-track because advisors help students understand what their options are (Doubleday, 2013; Kelly, 1995; Light, 2001).

Conklin, Dahling, and Garcia (2013) suggested that two criteria be met when deciding on an academic major: students must perceive that they belong in an academic major via emotional identification and cognitive evaluation. To a great degree, a sense of belonging should run parallel to positive self evaluations of how abilities are meeting the demands that are required. If the two remain positive, success can be achieved.

In summation, some factors that affect deciding on a major include being unprepared for college, a lack of experience making life choices, personal and social issues overshadowing academics, the sense of finality accompanying the decision, and a lack of personal commitment to a degree program. Without fully understanding and without being fully prepared to meet the demands of a newly selected academic major, successful completion of the academic program is less likely (Conklin et al., 2013). As a result, there is a possibility of becoming an indecisive student overall, which can lead to an academic downfall (Hecklinger, 1972; Muskat, 1979).

Taken together, when students do finally decide on an academic major that is based on their personal interest (Conklin et al., 2013; DeMarie & Aloise-Young, 2003; Dunwoody & Frank, 1995; Pearson & Carey, 1995) and related to their goals (Ayotte & Sevier, 2010), their chances for academic success increase with their personal commitment to a degree program if their choice is made within their freshman or sophomore years. However, their chances for academic success decrease if their choice of academic major is not decided upon until their junior year or beyond (Berret, 2012a).

Why do Students Change Academic Majors?

All students who enter an institution of higher learning bring with them a unique set of perceptions. Consequently, after spending time in a new college environment and

with a new social circle amid highly educated individuals, administrators, and faculty members, it becomes easier to understand that a high school student's perceptions do not suit this newly found vision. Hence, it is completely understandable that the types of experiences that take place at university campuses can instigate change and create a desire to strive for different results. Zhao and Kuh (2004), Tinto (1999), and Kuh (2007) attribute this intellectual growth to being academically engaged.

Many college students experience intellectual change and growth as they progress with their education. Some of the reasons that students should always be allowed to change academic majors is to be able to expand upon their intellectual acquisitions and take courses that they have become truly interested in (DeMarie & Aloise-Young, 2003; Dunwoody & Frank, 1995) and courses that have become more relevant to them (Pearson & Carey, 1995). Ayotte and Sevier (2010) noted that when students are taking courses that they perceive as irrelevant to them, they do not develop the motivation to continue. However, when they begin taking courses based on personal interests, their motivation increases and they simultaneously gain a sense of purpose.

Another reason students change majors would be to correct choices that they made prematurely (Hoover, 2011). Some students choose an academic major without adequate knowledge that is needed to make an informed decision. More specifically, some students make quick, uninformed, decisions. In explaining the planning fallacy, Svenson (2008) stated that intuitive decisions and judgments are extremely optimistic and potentially unrealistic. In interviews with undergraduate students who have changed majors, one of the common factors found by Firmin and MacKillop (2008) was students originally choosing a major with a lack of knowledge about the specific field and the

careers it offered. According to Galotti (1999), it is typical for many students to be less than thorough in investigating possible academic majors. She noted that students can engage in a strategy of managing cognitive tasks by limiting their focus. In other words, they can take the candidate alternatives, review the most appealing information, and ignore the rest.

Other factors that contribute to students' choices to change their major include theoretical and practical satisfaction with their major (Nauta, 2007) and their personal performance (Reed, 1981). Zafar (2011) and Dunwoody and Frank (1995) found grades to be a factor in changing academic majors. On the other hand, academic failure in itself is not the sole reason that students will drop courses and change academic majors (Astin, 1977; Kingston, 2008; Nauta, 2007). Some students may have chosen a major and for various reasons realized that their choice was not appropriate. For example, some students base their choice of major on assumed job characteristics. Students might also base their choice on the experiences of friends, family members, and parents (Hoover, 2011). Finally, some students feel that they just do not belong, and cannot cope with the situation they have gotten themselves into (Hewitt & Seymour, 1991).

In a study conducted at the University of Colorado, Hewitt and Seymour (1991) reported that 41% of science, math, and engineering students switched out of their declared major within the first year. In an examination of programs on a national scale, Chang, Cerna, Han, and Saenz (2008) reported that 50% of science, engineering, technology, and mathematics (STEM) majors opted out of their academic programs within the first two years of their academic program. Finally, Gasiewski, Eagan, Garcia, Hurtado, and Chang (2012) studied students from introductory STEM classes across 15

colleges and universities and came to the same conclusions as Hewitt and Seymour (1991) and Chang et al. (2008). That is, a lack of a sense of engagement with faculty and a lack of a sense of belonging in an academic program can play a significant role in students' choice to change academic majors.

In summary, researchers have concluded that being engaged with faculty and campus communities enhances student success. In addition, access to university resources can increase students' academic success (Kuh, 2007). Consequently, as students grow intellectually, their perceptions of the world change, and so do their goals. As a result, some students decide to change academic majors. Other reasons students change majors include premature choices, uninformed decisions, and grades. Finally, a perception of a lack of engagement and belonging appears to affect a select group of students, mainly students in various STEM programs across the nation (Chang et al., 2008; Gasiewski et al., 2012; Hewitt & Seymour, 1991).

Disadvantages of Changing Academic Majors

One of the greatest disadvantages of changing academic majors during the course of study is the possibility of regretting the decision at a later date. In studies of regrets, matters pertaining to education rate high. In fact, Roese and Summerville (2005) found that making wrong educational choices was the leading reported life-regret. Tomer and Eliason (2005) showed that allowing coursework to become secondary to other obligations became a major regret for college students. Finally, not being more prepared academically was a regret of college students (Lata, Nakamoto, & DeGenova, 1997).

Roese and Summerville (2005) stated "regret lingers where opportunity existed" (p. 1284). They also pointed out that regret is not exclusive to the old or the elderly.

Individuals, young, old, and elderly reported making wrong educational decisions as a major regret. This line of research shows that there are immediate effects of regret and also long-lasting repercussions. Hence, prior to walking away from an opportunity once sought, students should carefully consider all of the options and all of the factors guiding the decision to change majors.

Another disadvantage of changing academic majors is the additional time needed to fulfill graduation requirements. Depending on when the change is made, an additional two years of study could be required to complete the new courses associated with a new major (Clark, 2013; Ronan, 2005). Cost is also a disadvantage of changing academic majors. Dependent upon a student's academic level of completion at the time of the change, the costs of a typical 4-year college education could increase up to 50 percent. More specifically, the average Tennessee public university in-state tuition of \$7,546, which equates to \$30,184 for 4 years, would rise to \$45,276. Moreover, if the student lives on campus, a 4-year tuition, plus room and board amount of \$79,924 would rise to \$119,886 according to figures provided by the College Board (Clark, 2013). That being said, students have numerous factors to examine when considering changing academic majors and each factor should be examined in detail.

Elaboration is a method of examining complicated information and adapting to it (Lynch, 2008), and it is a useful method of sorting out details pertaining to self and abilities compared to the demands of an academic major. As stated by Conklin et al. (2013), emotional and cognitive evaluations of self and abilities take place during students' college careers and these evaluations can affect academic success. Students must perceive that they belong in an academic major and that they are succeeding;

otherwise they will choose to change their major, even if it involves changing the major multiple times (Lynch, 2008).

In summary, it would be very disadvantageous of a student to not take into account multiple factors including possible regrets and additional costs, time, and effort when considering changing academic majors. In addition, if a student selects a different academic major without elaborating on all of the factors that guided the original declaration of a major including appropriate choice making based on true interest and personal goals, there is a chance of repeated events of dissatisfaction and changing academic majors.

Advantages of Changing Academic Majors

Although there are several possible disadvantages to changing one's major, there are also some potential advantages to doing so. The college years are a time for reflection, enlightenment, and discovery (Tinto, 1999). It is understandable that during this time many students may still be weighing their options about their goals and be unsure about their future. Coming to know one's self can help to resolve indecisiveness and be a very advantageous first step to students when they are trying to determine where they want to be after college. Tomer (2010) stresses the importance of self-knowledge. Daley (2010) also asserts that self-knowledge is a prerequisite for student success, in social, educational, and work settings.

From this perspective, changing majors can be a positive development, reflecting a student's personal growth or maturation. In fact, choosing a major based on self-knowledge and interests can instill a sense of self-satisfaction that can be viewed as a significant academic accomplishment for a college student (Nauta, 2007). Moreover,

current information acquired by a student out of personal interests can be more relevant and more reliable. For instance, sometimes adults may recommend a career path to a future student based on their recollections of those roles, but the information may not be reliable.

The problem with those recommendations is that an older adult's recollections of those roles may be outdated or inaccurate. In today's world, business models can be very different than they were even 10 years ago. Similarly, a student's perceived fit can be altered when professionals in the field explain that some stereotypes have actually become obsolete (Pringle, DuBose, & Yankey, 2010). In these instances, it would be an advantage for students to change majors to one that they have acquired personal knowledge about and fits their own personal interest.

Of course, if failing grades are threatening students' academic standing, and they do not choose to exert the effort to meet the demands required to improve academically, it would be to the student's advantage to change majors to something in which they are more likely to succeed (Stinebrickner & Stinebrickner, 2011). Dunwoody and Frank (1995) found grades to be a factor in changing academic majors. More specifically, when students realized that their grades may affect their overall academic standing, they began to explore alternatives.

In regards to low academic standing and GPAs, some students change academic majors in order to keep their financial aid or scholarships and rescue what they can of their education. In fact, Zafar (2011) pointed out that learning is a factor in decisions to change majors. Regarding college students, financial means can affect a college student's ability to earn a degree and the ability to attend college entirely (Kuh, 2007; Parry, 2012;

Sobec, 2013). That being said, once students realize that they may not be able to complete college at all because they are not meeting the requirements of their financial aid or scholarships, it may be an advantage to change majors.

Finally, changing from a major that was selected too quickly as a result of an uninformed decision to a major that was chosen based on true interest and career goals can be an advantage. Acting on impulse can have a negative impact on educational goals, especially when choosing an academic major. Impulse control is a predictor of academic success (Sparkman, Maulding, & Roberts, 2012) and lower levels of impulsivity are related to educational achievement and successful planning (Spinella & Miley, 2003). Hence, changing a major in order to reverse a decision that was made impulsively can be an advantage.

In summary, possible advantages to changing academic majors include changing majors from those recommended by peers, adult acquaintances, and parents to a major based on personal experience and knowledge. Additionally, changing majors due to failing grades and possible loss of financial aid and scholarships can be to the advantage of students if they are willing to exert the effort to become engaged in the academics of their newly chosen academic program. Finally, changing from a major that was selected as a result of an uninformed decision can be advantageous. Table 1 presents some of the disadvantages and advantages of changing one's academic major.

Table 1 *Disadvantages and Advantages of Changing an Academic Major*

Disadvantages

- 1) The possibility of regretting the decision at a later date.
- 2) The additional time and effort required to complete a new academic program.

Advantages

- 1) Changing from a major recommended by others to a major selected via personal growth and knowledge.
- 2) Changing majors to avoid failing grades and the possible loss of scholarships and financial aid.

Considering the abundance of research available pertaining to entering college students (Bank, Biddle, and Slavings, 1992; Berret, 2012; Hoover, 2011; Lee, 2007), college education (Nauta, 2007; Parry, 2012; Sobec, 2013), the state of higher education institutions (Kuh, 2007; Tinto, 1999), and changes in college majors (Pringle, DuBose, & Yankey, 2010), very little research exists pertaining to college students' views on these topics, and changing academic majors. Similarly, although research does exist that expresses some views of faculty members regarding college students, it too, is very limited when it comes to changing majors.

Faculty Views

Academic engagement and preparedness of incoming college students have each been addressed in research with college faculty members. Some faculty perceive many entering college students as being unprepared for college academics (Kuh, 2007). Sanoff (2006) found that 84% of faculty members feel that entering college students are unprepared. In a study focused solely on private universities, Smallwood (2005) found that 67% of faculty felt that students were entering college unprepared.

Faculty members also feel there is a growing proportion of academic disengagement among college students. Berret (2012b) stated that 33% of current college students study approximately 5 hours a week, less than half of the 12 hours a week of college students in 1960. In a similar study, Wasley (2006) found that college students study approximately 14 hours a week, which is well below faculty members' views that students should be devoting 24 to 30 hours a week to academics.

Faculty believe that students should be stimulating their emotions and intellects, and they should play an active role in their experience of learning (Berret, 2012b).

Regarding students' learning, a faculty view can be summed up as follows: (1) Students' perseverance and their acquisitions of knowledge will be the result of their effort and determination to be involved with academics. (2) In addition, when they become accountable for their decisions and play a responsible role in that accountability, over time they become personally invested. That in turn, deepens their commitment to academics (Kuh, 2007).

There is a richness and a serendipitous aspect to college life which allows for things to occur by discovery and by chance, as part of the natural occurrences that come to be on college campuses among highly intellectual individuals, and the novices following in their footsteps (Parry, 2012). With that in mind, it is possible to envision many faculty members being in agreement with the following sentiment in Kowarski (2010): "I think students do best when they are studying what they really care about" (p. A18).

Statement of the Problem and Hypotheses

Difficulties making decisions about academics and difficulties adjusting to college are factors that are associated with students not performing well in college (Ayotte & Sevier, 2010; Daley, 2010; Mbuva, 2011; Tinto, 2005). Choosing an academic major that the student is truly interested in and entering a field that is significant to the student can eliminate some difficulties that an indecisive student may encounter (Keyes, 2010). There are many disadvantages to changing academic majors including additional time to earn a degree (Ronan, 2005; Clark, 2013), costs (Clark, 2013), and the possibility of regret (Lata et al., 1997; Roese, 2005; Roese & Summerville, 2005; Tomer & Eliason, 2005).

On the other hand, there are advantages to changing academic majors. For example, students who have acted in haste and have chosen an academic major based on intuition (Svenson, 2008) or a lack of knowledge (Firmin & MacKillop, 2008; Galotti, 1999) can correct those miscalculations. In addition, rather than earning no degree at all and dropping out of college due to failing grades (Stinebrickner & Stinebrickner, 2011), some students would benefit academically by changing majors if they are willing to exert the effort to improve academically.

As previously mentioned, many faculty members feel that college students are unprepared for college academics, and faculty members also feel that students today are less engaged academically than they should be. The lack of engagement might be attributed to students' lack of effort, as well as other factors (such as teaching that is not engaging). Hence, *lack of effort* can set the groups of faculty and students apart because exerting effort likely played a major role in faculty members becoming who they are today.

Faculty and students may also differ in that faculty are very experienced at being a member of a college community and have already accomplished the goals that many students are attempting to pursue. Hence, faculty and students are two distinct groups, in part, because faculty members have already earned their degrees, and students are still in the process of earning a degree.

However, one set of life experiences brings faculty and students together. More specifically, faculty were once students too. As a result, they have seen and experienced issues from a student's point of view. Very little research has examined how the different experiences and perspectives of faculty and students relate to their perceptions of the

wisdom of or need for changing an academic major. This study examines how each group evaluates the various disadvantages and advantages of changing one's major.

Hypothesis 1

Given that many faculty serve or have served as academic advisors to students, and spend numerous hours in the midst of college students, they are privy to many student concerns and the dilemmas that current students may face including the possibility of newly discovered alternative choices of academic majors (Tinto, 1999). As previously stated, some students arrive to college undecided about their goals (Bank et al., 1992). However, these situations can change and the final results can be positive according to Berret (2012a) who reported a graduation rate of 83 % for students who entered colleges as undeclared majors. Moreover, as mentioned earlier, Hoover (2011) attributed the inability to make a decision on the choice of an academic major to a narrowing of long-term interest and exploration by entering college students. Finally, Lee (2007) suggested that an effective method of succeeding for students is to take their time and explore their options. Thus, according to Hypothesis 1, students and faculty will hold similar views about the appropriateness of changing academic majors due to non-curricular factors such as changes in a student's interests and career goals.

Hypothesis 2

Research points out that many faculty members embrace the view that college students are often under-prepared and not totally engaged academically (Kuh, 2007; Sanoff, 2006; Smallwood, 2005). Some researchers concluded that this lack of preparedness is due to students' lack of engagement, and unwillingness to exert the energy to succeed academically (Berret, 2012b; Kuh, 2007; Wasley, 2006). Taking this

into consideration, a student may view it as an advantage to change an academic major because of poor grades, and may have the best of intentions of improving academically as a result of that change. However, considering that faculty perceive a student's lack of effort as the cause of poor academic performance, it is logical to assume that faculty members may conclude that it is not the subject matter or the coursework that is leading to poor academic achievement. To the contrary, it is the students' lack of effort and engagement that is causing poor academic performance. Consequently, faculty may not view the change of major due to poor academic performance as an advantageous move or as a "good" or appropriate reason to change one's major. That being said, hypothesis 2 predicts that faculty and student views will not be similar on issues pertaining to curricular reasons for changing academic majors.

CHAPTER TWO: METHODOLOGY

Participants

Approval was obtained by the Institutional Review Board (IRB) prior to conducting the study and collecting data from participants (Appendix A). The researcher sought participants from a large public university in Tennessee. Students ($n = 125$) from several academic majors and class standings participated in this study. The age of the student participants (94 female, 29 male, and 3 missing) ranged from 18 to 49, with an average age of 22.50 years ($SD = 4.18$). In addition, faculty members ($n = 135$) from all colleges and most departments of the university participated. The age of the faculty member participants (67 female, 55 male) ranged from 24 to 75, with an average age of 51.68 years ($SD = 11.15$).

Measures

Each participant completed a survey comprised of items related to possible reasons why students might decide to change their academic majors. Participants rated each item and scenario using a 5-point scale (1 = *strongly disagree*, 5 = *strongly agree*). The two questionnaires (Faculty Questionnaire and Student Questionnaire) utilized in this study were developed by the researcher, see Appendix C: Student Questionnaire, and Appendix D: Faculty Questionnaire.

Each of the items included in each questionnaire (Faculty Questionnaire and Student Questionnaire) were identical. Examples of questions considered relative to personal interest and goals were as follows: *In your opinion, to what extent are each of the following a good reason to change one's academic major?* and examples of the items

to be rated included: a change in career goals, discovering one's true academic passion, and opting out of a major recommended by peers.

Examples of questions considered relative to curricular issues were as follows: *In your opinion, to what extent are each of the following a good reason to change one's academic major?* Examples of curricular issues to be rated included: the hope of improving one's GPA, student is earning low grades in all courses in the major, and, student believes that the existing major requires too much research.

Participants also answered Demographic items. Demographic items for students and faculty members included: "During your undergraduate college career, did you ever change academic majors?" and "If you have changed your major how many times have you done so?" However, the Faculty Questionnaire differed by asking group-specific questions including: "What is your academic discipline/field?" and "How many years have you spent advising undergraduate students?" Finally, the Student Questionnaire differed by asking group-specific questions including: "What is your academic major?" and "How many credits have you completed?"

Procedure

Students and faculty members were invited to complete the online survey. Faculty members were recruited through a university-wide email invitation providing a link to the Informed Consent Form (Appendix B) and the appropriate questionnaire. Students were recruited from classes from a variety of disciplines including: Human Sciences, Health and Human Performance, Organizational Communication, Foreign Languages, and, Management and Marketing.

Some students were offered research participation credit for their participation in the study. Students received a link to the Informed Consent Form and the appropriate questionnaire. Finally, each participant completed the survey using a commercial online survey program.

CHAPTER THREE: RESULTS

Descriptive Statistics

Hypothesis 1 examined student interest and career goals. Hypothesis 2 examined curricular reasons that a student may reflect on when considering changing academic majors. For the purpose of this study curricular reasons were categorized as: Grades and Effort. Independent samples *t*-tests were performed to assess faculty and student views on each of the major measures in the study. The descriptive statistics for each of the measures are presented in the following tables: 2, 3, and 4.

Table 2 *Descriptive Statistics for Hypothesis 1 – Student Interest and Career Goals*

Measures	Students (<i>N</i> = 125)		Faculty (<i>N</i> = 135)		<i>t</i>	<i>p</i>
	M	SD	M	SD		
A change in career goals is a good reason to change one's major.	4.38	.75	4.53	.52	1.79	.08
Discovering one's true academic passion is a good reason to change one's major.	4.61	.62	4.57	.61	.50	.62
Changing from a major recommended by others to a major selected via personal growth and knowledge is a good reason to change one's major.	4.22	.92	4.49	.71	2.62	.01
Changing from a major recommended by others to a major selected via personal growth and knowledge is likely to lead to later regrets.	2.45	1.07	2.14	.86	2.56	.01
Changing from a major recommended by others to a major selected via personal growth and knowledge depends on how far along the student is in their education.	3.06	.93	2.88	.90	1.61	.11

Note: Each item was based on a 5-point Likert scale (1= *strongly disagree*, 5 = *strongly agree*)

Tests of Hypotheses

Hypothesis 1 stated that student and faculty views would be similar regarding the appropriateness of changing academic majors due to changes in a student's interests and career goals. As predicted, faculty and student opinions were similar concerning the appropriateness of changing academic majors based on a change in career goals and discovering one's true academic passion.

Faculty and student views were also similar in rating the scenario; *the appropriateness of changing an academic major recommended by others to a major selected via personal growth depends on how far along a student may be in their academic career*. However, students rated it significantly more inappropriate than faculty to change an academic major recommended by others to a major selected via personal growth. Finally, students significantly more than faculty reported that changing an academic major recommended by others to a major selected via personal growth is likely to lead to later regrets. Thus, hypothesis 1 was partially supported.

Hypothesis 2 examined curricular reasons that a student may reflect on and consider an appropriate reason when considering changing academic majors. Hypothesis 2 predicted that faculty and student views would not be similar on issues pertaining to curricular reasons for changing academic majors because faculty would view those circumstances as reflecting students' unwillingness to exert the necessary effort. The descriptive statistics are presented in Tables 3 and 4.

Table 3 *Descriptive Statistics for Hypothesis 2 – Curricular Reasons: Grades*

Measures	Students (N = 125)		Faculty (N = 135)		<i>t</i>	<i>p</i>
	M	SD	M	SD		
The hope of improving one's GPA is a good reason to change majors.	2.95	1.10	2.58	.93	2.98	.00
Student is earning low grades in about half the courses in the major is a good reason to change one's major.	3.25	.89	3.29	.89	.37	.71
Student is earning low grades in all the courses of the major is a good reason to change one's major.	3.55	.95	3.86	.82	2.79	.01
Changing majors to avoid failing grades is a good reason to change majors.	3.09	.99	3.16	1.06	.53	.60
Changing majors to avoid failing grades likely to lead to later regrets.	3.24	.95	2.98	.83	2.38	.02
Changing majors to avoid failing grades depends on how far along the student is in their education.	3.34	.89	3.05	.88	2.60	.01

Note: Each item was based on a 5-point Likert scale (1= *strongly disagree*, 5 = *strongly agree*)

As predicted, faculty rated it significantly more inappropriate than students to change an academic major to improve one's GPA, and for students earning low grades in *all* courses of an academic major to remain in their major. There were no significant differences in faculty and student views regarding the appropriateness of a student

changing majors who is earning low grades in about half the courses in their chosen major, or a student changing a major to avoid failing grades.

However, students significantly more than faculty reported that changing a major to avoid failing grades depends on how far along students are in their academic career, *and* changing a major to avoid failing grades is likely to lead to later regrets.

Student and faculty views regarding the appropriateness of changing academic majors due to too much writing, too much math, too much research, too much reading, and too much lab-work are presented below in Table 4.

Measures	Students (<i>n</i> =125)		Faculty (<i>n</i> =135)		<i>t</i>	<i>p</i>
	M	SD	M	SD		
Too much writing in current major is a good reason to change majors.	2.37	1.05	2.38	.99	.08	.93
Too much math in current major is a good reason to change majors	2.60	1.14	2.50	1.02	.77	.47
Too much research in current major is a good reason to change majors	2.37	1.05	2.39	1.00	.19	.85
Too much reading in current is a good reason to change majors.	2.33	1.05	2.26	1.00	.54	.59
Too much lab -work in current major is a good reason to change majors.	2.47	1.07	2.53	.99	.48	.63

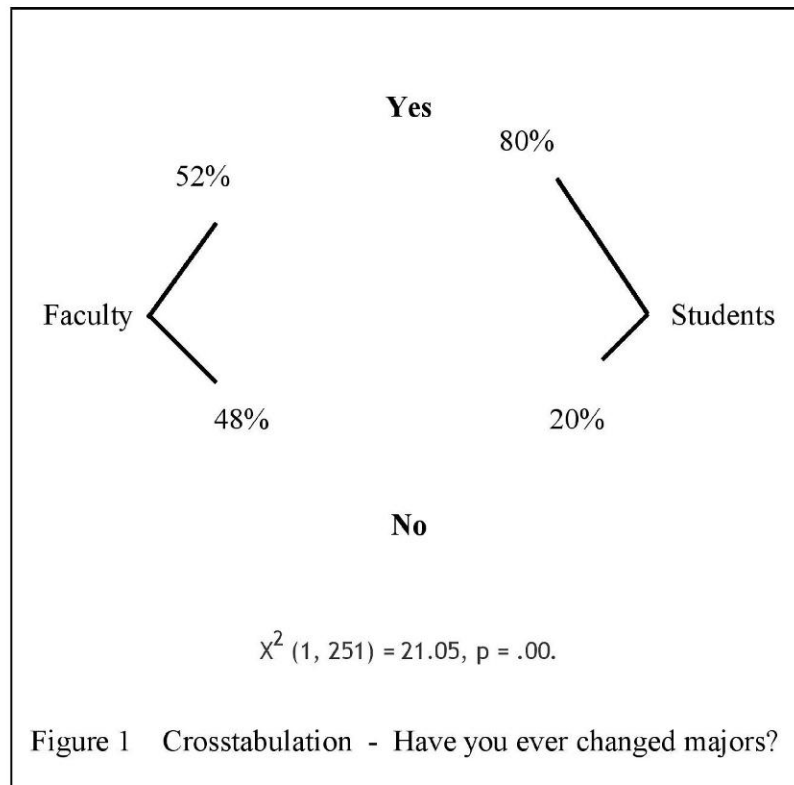
Note: Each item was based on a 5-point Likert scale (1= *strongly disagree*, 5 = *strongly agree*)

As the table shows, faculty and student responses for each measure showed no significant differences with both groups rating each measure as more inappropriate than appropriate (i.e., below the scale midpoint) for a student to change an academic major.

In examining teachers as a category, and the role that teachers of a given major may play in a student's decision to change majors, faculty rated it significantly more appropriate ($M = 2.70, SD = .99$) than students ($M = 2.45, SD = 1.04$) for a student to change academic majors if the student doesn't like the teachers in a chosen major $t(258) = 1.97, p = .05$. Thus, hypothesis 2 was partially supported.

Supplemental Analysis

As mentioned previously, students and faculty were each asked to respond to demographic questions. Due to the lack of research available on this topic, of particular interest when comparing students and faculty was the response to the question *Have you ever changed majors?* and the results are presented below in Figure 1.



As Figure 1 shows, a Chi-square test of independence revealed that faculty and students differed significantly in their frequency of having changed their academic major with students responding yes to changing academic majors at a higher rate than faculty.

Moreover, among only those who changed majors, students ($n = 96$, $M = 2.42$, $SD = 1.34$) changed more frequently than faculty ($n = 67$, $M = 1.64$, $SD = 1.11$), $t(161) = 2.01$, $p = .05$. I also conducted an independent samples t -test to assess the age of faculty members and students. Faculty members ($M = 51.68$, $SD = 11.15$) were significantly older than students ($M = 22.50$, $SD = 4.18$), $t(236) = 27.77$, $p = .00$.

CHAPTER FOUR: DISCUSSION

The purpose of this study was to compare faculty and student views regarding college students changing academic majors. In addition, a goal of this study was to collect data that would be useful in continuing research on this topic. Results also showed that today's college students are changing academic majors at much higher rate than their faculty members did, and with greater frequency than their faculty members.

Hypothesis 1 stated that changing an academic major due to changes in a student's interest and career goals would garner similar views of faculty and students. As predicted, the results showed that faculty and students agreed that students should follow their newly chosen paths based on newly acquired knowledge, interests, and passion. Likewise, faculty and students agreed that students should always feel free to change their degree paths as a result of a change in career goals.

Faculty and student ratings differed significantly on two measures. Interestingly, each of these two measures involved *others'* recommendations of the major. Therefore, *others* appears to have played a significant role in student views in each of those instances. More specifically, in examining the scenario: changing from a major recommended by others to a major selected via personal growth and knowledge, students rated it less of a good reason to change majors, and as having more of a probability of regret in changing a major, than did faculty. Taken together, this suggests that there exists some hesitancy on the part of students in trumping the recommendations of others.

Hence, whereas faculty may have been focusing solely on a students' true interest and academic success during the decision process for this scenario, some students may have contemplated on a variety of additional issues that could have influenced them

while considering the scenario and weighing out their decision. For example, if the *others* were parents, students may have considered upsetting them.

In another example, if the *other* was an advisor, or a highly regarded faculty member, a student may have considered the possibility of venturing out based on their limited experience versus that of a qualified and highly educated professional's extensive experience. Keyes (2010) pointed out that a typical reaction of some students when weighing out this type of decision is the deliberation of their true interest versus their fear of making the wrong decision.

Conversely, when rating the following measure: changing from a major recommended by others to a major selected via personal growth and knowledge depends on how far along the student is in their education, student and faculty views were similar as predicted.

Hypothesis 1 was only partially supported. Yet, in examining the pattern of faculty members' ratings regarding each of the five measures in hypothesis 1, even in the two cases when students and faculty differed, faculty members supported the interest and personal goals of the student and this is in accord with previous research (Chapman, 2005; Light, 2001; Parry, 2012).

Hypothesis 2 stated that student and faculty views would not be similar regarding curricular reasons to change an academic major. As predicted, faculty, more than students, agreed that the hope of improving one's GPA is not a good reason to change an academic major. This is in agreement with previous research regarding the GPA that implies it is more likely that a problem exists within the student and not the academics. Stinebrickner and Stinebrickner (2011) explained that some students who perform poorly

are too optimistic when considering their cumulative GPA and beliefs about their future GPA. This can help to explain the existence of a perception of probable success in changing an academic major to improve a GPA. Research suggests that active involvement in academics (Tinto, 1999), exerting effort and maintaining a determination to be involved with academics (Kuh, 2007), and thinking of class material and monitoring individual learning (Chapman, 2005) are the effective methods to become academically successful.

In addition, faculty, more than students, reported that earning low grades in *all* courses of an academic major was an appropriate reason to change an academic major. The probability of improvement can appear non-existent for a student who is earning low grades in *all* of the courses of an academic major and in a matter of speaking, this leaves the appearance of nothing left to salvage in the current major. This result is consistent with previous research on faculty views that implies, once again, that it is more likely that a problem exists within the student and not the academic major. There are many reasons that a student can be failing in *all* of the courses in any given major, including a lack of interest as a lack of interest can be a contributing factor to a lack of academic engagement (Kuh, 2007), a lack of effort (Wasley, 2006), and being unprepared (Sanoff, 2006).

Faculty and student ratings were similar in evaluating it appropriate for a student earning low grades in about half of the courses to change an academic major. Faculty and student views were also similar regarding changing an academic major to avoid failing grades with each group reporting that it could be a good reason to change majors. Students, for quite some time, have been known to explore the option of changing an

academic major when their grades have the potential to negatively affect their academic standing (Dunwoody & Frank, 1995; Stinebrickner & Stinebrickner, 2011).

Finally, as predicted, student and faculty views differed significantly on two measures involving changing an academic major to avoid failing grades. Students, more than faculty, reported that it depends on how far along they are in their academic career and students, more than faculty, also reported that it is likely to lead to later regrets.

This study also examined teacher factors as reasons for changing a major. As predicted, faculty more than students rated it appropriate for students to change academic majors if they do not like the teachers in any given major. Finally, effort was examined as a curricular reason to change a major in hypothesis 2. Five measures were presented to participants including: too much math, too much reading, too much writing, too much research, and too much lab-work. There were no significant differences in faculty and student ratings of effort. This is not consistent with existing research on effort (Berret, 2012b; Wasley, 2006). It is conceivable that the results would have been different if we had more students from academic majors such as Math, Accounting, and Nursing, and less students from Organizational Communication and Foreign Languages, It is also possible that the class standings of our participants affected the results. For example, if class standings of many students in this study were at the senior level, that would mean that they would have already exerted the energy to accomplish their goals, and perhaps that would affect their current perception of effort. This relates to an assertion that was presented in the statement of hypotheses on page 15 of this paper. It went as follows: *Faculty and students may also differ in that faculty are very experienced at being a member of a college community and have already accomplished the goals that many*

students are attempting to pursue. Taken together, hypothesis 2 was only partially supported.

Limitations and Implications for Future Research

There were limitations to this study. Specifically, there were no significant differences in faculty and student ratings of the measures designed to examine *effort*. One limitation may be that many of the student participants of this study were from academic majors including: Health and Human Performance, Organizational Communication, Foreign Languages, and Marketing. These academic majors typically are not as research intensive as some other academic majors.

In order to better assess the measures designed to measure *effort* such as too much lab-work and too much research, future research should include more research intensive academic majors including Biology and Psychology. Additionally, in order to better assess the measures dedicated to examining too much math, too much reading, and too much writing, future research should include Math, Accounting, Nursing, Science, and English major participants to determine if student views of effort differ among groups in specific academic majors. Effort should also be examined by class standing to determine if student perceptions of effort are less in senior or junior years compared to sophomore and freshman years.

Finally, with each of the groups in this study, student participants and faculty member participants had more females than males. Existing research shows that the graduation rates for females (62%) is higher than males (56%) (U.S. Department of Education, May, 2015). Consequently, future research on this topic might aim for a more balanced ratio of men and women.

Summary

This study provided useful information pertaining to faculty and student views of college students changing an academic major. There is very little research available on this topic and the results of this study are a useful contribution to existing literature. Faculty and student ratings were similar on several measures related to student interests and goals. For example, results showed that student and faculty views are similar regarding changing an academic major due to a change in career goals, and the discovery of one's true academic passion. However, student and faculty views were dissimilar when it pertained to changing an academic major that was recommended by others. For example, contemplating changing an academic major that was recommended by others appeared to be met with some hesitancy by students.

Faculty and student views differed on several measures pertaining to curricular reasons that a student may want to change academic majors. Faculty and student views differed regarding grades, teachers, and GPA. Specifically, changing a major to improve GPA was viewed by faculty members as inappropriate. This result is consistent with existing literature (Stinebrickner & Stinebrickner, 2011) on the GPA of students. Regarding grades, faculty more than students, reported that earning low grades in all courses of a academic major was a good reason to change an academic major. This information can be useful in college settings.

Research shows that an improved academic experience can be the result of improved academic engagement (Kuh, 2007; Wasley, 2006). Moreover, a student's interest can improve academic engagement (Chapman, 2005; Light, 2001; Parry, 2012). That being said, when seriously low grades come into question, a student's interest in

their current major should also be examined. If the student has lost interest in the subject matter, changing to an academic major that a student would be more interested in, and consequently more engaged, would be an advantageous move. Similarly, changing an academic major to avoid failing grades can be an advantage, and it was viewed as appropriate by faculty and students.

An interesting finding of this study overall was that faculty appeared to always be in support of the well being of students and their academic performance. For example, changing a major to avoid failing grades is a move that would be an advantage to students. In addition, a student who is earning low grades in all of the courses of a major would likely not succeed very long in the current academic situation. Therefore, a change of major would be an advantage to the student. In those cases, and in scenarios pertaining to student interests and goals, faculty found it appropriate for students to change academic majors. In fact, faculty even rated it appropriate for students to change majors if they felt that they did not like a group of teachers in a given major. That too, shows faculty members' consideration of students' opinions and students' academic well being.

Finally, results showed that student and faculty views were similar regarding the amount of effort exerted by students. This finding is not consistent with previous research regarding effort (Berret, 2012b). More research is needed on this topic. Future research should continue to examine the role that requirements of effort by students play in their decision to change academic majors. Examining student views of effort across a variety of academic majors may provide useful information. Future research should also examine class standing to determine if changes in views occur as students progress throughout their academic careers.

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APPENDICES

APPENDIX A
(IRB) Approval Form



3/31/2015

Investigator(s): Angelo Marade, Tom Brinthaup
Department: Psychology
Investigator(s) Email Address: aam3f@mtmail.mtsu.edu; Tom.Brinthaup@mtsu.edu

Protocol Title: Changing A College Major - A Comparison Of Student And Faculty Views

Protocol Number: #15-245

Dear Investigator(s),

Your study has been designated to be exempt. The exemption is pursuant to 45 CFR 46.101(b)(2) Educational Tests, Surveys, Interviews, or Observations.

We will contact you annually on the status of your project. If it is completed, we will close it out of our system. You do not need to complete a progress report and you will not need to complete a final report. It is important to note that your study is approved for the life of the project and does not have an expiration date.

The following changes must be reported to the Office of Compliance before they are initiated:

- Adding new subject population
- Adding a new investigator
- Adding new procedures (e.g., new survey; new questions to your survey)
- A change in funding source
- Any change that makes the study no longer eligible for exemption.

The following changes do not need to be reported to the Office of Compliance:

- Editorial or administrative revisions to the consent or other study documents
- Increasing or decreasing the number of subjects from your proposed population

If you encounter any serious unanticipated problems to participants, or if you have any questions as you conduct your research, please do not hesitate to contact us.

Sincerely,

Lauren K. Qualls, Graduate Assistant
Office of Compliance
615-494-8918

MTSU Compliance Office
010A Sam Ingram Bldg.
1301 E. Main St.
Murfreesboro, TN 37129

Template Revised March 2014

APPENDIX B

Informed Consent Form

Students Changing Majors*** 1. Informed Consent Middle Tennessee State University**

Project Title: When should students change their academic major?

Purpose of Project: The purpose of the study is to gain a better understanding of student and faculty views and opinions of changing academic majors.

Procedures: Participants will spend approximately 10 - 15 minutes completing a questionnaire. Items include a variety of possible reasons why students might want or need to change their academic major and the degree to which these reasons are appropriate.

Risks/Benefits: Completion of the questionnaire should present no more than minimal risks to the participants. There are no personal benefits for participants.

Confidentiality: No personally identifiable information will be collected. Your responses will be anonymous.

Principal Investigator/ Contact Information: Angelo Marade - 615-948-6047

Participating in this project is voluntary, and refusal to participate or withdrawing from participation at any time during the project will involve no penalty or loss of benefits to which you might otherwise be entitled. All efforts, within reason, will be made to keep the personal information in your research record private but total privacy cannot be promised, for example, your information may be shared with the Middle Tennessee State University Institutional Review Board. In the event of questions or difficulties of any kind during or following participation, you may contact the Principal Investigator as indicated above. For additional information about giving consent or your rights as a participant in this study, please feel free to contact the MTSU Office of Compliance at (615) 494-8918.

Consent

I have read the above information and my questions have been answered satisfactorily by project staff. I believe I understand the purpose, benefits, and risks of the study and give my informed and free consent to be a participant.

I agree

APPENDIX C

Student Questionnaire

The following items pertain to possible reasons why students might decide to change their academic majors. We are interested in your evaluation of these various reasons and situations. Please use the following scale to rate the items.

1	2	3	4	5
Strongly Disagree	Disagree	Neither disagree	Agree	Strongly Agree
Nor agree				

1. Because they might experience regrets at a later time, it is better if students keep rather than change their major.
2. A student should always feel free to change their major, even if it means that they will incur additional financial costs.
3. A student should always feel free to change their major, even if it means that they will have to spend significantly more time to complete a new major.

In your opinion, to what extent are each of the following a **good** reason to change one's academic major?

1	2	3	4	5
Strongly Disagree	Disagree	Neither disagree	Agree	Strongly Agree
Nor agree				

1. A change in career goals
2. Discovering one's true academic passion
3. Current job market for existing major is poor
4. Opting out of a major recommended by peers
5. A fear of losing financial aid because of failing grades
6. The hope of improving one's GPA
7. Existing major was recommended by parents
8. Student believes that the existing major requires too much work in the Lab
9. Student believes that the existing major requires too much writing
10. Student believes that the existing major requires too much math
11. Student believes that the existing major requires too much research
12. Student believes that the existing major requires too much reading
13. Student is earning low grades in all courses in the major
14. Student doesn't like the teachers in their chosen major
15. Student is earning low grades in about half of the courses in the major
16. Existing major was recommended by high school guidance counselor

The following items pertain to specific circumstances under which students might decide to change their major. Please use the following scale to rate each of the three items per circumstance.

1	2	3	4	5
Strongly Disagree	Disagree	Neither disagree	Agree	Strongly
Agree		Nor agree		

Changing from a major recommended by others to a major selected via personal growth and knowledge...

1. is a good reason to change one's major
2. is likely to lead to later regrets
3. depends on how far along the student is in their education

Changing majors to avoid failing grades...

1. is a good reason to change one's major
2. is likely to lead to later regrets
3. depends on how far along the student is in their education

Changing majors to avoid the possible loss of scholarships and financial aid...

1. is a good reason to change one's major
2. is likely to lead to later regrets
3. depends on how far along the student is in their education

The additional time required to complete a new academic program...

1. is a good reason to change one's major
2. is likely to lead to later regrets
3. depends on how far along the student is in their education

The additional cost to complete a new academic program...

1. is a good reason to change one's major
2. is likely to lead to later regrets
3. depends on how far along the student is in their education

Choosing a new academic major impulsively...

1. is a good reason to change one's major
2. is likely to lead to later regrets
3. depends on how far along the student is in their education

Please answer the following questions:

1. What is your academic major? _____

2. During your undergraduate college career, did you ever change academic majors?
Yes No

3. If yes, why did you change your major?

4. If you have changed your major how many times have you done so? _____

5. How many credits have you completed? _____

6. What is your age? _____

7. What is your gender? Male / Female

APPENDIX D

Faculty Questionnaire

The following items pertain to possible reasons why students might decide to change their academic majors. We are interested in your evaluation of these various reasons and situations. Please use the following scale to rate the items.

1	2	3	4	5
Strongly Disagree	Disagree	Neither disagree	Agree	Strongly Agree
Nor agree				

1. Because they might experience regrets at a later time, it is better if students keep rather than change their major.
2. A student should always feel free to change their major, even if it means that they will incur additional financial costs.
3. A student should always feel free to change their major, even if it means that they will have to spend significantly more time to complete a new major.

In your opinion, to what extent are each of the following a **good** reason to change one's academic major?

1	2	3	4	5
Strongly Disagree	Disagree	Neither disagree	Agree	Strongly Agree
Nor agree				

1. A change in career goals
2. Discovering one's true academic passion
3. Current job market for existing major is poor
4. Opting out of a major recommended by peers
5. A fear of losing financial aid because of failing grades
6. The hope of improving one's GPA
7. Existing major was recommended by parents
8. Student believes that the existing major requires too much work in the Lab
9. Student believes that the existing major requires too much writing
10. Student believes that the existing major requires too much math
11. Student believes that the existing major requires too much research
12. Student believes that the existing major requires too much reading
13. Student is earning low grades in all courses in the major
14. Student doesn't like the teachers in their chosen major
15. Student is earning low grades in about half of the courses in the major
16. Existing major was recommended by high school guidance counselor

The following items pertain to specific circumstances under which students might decide to change their major. Please use the following scale to rate each of the three items per circumstance.

1	2	3	4	5
Strongly Disagree	Disagree	Neither disagree	Agree	Strongly
Agree				
		Nor agree		

Changing from a major recommended by others to a major selected via personal growth and knowledge...

1. is a good reason to change one's major
2. is likely to lead to later regrets
3. depends on how far along the student is in their education

Changing majors to avoid failing grades...

1. is a good reason to change one's major
2. is likely to lead to later regrets
3. depends on how far along the student is in their education

Changing majors to avoid the possible loss of scholarships and financial aid...

1. is a good reason to change one's major
2. is likely to lead to later regrets
3. depends on how far along the student is in their education

The additional time required to complete a new academic program...

1. is a good reason to change one's major
2. is likely to lead to later regrets
3. depends on how far along the student is in their education

The additional cost to complete a new academic program...

1. is a good reason to change one's major
2. is likely to lead to later regrets
3. depends on how far along the student is in their education

Choosing a new academic major impulsively...

1. is a good reason to change one's major
2. is likely to lead to later regrets
3. depends on how far along the student is in their education

Please answer the following questions:

1. What is your academic discipline/field?

2. During your undergraduate college career, did you ever change academic majors?

Yes No

3. If yes, why did you change your major?

4. If you did change majors as an undergraduate, how many times did you do so?

5. How many years have you spent advising undergraduate students? _____

6. What is the approximate number of your current undergraduate student advisees?

7. What is your age? _____

8. What is your gender? Male / Female