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# The Role of Time Perspective in the College Major Selection Process

## Abstract

This phenomenological study examined the experiences of formerly undeclared college sophomores as they navigated major selection and how their time perspective influenced their decision-making process. This study applied time perspective theory to the issue of major selection for college students, an undertaking that offers a new perspective on the professional practices of academic advising and career services on college campuses. This study utilized semi-structured interviews of four female-identifying formerly undeclared students. Participant responses revealed that negative future time attitudes and a lack of future orientation can both contribute to behaviors that defer career decision-making. In contrast, professional staff and faculty can help accelerate students' major selection process by helping them overcome the obstacles they are facing. Variations between participants revealed a difference between students who view major selection as inherently narrowing their potential options for career paths and students who view it as broadening their opportunities within a particular field of study. Student affairs professionals and faculty members who advise students who struggle with major selection can facilitate a *temporal zoom-out* to help them achieve a balanced time perspective and maximize the information available to them in making their decision.

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The Role of Time Perspective in the College Major Selection Process

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Eastern Illinois University

## ABSTRACT

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Key words: undeclared, time perspective, major selection, advising, career development

## DEDICATION

Thanks Kelsey for keeping me grounded and motivated when the goings got tough. I'm so incredibly happy that I've met you, and I look forward to seeing what the future holds for us in the next season of life. Hopefully there will be plenty of dystopian novels, new nature trails to explore, and fun snacks to try.

Thanks Mom for our late night talks, even if they were often poorly timed on my part. I appreciate your continued patience with me as I continue to work on my whole "separate worlds" dilemma. Perhaps with the pursuit of a more balanced time perspective, I might get better at reaching out to California more regularly.

Thanks Dad for being the anchor for me when I needed a break from Charleston. I wouldn't have come back to live in the Midwest again if it wasn't for you. I'm glad we've gotten to spend some more regular time together. I cherish all of our past-oriented walks down memory lane and the games we play.

I love each of you so much.

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Thanks again, and happy trails!

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## CHAPTER I

### Introduction

In 2005, Barry Schwartz stepped onto the stage at TEDGlobal at Oxford and delivered a fierce message to the Western world regarding the nature of choice. His notion that having too many options to choose from causes the final decision to become more unsatisfactory was ground-breaking in how it shed the Western idea of freedom of choice in a newer, darker light. When so many choices exist, the human mind becomes more aware of the likelihood that it will not make the optimal choice (Schwartz, 2005). The social psychologist Erich Fromm regarded human freedom as a problematic condition in his theory of personality, proposing that it leads to increased feelings of loneliness and isolation (Foxe, 1942). While freedom comes with much privilege, it is clear that it may also come with a few unfortunate consequences.

College students come to campus with the task of negotiating their new relationship with freedom. One of the most important decisions that a student can make with this newly found freedom is the selection of a major. Gordon (1995) estimated that 20–50% of students started their college experience without a declared major. Freedman (2013) argued that most first-year students have not undergone sufficient identity development to make an informed decision regarding one's major or career path, so institutions should not allow the decision to occur until the second year. However, what happens if a student still struggles with major selection as they enter their sophomore year?

Student affairs practitioners have often utilized theories of student identity development to help students navigate life decisions like major selection and career

choice (Strange, 2004). However, an often overlooked component of identity formation is the concept of time perspective, that is, how a person understands and processes their life with respect to the ideas of past, present, and future (Luyckx et al., 2010; Shirai et al., 2012). Previous literature has supported a future-oriented perspective, including it being a core component of emerging adulthood identity (Marcia, 1983), and predictive of career planning (Taber, 2012), but recent trends show that having a balanced time perspective has been gaining favor in the eyes of psychologists (Boniwell & Zimbardo, 2004; Moss et al., 2016). This is due to the maladaptive responses that can arise in light of excessive orientation to one particular temporal period (Boniwell et al. 2010).

Therefore, bringing awareness to the ideas of time perspective as a potential factor in the major selection process may be a useful and novel way to approach the discussion of major selection. As student affairs practitioners learn about the continuing research on how to better integrate temporal periods within an individual's psyche (Moss et al., 2016), they can begin to listen to how students tell their stories of navigating the major selection process. Advocating for a balanced time perspective may aid these students bring clarity to their future, help them enjoy their present, and allow them to accept their past.

### **Purpose of the Study**

The purpose of this qualitative study was to explore how students' time perspective influences how they navigate the process of selecting a major. This study addressed a gap in the literature regarding how time perspectives, particularly the under-researched past perspectives, interact with major selection on college campuses. It also brought attention to how an awareness of a variety of time perspectives beyond a future-

oriented one may be useful in career counseling and academic advising when working with undeclared students.

### **Research Questions**

This study intended to examine the approach of students who were undeclared entering their sophomore year to the decision of selecting a major. Using Zimbardo and Boyd's (1999) and Mello and Worrell's (2015) time perspective ideas as the guiding theoretical concepts, the following questions were used to guide the research process:

RQ 1: What are the factors that have resulted in students being undeclared in their major when starting their sophomore year?

RQ 2: How does a student's time perspective impact their ability to choose their major?

RQ 3: How do undeclared sophomores navigate the challenges of choosing their major?

Sub RQ 3.1: What obstacles are they facing?

RQ 4: What resources or support do undeclared students feel that the institution could provide to better help them choose their major?

### **Significance of the Study**

Time-orientation is an underrepresented concept in both career psychology and higher education research (Orosz & Lukács, 2013). Quantitative studies have examined the nature of all five of Zimbardo and Boyd's (1999) time perspectives in conjunction with career decision-making, but with the exception of future time perspective, there is a dearth of research that focuses on how particular time perspectives influence such decisions (Taber, 2012). The benefits of present time perspectives have been associated

with mindfulness, and therefore have been used to offer an alternative perspective to those that advocate for future orientation (Moss et al., 2016). Past-oriented time perspectives have not received the same level of attention, despite the finding that balanced time-perspectives (Boniwell & Zimbardo, 2004), in which positive associations with the past, present, and future are all evident, are beneficial for their association with well-being (Boniwell et al., 2010).

A study that focuses on all three temporal periods, including perspectives with both positive and negative attitudes toward each period, can shed light on how to best counsel students who are oriented primarily to one particular period, especially when they are experiencing uncertainty regarding the choice of major or career path. For example, individuals who operate primarily in time perspectives other than a future-oriented one may pursue help in navigating career-decision making for the very reason that career-decision making is often associated with the future, and thus career counseling strategies tend to operate with that paradigm (Taber, 2012). By showing how other time perspectives are used during the second year of undergraduate education, new ideas regarding how to talk with students about major selection and career choice may arise.

### **Limitations/Delimitations of the Study**

There were several limitations involved with this study. The most easily identifiable issue was that time perspectives are not an easily identifiable aspect of a person, nor do they receive the same cultural attention that other salient components of identity do, such as sex, gender, race, socioeconomic status, etc. This inherently increased the difficulty of interpreting the results of the study. Therefore, the study did not attempt to classify students themselves into particular orientations, but rather focused on the

themes of their major selection process as they related to the past, present, or future (Zimbardo & Boyd, 1999).

Another limitation of the study was that undeclared students were a representation of the ideal target population of the study, which was students with little to no commitment to a career path. It is possible for a student to have a career path in mind for after graduation while being uncertain of which major they would like to explore to get to that point. Similarly, it is possible that some students who have chosen a major experience little to no commitment to any typical career path that stems from that major. Since the relationship between major selection and career path commitment varies between individuals, the fewest assumptions were made by sampling from undeclared students and analyzing what difficulties and obstacles were impacting the decision to declare a major.

One limitation that occurred during the recruitment of participants was that the hosting institution only contained nine undeclared sophomores at the beginning of the data collection period. Thus, the study design was adjusted to allow students who were still undeclared during the spring semester of their freshman year to participate. This allowed for a broader recruitment pool, which resulted in some participants not experiencing the major selection process during their second year, which was the original phenomenon of interest.

A related limitation pertained to the generalizability of this study's implications to both academic advising and career services domains within student affairs research. While suggestions for career services practitioners will be discussed in consideration of this study's results, interpretive care must be taken by understanding that career decision-

making is not a direct focus of this study. Instead, the scope of this study focused on the struggles in the selection of a major for students who were assumed to be having difficulty with this process because they would have presumably declared a major by the end of their first semester if there was no difficulty involved in major selection.

Lastly, the cultural nature of the United States and the West in general is very future-oriented, and there is a consequential dearth of literature on past-orientation from this part of the world (Shirai, 2012). Past-orientation is favored more in the East; therefore some of the background research included in this study came from Japan (Shirai, 2012; Shirai et al., 2012). Applying research discoveries from studies on populations with high contrast to the demographic buildup of a new study should always be done cautiously, so these differences were emphasized when present.

### **Definitions of Terms**

**time orientation.** The relative cognitive emphasis that an individual places on a particular temporal period (past, present, or future) compared to the others, e.g. a person who regularly reflects on memories from their childhood would be exhibiting past-orientation (Mello & Worrell, 2015).

**time perspective.** The comprehensive aggregate of an individual's views and opinions on each of the three temporal periods. This includes the cognitive-motivational thinking about time, the meaning that an individual obtains from these thoughts, the emotional associations with the various temporal periods, and their perceived interconnectivity. Time orientation falls under the umbrella of time perspective as one of its main components (Mello & Worrell, 2015).

**temporal periods.** Collectively referring to the past, present, and future (Mello & Worrell, 2015). When used in a singular sense, the term can refer to any of the three periods.

**undeclared sophomore.** “First-time, full-time [college] students who have persisted into their second year of academic work” (Gahagan & Hunter, 2006), including those who have gained sophomore standing by credits entering their second semester of study, without having a declared major registered with the institution of higher education they attend.

### **Summary**

This study examined the shape of the difficult decision of choosing a major. Students make this decision with knowledge of their current conditions and contexts, with information and emotions rooted in their past, and some semblance of a future vision for themselves. An understanding of how these three temporal periods inform individuals through the major-selection process can provide student affairs professionals an alternative framework for understanding the individuals they work with. There is particular value in seeing the variations in the balance of the three temporal periods for each student, so while this study may have some inevitable difficulties in its generalizability, there is still merit to exposure to a new way of thinking about how college students perceive themselves within the narrative of their lives.

## CHAPTER II

### Review of the Literature

This study's purpose was to examine how undeclared students processed major selection in consideration of time perspective theory. Additional perspectives from relevant career counseling theories were implemented to understand this process. This chapter reviews the literature on both the challenges that this population of students face, and the ways that institutions can help them in establishing competency in navigating career-related issues.

#### The College Sophomore

Sophomores in college can be defined in a variety of ways. Incoming first-year students may be categorized as sophomores within their first year of enrollment at a college due to high school opportunities like advanced placement exams and international baccalaureate courses that give them sufficient credit hours, usually between 30-60 semester hours, to meet institutional definitions of class standing (Gahagan & Hunter, 2006). Many institutions use earned credit hours to determine a student's class standing, but Schreiner (2018) noted that the developmental tasks that students undertake are more dependent on their year of study than the number of credit hours earned. Thus, to include individuals from either group, the definition of sophomore for this study describes *sophomores* as "first-time, full-time students who have persisted into their second year of academic work" (Gahagan & Hunter, 2006, p. 18), or have gained sophomore standing by credits entering their second semester of study, without having a declared major registered with the institution of higher education they attend.



Literature on the topic of sophomore student experiences tends to explore two main topics: developmental changes and institutional support (Gahagan & Hunter, 2006). Developmental changes include how students seek meaning from the college experience, growing independence from parents, and social identity exploration. Institutional support encompasses the services and communication provided to students by the offices and employees of the institution. Both areas of research identify ways in which second-year students uniquely struggle compared to the other academic classifications. These difficulties are encapsulated in the term ‘sophomore slump,’ another focus of contemporary research. Informing each of these areas are the expectations that sophomores have of themselves, their career development, and their institution as a whole.

### ***Sophomore Slump***

The *sophomore slump* is characterized by a loss of academic engagement, performance, and motivation during the second year of study, in addition to non-academic concerns like collegiate experience dissatisfaction and disconnection, developmental uncertainties, and career decision-making (Gahagan & Hunter, 2006; Perez, 2020; Whittle, 2018). The term was introduced in a work by M. B. Freedman in 1956 in his work “The Passage Through College” (Gahagan & Hunter, 2006; Schriener, 2018), and has recently seen a resurgence in interest, with many perspectives surfacing on how sophomores navigate career and major choices (Kneiss et al., 2015). The sophomore slump is distinctly different from first-year transition issues, as the gains from first-year programming have been shown to lose their impact during the second year (Sterling, 2018). Thus, different areas need to be addressed.

Some challenges that sophomores navigate during their second year of study include navigating problems without the same level of institutional support they received as freshmen, a loss of excitement surrounding the novelty of the collegiate experience, identity confusion, finding campus engagement opportunities that overlap with one's own interests, and the confrontation of a reality check in beginning to see oneself as part of the real world as attention moves toward career development (Schreiner, 2018; Sterling, 2018). Career and major indecision are two additional factors of the sophomore slump, a distinct category of issues that may manifest during this time in a student's educational journey (Kennedy & Upcraft, 2010).

It is important to note that the sophomore slump may not exist to the same extent outside of the United States, as structural differences in academic programs, curricula, and pedagogy are widely recognized between educational systems, and the typical symptoms are not always replicated in studies occurring outside the country (Whittle, 2018). Definitive determination of whether a student is experiencing the sophomore slump is also unlikely due to the multifaceted dimensions that it comprises (Kennedy & Upcraft, 2010).

### ***Sophomore Expectations***

Student expectations regarding the second year of college are a potential contributor to predisposing individuals to the sophomore slump (Gregory et al., 2020). Expectations regarding the institution, the self, and career development are of particular note to this study.

From an institutional standpoint, many sophomores feel abandoned when the first-year support mechanisms that were in place for them as freshmen are no longer

available to them (Gregory et al., 2020). As sophomores reach a point in their relationships with their institution where the excitement and novelty of the college experience has worn off, they become more critical of the collegiate environment itself, particularly with respect to educational quality and support resources (Sterling, 2018). Sophomores anticipate a greater and more difficult workload in their academic experiences, and that they will receive less help in classes as well (Gregory et al., 2020; Whittle, 2018). The latter expectation coincides with a decrease in satisfaction with instructor performance, despite increases in perceived instructor approachability (Webb & Cotton, 2018). These mixed feelings regarding faculty corroborate Perez's (2020) finding that meaningful interactions with faculty and staff are highly valuable to sophomores. Despite increased frustrations with the academic experience, sophomores recognize the utility of the forged relationships they foster in the academic environment.

Sophomores also foresee changes in their own life that may be uncomfortable to traverse. For example, Gregory et al. (2020) found that sophomores expect to have reductions in the quantity of hours spent in socializing, leisure, and sleep, compared to their first year. Depending on socioeconomic and familial factors, students may encounter greater concern over personal finances during their second year, particularly if they move off-campus (Gahagan & Hunter, 2006; Perez, 2020). Undergoing a reprioritization process in order to ensure well-being and success can be intimidating for sophomores (Gregory et al. 2020) who may consequently experience a loss of confidence in themselves as they begin their second year (Whittle, 2018). Thus, many sophomores find themselves in a continued transition process as they evolve in their identities, both as students and as emerging adults.

As sophomores return to college, an intersection of their expectations regarding academic life and personal life is the development of a major or career path. Many sophomores anticipate the major narrowing process to reach its most intense point during the second year of study (Sterling, 2018; Whittle, 2018). While major exploration in the first year is certainly possible, many skills necessary to find true success in a career path are not developed until more advanced courses are taken (Whittle, 2018), and this can result in students not realizing a misfit between themselves and their intended career path until the second year (Sterling, 2018). Furthermore, some institutions' curricula are structured in a way where students are pressured into making commitments to majors by a certain point in the sophomore year, inevitably narrowing the available opportunities (Gregg-Jolly et al., 2016). Thus, sophomores may enter the school year contemplating the possibility of needing a back-up plan, which may introduce further anxieties of how such a change would affect other parts of their lives.

### ***Sophomore Developmental Concerns***

Developmentally, sophomores enter the school year with the freshman year transition complete. They have established a connection to the school, they have found a routine that will enable them to find a sufficient level of success in general education classes, and they have constructed some semblance of social support on campus (Sterling, 2018). However, many needs remain unmet. Sophomores must find purpose in why they are attending college now that the excitement of the first year has worn off and the initial connections to the campus have been established (Sterling, 2018). Kneiss et al. (2015) found that for African-American students at a predominantly White institution, successful second-year experiences were most likely if students found community, committed to

themselves or some aspect of the institution they were attending, found the proper life balance, and intentionally focused on their goals. This strategy allowed them to avoid the sophomore slump, despite the additional obstacles that students of underrepresented minority groups face. This finding underscores the central importance of social network development and sense of belonging for sophomore students (Perez, 2020), as these were the factors Kneiss et al. (2015) identified as why the students in their study returned for their second year in the first place. However, some programs do not yield the same benefits for students from racial minorities or first-generation students, so it may be better to target those populations specifically with separate programming (Gregg-Jolly et al., 2016).

Other vital processes of student development during this time are the balancing of parental expectations against one's own desires, as well as transitioning reliance on the family to reliance on peers and faculty (Sterling, 2018). Schreiner (2018) identifies racial, gender, sexual, and spiritual identity development as particularly important factors in finding one's place in the institution, as well as broader society during the sophomore year. The exploration of options results in sophomores pivoting away from their adolescent selves toward a new adult self.

### ***Institutional Support for Sophomores***

In helping sophomore students navigate the difficulties regarding academics, institutional expectations, and career development, many suggestions have been identified and explored (Kranzow et al., 2015). Regardless of what specific practices are used on a campus, it is important to develop sophomore programs with the students' developmental needs prioritized first, as simply extending freshman programming to the

second year will not be sufficient (Young, 2018). Instead, establishing continuity that accommodates the changes between the first and second years of the college experience can help elicit student commitments to the institution (Kneiss et al., 2015).

One of the most commonly discussed ideas to combat the sophomore slump is to implement high-impact practices (HIPs) as an institution (Provencher & Kassel, 2019). *High-impact practices* are research-based educational implementations that provide various benefits to students (Kilgo et al., 2015). Examples include intellectual experiences like honors programs, community-engaged courses, diversity-learning experiences, internships, and research (Kilgo et al., 2015; Provencher & Kassel, 2019). Living-learning communities (LLCs) can incorporate HIPs to specifically address the various aforementioned second-year issues (Gahagan & Hunter, 2006; Kneiss et al., 2015). Maintenance of HIP participation in the student body moving into the sophomore experience is crucial, as it correlates with student retention to the following school year (Provencher & Kassel, 2019). However, this impact is short-lived, as it has been demonstrated that HIP participation in the first year predicts retention to the second year, but not the third year (Lisberg & Woods, 2018). Therefore, incentivizing HIP participation through the second year of study is a crucial step institutions can take to keep sophomores engaged.

Another heavily discussed avenue for maintaining sophomore vigilance is to create more meaningful experiences in their places of living. Many sophomores live on-campus but are not motivated to use campus resources to their advantage (Kranzow & Foote, 2018). Direct involvement with hall directors or upperclass resident assistants can help connect students to the resources they need, particularly for actively involved

residents or sophomore resident assistants (Brecheisen, 2015). Sophomore LLCs can serve as an effective way to connect sophomores to their academic community (Gregg-Jolly et al., 2016; Perez, 2020), with Gibson et al. (2019) suggesting a growth mindset as a theme for LLCs, emphasizing holistic development across several facets of student development. LLCs can be particularly helpful for creating cooperative environments within the student body, which are vital for raising retention rates (Piper & Krehbiel, 2015).

Communication is another way in which institutions can offer improvement to their sophomores' experiences. Increasing avenues for students to provide feedback and express concerns regarding institutional policies is one way that student voices can be heard, helping to establish a greater connection to the institution (Nelson, 2018).

Collaborative efforts across multiple resource departments like counseling, academic advising, and career services can provide programming of a larger scope to help meet sophomore needs (Sterling, 2018). Whittle (2018) found that adding extra online resources specifically for sophomores coincided with a disappearance of sophomore slump symptoms within the student population at a university in the United Kingdom. Clearly, there exists a variety of ways in which institutions may attempt to address sophomore needs in general, but individualized aid for sophomores may be enhanced by incorporating knowledge from time perspective theory.

### **Academic Advising**

A key tool for higher education institutions in helping students find their path through college is academic advising, as the practice is associated with higher retention and graduation rates (Museus & Ravello, 2021; Pascarella & Terenzini, 2005). To

achieve these results, academic advising offices work to establish and structure helping relationships between full-time employees of the institution, whether faculty or professional advisors, and students (Hunter & White, 2004). Effective programs incentivize the process of engaging in the advising role on both ends (Hunter & White, 2004), but recent research is examining how to make advising more effective for first-generation and historically marginalized populations. Some research has even found that the positive benefits from advising interactions are significantly greater for majority populations compared to the benefits that members of some marginalized groups receive (Daniels et al., 2019; Glaessgen et al., 2018; Museus & Ravello, 2021).

For students who enter college undecided on their major, the role of academic advising often varies depending on the context of why a student is undecided (Ellis, 2014; Gordon, 1998). Gordon (1998) identified four types of undecided students with respect to career path: *tentatively undecided*, those who are close to deciding but not quite committed to a path; *developmentally undecided*, those who need more maturation or information before committing; *seriously undecided*, those who experience moderate anxiety over making a career path commitment due to other concerns taking precedence and worry about not making the right choice; and *chronically indecisive*, those who experience great anxiety and are uncomfortable with the idea of committing to a path. Each of these types of students have different needs that distinguish how an advisor would approach working with each of them, despite them all potentially being in the same undeclared major status together.

Indecision level is the main source of variance in the undeclared student population as found in Gordon and Steele's (2003) 25-year longitudinal study on



undeclared incoming freshmen. In their study, 22% were “completely undecided” on their major, 31% were “tentatively decided,” 43% had “several ideas but were not ready to decide,” while the remaining 2–3% of students were “completely decided,” but were still nominally undeclared. The first group was less likely than the other three to exhibit anxiety with respect to the major selection decision, with Gordon and Steele’s (2003) explanation being that students may be better able to relax and accept major indecision when they are not feeling anxious, while more anxious students may be inhibited from declaring a major as a consequence of their anxiety. Giving clarity to these findings, Ellis (2014) found that the reasons incoming first-year students gave for their undecided status generally fell into reasons why they were undeclared and internal considerations like emotional state and weighing of others’ opinions. These results were consistent across the varying degrees of indecision and anxiety.

Conversely, Cuseo (2005) acknowledges that just as a student may be nominally decided on a major, they may be unrealistic or uninformed on the details of their selected major to the point of it being a premature decision. Thus, academic advising has utility beyond the initial steps of simply selecting a major, as it focuses on helping students establish confidence in making academic decisions even as new information potentially results in major changes after the initial decision to declare (Kuh et al., 2005). With advisors’ help, students can also identify personal strengths that will help them reach their goals, even as their wants and needs change through their college experience (Kuh et al., 2005). When focusing on undeclared sophomores, the additional factors discussed in the preceding section can complicate a student’s navigation of major selection and subsequent career development (Luke & Diambra, 2017), particularly if relevant first-

year experience offerings such as seminar classes, living-learning communities, additional academic advising support, and transition/orientation are not extended to second-year students (Gahagan & Hunter, 2006).

### **Career/Major Selection**

The research most relevant to this study is from the field of career counseling, particularly with its application to the college major selection process. This section of the literature review gives a brief history of career counseling theory and practice before discussing the field's relevance to major selection.

#### ***History***

Career counseling's origins come from Parsons' (1909) *Choosing a Vocation*, a landmark book that reviewed the nature of labor in the increasingly industrialized world and gave readers an understanding of where they may find their best fit within it based on their own individual traits, as well as traits inherent to various occupations (Baker, 2009). This approach reflected the growth of urban settings at the turn of the twentieth century, which needed job placement centers to help sustain economic growth (Pope, 2000). A trait-based approach was also used by Holland (1959), who created a groundbreaking and user-friendly model of six different vocational personalities: realistic, investigative, artistic, social, enterprising, and conventional (Nauta, 2010). This model reflected the growth of the demand for career counseling following the incorporation of vocational guidance in school systems in the decades following World War I (Pope, 2000).

Developmental approaches to career development like Super's (1980) model of roles that wax and wane throughout the life span represent a different way of considering

the topic. Another model from this school of thought belongs to Ginzberg et al. (1951), who divided vocational development into the *fantasy stage* of childhood, the *tentative stage* of adolescence where individuals discover their interests, capacities, values, and agency, and the *realistic stage* where young adults explore career options with increasing focus on a particular area over time. Roe (1957) also contributed a developmental model that examined the effect that parent-child relationships have on children's vocational behaviors. All of these theories are the product of the mid-twentieth century, a time where the search for meaning in one's work was an increasing priority (Pope, 2000).

Since the early days of career counseling, technological advancement, social change, and globalization (Pope, 2000) have led to the development of new schools of thought in career counseling, including social learning theories such as cognitive information processing (Peterson et al., 2002) and social cognitive career theory (Lent et al., 2002), both of which are used in this study. The National Career Development Association, established in 1913 and given its current name in 1985, has drafted ethical standards, competency statements, and credentialing standards for the profession of career counseling (Engels et al., 1995). Today, career counseling retains its presence on college campuses in the work of career services offices, where students may gain guidance in how to develop into their career path.

### ***Application to College Major Selection***

Research from career counseling focuses on the choice of a career path, which is not necessarily the same as picking a major in college. Nonetheless, the two decisions can parallel in college, as evidenced by the presence of career services offices on college campuses (Dey & Cruzvergara, 2014). These offices perform a number of functions in

order to aid students in developing into their career path of choice. However, the traditional four-year model of undergraduate study immediately after high school is becoming less commonly practiced (Selingo, 2016). This has resulted in uniquely diverse needs arising in the varying student populations that these offices serve. For example, college students over the age of 25 years demonstrate a variety of differences from traditionally aged students in terms of their career development, including greater vocational commitment, need for vocational information, and perceived career-related barriers and less decision-making anxiety (Luzzo, 1999). This creates a need for customized services to address the diversity of student experiences at a given campus (Dey & Cruzvergara, 2014).

Additionally, as society becomes increasingly technological and multicultural (Pope, 2000), there is an increasing demand for graduating college students to demonstrate both depth of understanding (via the traditional college major) and breadth of understanding across multiple contexts (Selingo, 2016). With employers prioritizing skills such as creativity, humility, and digital awareness, the ability to transfer these skills from the classroom to the workplace has become paramount (Selingo, 2016). Thus, career services offices must juggle a plurality of roles in interacting with their students to help them become marketable beyond their college degree, from facilitating resume revisions to professional networking, job placement, and to the foundational career counseling that informs the entire process (Dey & Cruzvergara, 2014).

Depending on the institution, career services and academic advising may have overlapping missions and functions (Ledwith, 2014). As students utilize the combination of services available to them, the information they obtain and process inform both their

major path and career path, as the two have influences on each other with respect to potential earnings and job opportunities (Baker & Orona, 2020). As students filter an institution's major offerings down to those that they are aware of, those they have knowledge and understanding of, those they see a fit in personal capabilities, and finally to the most desirable option, the institutional role in the process will inevitably vary on a case-by-case basis (Baker & Orona, 2020). Nonetheless, it is imperative to acknowledge the role that both types of institutional support can have in helping students determine their major and career paths.

### **Time Perspective**

Time perspective involves the comprehensive aggregate of an individual's views and opinions on the three temporal periods: past, present, and future (Mello & Worrell, 2015). The idea of time perspective as a research topic first received extensive research during the mid-twentieth century (De Volder, 1979). Since then, many instruments have been developed to understand time perspective, with the seminal work of Zimbardo and Boyd (1999) being one of the most prominently used in contemporary studies. They created an inventory that proposed five measures of time orientation and attitude: past-positive, past-negative, present-hedonistic, present-fatalistic, and future subscales, the sum of which can indicate both favorable and unfavorable biases an individual has for one temporal period over others.

Mello and Worrell (2015) expanded on this research by creating a conceptual model focusing on time perspective development in adolescents. They considered time perspective as a multidimensional cognitive-motivational construct that is influenced by an individual's environmental circumstances. They expanded beyond time orientation

(the emphasis placed on a particular temporal period) and attitude (positive and negative assessments of a temporal period), incorporating relation (perceived interactions across temporal periods), frequency (rate of an individual thinking about temporal periods), and meaning (personal definitions of time and temporal periods) into their model (Mello & Worrell, 2015). Both the changes and the developing awareness of each component of time perspective occur during the transition from childhood through adolescence, suggesting that college students are still experiencing changes in their time perspective as they are enrolled in college.

Time perspective shifts during young adulthood as a result of cognitive development and the increased nuance in motivational processes (Mello & Worrell, 2015). As individuals mature, their capacity to think in an abstract manner increases, leading to the ability to contemplate oneself in terms of identity formation (Erikson, 1968). The present-focused child becomes increasingly aware during adolescence of the past and future, in addition to the information and possibilities that are contained within them (Lewin, 1935, as cited in Mello & Worrell, 2006). For example, individuals who have high parental attachment are more likely to think about the past and exhibit positive thoughts regarding the future (Blomgren et al., 2016). As these adolescents move toward adulthood, their capacity to contemplate the past and future in conjunction with the present becomes increasingly necessary to adapt to their environment (Luyckx et al., 2010) and their identity development (Shirai et al., 2012).

The intersection of time perspective and career decision making has been explored to find correlations between time perspective typologies and different states of career commitment (Taber, 2012). Past-negative time attitudes are associated with the

most problems with career decision-making, including lower self-knowledge and higher conflict both with others and oneself regarding such choices (Taber, 2012). However, more recent studies have suggested that frequent thinking about the past is associated with higher grade point averages (Mello et al., 2009). Meanwhile, future-orientation is predictive of the least problems, as these students have high motivation and self-esteem. American colleges and universities tend to be future-oriented settings, resulting in individuals experiencing shifts toward this orientation for their time perspective development during their college experience (Luyckx et al., 2010).

### **Theoretical/Conceptual Framework**

In addressing the sophomore slump, two themes have received extensive research: student development changes within the specific context of the second year of undergraduate study, and the implementation of programs, policies, and other forms of direct or indirect support for second-year students (Gahagan & Hunter, 2006). A topic existing within the intersection of these themes is career development for sophomores. Two applicable career development theories that informed this study were the cognitive information processing approach, and social cognitive career theory.

#### ***Cognitive Information Processing***

Cognitive information processing (CIP) is an approach to career development theory that emphasizes knowing oneself, understanding occupations, and developing decision-making skills that will allow individuals to solve career-related problems in their lives (Peterson et al., 2002). These areas of focus were identified by Parsons (1909) and have since been corroborated by additional researchers examining how people approach

career thoughts, problem-solving, and making career decisions (Hayden & Osborn, 2020; McLennan & Arthur, 1999).

CIP has been used to identify specific struggles that sophomores tend to experience, particularly aspects related to career development. Historically, sophomores often enter their second year of study unaware of their career development needs, partially due to a lack of sufficient career counseling support from their institution (Luke & Diambra, 2017). They often operate under conclusions derived from dysfunctional thinking and decision-making. Identifying which types of dysfunctional career thoughts are most prominent within a student body and assessing this population before the onset of a potential sophomore slump is essential to mitigating issues like sophomore attrition.

A CIP approach to operationalizing this concept is found in the Career Thoughts Inventory (CTI), which directly connects its specific categorizations of dysfunctional career thoughts to strategies for cognitive restructuring (Sampson et al., 1998). This instrument relies on the proposal that maladaptive career thoughts are grouped into three primary groups: decision-making confusion, commitment anxiety, and external conflict. *Decision-making confusion* involves the emotional and cognitive stressors that impede an individual from being able to engage in decision-making processes in the first place, in addition to the lack of necessary knowledge or skills for said processes (Luke & Diambra, 2017; Sampson et al., 1998). *Commitment anxiety* involves concerns and worries regarding the outcomes involved in making a decision to pursue any specific career choice relating, as well as generalized anxiety surrounding making decisions (Sampson et al., 1998). *External conflict* is the difficulty in weighing others' opinions against one's own evaluations, and the resulting tension in decision-making responsibility



(Sampson et al., 1998). Furthermore, Dipeolu et al. (2021) found in their exploration of sophomores and seniors with learning disabilities that sophomores experience significantly higher dysfunctional career thoughts than both seniors and the average college student norm, and that extending transition efforts such as requiring visits with career counseling offices or other academic support services through the first two years of study could reduce the prevalence of this problem within sophomore populations. Luke and Diambra (2017) corroborate this suggestion from a career counseling perspective, suggesting the usage of career genograms, student-to-student mentoring, extracurricular resource linking, and decision-making training.

Thus, the connection between CIP and research on sophomore student career development has already established lines of reasoning to address this part of the sophomore slump. As a collegiate environment aids a student in fostering their self-knowledge, occupational knowledge, and decision-making skills, greater confidence and meaning can be derived from a student's career development before they commit to a particular career path (Peterson et al., 2002). This study's examination of the major selection process for undeclared sophomores identified statements indicating knowledge of the self, occupation, and decision-making skills, as well as the three types of maladaptive career thoughts, using them to better understand the participants' experiences.

### ***Social Cognitive Career Theory***

Social cognitive career theory (SCCT) applies principles from social cognitive theory (Bandura, 1986) to address career development psychology (Lent et al., 2002). Social cognitive theory originated from Albert Bandura's (1986) work in explaining

social processes as a primary contributor to human motivation and behavior. SCCT extends the application of the social cognitive theory ideas of self-efficacy, outcome expectations, and personal goals by viewing them as the primary variables that contribute to career development (Lent et al., 2002). The most vital of these concepts is *self-efficacy*, which is an individual's beliefs regarding their abilities to succeed at tasks or goals in particular contexts (Bandura, 1986). *Outcome expectations* relate to the results and perceived consequences of performing tasks, while *personal goals* encapsulate the determination with which one engages in a particular behavior (Bandura, 1986). These three variables interact together in triadic reciprocation, meaning that each of them affects and is affected by the other two concepts.

These ideas organize SCCT's models of career interest, choice, and performance. For example, an individual's abilities directly affect their self-efficacy beliefs, which then provide a basis for constructing outcome expectations regarding potential career interests. (Lent et al., 2002). Positive experiences with an interest will garner greater incentive for an individual to invest into that interest further. This eventually informs the process of establishing and pursuing personal goals, where the results of actions taken provide evaluative performance information that connects a feedback loop to the experiences that inform an individual's self-efficacy. Nonetheless, contextual factors may exert pressures on an individual's goals and actions, either serving as perceived supports or barriers in reaching the desired outcomes.

Peña-Calvo et al. (2016) applied the notion of perceived supports and barriers to second-year STEM students in Spain to explore differences in these perceptions across major differences, finding that engineering students perceived the fewest supports and the

most barriers compared to other STEM majors. They also found teaching staff support to be the most significant variable in predicting the presence of self-efficacy beliefs, outcome expectations, and STEM interest within students. In a study of gender differences in STEM majors, Wolter et al. (2019) found that the discrepancy in gender ratios in STEM programs was due to non-cognitive influences and affective-motivational sources. They recognized the societal expectation of a people-oriented or communal role for women in their careers. Wolter et al.'s (2019) proposal was that this historical trend informs many of the perceived barriers that women in STEM programs experience in producing outcome expectations for themselves in their careers. In conceptualizing how the current study addresses career development in sophomore students, recognizing the sources of supports and barriers for the typical college student is integral for understanding the context with which a student transitions through the first stages of their career.

### **Summary**

In considering the theoretical perspectives on career development, their application to the sophomore slump's career-related facets is clear. As sophomores transition to a new status at their institution, they must navigate several developmental challenges with their identity, including their vocational aptitudes and career path. Many students will fall into the sophomore slump if their institution does not have sufficient protections in place to help its students establish a sense of autonomy for deciding their own future. Academic advising and career services offices fill this need by helping students progress through major life decisions during their collegiate experience. These decisions require students to consider a wide variety of information from their life,

including their time perspective. Students' time perspectives include their cognitions, emotions, and motivations regarding their views on the past, present, and future. Chapter III discusses the methodology that was used for this study.

## **CHAPTER III**

### **Methodology**

The purpose of this study was to examine how undeclared sophomores navigate the decision of picking a major in consideration of their time perspectives. This chapter outlines this study's design, sample, research site, and data-collecting instrument. Attention is also given to the data collection, analysis, and treatment in following sections.

#### **Design of the Study**

This qualitative study used a phenomenological approach to understand how undeclared sophomores experience the decision of choosing a major as a step in resolving career indecision, using time perspectives as an interpretive lens. Choosing a major as an undeclared student is a common experience that is best articulated through understanding its underlying collective essence, which is what phenomenology emphasizes (Gordon, 1995; Creswell, 2007). The research utilized interviews of sophomores who were either in the midst of navigating the major selection decision at the time of the interview or had recently declared a major in the months leading up to the interview. This choice of methodology was intended to clarify the details of the major choice process for the sampled participants.

#### **Participants**

This study's participants consisted of four students who started either their second or third semester of undergraduate study without having a declared major. Three participants were in the first semester of their sophomore year at the time of their interview. They were recruited with the aid of the academic advising office at the

research site, whose director sent recruitment emails (Appendices C, D, E) to all of the institution's students who met the inclusionary criteria. These emails provided potential participants with information about the study along with the researcher's email address to contact in order to coordinate an interview. Individuals who responded were contacted with a follow-up email that contained the informed consent document (Appendix B) as well as further details on the study. After the interview was scheduled and conducted, students were debriefed with further information regarding the purpose of the research, as well as an opportunity to ask additional questions to the researcher.

**Table 1**

*Participant Demographic Information*

	Age	Race/Ethnic Identity	Gender Identity	First-Generation Student	Semester Declared Major	Class Standing When Declared
Andi Armchair	20	Black/African-American	Female	Yes	3rd	Freshman
Bobbi Bookshelf	19	White	Female	No	2nd/3rd <sup>a</sup>	Sophomore
Claire Cupboard	19	Hispanic	Female	Yes	2nd	Sophomore
Dani Doorknob	22	Latina/Mexican-American	Female	Yes	3rd	Sophomore

<sup>a</sup> Participant changed majors in a later semester than her initial declaration.

**Research Site**

This study took place at a public, Midwestern, rural institution of approximately 7,000 total students. In 2021, 59% of the student body was White, with the next largest groups being 13% Hispanic/Latino and 13% Black/African American. The school's class

level breakdown was: 26% high school (dual-credit), 13% freshmen, 10% sophomores, 13% juniors, 18% seniors, 20% graduates. In 2020, approximately 30% of the enrolled students were classified as first-generation students. The student to faculty ratio is 14:1, with bachelor's, master's, and specialist degrees being offered from colleges focusing in education, business, arts and humanities, and sciences. At the undergraduate level, there is no prescribed timetable for selecting a major program.

## **Instrument**

### ***Design and Usage***

Participants were interviewed in a semi-structured manner using the questions included in Appendix A. After a brief introduction to procedures, agreeing on an alias, and obtaining their permission to conduct and record the interview, participants were reminded of the voluntary nature of their participation and their ability to withdraw from the study. Then, demographic information was collected with the use of primarily close-ended questions. Next, questions designed to address the study's research questions regarding the undecided nature of the participants, the major selection process and its associated obstacles, as well as the institution's role in navigating the process were asked. Finally, the participant check process was described before the participant was dismissed.

### ***Researcher's Reflexivity***

The researcher comes from a family where reflection on the past is a common discussion topic. Personality-wise, most of my immediate family members whom I would consider central in my childhood development are nostalgic and sentimental individuals. Thus, it is not surprising that I have tended toward past-oriented thinking in navigating my life. During my undergraduate education, I was unable to detect this mismatch that I

had with my generally future-oriented engineering cohort. In my discussions with friends and family about time-orientation since that period of life, I have pondered the extent that this construct affects our lives as human beings, particularly in the United States' culture, where an individual's vocation is a heavily emphasized aspect of life. I have wondered whether there is any relationship between the ways an individual orients themselves in their temporal experience and how they pursue a career path in college. While I do not anticipate that my own time-orientation tendencies affected my ability to remain steadfast in finding the underlying truth in the data I collected for this study, I am aware that the conclusions I reached in interpreting this data were inevitably influenced by my past-oriented sympathies.

### **Data Collection**

Interviews were conducted in-person in the hosting institution's library study rooms. Prior to the beginning of the interview, participants were emailed the informed consent document to review and were asked for their understanding and agreement at the start of the interview. Interviews were conducted in a semi-structured manner, following the interview protocol found in Appendix A. Audio from the interviews were recorded with the researcher's cellphone.

### **Data Analysis**

The interviews were transcribed by Otter.ai software. After the transcripts were reviewed for errors, a copy was sent to the respective participant for a member check, which is a credibility establishing process by which qualitative researchers share parts of their data analysis process with participants in order to ensure that their experiences are being accurately portrayed (Krefting, 1991). Transcripts of each interview were then



coded. Coding is the process by which researchers summarize and organize information into shorter, symbolic labels called “codes” (Saldaña, 2013). Interviewee statements that included ideas pertaining to the four research questions (undeclared factors, time perspective, major selection navigation/obstacles, and institutional support) were coded as related to the respective question with a label summarizing the idea. The second round of descriptive coding involved further identification of themes within each research question’s codes (Saldaña, 2013), this time with respect to the conceptual framework of social cognitive career theory (Lent et al., 2002) and cognitive information processing (Sampson et al., 1998). A third round of coding was used as deemed necessary by the researcher to further clarify subthemes found during the second round. The interviewer notes were used to inform the coding process along with the use of the conceptual framework to interpret the data. This is to further establish researcher reflexivity and to reduce the likelihood of missing a clear explanation for the research findings (Krefting, 1991).

### **Treatment of Data**

Data was collected in a private location on-campus. During the data collection period, digital interview files (recordings and transcripts) were stored on a password protected USB drive issued by the researcher’s academic department, while physical files (informed consent) were stored in a personal binder kept in a locked cabinet of a shared office. After completion of the data analysis, interview notes were scanned and then shredded, and digital data was transferred to the department-issued USB drive, where it will remain in storage for three years in order to comply with the hosting institutional

review board's policies. After this time, the files will be deleted from the USB drive, thus eliminating the existence of any unpublished components of the research process.

### **Summary**

This study used a phenomenological approach by identifying second-year students at a rural, mid-sized, Midwestern institution who did not declare a major until at least the end of their first year. They were interviewed in-person with questions designed to gain insight into the factors behind their initial undecided status, how their time perspective influenced the major selection process, how they navigated the obstacles of the process, and the institutional support mechanisms they utilized. The interview transcripts were coded to identify the themes found around the study's research questions. In chapter IV, the participants' responses are reported in answering the study's research questions.

## CHAPTER IV

### Analysis

This study involved four semi-structured interviews with undergraduate students who declared their major at the end of their freshman or during their sophomore year in order to better understand their navigation of the college major selection process. Of particular interest to this study was how their time perspectives informed that process, including their views on their past, present, and future and how they each interact with each other. Four research questions guided these interviews with the pertinent findings related to each of these questions discussed in order.

#### **RQ 1: What are the factors that have resulted in students being undeclared in their major when starting their sophomore year?**

The first research question for the study asked participants to discuss the factors that they felt were impacting their ability to choose a major when entering college and waiting until the end of the freshman or during their sophomore year of enrollment to make that decision. The participants described the context of their sophomore year and the expectation on them to declare a major, with emergent themes being centered around commitment anxiety, their experiences coming into college, and personal career expectations and goals.

#### ***Commitment Anxiety***

All four participants expressed anxiety over the commitment that declaring a major represented, with two overarching reasons being cited as the source of that anxiety: the desire to keep their options open and consequently reduce their fear of selecting the

wrong choice, and the weight and timetable of the major selection decision required by the institution.

**Desire to Keep Options Open.** All of the participants expressed forms of apprehension regarding major selection due to the narrowing effect it would have on their academic and career options. A common fear that the participants shared was that by choosing a major, they were eliminating options and opportunities for themselves. Dani stated, “I didn't want to be so dedicated to one thing if that makes sense. [...] [A]nything that limited me was what I didn't want to do.” Bobbi explained that for her, she was not sure what she would ultimately select and that choosing a major too soon would close some doors for her, “Coming in undeclared, I was like, ‘I'm here to find what I want to do,’ instead of coming in with a path and then realizing that I didn't like it.” Both participants stressed that being required to choose too soon could result in them making the wrong decision.

Claire described how for her, prior to college, she never had to struggle with her classwork, except in English class. Therefore, she did not have any initial basis for selecting a major, because she knew that she was good at most subjects. She indicated that she wanted to spend time exploring her options before picking a major since she felt that she had many potential career options. Similarly to Claire, Andi did not feel drawn to any specific major. She explained that her decision to pursue interdisciplinary studies was because she did not want to limit her career options by choosing any particular major, and that a more general degree would give her greater career flexibility.

[My academic advisor] asked me about my major, he asked me what I was going to choose and I'm like, ‘I know I can get my Bachelor's or something here.’ And

he's like, 'Yeah, in interdisciplinary studies.' I'm like, 'I think...I know I can do more with that than I will with just one particular major.'

All of the participants described a feeling of fear around selecting a major and then realizing later that another option would have been more favorable. From Bobbi's perspective, "I didn't want to make the wrong decision. And then, it's not like I would be stuck, but then I feel like I'd be behind if I chose something and then decided I wanted to switch." Similarly, Dani expressed, "I didn't want to sign up for something and then have to retake a whole bunch of classes." She further elaborated that of all the factors that negatively influenced her, "not making the wrong decision is probably top one." Claire and Andi both echoed this sentiment, stating that they questioned whether they were making the right decision.

**Weight and Timetable of Making the Decision.** The magnitude of the major selection decision also served as a factor for the participants' remaining undeclared through at least the majority of their first year of college. Both Bobbi and Andi discussed how they often asked themselves questions about their certainty level about their choice of a major, with the former explaining, "I don't like making decisions in general. So then, it's a pretty big decision to make. So just, am I sure this is something I wanted to do?" Andi also struggled with the idea of whether or not selecting a major was a commitment she was ready for, saying, "The hardest part for me was thinking about, 'Is that what I really want to do for the rest of my life?'"

The participants also made references to their reactions to the perceived deadline from the institution to decide on their major. Claire, who declared her major after a facility tour with a faculty member, recounted, "I was just impulsive. And I was like, you

know what, let's try it. I have to pick something. This is the closest that--this is the thing that sounds like I would like the most.” For Andi, she shared that it was mostly feeling that her options were exhausted and that she was as comfortable with her choice as she would get that made her finally declare a major, “I got close to choosing this major this year. This is the closest I think I’ll get.” Bobbi also felt that she chose her first major out of a lack of patience.

I think that that's why the first major I chose, I was so easily like, ‘Yep, let's do it.’ Because I was like, ‘I just want to have a major at this point.’ Not that it was like something that I completely wasn't interested in, but I feel like if I would have given myself more options, instead of jumping right in, then maybe I would have gone to nutrition right off the bat instead of spending that time in Chem.

Dani, who is currently a senior, highlighted how this issue was tied to her current focus of her job search, “To be graduating and not knowing still what you’re doing, but you have a degree, [...] It’s like I don’t even know what direction I want to go to.” The weight of such a major decision like choosing a career path resulted in her planning a personal trip for after graduation as a buffer between seasons of her life. For Dani, she perceived that deadlines could manifest in both major selection and career selection sequentially with years between them, while the other three participants viewed the major-career linkage as more immediately intertwined.

### *Experiences Coming in to College*

All of the participants described a wide variety of experiences and feelings prior to college that explained why they had struggled to declare a major as they entered college. All of the participants revealed parts of their introspective processes during their

interviews, giving insight into their goals and priorities. These introspections sometimes displayed their initial lack of a strategy for approaching major selection, and the associated struggles that accompany having incomplete information prior to making that decision.

Claire, in describing the incoming thought process regarding major selection, stated, “I never really considered it until now that I’m talking it out and actually saying it out loud. I think that I didn’t really consider like, ‘Okay, how should I make this decision?’” She further explained,

I had a couple teachers that would try and persuade me for certain routes. But to be honest, I never really [pause] it didn't really sound like myself. You know? It just sounded like what other people wanted me to do.

She explained that that the question of whether to go to college in the first place was the extent of her prior thinking about higher education.

I never really thought or considered going to college and actually doing it. I think--especially where I’m from, not a lot of people go to college. So it was--I knew I wanted to go to college, but I never really considered, ‘Okay, what do I want to study?’

Thus, when Claire entered college, conversations were simply not enough to help her understand the major selection decision.

It was very hard for me to conceptualize the types of careers and majors that they wanted me to go to. [...] it was very hard for me to understand what any sort of major, what any sort of profession or career looks like, because I’ve never seen it.

Dani, also a first-generation student, echoed Claire's desire to go to college and graduate, and that she also struggled with understanding how to make the decision.

[Regardless of major or where I studied], I just wanted to graduate college. And so, obviously, that had an effect on me in that me not knowing what the hell I wanted to do, but just knowing that I wanted to do it, and to graduate college. So I didn't know what I wanted to graduate college in, but I did know I wanted to do that.

She explained that her priorities for picking a school did not include major or career ideas, but location and cost, and that even now, working for financial stability is more important to her than her classes.

Andi, another first-generation student, also indicated difficulties in thinking about major selection, noting confusion in how to balance her interests with the difficulty of the classes. She was still trying to find her footing with classes in her second year and had not yet thought about how her experiences at college had informed her thinking about major selection. She indicated no favorite part of her academic experience to guide her major selection.

Bobbi differed from the first-generation participants in that family input was a more salient factor in processing the major selection decision.

I wanted to own a cat cafe, which my parents told me was not a good idea. So then, I thought about becoming a physician's assistant. But then, I decided that I didn't like blood, or anything that has to do with the insides of people.

She felt supported in the major selection process and did not experience many negatives through being undeclared. She viewed her time as an undeclared student as a period of



finding out what she wanted to do, and selecting the major that would allow her to do whatever she decided on. Nonetheless, she did decide to switch majors after her initial decision as she balanced new academic information with her personal motivations.

### ***Unfolding Personal Career Expectations and Goals***

Finally, the participants discussed that their own struggles with their choice of a career was a factor in their struggle to select a major. They struggled to connect a major with what they would do with that degree post-graduation as well as having a belief that making a choice was actually less useful for them than simply have a more generalist degree that would allow them greater flexibility in what they could do as a career.

Three of the participants described experiencing either a mismatch or lack of connection between their career goals and their academic journey. Andi, who is interested in computers but instead chose to declare interdisciplinary studies as a major, stated, “Before I even started college, I knew exactly what I wanted to be. But then as I looked into the classes, or whatever I’m like, ‘I think I’d rather start off easy.’” Bobbi, who declared late in her first-year before switching majors during her second, reflected that “I did enjoy learning about chemistry. So, I was like, ‘Yeah, that makes sense that I want to go into it.’ But then I was like, ‘What am I going to do with this?’” Eventually, these thoughts led to her changing her major. Meanwhile, Dani did not view the career selection decision as immediately related to her incoming college goals, stating, “My only goal in life at the time was to just graduate college. I didn’t care what it was, I just wanted to graduate college.”

Two of the participants indicated their preference for generalizing in their academic studies and avoiding specializing in a specific discipline. Andi described her

decision to declare interdisciplinary studies for her Bachelors' degree in thinking about the restrictions that she would feel choosing a specific major, even for a graduate degree, when she stated, "It's just the fact that I know I can do so much more with a Bachelor's [in interdisciplinary studies] than I could with a Master's [in a particular discipline]."

Dani was equally concerned that choosing a major that was 'too specific' would not only require certain courses, but that the choice would limit her when it came time to look for a career. She explained,

I didn't want to be so dedicated to one thing, if that makes sense. I feel like sometimes when you study STEM, or English for example, you have to do certain things. So that's why I ended up choosing communications because it's very broad. It's not limited to one thing only, so I think anything that limited me was what I didn't want to do.

Participant responses indicate that a sufficient link between a major and anticipated career path is important for major selection to occur.

**RQ 2: "How does a student's time perspective impact their ability to choose their major?"**

The second research question examined how participants' understanding and relationship to the past, present, and future influenced their major selection process. Each participant described the role of the past, present, and future regarding how they navigated the major selection process, with the future emerging as the temporal period of greatest importance, with the past and present serving supportive roles.

### *Obstacle of Negative Future Time Attitudes*

All four participants demonstrated varying levels of time orientation with respect to each temporal period, but the clearest commonality in how their time perspective affected major selection specifically was the influence of negative time attitudes when thinking about the future. The students recognized the major selection process as an inherently future-oriented task, due to it requiring thinking about potential careers they could pursue at a later point in time. Claire and Dani both stressed the importance of being able to attain specific lifestyle factors through their careers, including financial stability, geographical locations, ability to travel, and proximity to support. Claire shared her greatest concern:

Definitely financial stability. That was one of the biggest things that I considered because I don't want to have a financial burden on myself, on my own future me. I also considered geographic location of the sort of career that I would want. For example, I definitely did consider being a cop, specifically a FBI agent. However, I did not like that they choose where you live! No! That was a deal breaker for me. Absolutely not! One thing about me, I'm going to choose where I live.

Claire further explained that she needed control over parts of her life as well,

And I definitely like to have that liberty of being able to travel, being able to go to different places, and things of the sort. So, things like being a doctor would also not work, because I don't want to be in the same city for 10, 15 years. Like no, I want to travel, I want to go to different places, and things of the sorts. [...] I guess also environment. Like I said, what I mentioned earlier, I like working with different types of people. And diversity is something that is very important to

myself. I feel like that's something that I also considered when I was choosing a major.

Dani also described a vision for her future and how her major selection played into that vision.

Money, having enough money, geographical, like I said already too [pause to think] I guess, just goals in general of what I want to do. [...] I realized that I want to travel a lot, but I don't necessarily want to do it for work all the time, but it would be nice to also do it for work. [...] And just networking, I think networking is probably the biggest thing for the future that I've done while trying to find a major.

Dani indicated that these personal goals that are dependent on her career are clearer than the actual career itself, and this is due in part to her lack of willingness to narrow down her options earlier.

Now I'm battling with the issue of now I don't know what industry I want to go into, so although I know kind of what I want to do, I still am unsure of what industry. Like if I want to do Bio, if I want to do event planning, or something like that. [...] I guess it just [pause to gather thoughts] since I avoided kind of addressing the issue and I kind of picked something broad still, I'm still confused if that makes sense.

Despite her expressed anxieties about her immediate career plans after college, Dani recognized how these anxieties actually had been helpful in forcing her to take proactive measures to figure out parts of her future plans when she would ordinarily avoid thinking

about them. This indicated a mix of both positive and negative attitudes regarding the future.

Test taking was a concern, picking the wrong thing, and then with money too, I didn't want something that was declining, or not popular anymore. So communications is actually--people are investing in it a lot more now, so I saw that it was an industry that's kind of on the rise, and people have always used communication, so I was like, 'It's never gone away. It's not going to go away.' [...] I think those things all positively affected me, because it helped me choose what I wanted to do based off of those concerns.

She also had found ways to connect her potential career path to what she is doing now in the present.

[The professor] being like, 'Look, this is something you're good at, why don't you want to do Econ?' And I was like, 'Well, I didn't like doing it, I just did it because I liked you guys.' And then I guess that just kind of had my wheels turning like, 'Oh, okay, I like to help people, but I don't want to help them in the way of social services helping them, but helping them in a different way, like raising money, having events, things like that.'

Bobbi realized after declaring her first major that while her present academic interests were satiated, the career trajectory that she perceived as a result of that major was undesirable, and this resulted in her eventually changing majors.

I did enjoy learning about chemistry. So I was like, 'Yeah, that makes sense that I want to go into it.' But then I was like, 'What am I going to do with this?' And

that's why I decided to then switch again to dietetics because I really like the health and nutrition type thing.

These thoughts of seeing herself in a career relevant to her major eventually outweighed Bobbi's expressed fears of falling behind and having to spend extra money and time in college, concerns that initially contributed to her remaining undeclared before her initial major declaration.

In describing the role of the future in the major selection process, students referenced the immediate upcoming events in their life that were still confined to the current college experience, but primarily focused on the long-term vision they had for their lives and careers. These ideas revealed proactive thinking in some areas and naivety in others. A similar balance between excitement and anxiety also shone through the comments, giving detail to the unfolding development of their path forward.

### ***Past and Present as Support for Future-Oriented Thinking***

The past and present each held relevant information that the participants used as resources for the major selection decision. However, in consideration of the prominent role of a negative future time perspective as an obstacle to major selection, as well as the participants' perception that major selection is a primarily future-oriented task, the information used from the past and present served a primarily supportive role in navigating major selection.

**Present-Oriented Thinking.** Participants discussed the present context of the college setting to explain their major selection process, while also elaborating on how their individual self-discovery process interacted with the college environment to provide

clarity on the path they wanted to take. Bobbi described how current priorities for classes end up influencing her long-term decision.

[For deciding on which classes to take,] I'd say whether or not I thought they would be enjoyable, because some of them it's like [dramatic pause], no. The time of the class, I will say, I'm in an 8 AM this semester because it was the only option. The people in the classes sometimes. If I know that someone is going to be in a class that I have to take at some point, I'll be like, 'Oh, we should take that together.'

She recognized how these seemingly small decisions end up contributing information that supported the larger picture of the future-oriented major selection decision, saying, "Whether I would enjoy what I'm studying. That goes into the future as well too, just like, 'Would I enjoy this as a career?' But also, am I going to be able to handle the coursework now?"

Dani described how her present financial concerns strike her as a more pressing issue than her classes and career development, stating, "I think financial support, I do everything myself. So I sometimes put work as a priority over school because I have to make money to eat." This mindset contributed to her approaching college in a more passive manner.

I have realized that although I've been putting it off for so long, I need to figure it out now, or I'm going to be unemployed for a year like most college students are [laughs]. And I don't want that to be the case. So [dramatic pause] a way that I did that was deciding that I want to go to Mexico after I graduate, just kind of avoid it more, [laughs]. [...] So I guess the present has just affected me in the

sense that I have just been going with the flow, but knowing that I need to figure it out. And I've realized that I do like communications, I just need to know what to do with it.

Participants also gave indications that present-oriented thinking influenced how they navigated past seasons of life in a parallel manner. For example, Claire described how she was so focused on the present when she was in high school, that she did not feel fully mentally prepared for some of the big decisions that get made at college.

I also spent most of my time in high school trying to get the best grades, be the best on-paper student, get the best scholarships, just get to college. And then I realized that, 'Damn, now I'm here. What do I want to do?' [...] It wasn't until my senior year that I was like, 'Okay, now I'm going to college. What am I going to do?' And I was involved in school, I played basketball and soccer. And I was in clubs, and I did a bunch of stuff. But I never really thought about, 'Okay, what do I like? What are my hobbies? What do I actually want to do?'

As Claire transitioned into college, she had to zoom out from the present through introspective thinking to understand what her best path forward would be.

Self-discovery, or whatever they call it? Yeah, I don't know if there's a specific term for that. But I think that definitely helped me choose and decide what I wanted to do, figuring out who I am, that cliché. Because I feel like I never really considered that before coming to college. So I think that definitely helped me kind of outline and know my interests, know my values, know my beliefs, know what I want and things like that.



Yet, she still understood that present factors constrained some of her present resources, such as time and money.

Workload, the time that I have. There's a lot of pressure for myself to be financially stable because I am financially independent as well. So I think that when I was choosing a major, I knew that I had to choose something that would allow me to be at school and have a job at the same time, because I need to have a job. [...] And simply the workload, mental health is something that I really like to dedicate time to, and really be on it a lot, [laughs] because mental health is important. And so I definitely didn't want to take courses that I knew I wasn't going to like, that I knew I was going to be unhappy in. And I want to be happy, I want to like what I'm learning, I want to be engaged, I want to do things that I like, because I know some people who major in certain things to please others or to just make good money, and I feel like that's something that did not correlate with myself.

**Past-Oriented Thinking.** While less explicitly evident in the participant responses, past-oriented navigation still appeared throughout their accounts of thinking through their major selection. The participants recounted a variety of past experiences that continue to influence their navigation of college and its associated obstacles. Additionally, they described the role of reflecting on their own personal histories, as well as the past experiences of trusted individuals like staff, faculty, and industry professionals which helped them in making decisions for the future.

Claire's past orientation was clear when she described how reflecting on her childhood helped provide direction for her major search.

I think that part of my selection process was definitely thinking about what I liked as a kid [laughs]. Because when I talked to people from different fields, most of them would always be like, 'Oh yeah, I knew when I was three, that I wanted to be a doctor.' [...] I feel like I considered that because I was like, 'You know what? That's true, what did younger me like? What did I like doing? What were my interests? Like my hobbies and things like that, what interested me?' So that's definitely one of the ways that I considered my own morals and beliefs, and things that I wanted for my future career.

Claire also stated that she relied on the experiences of other individuals as a reference for how to navigate vocationally related decisions for herself.

Dani attributed her family history to explain part of how she is navigating her college journey and its associated obstacles.

I think my parents' situation, [...] seeing [my dad] struggle in jumping jobs, sometimes jobs-to-jobs, not getting paid enough for his services and stuff that he does, having to work six days a week, that's something that I was like, 'Yeah, I never want to do that in my life,' because I just felt like I didn't have enough time with him sometimes. And then my mom too also worked full-time, also was not really there. I'm also an only child, so I basically spent a lot of time alone. So I guess, just seeing them struggle really influenced me.

Dani also addressed how her cultural background played a role in her decision making,

And then, being a Mexican-American, and not only with my dad, but my grandmother [who] came here undocumented. But now [she] is documented, and still kind of doesn't really have anything to do, because she didn't have above a

third-grade education level. So just kind of being like, 'Okay, then that means I have to go to college.' My other grandfather, who passed away too, was always just like 'College, college, college, college, college.'

She explained feeling a sense of weariness of being vulnerable with people on-campus and finding pity rather than substantive help. "I don't want to be looked at like, 'Oh, poor her,' you know what I mean? I'm very hard working, so I want my hard work to be speaking for me, as opposed to what my situation is." Dani also stated the importance of hearing other individuals' stories as a way of learning how to approach major selection and career development. "I think although you can study, and people can tell you all that they want to tell you, it's really about people's experiences and what they've gone through, how did they navigate through things."

Bobbi reflected back to a more recent moment in the past when she decided to change majors.

I just started exploring the majors offered. I was like, 'Oh, I had thought about this one.' The nutrition [major] was something that I talked to [the director of career services] about as another option, and then ultimately gone the chemistry route. So then going back to that, I was like, 'I think that I would enjoy this a lot more.'

Neither Andi nor Bobbi gave detailed accounts of the past's relevance to this decision, reflecting variations within the sampled individuals' time perspectives, but the presence of their own past was clear in the answers they gave even if they were not as aware of its impact.

### *Intersections of Temporal Periods*

As participants revealed moments that involved multiple temporal periods, they discussed the confusion and anxiety they felt when experiences and thoughts differed depending on which temporal period they were considering. For example, the participants struggled with making sense of their thoughts on classwork when they had positive experiences in the past but were struggling in the present, or where they enjoyed their current academic work but could not see how it would manifest for them in the future. Sometimes they processed information that fundamentally exists within multiple temporal periods, such as patterns of thought surrounding problem-solving strategies, or universal aspects of oneself that are not time-dependent, like an affinity for reading or an interest in competition. These intersections of temporal periods added further detail on the impact of time perspective on the major selection process.

Claire indicated a present pivot towards the next step of her career development process, expressing how she was still in the early stages of determining her major concentration.

No, I haven't, [laughs]. Um, obviously, engineering has various different branches and I'm still in the middle of that. I feel like you get from point A to point B, but then there's all these other steps too. For example, myself, I would have to find a specialization before the end of next year. I'm a second-year, by the way. So, I would have to figure [out] what kind of engineering I want to do. So, I'm in the middle of that, [laughs].

This cyclical thinking of approaching a current problem similarly to how one approached a similar problem in the past was also reflected in Bobbi's discussion of switching

majors, as well as Dani's discussion of looking into careers now that she is about to graduate. Recognizing these broader patterns of thinking and being helped participants develop a schema of how to navigate major selection in addition to the steps that take place afterwards.

**RQ 3: How do undeclared sophomores navigate the challenges of choosing their major, and what obstacles are they facing?**

This study analyzed the difficulties associated with the major selection process, and what approaches participants took to navigate those obstacles. Most major selection obstacles that emerged from the interviews were focused on course sequencing around general education requirements, the perceived loneliness in the decision-making process, and participants' lack of interest in suggested classes. When it came to navigation strategies, participant responses revealed the themes of taking action on priorities and consulting with resources.

***Major Selection Obstacles***

**Course Sequencing Around General Education Requirements.** All of the participants detailed their relationship with general education requirements during their time as undeclared students, with it presenting as one of the more continuously felt pressures during the beginning of their college enrollment. Dani explained how she prioritized required courses over electives.

[Laughs] I do what's required first, for sure. So when I came in as undecided, I did all of my gen-eds that I would have to do anyway, so I did Bio first year, math first year, English first year. And then, for my PR degree, I also did all of the requirements to the point that my last semester [this coming spring], I only have

electives to take and an internship because I've been avoiding choosing what I have to do [laughs].

Andi also prioritized general education requirements, explaining, "Honestly, I'm just taking the classes that I know I need to take. I'm not choosing based on whether it's important or not, I'm choosing based on other stuff, like something that I know I can do well in."

There were slight differences between Bobbi and Claire, who both entered college ahead in credits and felt a slightly unique form of pressure because of that. Bobbi explained,

I came in with a lot of credits as well. So when I would go to my regular advising appointments, my advisor was like, 'You're kind of running out of gen-eds.' And I was like, 'That's great, because I don't know what I'm doing yet.' But it wasn't like, 'This is on you for not choosing.' I felt that it was on me, I did it to myself because I didn't know what I was doing. So there was definitely that feeling like I was running out of time to choose something.

Claire described her approach saying, "I felt like I wasn't really trying to look for a major, I was just getting the requirements done." She later elaborated on this idea and explained what she would have done differently.

What I did was I finished all my requirements and then I went straight into a major. And I feel like that was not a good idea, because I just chose something because I had to, because I needed to take classes. [dramatic pause] That's it. I didn't really consider, 'Oh, what if I want to try this? What if I want to try that?' Because I already have all the credits. So now I just need to choose a major.

Claire attributed being ahead in credits as the main reason why she approached course selection in this way.

It did not help me to be honest, I wish I wouldn't have transferred any credits to be honest, because I transferred in 20 credits, which is like a semester. So when I came here, I only had to do my scholarship requirements and then my Gen Ed's, and that was basically just two semesters. [...] I feel like having those transferred in credits ended up making me have to choose something faster, because I didn't have Gen Ed's to do if that makes sense.

**Perceived Loneliness in Decision-making.** Course sequencing and general education requirements were not the sole obstacle participants faced. The other major obstacle they encountered was having to navigate the feeling that they were on their own in making this decision. Claire summarized how this felt for her, stating,

I felt a lot of pressure to make the decision by myself. Obviously, that was not the case, because I got help from career services and other people. But right off the bat, as a kid, an 18-year-old kid, you feel that pressure and you get intimidated by it because you're like, 'Okay, I'm the one who has to decide this. How?'

Bobbi explained that once she took initiative, navigating the decision became much easier, but indicated that obtaining the activation energy for this maneuver was not her immediate instinct.

I just had to reach out on my own for most of it. I had to just like, 'Hi, my name is [Bobbi] and I need help.' And then everyone was like, 'Of course, we'd love to help you.' But if I wouldn't have done that, I...I don't know.

Meanwhile, Dani recognized that it was her own lack of engagement with campus resources that was the issue and explained how it felt to look back on the process as a current senior.

I had all these resources, and I just wasn't using them. But then after using them, and now, I feel like [pause to think] the institution does not forcefully guide you to pick a specific major, which is what some schools do. [...] And that's great as an undeclared person to be like, 'Oh, okay, great. They don't need me to pick something right away.' But then at the same time, I feel like it kind of sucks, because then you have to navigate it yourself. And even if you use the resources, those people can't make the decision for you.

While each participant acknowledged the role of campus resources at various points in the journey, the weight of the decision and initial lack of knowing who to turn to for help still contributed to a feeling of isolation at times in the major selection journey.

**Lack of Interest in Suggested Classes.** Some participants stated how some of their early classes were prescribed for them by some external source. These early academic experiences set an early tone for the major exploration process, tipping each of the participants off that they were not on their preferred path. In Claire's case, she stated,

I took Principles of Macroeconomics, because it was a business class, and [the academic advising staff] really wanted me to try it, so I was like, 'Okay, I'm gonna try it.' Hated that class, dropped it, got it out of my system, because I was like, 'I'm not doing it.'



This led to her taking more math classes instead, which later opened the door for a relatively smooth transition into her eventual major. Bobbi also took a business class on suggestion of her parents, but decided it was not the right path for her.

I was in a business class, because I was like, 'Oh, I could do general business,' because you can pretty much [pause] I don't know, a business degree is pretty universal. So the business class, I thought was really boring. I was like, 'No more.'

She credited this class with starting her major exploration process in full, as she had to meet with the director of career services for the class, and found the conversation helpful in determining which career areas could be of interest. She then took further science classes to narrow down her interests.

Both Claire and Dani described how their financial independence required them to prioritize part-time jobs to varying degrees in order to support themselves. Dani in particular noted that this sometimes took away from her ability to focus on school to the extent that she would consider ideal.

### *Navigation Strategies*

**Consulting with Resources.** All of the participants looked to resources both on- and off-campus to explore their options in greater detail. All of them discussed their options with other individuals, both to gather information necessary to make the major selection decision and to go through the institutional procedures to declare a major. Andi stated,

There's been plenty of positive [factors, such as] motivation, friends, and having people that I know that will actually help me with this and get me through this.

[...] The most helpful person for me, I want to say is my TRiO advisor, Ms. Maggie. She's been a big help.

She also identified friends and her supervisor for her off-campus part-time job as supportive individuals for her to process the decision with. She did not however mention family as a factor.

Bobbi and Dani both discussed the role of the Internet in allowing them to research what kinds of job opportunities could be obtained through the major path they were looking to select. Dani stated,

[I have been] looking into other people's jobs that are around me. Both of my roommates are studying biology. [...] One of them is trying to do zoology, and one of them is trying to do marine biology. So what I've been doing is helping them look for jobs, but also looking for jobs for myself. I've been following St. Louis Zoo, Shedd Aquarium, things like that, to just kind of see if I would like to do PR for them. I also was really interested in plants over COVID. And I had like over a hundred plants, so I was like, 'Oh, it would be cool if I worked for a plant company.' So I started following a lot of organizations that would help me at least pick a specific industry.

In a follow-up correspondence after the interview, Bobbi added that prayer on the subject of major selection also allowed her to achieve a sense of peace regarding the decision she was about to make.

**Priorities Rising to the Surface.** The participants described a growing impatience with being undecided, which in some cases led to actions based on snap judgments that they expressed reservations about taking in hindsight. In other cases, it led

to slower, more deliberate thinking before making a decision, but either way, these moments were the culmination of several months of information processing, whether consciously or unconsciously. Bobbi described this phenomenon in her account of the major selection process.

I think that that's why the first major I chose, I was so easily like, "Yep, let's do it." Because I was like, "I just want to have a major at this point." Not that it was like something that I completely wasn't interested in, but I feel like if I would have given myself more options, instead of jumping right in, then maybe I would have gone to nutrition right off the bat instead of spending that time in Chem.

For Bobbi, the top priority at the time of the decision was to have a major so that the issue was settled. Dani frequently mentioned how her top priority in navigating the major selection process was to not limit her potential options for later points in her life, and that she perceived communications to be the path forward that limited her the least.

Making sure that I'm not limited to just one thing [pause to think] Yeah, I guess just that, just making sure that I know what I'm doing, that I'm not wasting my money on something that's not going to help me in the future.

Claire also described her mental framework for major selection in the context of priorities.

I guess I kind of made a mental checklist, if that makes sense. And I was like, 'Okay, this is all that I want. Or these are all the things that I'm thinking of wanting or that interests me and things like that.' And I chose what I wanted based on that list. I was like, 'How close can I get to getting all the things that I want?' And that's kind of how I was like, 'Okay, yeah, I'm gonna go for this.'

She had never explained her thought process like that before the interview, but she was confident that it accurately reflected her mental processes, even if she was not aware of it at the time, stating, “I think subconsciously, I think I do that all the time. I think that that's how I make these big decisions that are really important, like life-altering decisions. And I've never really considered it to be a specific way.” Claire also recognized that while she has found the right major for herself, she wishes that she had navigated it differently to avoid the course sequencing issues that have arisen due to how she only took general education requirements during her first terms of enrollment. Each of the participants experienced a unique set of obstacles in deciding on their major, but many of these difficulties were common across the interviewees, and so were some of the ways that they navigated these obstacles.

**RQ 4: “What resources or support do undeclared students feel that the institution could provide to better help them choose their major?”**

Finally, this study explored what institutional support measures participants felt were most useful in helping them in the major selection process. Participant responses emphasized the importance of having connections with staff and faculty, with these connections having utility in two distinct ways: creating supportive relationships for the student, and being sources of pertinent information for students to use in informing their major selection process. Responses also revealed the frustrations that result when these connections fall short.

Students discussed how various professionals on-campus helped in their decision-making process. Every participant described how a specific faculty member helped them decide on a major. They also described their academic advisors' role as well, with these

relationships ranging from frustrating in Claire's case to comforting in Dani's case. All of the participants except Andi described positive interactions with the career services office. TRiO support was briefly described by three of the participants, with Dani stating that she did not use the resources much, and Andi and Claire both saying that various employees in that office had been helpful in general. The type of help offered by these connections tended to fall into two areas: supportive relationships and sources of information.

### *Supportive Relationships*

The mere emotional benefit of having an institutional employee support the participant was a common topic in the interviews. Dani explained her relationship with her academic advisor by saying:

Her helping me and telling me, 'Okay, I understand you don't know what you want to do, let's do this.' That was really helpful, and she's also Latino, so being able to identify with her also was a really big help.

Beyond shared experiences and commonalities, Bobbi highlighted how staff members demonstrated a deeper level of care through actions that were often outside their official job description with one example from an appointment with the career services director: "I love that woman, I remember one time we looked at house prices in Colorado together. Yeah, she's awesome." Dani also stressed the significance of this type of connection when comparing her interactions with staff with those of potential internship supervisors, saying:

What they told me wasn't as important as their personal experiences. So, I feel like as an employer, what they were telling me was interesting, but when [the

director of career services] was like, ‘Yeah, you know, as an undergrad, I almost didn't graduate,’ her being able to connect with me on a personal level about struggling or things like that, that was really helpful.

Claire also stressed the importance of having a supportive relationship, comparing her experiences with three different staff members:

[Both my current academic advisor and career services advisor] definitely established some sort of connection or relationship with me. They made me feel like I'm not talking to a faculty member, I'm talking to somebody who cares about me if that makes sense. And I feel like that has been extremely important for myself, because it's made me feel like, ‘Okay, you care about what I'm doing, like you actually care.’ And I feel like that mattered to me a lot. Because with my first advisor, I didn't feel like she cared. She probably did, but she definitely didn't make me feel like she did. So, I was like, ‘You know what? If you don't care, why should I?’

Some participants articulated the consequences of not receiving sufficient on-campus support in their major selection journey. Claire had a frustrating experience with her academic advisor:

I tried to talk about it with my advisor, but it just felt like she wasn't listening to me. It just felt like she was just telling me, ‘Oh, try this or try that,’ just giving me solutions, not really trying to find something.

She explained how this made her feel lonely, leading to her realizing, “Dang, this is really just all on me, this is just my choice.” She later described her irritation with the methods being used to help her, stating, “I feel like a lot of the conversations that I had were just

people asking me, ‘Oh, well, what are you interested in? What interests you?’ And I'm like, ‘That's what I'm trying to figure out! That's not helpful!’” Andi also described having negative personal interactions, but hers were with faculty, stating that the worst part of college was “having teachers that are unfair and racist.” Her perceptions of those interactions limited her comfort with reaching out to those professionals who could have assisted her in making decisions.

### ***Sources of Information***

The participants also described more concrete actions that institutional employees took to make the major selection process easier. For example, Claire found it “very helpful to come here and meet people that are not only looking for the same thing that I was, but also had different experiences that I could learn from.” She explained that these perspectives contrasted with those of people in her hometown community, where very few individuals have any amount of college education.

Tangible artifacts were instrumental in gathering information for major selection. For example, Claire found a test offered through career services to be particularly useful, stating, “I took the famous career test. Basically, all my matches came out to some form of engineering. I think it was 30 results, and like 27 were engineering. So, I was like, ‘I'll give it a try.’” She described the tipping point in her major selection decision to be when a department head “gave me a tour, and all that stuff, all the labs and all the things of engineering technology, and things like that. And that honestly, that sold it to me.”

Dani also referenced the career services test as a useful tool for helping her find a major and career path from all the options that were open to her. When asked about her

least favorite parts of her academic experience, she described feeling intimidated by undertaking unfamiliar tasks without additional information or support.

I would say internship opportunities and grad opportunities, and stuff like that too. I feel like it's kind of hard to--you have to usually find those on your own, unless you go to [the director of career services], and she has to help the whole school. So that kind of [pause] yeah, I guess that's the most unappealing thing to me, to know that I would have to go look for myself, or I'd have to go probably off-campus. I don't have a car, so for me, that's also unappealing. So I've just been trying to do classes on campus.

Dani stated that she received a breakdown of subfields for her major as part of her initial conversation with her eventual department, finding it helpful to bridge the gap between major declaration and envisioning herself using the major.

I already had communications on my radar, so I went and talked to them, and he was like, 'Yeah, these are the different communications things that we have,' so then my thing was, 'What kind of communications should I pick?'

Bobbi shared that she really appreciated the effort that her department head made in giving her a similar breakdown of the different subfields within the major she was considering during a conversation with him, and that this same faculty member later helped streamline the major change process for her when she decided to switch to a different program.

Networking, particularly through career fairs, was also cited as a helpful way that staff and faculty could help support students through their major selection process. Bobbi recognized the benefits of career fairs but admitted that she had not been to one herself.



She suggested that having more “opportunities to listen to people who were maybe in your shoes once and be like, ‘This is how I chose when I was there,’” would be helpful for those who are having a difficult time choosing a major. Claire, who did get to attend one of the campus career fairs, appreciated how career services facilitated connections for her to explore, explaining, “they definitely helped me meet people that they personally knew in these fields, and on top of that, I also attended the job fair.” Dani shared a related sentiment:

I find it helpful when I talk to people who are in those professions of what they're doing, and I find that inspiring, but with everything that's going on in college, for somebody to actually choose to want to go to that is very hard. So, I think not forcing it onto students, but in a place, maybe when you declare your major, speaking with a professional.

### **Summary**

Each of the four guiding research questions was answered through the participants’ responses to the interview protocol. Commitment anxiety, incoming experiences to college, and students’ unfolding career goals and expectations explain why students remained undeclared through the beginning of their college enrollment. Students viewed major selection as a primarily future-oriented task, but still relied on information from the past and present to varying degrees in order to support the decision-making process. The most predominant obstacles participants expressed in navigating major selection were course sequencing, a feeling of loneliness in making the decision, and a relative lack of interest in coursework. They navigated these obstacles through consulting with resources both on- and off-campus, as well as inviting their personal priorities to rise

to the surface in how they proceeded. Staff and faculty can best provide institutional support for students in selecting a major by fostering supportive relationships with them and being sources of information. Chapter V hosts a discussion of the themes analyzed, as well as resulting implications for practice and recommendations for further research into the covered topics.

## **CHAPTER V**

### **Discussion**

This study explored the major selection process in undeclared college students, how their time perspectives inform that process, and how they think the school can better support them through that process. This chapter will offer commentary on the study's findings, with the discussion following overarching themes from the research in addition to implications for professional practice and recommendations for further exploration of this topic.

#### **Lack of Future Orientation**

The presence of negative time attitudes toward the future in the form of anxiety, apprehension, or apathy all contribute to the deferring of career decision-making, with the major selection process being associated with this task. In navigating the major selection process, there were several times where future orientation was demonstrated by participants in how they described their thought processes. They had thought through some potential concerns or desires for their future, but not in a fully mature form. The future, when compared to the past or present, was viewed as being more amorphous, uncertain, and changeable. This distinction contributes toward the positive and negative attitudes that participants held regarding the future in their interviews. For example, the same wide range of possibilities available in the future can be seen as exciting and intriguing to one person, while daunting and intimidating to another.

This study highlighted a number of reasons as to why someone could have a more negative view of the future, including a lack of ability to see oneself in any particular future career due to a limited self-understanding of interests, goals, priorities, etc. This

factor, when taken into consideration of looming deadlines to decide on a major or career path, whether externally set or internally felt, makes the future appear unclear despite its closeness to the present. When the future is allowed to exist as an abstract concept within one's time perspective, it is easier to defer decision-making to a later time.

However, when tasks associated with this perceived abstract future begin to infringe on one's experience with the present, it can be disruptive and cause discomfort, as the individual's operating time perspective is suddenly no longer consonant with the needs of their development. For individuals who react to this discomfort with action, they are able to make the future more concrete and familiar through their active pursuit of figuring out what information they need to make an informed decision. If students become paralyzed by this discomfort, they are prone to avoiding thinking about the future, and thus allowing it to remain abstract and incomprehensible. These students may eventually declare a major as a way of alleviating pressure to think about the future. Nominally, and therefore potentially from the institutional perspective, the problem has been solved, but the student remains uninformed and unwilling to pursue information about the future without some further external stimulus. Follow-up meetings with students who have declared a major somewhat recently should include discovery of something exciting about the opportunities opening up in the new context of the present that may be useful for propelling positive future thinking.

Another reason for a negative attitude toward the future relates to an individual entering a new phase of developmental loss of idealistic naivety regarding work and adult responsibilities. Depending on an individual's past experiences, they may have greater familiarity with the demands of adult life, but college is a common time for this transition

into adulthood to accelerate in ways that will inevitably be new for most traditionally aged students. If a student has set various goals and priorities for themselves for their adult life, they may not understand what role their career will play in facilitating progress towards those ends. As students explore areas of study and weigh their likes and dislikes in that field, they may not be able to incorporate that information into a vision for their future personal and vocational lives without external help. Thus, professionals should help students process the connections between these sectors of life to aid a student pursue a well-informed and balanced integration of information into their decision-making process.

Another contributing factor to participants' time perspective with respect to the future is the environmental pressure they felt to think about it. Depending on their natural orientation to the temporal periods and how they were able to adjust to this pressure, different outcomes were realized. For example, two students may share a similar disposition to not think about the future without an external impetus. However, one of the two may exhibit greater flexibility in their willingness to think about the future in order to overcome a developmental task such as selecting a major. In either student's case, institutional staff and faculty should adjust their approach to help create a bridge between their natural time perspective and the one needed to make progress toward an informed decision.

### **Perceived Opportunity Cost of Major Selection**

Facing uncertainty, the participants' description of their thought process regarding major selection tended to focus on what potential paths forward they were going to give up in exchange for pursuing whichever one they chose. If each major represented an ajar

door to an unknown future, participants less developed in their career thinking maturity viewed major selection as the process of shutting the doors not chosen before entering the selected door and closing it behind them with a sense of finality, making it difficult to even conceptualize other options once inside. For these individuals, the opportunity cost of selecting a major seems incredibly high, in a way that only appears inflated when viewed with the wisdom of lived experience beyond what these students have. In an age where students' options for majors at any given institution is often closer to a hundred than it is to a more comprehensible single-digit number, students are constantly running into Barry Schwartz' (2005) paradox of choice in a high-stakes educational setting that promises to change their life should they graduate. It should be no surprise that these students are paralyzed by the immensity of such an important decision.

However, there is hope in seeing the students who do not view major selection as a "door-closing" occasion, but a "door-opening" one. For these students, choosing a major represents surveying the array of doors, approaching some to examine them in closer detail, and finally opening one door and stepping inside. The door remains open for as long as it needs to before they either explore their new surroundings so intently and excitedly that the door merely fades into memory, or the student decides they would prefer a change of scenery, and consequently returns to the entryway to look at the other doors, still ajar and waiting for passersby to peek inside. These students do themselves a great service by holding major selection as a tentative decision that can easily be revisited if necessary. By diminishing the power the decision holds over them by dispelling its appearance of finality, these students are free to flexibly change their mind, since the opportunity cost of declaring a major is more appropriately evaluated. This type of

thinking about major selection is best encapsulated by Bobbi when she described how she navigated switching her major.

I was on the Pre-PA track [for the chemistry major], and then it just started seeming not ideal. I didn't want to go to PA school. I didn't want to be a PA. [...] So then I just started exploring the majors offered. I was like, 'Oh, I had thought about this one.' And this was something--like the nutrition [major] was something that I talked to [the director of career services] about as another option, and then ultimately gone the chemistry route. So then going back to that, I was like, 'I think that I would enjoy this a lot more.'

One possible explanation for why students may view the array of doors differently comes from their academic standing within their first year of study. Neither Bobbi nor Claire discussed the concern of limiting their options through major selection, yet they both were ahead in credits and gained sophomore standing after completing their first semester of coursework. Meanwhile, Andi and Dani expressed anxiety over the decision partially due to the perception that they may limit their options too much through the improper selection of a major. They both eventually declared during their third semester. In this case, Bobbi and Claire entered college aware that they had less time to take general education requirements before they would have to declare a major, so they were primed to take swifter action to figure out their major selection than Andi and Dani, who perceived no such urgency and thus did not take such measures during their first year to move ahead in their major selection process.

### **Impact of Staff and Faculty Contact**

As students attend classes and interact with peers through organized events and individual conversations, they are inevitably gathering information that will eventually be used to make their major selection decision. Regardless of how much time students spend actively reflecting on this information, as well as their own personal goals and priorities, it is clear from this study that students having one-on-one interactions with professional staff and faculty members served to accelerate the process of students making sense of their path forward by helping them overcome some of the obstacles they faced in the major selection process.

Students have the ability to lean on these campus leaders for information, which provides further clarity to the steps forward they may be considering. Beyond the procedural nature of helping a student understand the structure and mechanics of an institutional process at the surface-level, staff and faculty can provide information on the details, including personal recommendations and insights that potentially help make the information more comprehensible and less intimidating.

These relationships also have a social function in that they encourage further momentum in pursuing the major selection decision. As students establish a relationship with a campus figure who they look up to and respect, the role of that individual becomes a confidant who helps the individual establish a concrete path toward their goals. Through individualized attention, students can feel seen, heard, and that they are important to someone with authority on campus.

Unfortunately, not all interactions with faculty and staff are positive, but participants who perceived a poor fit in this relationship indicated a willingness to find



alternative individuals with whom to process their upcoming decision. Even in these cases, the student still makes progress toward major selection through gaining information about where they fit. Their subsequent actions are informed by what they did not appreciate about prior interactions. For the purposes of making progress towards major selection, negative interactions still provide information for the student to process, particularly when the information gained from that interaction is of impersonal matters, such as job outlook, course sequencing, or institutional procedures.

Not all students take initiative in seeking out these relationships, meaning that staff and faculty must make the effort to reach out on their own in order to prevent students from stagnating in their search for a major. These interactions continue to be important in career development steps that follow major selection, such as finding concentration areas, internships, relevant extracurricular activities, and job placements.

In all of the discussed ways, institutional staff and faculty have the ability to help students build bridges between the present and the future, allowing students to envision their path forward more tangibly and confidently. The value of one-on-one conversations between students and both staff and faculty are indispensable for helping students find their eventual major.

### **Implications for Higher Education Professionals**

The lack of future-orientation found in Andi suggests that there is implicit resistance to institutional efforts with students who are in their third semester and still undecided. Institutional efforts to engage the entire student body inevitably result in some individuals slipping through the cracks, an undesirable outcome made worse when the lost individuals are the ones who need the most additional support. When institutional

programs frame their image in future-orientation, they become intimidating to students who are uncomfortable thinking about the future.

The participants talked about visiting career services as if it was a step that one is supposed to take after already deciding on a major. To break down this notion, institutions should expose incoming students to the utility that career services can have from the very beginning of one's college journey, with an individual appointment being compulsory during a student's first term of enrollment. This practice establishes a relationship between every incoming student and a staff member from an office that does inherently future-oriented work before there is much time for a student to avoid thinking about the future as a default pattern of behavior. The familiarity gained from this initial interaction with career services will be useful in its proactive approach to the problem of low future-orientation.

Depending on institutional structure and what programs are already in place, the lack of engagement with career services that undecided students can have may be noticed most by the faculty, advisors, or career services themselves. Establishing and maintaining lines of communication across each of these groups through early alert procedures, divisional meetings, individual exchanges, and joint-departmental initiatives can help identify and outreach to students who would otherwise slip under the radar and get them connected to services on-campus that can help them approach the future with individualized support.

Another important implication for professionals working with undeclared students is to work to break down the perception of major selection as a "door-closing process,"

and use one's role to serve as a counterbalance to the pressures that are contributing to their dysfunctional career thinking.

### *Harnessing Past- and Present- Time Perspectives*

Future time perspectives are traditionally associated with career decision-making, but there is pertinent information about vocational goals contained within individuals' past and present. When students display resistance to thinking about their future, faculty and staff should use the past or present as a bridge to the topic. This can take the form of disclosing relevant information from the professional's past such as, "I was in your shoes once, so I get it," asking about the student's past and present, "Did you ever make a hard decision when you were growing up? Walk me through how you approached that decision." Each of these approaches reveals different information for the student to process as they prepare to think about their future. When students become aware of how they have made major life decisions in the past, they can begin to draw parallels for themselves and see which strategies are the most appropriate for the one in front of them. These approaches are already part of the rapport-building phase of advising relationships, and thus can be incorporated into academic advisors' and career services professionals' practices seamlessly with greater awareness of time perspectives merely changing the mental framework for understanding the student's current thinking about their situation.

This is not to say that future-oriented thinking should be discouraged, especially since it is the most directly associated with career decision making. Rather, a balanced time perspective should be fostered in order to fortify student confidence in the decision being made. Ideally, a student can envision a potential path forward for themselves that is consistent with the historical trajectory of their life narrative as well as their current

circumstances, without overvaluing any of them to the point that the other sources of information are rendered moot. In this situation, a student can be more easily assured that their decision makes sense, as they have examined concrete, lived-out experiences from their past and present to make an educated guess as to where their future might take them professionally, financially, emotionally, etc. if they choose a particular path forward, whether it be a college major or some other decision.

### ***Temporal Zoom-Out***

Professionals who find themselves working with a student struggling to make progress toward major selection due to fears regarding the future should frame major selection as the next of a long line of successful decisions that the student has made up to this point in life. As future-related concerns arise in this conversation, the professional can encourage what could be called a *temporal zoom-out*, a psychological event in which an individual consciously or unconsciously broadens the scope of their time perspective to allow for additional information that is typically associated with other temporal periods to be incorporated into an individual's thought process. This concept is similar to Nuttin's notion of extension (1985, as cited in Mello & Worrell, 2015), referring to the distance from the present that one considers in their thinking, and Lewin's scope (1939, as cited in Mello & Worrell, 2015), which referred to the size of the units of time that are typically considered in one's thinking. The temporal zoom-out's purpose is to aid individuals whose operating time perspective is currently oriented towards a particular temporal period to the point of personal distress or taking actions that are maladaptive for the context, situation, or environment. The process is useful due to it encouraging a balanced

time perspective. The strategy used to elicit a temporal zoom-out will vary depending on which temporal period the individual is oriented toward.

To illustrate this concept within the context of the phenomenon of study, a *temporal zoom-out* can be elicited for an individual who is fixated on their negative time attitudes toward the future by asking whether their described concerns or any related ones have appeared in a previous season of life. If this is the case, further dialogue can explore whether previous attempts or strategies to address the concerns were successful. Any mentioned strategies can be analyzed together. Can this strategy be effectively implemented in the present season of life? What is similar and different between the past and present situations that could serve as obstacles or supports in implementing the strategy? If past strategies were not successful, why does the student believe this was the case, and what can be adjusted to produce a more favorable outcome?

There will also be students who have not considered strategies for decision-making before, and they may struggle to articulate how they made a previous decision, or even a time when they made a difficult decision. Even here, a productive conversation can be started surrounding the nature of the decision. These students understand the magnitude of the decision in their life and may not see decisions made in the past as sufficiently comparable to be useful parallels. They also may feel more alone in their decision-making process than before, as students who are living away from family support for the first time may be experiencing difficulty in managing this transition. This major change in environment may be grounds for the student's perception that this decision is somehow fundamentally different than others. Validating these rebuttals is important to continuing to foster a trusting relationship between the professional and the

student. There are still plenty of educational conversations that can be had from this point, where professionals can guide students through processing the transition to college and how to foster successful strategies for adjusting to college socially, academically, etc.

Another hypothetical scenario can show the utility of a *temporal zoom-out*. An individual who is exhibiting a more resistant or avoidant perspective toward the future could be fixated on the present or past. In this case, using the future to provide balance may be more appropriate. Professionals can ask students to imagine themselves in the future looking back on where they are in life right now. They can even compare the situation to the present self, looking back on a past season of life. This strategy may be especially helpful in helping students who cite other ongoing present-based concerns, such as financial insecurity, in helping them carve a path into the future where these present troubles can potentially be avoided.

It is also possible that an individual is already operating in a balanced time perspective while still having difficulty with major selection. In this case, there may be too much information being processed simultaneously without a clear direction or answer being found. There could be contradicting viewpoints operating from different temporal periods competing within the individual's mind. In this case, it may be best to facilitate a priority-finding exercise with the student to help them figure out which ideas are most salient with their personal values.

### **Recommendations for Future Research**

This study interviewed students who had already declared a major by the time of interviewing them. Using a similar research approach with a longitudinal design, a study to follow incoming first-year undeclared students through their major declaration and

subsequent steps in their career development process could provide greater insight into when specific challenges associated with major selection are most likely to appear.

There are also many students who declare a major earlier than the participants of this study yet decide to switch majors at a later point in time. Comparisons between undeclared students and students who change majors during their college career could reveal any differences in the approach students take to switching majors compared to the initial declaring process.

This study took place at an institution with no strict major declaration rules or timeline. Studies of the major selection phenomenon at institutions that require major declaration by a certain number of credit hours, do not allow major declaration until completion of a minimum number of terms, or do not allow students to have undeclared status outright, could offer different perspectives on how students navigate the decision based on their institution's system.

Interviewing academic advisors and career services professionals about how they see time perspective concepts manifest in their work with students could reveal their perceptions of student problems and the solutions they reach through the facilitated help of their office. Findings from this type of study could further reveal common practices in their functional areas with respect to time perspective theory and reveal potential areas for further integration of these ideas into professional practices.

The family experiences that were recounted were quite diverse, with racial and first-generation status being two differentiating factors that could broadly account for some of this variation. Further research on familial influence on both major selection, as well as time perspective development, could be quite fruitful in its findings.

The conceptual framework would be enhanced by an additional dimension of time meaning, which Mello and Worrell (2015) define to be how an individual defines the past, present, and future. Diving into how students differentiate these temporal periods may help explain the nuances of how individuals draw the line between the present that they are currently focusing on and the future that they are potentially avoiding, particularly with respect to the proposed notion of an abstract, nebulous future feeling more distant than a concrete, informed one.

Identifiable factors that contribute to what makes the future feel closer or more distant in conjunction with positive and negative time attitudes could make this study's implications further enhanced, although admittedly difficult in consideration of related phenomena such as how large units of time appear to move quickly as humans age, and small units of time appear to move quickly when we are experiencing flow or having fun.

## **Conclusion**

This thesis affirmed time perspective as a major factor in how individuals navigate major selection. Participant responses revealed that a lack of future orientation or the presence of a negative future time attitude presented a major obstacle in making progress towards major selection, as major selection was perceived to be a primarily future-oriented task. Additionally, individualized contact between undeclared or undecided students and professional staff and faculty helps students overcome some of the obstacles they face, including commitment anxiety, lack of sufficient information, and perceived loneliness in the decision-making process.

A particularly difficult obstacle in the mindset of these students is that major selection limits one's future options rather than opens up new opportunities. Professionals



who work with this population can help facilitate a broadening of their time perspective to be able to account for their future goals and priorities, present knowledge of themselves and environment, as well as supporting information from the past such as reflecting on patterns of personal behavior and thinking. As professionals facilitate a *temporal zoom-out* to help students view their life more holistically with higher interconnectivity between the past, present, and future, students can find increased comfort in the decision they eventually make and see it as a “door-opening” opportunity, rather than a “door-closing” decision.

University staff and faculty should incorporate opportunities for students to foster a balanced time perspective and mitigate some of the future-avoidant thinking that can set in as students settle into their college experience. Further research linking time perspective theory with higher education will further enhance our collective understanding of how students navigate the struggles of major selection, and the broader search for their vocational path.

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## APPENDIX A: Interview Protocol

- Introduce myself
- Describe interview process and change displayed name to alias
- Begin recording Zoom and enable auto-transcription
- Make sure they have read and signed informed consent
- Ask if they have any questions

1. Do I have your permission to record this interview?

---

1. What is your age?

2. How do you define your race and/or ethnic identity?

3. How do you define your gender identity?

4. Do you consider yourself a first-generation student?

5. Have you declared a major at this time? If so, when did you declare your major?

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1. Coming into college, what was your plan or thoughts about what your major was going to be?

- Is there any area that you knew you would want to avoid?

2. Tell me about your favorite parts of your academic experience.

3. Tell me about your least favorite parts of your academic experience.

4. How have these experiences influenced how you think about choosing a major?

5. What factors or concerns do you think may have negatively affected you when choosing a major?

6. What has been the hardest part of the major selection process for you?
7. If you have selected a major, can you tell about what that experience or process was like for you?
  - If not, have you gotten close? What happened?
8. What are you looking for in a career path?
9. Ultimately, what do you think is the deciding factor in making this decision?
10. Who have you talked to for help in making this decision?
  - Have you reached out to faculty, academic advising, career services?
11. What could the institution do to make navigation of choosing a major easier for you?

- 
- Thank them for coming, ask if there was anything else they were hoping to talk about today, and ask if they have any questions
  - Explain participant check process
  - End recording
  - Dismiss

## **APPENDIX B: Informed Consent**

### **CONSENT TO PARTICIPATE IN RESEARCH**

#### The Role of Time Perspective in the College Major Selection Process

You are invited to participate in a research study conducted by Anders Voss and Dr. Jon Coleman from the Department of Counseling and Higher Education at Eastern Illinois University (EIU).

Your participation in this study is entirely voluntary. Please ask questions about anything you do not understand, before deciding whether or not to participate.

You have been asked to participate in this study because you are started the Spring 2020 as an undeclared student at EIU.

#### **PURPOSE OF THE STUDY**

This study is designed to examine the academic experiences of undeclared college students and how perspectives regarding the past, present, and future influence the major selection process.

#### **PROCEDURES**

If you volunteer to participate in this study, you will be asked to:

Respond honestly to interview questions regarding your experiences by sharing as much or as little as you feel comfortable. Follow-up questions to what you say may be asked.

The interview will take approximately 45–60 minutes. In the weeks following the interview, you will be asked to review a transcript of the interview to verify that it accurately reflects your thoughts and opinions.

Interviews will be conducted on Zoom and communication for the link will be sent through your Panthermail. The Zoom will be recorded with auto-transcription enabled,

reviewed by only myself and my thesis advisor, and then deleted afterwards. It will not be shared with anyone outside of our research team. Your name, nor anything identifying you, will be associated with your responses.

### **POTENTIAL RISKS AND DISCOMFORTS**

Risks to participants are limited and short-term. The study poses an inherent risk to the participants' confidentiality; however, all precautions will be taken to minimize the risk. Additionally, a minimal risk exists regarding the participants' psychological and emotional reactions to the various interview questions.

In the interest of confidentiality, names of participants will not be associated with responses and aliases will be given to participants during interviews. Before the interview commences, participants will be asked to change their screen name on Zoom.

### **POTENTIAL BENEFITS TO SUBJECTS AND/OR TO SOCIETY**

While individual participants may not find any direct benefits from this study, it may help participants verbalize their concerns about selecting a major, which may aid them in the process if they have not yet declared a major. In addition, it presents benefits to the field of education and psychology. The knowledge acquired from the research will benefit the field of higher education through providing deeper insight on the experiences of undecided college students, particularly with respect to difficulty in the major selection process and identifying institutional supports to mitigate these obstacles. This study can provide understanding for professionals in higher education on the psychology behind the major selection process from a novel application of time perspective.

## **CONFIDENTIALITY**

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission or as required by law. Confidentiality will be maintained by means of limiting access to the audio/video files to the primary researcher and thesis advisor. The files will be stored on a password-protected USB drive in a locked cabinet in a shared office, where research team members will access the files via password entry. The files will be destroyed 3 years after the study is completed.

## **PARTICIPATION AND WITHDRAWAL**

Participation in this research study is voluntary and not a requirement or a condition for being the recipient of benefits or services from Eastern Illinois University or any other organization sponsoring the research project. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind or loss of benefits or services to which you are otherwise entitled.

There is no penalty if you withdraw from the study and you will not lose any benefits to which you are otherwise entitled.

You may also refuse to answer any questions you do not want to answer.

## **IDENTIFICATION OF INVESTIGATORS**

If you have any questions or concerns about this research, please contact:

Anders Voss

[acvoss@eiu.edu](mailto:acvoss@eiu.edu)

(909) 942-9829

Dr. Jon Coleman

[jcoleman@eiu.edu](mailto:jcoleman@eiu.edu)



## **RIGHTS OF RESEARCH SUBJECTS**

If you have any questions or concerns about the treatment of human participants in this study, you may call or write:

Institutional Review Board (IRB)

Eastern Illinois University

600 Lincoln Ave.

Charleston, IL 61920

Telephone: (217) 581-8576

E-mail: [eiuirb@www.eiu.edu](mailto:eiuirb@www.eiu.edu)

You will be given the opportunity to discuss any questions about your rights as a research subject with a member of the IRB. The IRB is an independent committee composed of members of the University community, as well as lay members of the community not connected with EIU. The IRB has reviewed and approved this study.

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I voluntarily agree to participate in this study. I understand that I am free to withdraw my consent and discontinue my participation at any time. I have been given a copy of this form.

### APPENDIX C: Recruitment Email

Dear Student,

You are being invited to participate in a student research study being conducted here at EIU as part of a required master's thesis.

You have been identified as an individual who was an undeclared student at the beginning of the Spring 2022 semester and as such, you meet the qualifications for this study. Participation in this study is completely voluntary. You may choose not to participate or if you decide that you want to withdraw after starting the interview, you are free to stop at any time without penalty by indicating your desire to do so. If you participate in this study, your identity will be concealed to protect your personal privacy. The information in this research will be kept confidential. Research data will be secured in accordance with the rules of the Institutional Research Board.

If you volunteer to participate in this study, you will be asked to participate in an interview that will last approximately 45–60 minutes. The risks of participation are no greater than those encountered in routine daily activities.

If you are interested in participating in the study and sharing about your academic experiences as an undeclared student, please respond by emailing me at [acvoss@eiu.edu](mailto:acvoss@eiu.edu) and you will be contacted to schedule an interview.

Thank you again for your time. If you have any questions, don't hesitate to reach out to me or my thesis advisor, Dr. Jon Coleman ([jkcoleman@eiu.edu](mailto:jkcoleman@eiu.edu)).

Sincerely,  
Anders Voss ([acvoss@eiu.edu](mailto:acvoss@eiu.edu))

**APPENDIX D: Reminder Email**

Dear Student,

We are still looking for participants for a student research study being conducted here at EIU as part of a required master's thesis.

You have been identified as an individual who was an undeclared student at the beginning of the Spring 2022 semester and as such, you meet the qualifications for this study. Participation in this study is completely voluntary. You may choose not to participate or if you decide that you want to withdraw after starting the interview, you are free to stop at any time without penalty by indicating your desire to do so. If you participate in this study, your identity will be concealed to protect your personal privacy. The information in this research will be kept confidential. Research data will be secured in accordance with the rules of the Institutional Research Board.

If you volunteer to participate in this study, you will be asked to participate in an interview that will last approximately 45–60 minutes. The risks of participation are no greater than those encountered in routine daily activities.

If you are interested in participating in the study and sharing about your academic experiences as an undeclared student, please respond by emailing me at [acvoss@eiu.edu](mailto:acvoss@eiu.edu) and you will be contacted to schedule an interview.

Thank you again for your time. If you have any questions, don't hesitate to reach out to me or my thesis advisor, Dr. Jon Coleman ([jkcoleman@eiu.edu](mailto:jkcoleman@eiu.edu)).

Sincerely,  
Anders Voss ([acvoss@eiu.edu](mailto:acvoss@eiu.edu))

**APPENDIX E: Second Reminder Email**

Dear Student,

There is still a need for participants for a student research study being conducted here at EIU as part of a required master's thesis.

You have been identified as an individual who was an undeclared student at the beginning of the Spring 2022 semester and as such, you meet the qualifications for this study. Participation in this study is completely voluntary. You may choose not to participate or if you decide that you want to withdraw after starting the interview, you are free to stop at any time without penalty by indicating your desire to do so. If you participate in this study, your identity will be concealed to protect your personal privacy. The information in this research will be kept confidential. Research data will be secured in accordance with the rules of the Institutional Research Board.

If you volunteer to participate in this study, you will be asked to participate in an interview that will last approximately 45–60 minutes. The risks of participation are no greater than those encountered in routine daily activities.

If you are interested in participating in the study and sharing about your academic experiences as an undeclared student, please respond by emailing me at [acvoss@eiu.edu](mailto:acvoss@eiu.edu) and you will be contacted to schedule an interview.

Thank you again for your time. If you have any questions, don't hesitate to reach out to me or my thesis advisor, Dr. Jon Coleman ([jkcoleman@eiu.edu](mailto:jkcoleman@eiu.edu)).

Sincerely,  
Anders Voss ([acvoss@eiu.edu](mailto:acvoss@eiu.edu))