

Decision Making; What Factors Affect Choosing a Major in Undergraduate Studies

Kelly D. Jones

Department of Learning Technologies, University of North Texas

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Dr. Shanshan Ma

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The pursuit of a college degree is a foregone conclusion for some people. But for others it's more of a distant hope, and then there are those for whom it is an almost unimaginable fantasy. As a person who graduated less than a year ago, I would categorize myself as someone who was between having that distant hope and the almost unimaginable fantasy. Like so many students, there came a time when life got in the way of my academic pursuits and as a result, I had to forego my educational aspirations and focus exclusively on earning a living. Due to various circumstances, I experienced these academic breaks numerous times throughout my life. These breaks have spanned from as few as three years to as many as ten years. Some of the delay in earning my degree I attribute to the need to work full-time and having limited time for study. However, the major factor was my inability to choose a major area of study. I just couldn't decide what path I wanted to travel down academically. This indecisiveness stagnated me for years at a time, causing me to lose both time and momentum in my academic career. I have only recently come to understand how fear and indecisiveness came together to create a perfect storm of rigidity and functional fixedness in my life.

In this paper, I will attempt to answer the question: what factors affect some students in choosing a major, and how rigidity and functional fixedness can have a detrimental impact on academic success, specifically as it applies to nontraditional students. For the purpose of this paper, a nontraditional student, or NALs as they are often referred are viewed as typically ranging in ages of 26-45, most likely is enrolled part-time, and contends with environmental factors such as family, children or employment. These are just a few of the prevalent characteristics of this demographic of students (Grabowski, et al. 2016). I believe these two

issues are intertwined for many adult learners and therefore should be discussed in an effort to create a more open dialogue that will lead to more support for this demographic of students.

Background

Functional Fixedness and Rigidity

Functional Fixedness

The process of solving problems is not new. Even as small children, we begin the process of trying to figure out how to get what we want, achieve certain goals or simply put, solve problems. Babies learn early on that the key to solving their problems comes in the form of crying. Since babies don't have verbal skills their most effective way to communicate to those around them is crying. Crying creates a sense of urgency which generates action. So, when people hear a baby cry, they immediately jump into action to tend to the baby's needs whether that be food, a diaper change, or just comforting the baby. Regardless of the reason, babies solve their problems through the help of others until they are able to do for themselves. Then, as they mature and develop, they learn to do for themselves. Observations of babies and small children will quickly help explain the concept of fixation. Fixation is "according to Gestalt psychologist, people's tendency to focus on a specific characteristic of the problem that keeps them from arriving at a solution" (Goldstein, 2019, p 359). In children, this behavior can be more easily identifiable, but in adults it's more difficult.

For many adults, the problem is amplified by what is called functional fixedness. In functional fixedness, people have the tendency to limit the use of a tool to solve a problem. An example of this would be having the problem of needing to place a nail in a wall but not having a hammer. A person with functional fixedness might view not having a hammer as an insurmountable problem, not recognizing that other objects such as the heel of a hard-soled shoe

can be used to complete the task. The problem of functional fixedness is not relegated to a simple task such as placing a nail in a wall. More pressing issues such as deciding on a college major can be impacted by functional fixedness as well. If a person has been led to believe that the choosing of a major must be accomplished by the more traditional steps of first speaking with a school counselor, and then making college campus visits, etc., they may be unaware that there are various paths and ideas that could help them make this monumental decision.

Rigidity

The definition of “rigidity” as it pertains to cognitive function has been widely debated and revised for decades. A primary element of the construct is that it is multidimensional in nature. Meaning, there are many facets to its identity. Milton Rokeach defined rigidity as “a resistance to change in beliefs, attitudes, or personal habits” (Schultz & Alan, 2002, p 169). It is now believed that a more comprehensive definition must have the elements of mental or behavioral sets and perseveration. Mental sets are more concerned with what happens in the future. Behavioral sets are more focused on actions that can be witnessed. And perseveration is the continued thinking or behavior by a person when stressors are present. (Schultz and Alan, 2002). In the context of decision making, these factors can have a dynamic effect on the process. When thinking about mental sets as defined before, in concert with the stressful undertaking of choosing a major for college, it is not hard to see why it is such an arduous task for so many people. That task can become exceedingly more complex as factors such as finances, family expectations, career goals, personal satisfaction and academic challenges are added to the mix.

Literary Review

Decision Making Process

The process of making decisions is more complex than simply picking among available options. There are a lot of steps that go into making decisions, many of which are deeply personal. One of the biggest decisions many people will make is choosing a major in college. This is a big decision because theoretically it is the beginning of a student's career path. Based on the research of personal identity, who you are, your goals, values and life pursuits define who you are. According to the study done by James Marcia there are four ego identity status' that correlate to the decision-making process of choosing a major and they are: identity achievement, identity diffusion, moratorium, and foreclosure (Marcia, 1966). These identity statuses are believed to be key determinants of the way decisions are made. The characteristics for each status are based on a combination of exploration and commitment. Exploration in this sense is determined as active consideration of potential alternative sets of goals, values, and beliefs. And commitment is defined as attaining a clear sense of self-definition and adhering to choices in identity-relevant domains (Germeijs, et al., 2012).

Possible Factors

Finances or rather the cost of attending college has always been a major factor for many students, in most cases regardless of the student's ability to pay for the experience. Even with the assistance of scholarships, grants, and loans a great number of students still struggle with paying for college. Choosing a major in college can significantly increase the cost of not only attending college, but also of finishing college. Research has shown that for many students, the selection of a major is not only dependent on the probable economic results of earning the degree, but also how much additional education would be required to place them in the best position to earn the wages they desire after graduation (Stater, 2011). Furthermore, there appears to be some correlation between how well a student performs in high school in areas like math and science

and the likelihood of them choosing a similar major in college. Success in pre-college readiness activities, such as advance placement or honors courses taken in high school tend to create a greater likelihood of the student choosing a major in the fields of science and math. Studies have also shown that college students who believe their chosen major will have a positive financial impact on their future, are less likely to be as concerned about increases in college tuition. Moreover, these students feel as if they are getting a deal in their education because some schools charge a flat tuition rate, as opposed to charging tuition based on the actual cost of availability of the program (Shin & Milton, 2008).

Career goals and aspirations often play a substantial role in the choosing of a college major or subsequently, the changing of a college major. In the report, *Choosing and Changing Course: Postsecondary Students and the Process of Selecting a Major Field of Study*, it has been observed that majoring in more lucrative fields such as engineering, or finance can greatly impact a student's earning potential. Whereas fields such as fine arts or philosophy are more likely to be negatively impacted by shifts in employment and lower wages (Denice, 2020). Also, what should be taken into consideration is the fact that certain careers require continuous learning and skills improvement, such as medicine, engineering, computers, and others. This additional training beyond graduation could influence the choices students make about a major depending on how they feel about having to complete more schooling.

Familial influence apparently has a great deal of impact on the choosing of a college major. While the type of relationship; whether parental or sibling plays a part, what also comes into play are the wages earned by those family members. According to the study "Forming wage expectations through learning: Evidence from college major choices" students are more likely to select a college major when a parent or sibling has an occupation in that field and earns a higher

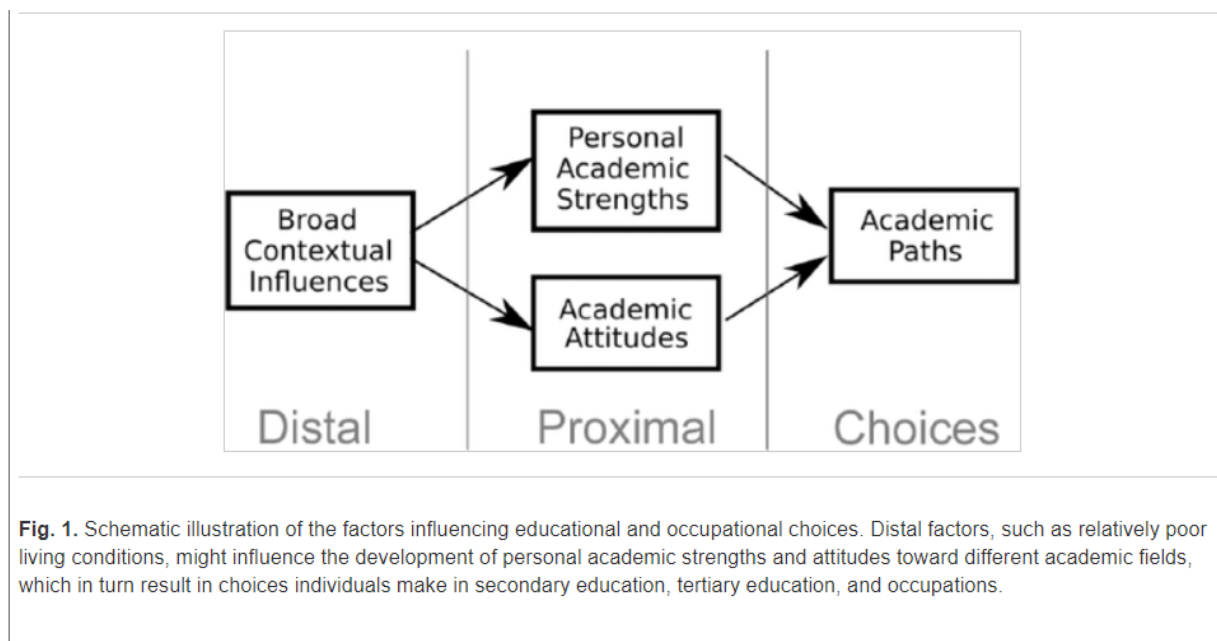
wage. The student is less likely to choose a major in the corresponding field if the family member is earning a lower wage (Xia, 2016). Also, it should be noted that students change their major when they learn of new information about prospective wage changes.

Personal satisfaction or intrinsic value of a college education can in part be linked to what major a student chooses. For some students, college is the means to financial success, which brings with it an improvement of lifestyle and the acquisition of material possessions. Yet, for other students, college represents the accumulation of experiences and the building of relationships and connections. It is these types of students for whom choosing a major is more so about finding a sense of personal satisfaction for the path they have decided to follow. Students with this frame of mind might choose to pick a major that is far less stressful for them academically. In doing so, they have made their road to graduation far more attainable, which could lead to things such as more independence, a greater chance of marrying an educated person, having more time for creativity and social interactions with friends, as well as a host of other positive outcomes (Oreopoulos & Petronijevic, (2011).

Academic challenges, such as inconsistent information from advisors was especially problematic when choosing a major. According to research presented in the Journal of College Student Development at Johns Hopkins, in certain cases students who had chosen a major were apparently steered toward other majors by academic advisors. This issue seemed to be prevalent for transfer students who didn't meet the minimum grade point average of their desired program. The study suggests that on a somewhat regular basis these students were counseled against following their academic dreams by the general advisors. Conversely, when students spoke with advisors in the desired major, they were provided with options that could help them gain admittance to their desired program. Furthermore, the study found there to be inconsistent

information being provided to the advisors, and sometimes the general advisors received no information at all, such was the case with soft admissions standards in business (Musoba, Jones, & Nicholas, 2018).

Another huge issue surrounding how female students in particular choose a major in college has to do with the treatment of female students in predominantly male dominated fields of study. Over the past decade or so, a lot of attention has been focused on the lack of female students enrolling in the STEM majors at colleges and universities. STEM stands for Science, Technology, Engineering, and Math. Studies suggest that this isn't merely happenstance, but rather more often the result of both distal social factors and proximal factors. Distal factors would be issues like a student from a poor background developing poor study habits as a result of a chaotic home life and as a result makes decisions about their academic future based on their current state, as opposed to their future potential. Proximal factors would be how the student thinks and feels about their own academic strengths and weaknesses and how those viewpoints can be shaped by distal factors such as poor living conditions (Stoet & Geary, 2018).



Conclusion

In light of the data that I have come across while researching this paper, it is evident that the process of choosing a major is far more complicated than simply trying to answer the age old question, “what do I want to be when I grow up?” That question may not even be as relevant as asking “what am I passionate about or what am I good at?” Sometimes, finding the right academic path happens by accident and sometimes it comes by way of trial and error or purposeful planning. Regardless of what major is finally chosen, the point is there are many factors that go into making that final decision.

At the beginning of this paper, I posed the question, what factors affect some students in choosing a major, and how rigidity and functional fixedness can have a detrimental impact on academic success, specifically as it applies to nontraditional students? And the basic answer to that question is 1) there are numerous factors that affect choosing a major, and 2) rigidity and functional fixedness can play a large role in choosing a major because both of these cognitive states can determine how we think and make decisions.

Based on what I have been able to compile for this brief manuscript my answer to the question is some of the factors that impact how students choose a college major are not limited to but also include: finances, career goals and aspirations, familial influences, personal satisfaction, and academic challenges. The subject of finances not only included the upfront cost of going to college, but also what impact specific majors had on a student's financial future. Career goals and aspirations seemed to be a straight-forward concept at first glance. Student goes to college, chooses a major, graduates from college, gets a good paying job. However, things are many times not that simple. Depending on the major, continuous education might be in that student's future even after graduation, which could be a deterrent for some students. Familial influence has

been shown to be especially impactful on some students when trying to decide on a college major. These students not only considered the family relationship, whether it was a parent or sibling. But they also looked at that family member's economic status as it pertained to their level of education, and if the family member was a college graduate, what did they major in. The last factor considered for this paper was academic challenges. Academic challenges that impacted how students chose a major included receiving inconsistent information from their advisor, the advisor not receiving all necessary information about program qualifications from the schools or colleges and gender bias against female students in the STEM majors.

In researching this topic, I thought about my own academic career, many of the factors that affect how college students choose their major have impacted me. After graduating from high school, I was ill prepared for college, let alone to choose a major. I had no direction, and had no clue as to what I wanted to do with my life. I felt as if I needed a college degree to be "successful," so I took classes at the community college, thinking and hoping to find academic inspiration. It didn't work, so I dropped out and started working full-time. After years of entry level jobs, I decided to go back to school and major in communications because I felt as if it was a safe route to take. I had done it, I had finally chosen my major, and while it wasn't the most exciting major in the world, I felt like it was good enough. Then, my world was turned upside down as I found myself going through a divorce and a job relocation to Georgia.

By this time, I'm in my late 20s, working full-time, and in a new and unfamiliar place with no family or friends nearby, so I decided to enroll in school. Based on what I had been doing at my job, I decided to major in technical and professional communications. A big part of my job was creating process manuals for the department as well as training new and existing staff on new or revised processes and procedures. The TCOM major was perfect for me. It

allowed me to learn the details of my craft while working towards my degree. As fate would have it the man I had met right before moving to Georgia soon followed me there and we got married. Things were going great and four years after our wedding, we welcomed our son. Less than a year after having a baby we relocated back to Texas to be near family. Once again, my academic career had to be placed on-hold as I focused on being a full-time wife and mother. Because of my husband's schedule and our tight finances, my academic journey was stalled for ten years. I took developmental math classes (I struggled terribly with math) sporadically as time and money would allow, but the classes really weren't helping me achieve my dream of earning my college degree. Finally, in August of 2020 I enrolled in the last class I needed for my degree. I passed College Algebra through an online learning course offered by Dallas College, and I transferred that class to UNT to complete my Bachelor of Arts and Sciences in Applied Technology and Performance Improvement degree. I graduated from UNT in December 2020.

I provided my abbreviated academic story as proof that I know how hard choosing a major can be. Some people have things like college figured out early in life and that's great. But for some of us, it takes a little longer to get to our destination, but that doesn't make our journey any less valuable. A big part of reaching a destination is how you get there, and sometimes, you learn a lot more taking the long way around.

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