



Paths and Motivations for Major Choice

A Multi-Methods Study of
How Students Choose
Their Majors

Office of Analytic Support and Institutional Research
November, 2018

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Executive Summary

Purpose

This study intended to illuminate how the process of choosing a major at Grinnell can have an impact on students' educational experience at the college. It sought to understand how students arrive at their choice of major, their thought processes, exploratory experiences, and the relationships that influence their decision-making process.

Method

This study employed a multi-methods, sequenced approach to data collection and analysis. After a pilot, interview-based study with 10 SEPC representatives to understand general experiences and factors that could be important in major choice, we surveyed second, third, and fourth year students about their major choice. From the survey respondents, we identified students whose responses indicated their path to choosing a major was different in some manner from the common campus narrative. We invited these students to participate in an interview about how they chose their major and their experiences of being in their major.

Participants

There were 543 responses to the survey (46.3% response rate), with 42 percent of all invited participants completing the entire survey. For interviews, 43 of the invited 95 students completed an interview, resulting in almost 40 hours of interview data. All but one participant were in their final semester at Grinnell. Interviewees represented a range of majors across all three divisions.

Results

The survey results showed that, broadly, interest in the content, faculty relationships, a supportive community, and positive experiences in an introductory course play an important part in major selection for the majority of students.

Results from the interviews provided more depth about how students land in their major, and how and why students change from intending to complete one major to actually pursuing a different one or two majors. For this change to happen, students had to discover new academic interests, or be attracted to a different department or discipline. Sometimes students identified new interests unexpectedly in a class that they did not realize would be so interesting. Because of this finding, understanding how students choose classes is important; frequently they would choose a class because it sounded interesting or because a student wanted to take a class with a particular faculty member.

Once engaged in a major, there were multiple factors that led students to continue to take classes in that department, which often resulted in them majoring in the discipline. These included an inclusive and warm community of students and faculty, strong faculty relationships, good career prospects, social capital on campus for particular majors, enjoyable and engaging coursework, and a lack of a clear alternative major.

Some students were deterred from a major by a few negative experiences. These included the personalities of the students in the major in general, unappealing classroom experiences, and barriers to completing a major. Off-campus study presented such a barrier to major completion for a handful of students, especially for some who wanted to double major.

Almost half the participants in this study double majored. Students had a variety of motivations for doing so, including: to enhance their career prospects; to appear intelligent or well-rounded; because it was possible to do so; because they had completed a number of classes in the department and wanted to have something to show for their work; and because they were genuinely interested in the material and the unique understanding of a particular topic that they would gain by having in-depth knowledge in two particular fields. Double majoring added to their workload, because it entailed two sets of advanced classes. This increased the academic pressure they felt.

Suggestions

The data suggest some themes that may warrant consideration. Participants mentioned advising practices that were helpful or, in their absence, detrimental. Students strongly and clearly advocated taking a broad range of introductory classes in the first two or three semesters at Grinnell. Doing so promotes exploration of interests and prepares students for subsequent classes they may wish to take that require them. There are also suggestions about building communities in majors, and about managing the hierarchy of majors—and thus the social capital that accompanies some majors—that students perceive on campus.

"I wanted two majors. It added to me justifying my intelligence, as a second year."

"A lot of my decision making for the major felt very focused on post-grad plans. And that's why I was so frustrated and unhappy with it."

"My parents [said], 'Look, if we're going to be shelling out a lot of money for you to go here, you need to major in something that's going to make you employable.'"

"The best major that you could pick is the one that's hard for you, but one that you still want to do well at."

"A lot of the courses in Grinnell have taught me [that] there's honestly so many ways you can approach things."

"I did not actively choose any classes that I thought would be extremely difficult for me."

"[My] favorite thing about being [in my major is] I get to know all the people in my major and we form a really close knit community."

"All of the majors are evaluated according to their utility within the larger world."

"Because I am taking a humanities major and a science major, I do think that kind of portrays that liberal arts education."

"The more courses I've had with a professor, the more comfortable I am around them."

"Underneath it all, there's some push to do two of a thing because we can."

"I do sometimes feel a little bit underachieving when I say I'm just a philosophy major."

"Honestly, at one point, I was considering adding a computer science major just because I took a computer science class, and all of the majors seemed so close, and tightly-knit, and that just seemed really nice."

"I'd like to know why students choose majors that I would've never been allowed to choose"

"The department has very intentional times and spaces for gathering together as a community."

"I wonder, if the major doesn't matter [for a career], then would people just choose [their major] based on what they want to study? That could be a really good thing."

"The theories in those classes were things that helped explain the world; I had not thought of the world that way before."

"The mathematics/computer science double major pretty much takes the cake."

"People do sort of consider humanities and social sciences easier classes and not as prestigious."

"I had never explored more of the arts side of myself. So I was, like, 'I have no idea what this is like, so, I'll take that.'"

"There's definitely a commiserating community!"

"[When I declared my second major,] I didn't really think about how it might prevent me from taking other courses."

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Methods

This study employed a multi-methods, sequenced approach to data collection and analysis. First, we conducted a pilot, qualitative, study with 10 Student Educational Policy Committee (SEPC) representatives—three from each division, and one from an interdisciplinary major—to understand general experiences and factors that could be important in major choice.

Survey

Having analyzed these interviews, we combined our knowledge of major choice from the literature with the data from the pilot interviews about the Grinnell context to create a 22-item instrument to understand factors that contributed to major choice. The survey focused on three primary areas; 1) factors that were important in choice of major, 2) reasons for not choosing a major one may have been considering, and 3) community of interest and support in majors.

In February of 2018, all active, degree seeking 2nd, 3rd, and 4th year Grinnell College students were invited to participate in this online survey. Data from the survey¹ allowed us to recognize areas where deeper understanding was warranted, and which populations of students would best be able to help us understand these experiences.

Interviews

With the areas of interest understood—the students whose experience of choosing a major did not adhere to the common campus narrative—we identified the need for qualitative methods, specifically in-depth interviews, to understand more fully what the survey data could not tell us.

Qualitative methods help researchers “to understand the meaning people have constructed about their world and their experiences.”² They provide rich descriptions of complex phenomena, capture the range of interpretations held by a variety of constituents around key events and campus conventions, describe motivations for behaviors and choices, and can uncover the constructs and factors at play in particular focal areas. Qualitative methods are particularly helpful when there are limited individuals related to the topic of interest, and when the topic is sensitive and/or complicated. The multiple layers of complexity that likely are involved in students’ decision-making processes around major choice and experience within their major may be influenced by many factors, making qualitative methods the most appropriate method for part of this study.

Narrative research data consist of stories detailing the narrators’ experiences of lived events.³ People understand, explain, and make sense of their lives and the world about them through stories. They then use these stories to articulate the meaning they have subsequently constructed from their experiences. Narrative methods seek to uncover both the inner and outer meanings individuals create from their lived experiences, i.e., what the experiences mean on a personal level to the individuals, as well as on a social level in terms of an existing external environment.⁴ This study thus solicited stories around a particular topic—students’ experiences of choosing and completing one or more majors—to reveal the salient factors in enrollment decisions, as reported by students and parents, and to elicit feedback on what else Grinnell may consider doing to persuade admitted students to enroll at Grinnell College.

After we gained approval from the Grinnell College Institutional Review Board, we engaged in purposeful sampling (see section on participants) to invite students to participate in an interview. Up to three invitations

¹. Please see Appendix II for survey results in brief.

². p.4-5 of Merriam, S. B. (2002). *Qualitative research in practice: Examples for discussion and analysis* (1st ed.). San Francisco, CA: Jossey-Bass.

³. Ibid

⁴ Clandinin, D. J., & Connelly, F. M. (1998). Personal experience methods. In N. Denzin & Y. Lincoln (Eds.), *Collecting and interpreting qualitative materials* (pp. 150-178). Thousand Oaks, CA: Sage

were sent via email; students who did not respond after three emails were not sent further reminders to respond.

Data were collected through semi-structured interviews, which lasted between 32 and 92 minutes, averaging 55 minutes each, for a total of almost 40 hours of interview data. Interviews were held in person on campus. Interview questions are included in Appendix I. Semi-structured interviews allow for a more conversational style, with the interviewee taking the lead and retaining the power to direct the conversation as they feel is appropriate. The interviewer ensures that all topics are covered, following the lead of the interviewee for the order of the questions, so that conversations may flow naturally. Pseudonyms were assigned after each interview. Interviews were transcribed verbatim, resulting in 382,808 words of data.

The data were analyzed using NVivo 12. Coding began deductively, based on the interview questions. In the course of coding, themes were added inductively as they emerged and clarified. Transcripts were coded multiple times to ensure all new themes were coded, with analytical memoing and writing forming the early analytical stages. Disconfirming data were sought to arrive at a more deeply nuanced understanding of particular student experiences.

Participants

Survey

There were 543 responses to the survey (46.3% response rate), with 42 percent of all invited participants completing the entire survey. The sample population was fairly similar to the general population, as seen in the sample characteristics in Table 1. Those who participated in the survey have a slightly higher overall grade point average in their major of choice. For students who are double majors, those who participated have a higher grade point average in both the first and second designated major than their non-participating peers. Approximately 44 percent of the participants are Pell grant recipients, compared to 55 percent of the non-participating population. This indicates that those who participated in the survey are better off financially than those who did not participate.

Table 1: Sample Characteristics		Non Participant	Participant
Overall		53.75	46.25
Gender			
	Male	51.82	39.41
	Female	48.18	60.59
Race/Ethnicity			
	Asian	8.56	7.18
	Domestic Students of Color	24.72	20.26
	White	42.79	59.67
	Non Resident Alien	23.93	12.89
Financial Status			
	Pell Recipient	55.90	44.10

Interviews

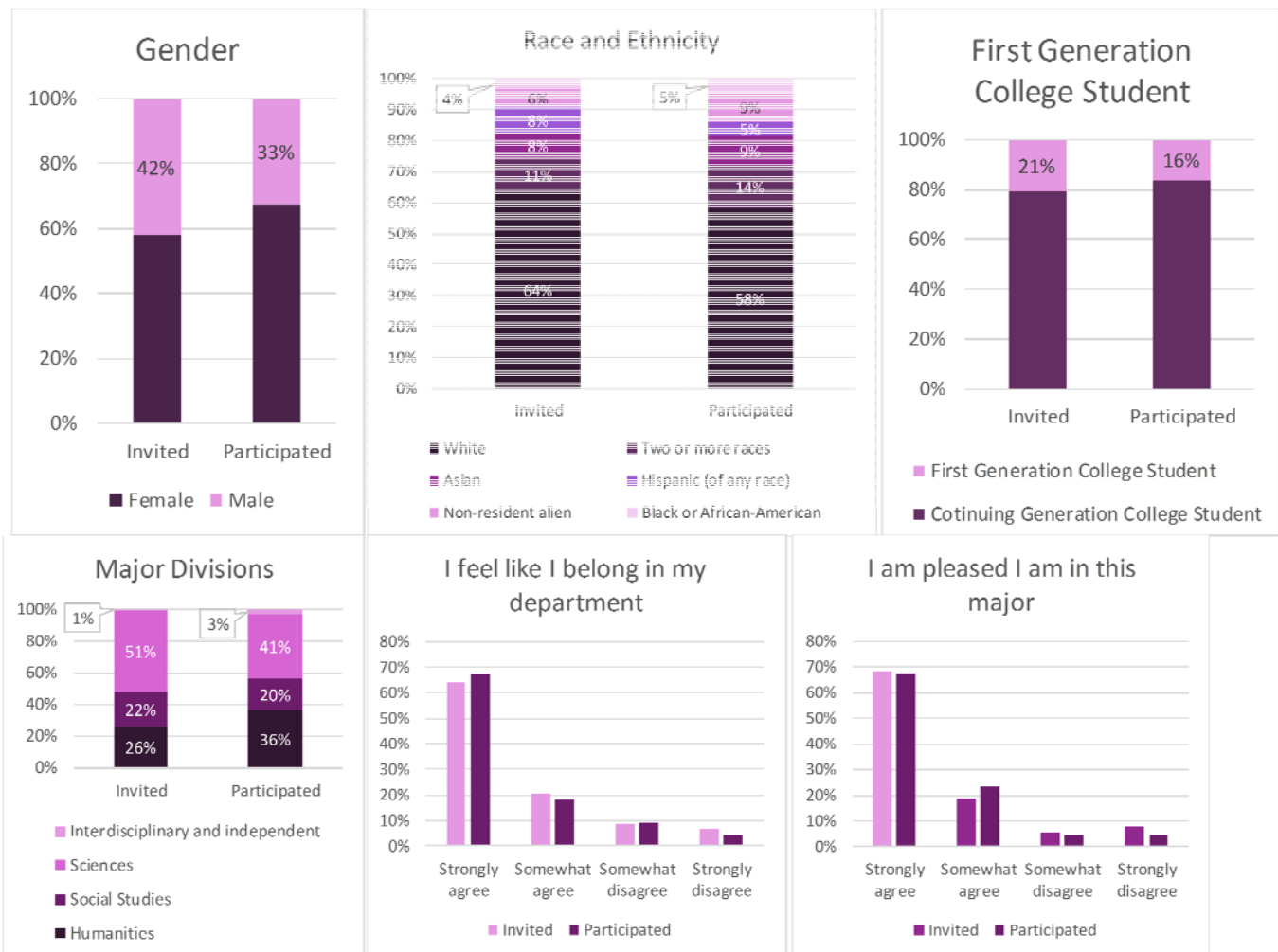
Based on the results of the survey, we determined that it would be instructive to hear about major choice, motivations, and experiences from specific groups of students:

- Students who reported being unhappy with their major choice, not belonging in their major, or having no faculty relationships that they considered strong.
- Lower income students, defined as those with a household income in the bottom quartile of their cohort.
- First generation college students

- Students in a minority within their major. These included racial and ethnic minorities, men in languages, and international students in the humanities.
- Double majors who reported being happy with their major choice

We thus engaged in purposeful sampling, inviting fourth year students these groups from among survey respondents to participate in the survey. We initially invited only fourth year students because we felt they would have greater retrospective abilities and length of experience in their major, through which to provide data. Invitations were sent in very early April, as students were returning from spring break. All interviews were conducted by the middle of May, 2018.

In the first round of invitations, we invited 85 students to an interview. Of these 85, 52 responded to our email invitation, with 41 responding positively, agreeing to participate. During interviews, we engaged in snowball sampling, asking participants if they knew of anyone whom they thought had an interesting story or set of experiences around major choice, or who would fit into one of the interest groups bulleted above. This approach yielded one more participant. Near the end of April, we determined that there were few international students in the participant pool, so we invited an additional six international student respondents in their third year to participate. One of the six agreed, making a total of 43 participants in this study. The graphs below show a variety of demographic and academic information, as well as answers to key survey questions for interview participants and the entire group that was invited to participate in interviews.



Readers' Note

The results section that forms the bulk of this report presents the analytical text in the center, surrounded by relevant quotes around the outside of the page. The quotes are generally placed near the text for which they serve as evidence and illustration.

Readers are invited to adopt their own preferred style of reading the report. Some may wish to read only the analytical text; others may decide to dip into the quotes here and there; some may choose to read both; and yet for yet others, the findings may best be elucidated by a deep read of the quotes and a surface reading of the analytical text.

It may take a few pages to determine one's preferred method for those who are not used to reading qualitative reports. We encourage you to try out different approaches until you find the one that feels the most natural.

In quotes, square brackets, [], indicate where we have substituted one or more to allow the reader to appropriately interpret what was said without having the full context. Curly brackets, { }, indicate that the discipline or a faculty member's identity has been masked, for purposes of confidentiality. Where appropriate, we include the division of the discipline.

We had majors in the high school that I went to, and so I took this chemical engineering major, which was just, really chemistry. It was a lot of advanced chemistry courses that I took there. And I really enjoyed them. And so going into Grinnell, I kind of knew that I'd probably do a chemistry major. I [just] wasn't really sure what type of chemistry I was really into. (Karla)

I'm not sure I picked computer science and math because I was really passionate about them, [or] how they'd be great for me. I think a large reason I picked them is because they were there, and they were easy and I already had momentum. (Fred)

I took intro with {name}, [which was] really, really fun. And then I took the second intro class, and it was still really fun. Third intro class, and it was still really fun. And I thought, "Okay, I'm noticing a pattern here; let's go with this and finish it." (Toby)

Initial Major Choice

Participants in this study, broadly speaking, represented three typologies around major choice. Half of the participants came in either knowing what they would major in, or having a very strong interest in a subject in which they ultimately majored. One quarter of the participants came in expecting to major in one department but ultimately majored in something else. The remaining quarter came in without a particular major in mind and explored some options before making their choice. Half the participants were double majors. Of these, two thirds were already pursuing one major when they decided to add a second, while one third always intended to pursue two majors. Double majors are discussed further in the report (P.28).

Major Certainty

Twenty-one participants arrived at Grinnell having already identified particular academic interests or career paths. A number of them were interested in a field of study during high school and knew that they wished to continue it in college. Once at Grinnell, their courses in that subject confirmed their interest, simplifying the decision to major in it. In a similar vein, some participants noticed what they were good at in high school and found the classes at Grinnell confirmed their natural ability and inherent interest in the field.

In terms of careers directing a major choice, some participants in the sciences, intended to apply to medical school, and therefore chose a science major that would allow them to complete many of the premedical requirements. A participant with career aspirations related to government found political science a natural path, and participants who wanted to be an English teacher knew that majoring in English was a logical choice.

Change from Initial Intention

Participants who arrived at Grinnell with an idea of their intended major from which they subsequently change had a variety of reasons for selecting a different major. Essentially, students who did not pursue their original major were either pulled away to something else—they were motivated by another subject being unexpectedly interesting or fun—or they were pushed away by their first course or two. Either way, it was common for students taking a second or third course in a specific department to consider majoring in that department. A number of participants with scientific leanings clarified their interests further once in science classes at Grinnell, bringing them to a more refined understanding of what they wanted to study. Others—particularly premed students—noticed that choosing between biology, chemistry, or biochemistry would have little impact

I took the science classes, and they were good, I enjoyed them. But then second semester, I took science classes along with a sociology class ... and it was incredible. ... I loved the writing classes, I loved how when you're talking about substantive social material, you could engage with the professor about real topics, versus engaging with the science professors, [where] you couldn't really make a connection because you were just talking about the content. (Wendy)

I had taken Intro Economics, and so, I kind of just continued with the major requirements, sequentially, not really intending to major in it. Until the end of my second year, when it just seemed like a natural fit for me. It wasn't like I was that in love with it, but, I have become so since I majored in it. (Sonya)

I could see the unity, like how close the chemistry faculty were, all together. ... Four of them go out to lunch twice a week, all together; they go to D-hall together quite often. I could just see the unity, and I appreciated that. (Herbert)

{Science discipline} made me absolutely miserable. And I knew that if {another science discipline} meant more [of the first], I wasn't going to do that. (Violet)

I took the first policy studies class first semester, third year. Someone probably recommended it to me. It turned out to be one of the best classes I'd taken, and I ended getting a concentration in policy studies. (Fred)

on their medical school suitability. Therefore, they looked at other factors, such as interest, the departmental culture, and research opportunities.

Other participants took an introductory class in their intended major and disliked it or struggled with the material, which usually caused them to abandon their plans for that major.

Major Uncertainty

Participants who came in with no strong idea about a major frequently sampled a variety of courses in different divisions to determine where their interests lay. Often encouragement from a faculty member to take a particular course led to a burgeoning interest in a field. As competence developed in a discipline, students began to perceive the feasibility, both academically and within their global identity, of completing a given major.

Once attracted to a field, these participants were pulled into it in the same way as students who had changed from their intended major. This report traces these decision points given in brief here, examining the factors that influence students' decision to remain on a given path, choose a different path, or add a second major.

I took studio [art]. And it was my first drawing course that I had ever taken, but I've been drawing my whole life. Obviously, I've been doing art, but I just didn't think of it as a possible job sort of thing. But then I took studio art and the intro course and drawing at the same time and it blew my mind. It was like, "This is so cool. Why can't I do this?" So that's when I started thinking about changing my major, even though I hadn't declared.
(Violet)

By the end of my second year, I was an unhappy poli sci major. And, then, my third year, I took an anthropology class, and I have never enjoyed a class so much in my life, I've never enjoyed learning about anything as much in my life, as I did in that one particular class. (Ollie)

How Students Identify New Interests

I was a little surprised that I liked organic chemistry. That was a weird thing, because I didn't really think I liked chemistry. I wasn't great at it, but I liked it. (Rebecca)

New interests most frequently emerged in three ways, by students finding: 1) a class unexpectedly interesting, 2) a particular faculty member exceptionally engaging, or 3) a departmental culture attractive and comfortable.

Surprising New Engagement

Regardless of whether they had identified their academic interests prior to Grinnell, many participants engaged in some exploration across the curriculum.

It's easy to make ... choices without thinking about them in first and second year because, well, for me, and I think for some other students, it just feels like you have a lot of time, so there's no reason to be critical about your choices. (Fred)

Often students picked a class purely for interest sake or because they didn't know much about a field; in a few cases it seemed like they picked a class almost at random, perhaps on the suggestion of a friend or faculty member, or because they wanted to sample a different field. Occasionally this class would turn out to be a chance encounter with a new way of thinking or new material. It would become the 'hidden gem,'—the class that changed a student's academic trajectory.

I wanted to explore tons of different things. Because, I mean, I think that sort of defines a lot of my experience here; I didn't want to make a decision until I felt that I had evaluated all of my options. And so I took a lot of intro classes. (Will)

A mix of going and looking through the course schedule, and then a fair number of times, I would try to meet with and email a professor before I would sign up for their course. (Ben)

Some of the classes I took were because I wanted to fill this timeslot. I like my schedule to be a certain way. (Karla)

Stepping beyond their comfort zone and taking something new was foundational for allowing serendipity a place in their academic pathway. Students had to allow themselves to take a seemingly random course, or a class in a field to which they had had little exposure to be able to maximize the likelihood of finding a field they love.

I thought, "Okay, well, this is different, this is, like, something liberal arts, and new, and I'm just going to experience a new, different class that I've heard good things about." (Ollie, about how he chose a class, in a field that became his major)

I happened to be catering a private event ... and at that dinner was Professor {name}. I was there to fill up waters and wait on them, and she just got to talking to me and jokingly said, "I was so mad at you for not taking my ... course after you did so well on the proficiency exam!" ... It was fun banter. And she mentioned that the course next semester was {topic}. I had liked {topic} a lot when we did it in high school when we did it. So basically from there, I really enjoyed that ... course. (Lucy)

I'm not sure how I could have known before taking the class that that was going to be what I was interested in. Now that I've taken it, I can sort of see the connections with what I was interested in before. But I'm not sure there's a way to really predict if the class is going to be interesting or useful or anything. (Kristin)

I usually read all the course descriptions before I choose which courses to take Those descriptions are really important to me. And also I ask for a syllabus before I take the course from professors, so I see what we will be talking about in class. And I use RateMyProfessors sometimes to see how hard it is. Not about the professor, but I want to know, how challenging the course itself is.
(Vivian)

The next class I took, I was with a professor who was the first professor that I felt like I really connected with. And I thought, "Okay, I'm here at a small school. I'm trying to build relationships; there's a professor that I feel that I relate to a lot. I think that professor should be my advisor, and I can pursue that major." (Ian)

I think a lot of the reason I chose sociology was because of my advisor. She was incredible, and it was great. And I just loved engaging with the material. ... I declared after taking one class at Grinnell. So I think it was more of a preemptive declaring my major and then falling in love with it more fully after. (Wendy)

Class Choice

[Having] the same professor was my first motivating factor for taking that class.
(Leonora)

The importance of a chance encounter with a new field or material that sparks an interest suggests the need to understand how students choose their classes. There were multiple instances of participants choosing courses purely on the basis of the faculty member teaching the class, making engaging faculty an important component in students discovering new interests, as we describe in the next section.

My first year here at Grinnell I took two econ classes with the same prof. And he was one of the best profs I've ever had, and just totally sold me on econ. (Charles)

It's not just the material they are covering but it's also the professor who's teaching it.
(Dawn)

Many participants recounted that in their first and second year, they had only the requirement that a course appear interesting and that their courses, in aggregate, be diverse. Interest and breadth were the foundations of class choice for many. Then, there were subsequent variations on refining the decision process. Some liked to add a class in a field that was new to them. Others also took the initiative to meet with the professor to learn more about a course or determine if they wanted to learn from that individual. The timing of a class was important to a minority who would identify first a time to fill and then see what classes were available. Some participants considered their perceived ability to do well in a class. Where some actively sought out challenging material, others preferred classes in which they knew they would earn an acceptable grade. When students placed into language courses at the 200-level or higher, they often were motivated to pursue the language because of their relatively advanced level as a first year student.

I take most classes because I've either had the professor and really loved them, or heard that they are a professor that you shouldn't graduate without taking a class from. (Sonya)

My faculty relationships absolutely would have to be, probably, the core driving factor [of my academic path]
(Will).

Classes that had the charismatic, wacky, inspired professors were the ones that I gained the most out of, and that in some sense kept me engaged. (Ian)

There are professors and people on campus who are essentially epicenters or subtle influencers, as we might say, who. I think probably have an impact on a large majority of students. Larger than you would think. For example, I think Professor {name} and Professor {name}. They both make huge impacts on any student they meet, whether it's their teaching or they just run into them coincidentally. (Lucy)

[The department faculty] all love talking to students. Even outside the classroom. I think that's what made me really interested in [the department] at Grinnell. Because you have a really good impression of the professors, and that makes you want to take more courses.
(Vivian)

One of the things I started doing is picking classes more based on professor than on subject, because I knew that a good professor would do more for me in a subject that I was okay with than a good subject and a bad professor. (Fred)

He's my favorite professor, he's incredible, oh my God, he's amazing. He is also one of the most intimidating people I've ever met. The way he runs a class, you need to be on your game. He was my {class name} professor, and it was that class that made me want to be a philosophy major. And it was, great and exciting, but it was also really scary. (Josie)

I guess [what kept me in my major was] faculty that I know. I know for sure that I wouldn't want to leave psychology because of the faculty. But, I don't know for sure if it's because of the interest that I would have in the classes. (Theresa)

I think it had something to do with the community aspect. I already knew I was going to do {ensemble} all four years, I knew I was gonna take {instrument} all four years. So those were those ways in which I really saw myself as a musician, like, I felt very committed to doing music. (Ivy)

I took courses with Professor {name}, who is extremely enthusiastic. ... [He] was much more interactive and creative in his teaching. One of my first classes he came in beating on a bucket! We were talking about rhyme scheme ... and he was beating on a bucket to get us into the rhythm of the poem. ... But I was just really impressed and comfortable with him, and I kind of expanded that view to the [major] department in general. (Melanie)

Engaging Faculty

Knowing of or encountering a faculty member who especially inspired or engaged them more than other professors was often critical to a participant enjoying and continuing classes in a department. Once a participant found a professor whose teaching style they appreciated, it was common for them to seek out additional classes taught by the same individual. In a number of cases, the personality and pedagogical style of a faculty member was the deciding factor for a participant's major choice.

A handful of faculty names were mentioned by numerous participants as being influential in their academic paths, regardless of their ultimate major choice. These faculty were 'charismatic magnets'; students were drawn to them because of their personalities and willingness to engage with all students, not just those in their classes. Participants who interacted with them found themselves pushed to think more deeply about their decisions and engage intentionally with the process of crafting and making sense of their academic path. Other faculty whose names were mentioned repeatedly were professors whose excellent pedagogy and love for their discipline was so pervasive that it spread to all students in their classes, regardless of initial interest in the field.

I had come in with {pre-orientation program}, and my advisor that was assigned, was ... in the {major} department. ... We didn't really talk much about {major}, but after interacting with both of those [faculty] personalities that were very open, I thought this seems supportive and seems like a department that I would want to gain advice from. (Melanie)

I enjoyed being in [my] department more so than the {same division} department. And I think that's really why I chose [my] major. ... A lot of the faculty members are very close to each other. And they're just very friendly and approachable people. (Karla)

At least with the students, I feel like the community is a lot closer once you declare. (Herbert)

Culture of the Department

A number of participants extrapolated strong relationships with one or two professors in a department to the whole department. In this way, a strong relationship with an individual could foster belonging and an emerging academic identity for students in the major. In a minority of cases this transcended academic interests, at least initially, and encouraged a participant to continue with classes in the department, regardless of their level of engagement with the academic material

For a few participants, the community within the department was attractive enough to cause them to want to declare a major so that they could become part of it. This was especially the case for disciplines whose content overlapped substantially with other disciplines, and where choosing one major over the other may not have a substantive effect on the classes a student is able to choose to complete the major.

I took {science course} my first semester here and loved not only the course, but the science community in general. I felt there were a lot of resources for science majors, in the form of mentorship and the science learning center and other students and upperclassmen. So, I really liked that sense of community. (Clare)

All the classes are built around partner work So from day one, you're working with another person, pretty much, and I think that does a lot for our community. (Fred)

It was amazing, I sat next to this guy, [name], and I friended him on Facebook after our first class, and he immediately invited me to the {department} Book Club. That was really great, super welcoming. (Josie)

Factors that Lead to Retention in a Major

Whether a participant arrived at Grinnell with the intent to pursue a particular major, or whether they discovered the discipline during their early coursework, there are a variety of factors that encouraged participant to remain in a major once their initial interest has been sparked. The largest of these, as described by many participants, is the community and belongingness that students discover and establish in a department. The role and importance of community varies by individual. It depends on how much a person needs to have belongingness from their academic work, their need for community, and whether they have already established a community, belongingness, or identity with another group on campus that surpasses academics in salience within their identity.

Having strong relationships with faculty in the department was a distinct element of community that warrants its own mention because of its power at retaining students in a major. Once a participant had invested the time and effort to get to know a faculty member well, that connection often served as an anchor point within the department for the student.

Career prospects were important to many, but not all, participants. While an intended career may dictate in which division a student's major would be, only infrequently was it the driver of a particular major within the division.

The fourth broad retaining factor was the curriculum. If participants enjoyed courses, they continued taking courses in the same department, often with the same faculty. For many, the major choice became obvious after they had taken several successive courses.

The final factor that retained a small minority of participants was the fact that, having pursued a number of courses in a department, they could see no other clear alternative major. Even if they were not particularly enamored with a given department, if completion of a major was feasible because of the coursework they had already completed, sometimes this would motivate a participant to remain in a major. We now detail each of these four factors.

Community (Belonging)

A number of participants were very drawn to the community within their major. Being part of the community made the academic experience pleasing to these participants and helped them establish belonging.

Having it as a major [was important because] I just felt passionately enough about it that I wanted to become a part of the community. (Helen)

At a first-gen level, being a soc major is incredible, because everyone's first gen. (Wendy)

We tell people there's a real intentionality of wanting to be in the {science discipline} major, so the people who are there are really excited about it. And we have a really great sense of community. That's a big reason to be a {science discipline} major. (Paula)

A lot of {the major}, especially in the early classes, is [pair work]. But that's randomized, so you work with someone and then you maybe work with them twice in the semester. And I'm just not very good at making friends, so I haven't really experienced [working] together and stuff like that. It might have been nice, but I just have never known how to navigate that kind of situation. (Kristin)

I just feel it's more comfortable for me to stay in that environment and then have some sort of connectedness within the department, but not say that I totally... belong to the community. (Marion)

A big thing for me was I'm a very sociable person, I like being involved in a community. So I definitely saw that in both of those majors. (Ivy)

I'm happy with the amount that I engage with the department, outside of just being in classes, because there are a lot of other things on campus that I like doing. (Rachel)

Needing to be in a community was, however, an individual preference. Where some students sought out a community or joined a major because of the culture they experienced in the department, others preferred to remain peripheral. Some of these participants could appreciate the existence of the community without having to involve themselves in it. Others participants' personalities were such that participating in the community would have been a foreign and uncomfortable experience that they did not know how to navigate. Thus, where community within a major was critical for many participants, it is not integral to, or a need for, other students.

Some departments have requirements such that every class you take is with the same people. I think that builds community. (Dawn)

How Community is Developed

With the community of a major important to many participants, a number of them discussed how they perceived communities forming. Three different sustained opportunities for interaction with other members of the major provided a foundation of prolonged interaction as an underlying factor in the common methods of community formation:

- 1) Exposure to other members of the group occurred frequently in majors that are cohort-based, meaning students in the major have limited choice of classes, so they usually progress through a series of classes together.
- 2) Having a common physical space for all the students in a major was also extremely important for developing community, particularly when

Except for your upper level two electives, everyone takes the exact same classes. And most of the time, they're with the same professor, so that builds, definitely, a community. (Ivy)

Having taken the same classes is really a good part of the basis for developing a feeling of belonging. Especially hard classes, you've been through the trenches together. (Nina)

If you start at a certain level of {discipline}, usually you'll be with one group of people as you progress through the sequence. ... At least, for my first series of classes, there was one group of people I worked with, and that's who I kept working with through classes, because we got used to each other, and we knew how everyone worked. (Fred)

Over the last year and a half, the six of us have been in a six-person class four times. (Wendy)

To build that community, it helps to have a little more of your own space. (Xanthe)

You see them just in the same space as you, because you all have to be in the computer lab, working together on these lab assignments, pair programming throughout the night. So the fact that you can see, say, the 207 people next to the 151 people, next to the 213 people, it has an equalizing effect of, like, "We're all here struggling on different assignments for the same reasons." (Adam)

Because the entire department is located on one floor, we have a nice common room, we're always working together for class projects, it seems very natural that a community's emerged around that. (Fred)

There's a room in Noyce, called CD2, which is short for Chem Discuss 2. It's...p-card access only for biochem and chemistry majors. ... Having those spaces specifically for those majors is really nice. ... [The walls are full of] inside jokes with the chemistry major. So, there's definitely a really good sense of community. (Paula)

I [feel I belong] mostly because of the {major} commons, this physical space, where I usually do my math homework. There's always other people doing the same {major} homework, or different {major} homework around. (Zane)

students could study together and bond over difficult material or extensive homework. Some classes bonded over particular topics and a community developed within them, which then could extend to the major if enough students in the class were in that major.

3) Departmental events played a role in some students' perception of community as well.

The department area is really important for students to go and just have time with other people who are doing the same major. (Vivian)

One reason that we have a good sense of community is because we definitely get the sense of, by your third or fourth year, "Yeah, we're the ones who made it!" (Paula)

Cohort model. Participants noted that being in multiple classes together, sometimes called a cohort model, was effective at building community in a number of departments. A cohort community was particularly apparent early in the sciences, where there are a large number of required and sequenced courses. Some smaller majors, however, developed a cohort feel towards the end of the major, when there are few seminars offered but one or more seminar is required.

I'm always in the [major common room]. I love that room, I spend a lot of time there, and so I know a lot of people from just chatting with them there. (Ivy)

The sense of belonging comes from taking solace in how difficult it is. (Peter)

Physical space. Participants in the sciences, in particular, spoke very highly of the effect of having a common room available to all majors. Specialized software on computers in common areas necessitated studying there at times. The enforced, repeated and prolonged presence in the same space was effective at developing community and helping students establish belonging. Few participants from the humanities and social studies divisions reported having access to such a space for their major, but some recognized the beneficial effect it would have had on the community in their department. They expressed hope that these

In studio art there's this communal thing that happens, where you'll be in Bucksbaum at 2 a.m. with a bunch of other people, and you can work on your art and talk and have a conversation at the same time. (Julie)

It helps that we have a [major] commons, a common area. Because, a lot of the time, I'll walk in there and see three people I know and I know what problem set they're working on so it's easy to sit down and start a conversation that way. (Nina)

[That class had] this shared community of struggling with others. That class I felt was very, very much like a community. (Leonora)

In my {science discipline} classes, especially early on, there was a sense of, "Okay, we all have to get together and tackle this problem set, because if we don't, we're all going to fail." So the sense of impending doom on GPA was what really bonded us together, to come together and figure out these problems. (Adam)

It's been really interesting, being in this [seminar on an emotionally challenging topic]. I've gotten more of a sense of being in the [major] department, because a lot of the time, when I see my classmates, I go talk to them and we both kind of kvetch about how sad this is making us. So that class has been cool, because there has been more of that sense of it being more of a group experience.
(Quentin)

My first year [language] classes felt very family-like, because the classes are so small and you're engaging in this language [and] this environment that you can't translate out of the classroom. And so that I feel like that was very much like a community.
(Leonora)

I've taken two classes both semesters in the {major} department. Now, I'm in two seminars, so we spend a lot of time together. We meet for four hours every week and then also outside of class. And one of my seminars is a film seminar, so we also are meeting twice a week to watch films for our class. So that's another six hours a week that we spend together. They're very small courses and it's a small department, so I definitely feel close, in that sense. (Clare)

We would organize a little {game related to major} tournament, and I loved that. I thought that was really fun. Little things like that definitely helped create a good sense of community. (Charles)

would be part of the new Humanities and Social Studies Complex.

Whether in a particular class or through a whole major, participants described community formation occurring around a shared experience of struggling academically. Working in the same physical space, together or separately, helped establish community in some majors, because the struggle was visible. In other majors, subscribing to a shared narrative of commiseration or struggle generated social cohesion.

This semester, just being with them [in seminar] for several months and just talking about what they've been doing, and having so much discussion about what we're interested in, really helped build that sense of community.
(Emma)

There is something about doing music and doing performance together that brings people together, and in a special way. (Ivy)

Some classes promote a sense of community because of the intellectual—and sometimes emotional, depending on the topic—journey upon which students in the class embark. The shared experience of something that cannot be understood by those outside that particular classroom group has a strong bonding effect, promoting community. Students in classes that spend substantial time together working on assignments outside of class time also experienced cohesion because of the sheer amount of time that they are interacting with each other each week.

Writers at Grinnell events, I go to a lot. I really enjoy the fact that the department brings all these really amazing authors to speak. And so that makes me feel more connected to English literature at Grinnell.
(Rachel)

Departmental events. Whether organized by the SEPC or faculty, had varied degrees of success at promoting community, according to participants. Some SEPCs were not very active, or participants felt events were more tailored to friends of the SEPC members rather than the entire department. Nevertheless, some departments were successful at

We had a meeting for people who felt marginalized in the [major] community as a whole, and... only women showed up. We talked for an hour about who came, and why they came, and why there wasn't a greater turnout, and why men didn't feel like they should show up for ... marginalized communities in the major. That built a small community, just by seeing each other, and seeing who in the major does feel like they don't have a community. And so there was a sense of community out of people who feel like they're looking for one. (Sonya)

Whenever we have a speaker on campus, ... everybody from the class will be like, "So, are we all going to the thing?" And then we all walk over together, and go to the talk. ... {Humanities discipline} does a pretty good job of, at least if you want to be a part of the {major} community on campus, you definitely can be. (Josie)

Any time I go in to office hours, a huge part of the conversation is ... talking about things not related to academics or careers at all. One of my {humanities major} professors, ... she and I have talked so much about things that have nothing to do with my academic or career interests. So in that sense, I just feel much closer to her than I do to anyone in the {science discipline} department. Because I've never had that kind of conversation with someone. And that's true with many professors in the {humanities discipline} department. I've had that happen on multiple occasions. (Clare)

In terms of professors, this is one of the reasons why I do not at all regret going into a {science discipline} major. The department [faculty] is very, very good. It made me really appreciate coming to this school. Because I've connected not just with the people I've [had] more classes with, but with almost all of my professors. (Theresa)

If you could develop a relationship with that faculty, I think that would probably be the most critical to staying in that major and liking that major. (Herbert)

regular meals in the dining hall, non-academic activities, and invited presentations or lectures. Attendance at such events required effort on the part of students, but their effort frequently paid off through enhanced belongingness.

Strong Faculty Relationships

The importance of faculty in retaining a student in a major is difficult to overstate. Faculty personalities and actions clearly contribute to a sense of community. Beyond their role in the departmental culture, having engaged and excellent faculty motivates students to do their best in class and continue taking courses within the major, as discussed earlier. What emerged as perhaps the most important factor, however, was for students in a major to have a strong relationship with faculty in the department.

We'll have longer discussions about things, both related to the thesis and outside of [academics]. She's a huge support mechanism for [major] oriented things. ... She makes me more connected to the department. (Ed)

We would just chat. ... I know so much about him and his family, and he knows a lot about me and my life. We definitely had a lot of bonding experiences. He was very instrumental in building my confidence in [my major] and my ability. (Ivy)

Having good one-on-one interactions with [faculty in my major] makes me more willing to seek out and try to get good one-on-one interactions with other faculty. (Ollie)

I just wanted to keep {humanities major} because I wanted to keep him [as my advisor]. (Wendy)

Getting to know and being known by the faculty in a department connected a student to the department, and even to the institution. Making that personal connection happened in many different ways, but two frequently mentioned components to a strong interpersonal connection were talking about non-academic and personal matters with a faculty member, and using first names. Extending the relationship to incorporate emotional responses to situations in a conversation, or to deepen one's understanding of the other's personal context made participants feel that the faculty member cared about

I have a very close relationship with my [major] advisor. I go in and talk to him about my feelings sometimes. (Quentin)

You get to talk to [faculty] in their office. They do a lot of office hours. They seem like they take a personal interest in you too. So I'd say that sense of belonging is really good. (Xanthe)

I'm going to look back fondly, and I'm going to still continue to care about the department and the people in it, because they care so much. I think that that's part of not just why I chose the major, but also why I chose to continue it post-grad. These amazing teachers that I had, these people who are so passionate and who saw that I really cared about this, and loved this, and, helped me to find my own way, but didn't push me in any direction that I didn't want to go. (Ivy)

I'm also a first-generation student, so I've never really interacted with [faculty]. ... it took time being here for me to actually realize that I can do it. But I think especially when you're a minority in science, it can be really intimidating to approach a professor, when in class you don't really talk as much. And so you feel like, "If I'm not really talking to them much, why would they even care about meeting with me?" (Karla)

Having departments where the faculty go by the first name is really good. I really enjoy that. I think that it just automatically makes you feel like you can approach a professor with a question if you can call them by their first name. (Julie)

I am pleased to be a {social studies discipline} major. I guess because it fits in well with what I want to do.
(Daniela)

At the end of my first year, I actually was signed up for {humanities discipline} and {social studies discipline} classes. I was going to be a double major [in those departments]. But then in the nick of time before spring, I kind of panicked because I was worried I couldn't get a job with those, and I felt like needed hard science. (Ursula)

their well-being and about them as an individual. Through this self-validation, such feelings enhanced participants' belongingness.

Using first names broke down barriers caused by differences in power and status, making faculty feel less intimidating to many participants. Removing the fear factor of approaching faculty was fundamental to establishing good relationships. A good relationship with one faculty member could sometimes be used as a source of self-efficacy around interacting with faculty. This helped students feel confident approaching another professor and asking for help.

CS is, I think, a very popular major among international students because 1) it's profitable, and 2) if you want to get a job in the U.S., being at a Big 10 company is a good way to get someone to support your paperwork.
(Fred)

Career Prospects

My research interests actually were cultivated in the [social studies discipline] courses more so than my {humanities and other social studies discipline} classes. So my majors played a part in my career goals, but I think actually the complementary, other, classes I took were more influential. (Melanie)

Some participants' perceptions about what academic credentials would make them employable in their intended career (where they had identified one) was a motivating factor in choosing their major. A few articulated distinct, fixed ideas about what majors led to what types of jobs without clearly stating the provenance of their preconceived notions of a major's relevance to a career. Overall, however, participants described a variety of relationships between careers and their majors. Some discovered a new potential career based on particular courses; others knew of their career and had to try to fit a major choice rationally in with their career and post-graduate training intentions. A small number of participants regretted the amount of weight they had given potential careers in making their major choice,

I felt this obligation because they've sacrificed for me, that I didn't want to get something that would be seen as either soft, or not conducive to a full career. Or, something that was not very clearly lined up to have a career path. (Sonya)

I'm not trying to demean other types of majors, but I'm not going to choose an {humanities discipline} major, because I don't see myself getting a great job with [that].
(Karla)

Because I knew I wanted to go to {a health profession}, it was a struggle for me to get a major that I [thought] was something that I'll be interested in that will also look good for graduate school (Emma)

I was like, "What? I can't declare {humanities discipline}! That's not practical! What do you do with that?" (Wendy)

For a while, the fact that I was doing both [majors] was helping me rationalize not wanting to graduate with a degree in art. But, I think over my time at Grinnell, [I recognized the incorrectness of]... the reasons that I perceived there to be a stigma before, like being unemployable and not having many opportunities to do what you want to do. The faculty here are really good at telling you what opportunities there are out there and connecting you with people out in the world [who] have a similar interest as you for residencies and things like that. So I think that I could've just done art. (Julie)

I was worried about the job prospects for an {humanities discipline} major, which was semi-related to my decision to go into {my intended profession}. I just realized that, actually, {profession} is a very good fit for me. So I ended up choosing, at the end of my first year beginning of second year, that, I wanted to try out {courses related to the profession}. (Xanthe)

There's a lot of belief that as a {humanities discipline}, any of the fine arts, or even {science discipline} sometimes, that it's a useless degree. And after having taken some of these {humanities discipline} courses, [I feel,] this is just so much valuable knowledge, that this is so cool! (Violet)

because it led them into a major that they subsequently did not enjoy.

Majors Hierarchy and Perceived Earning Potential

While many participants alluded obliquely to it, a few directly described a hierarchy of majors in terms of the social capital that the major bestows on its students. These students correlated social capital with the direct applicability of the major to a career—especially well-paid employment. The more a major was perceived as leading to employment directly after college, the higher the associated social capital.

Coming in I didn't really know what I would do with a language major or even what sort of futures in language majors looked like, so I didn't really consider that as a major. (Clare)

There appeared to be a common perception that certain majors, particularly computer science, would lead to a well-paid position upon graduation. These majors were most commonly the STEM fields (science, technology, engineering, and mathematics) as well as economics, which we have amalgamated to the acronym STEEM. This factor was important to some lower income participants, and was described by some domestic participants as being influential to some international students who were seeking Optional Practical Training (OPT) to remain in the country after graduation. Numerous participants were of the attitude that any jobs available to non-STEEM majors would offer a substantially lower salary.

I've heard multiple people who are going into STEM majors because they are thinking of their career. Because they think that humanities are not really as good at making money in the future. (Dawn)

Within the perceived majors' hierarchy, humanities majors were frequently at the bottom. Numerous participants demonstrated a wide lack of awareness of

[In my second year] I still knew I wanted another major because {humanities discipline} is a field where you pretty much either do research or you teach, and I wasn't really sold on research or teaching. So I still was looking for another major. (Lucy)

All those people I met outside the school, they told me that undergraduate major doesn't really declare what your life's going to be about. (Vivian)

There is this prestige attached to STEM, and the set future, which is ironic. It's not actually true, because if you don't go into medicine, STEM is a big bubble of, "What am I going to do with my future?" My friends right now that aren't going into medicine are really struggling with, "What do I do?" But that's just not expressed to first year students. It's kind of, like, "If you do STEM, you'll have a future, and it'll be great." (Wendy)

I've heard people say that before: "I'm a biochem major, but then I also did the religious studies major because I've got the security with a science major. I'll be employable." I hear that with bio and biochem and chem majors. And econ people. (Clare)

I was worried that if I took something that maybe didn't have an economically feasible future, then I wouldn't get a good enough job to perhaps be able to support people that I need to support in the future. (Violet)

I've already heard so many stories of people who have graduated with these non-technical majors, people who have gone and got a {two humanities disciplines} double, or {other humanities discipline}. They all seem to be doing fine. So they might be in piles of student debt early on, after graduating, but they seem relatively happy and successful. And there's some level of stability. (Adam)

I think there's still this obligation that we came to this college because we wanted to get a good job so we could take care of our family, so we could help dig our ... parents out of their hole, effectively. To do that, you have to choose the right majors. You have to choose something that's like mathematics or computer science. Or physics, or economics. Something that will make you employable in the long run. (Adam)

the potential careers available to humanities majors. Some students reported feeling so concerned for their job prospects as a result of their humanities major choice that they sought additional coursework or opportunities to assuage their concerns. Others had acknowledged those concerns at the time of declaring their major but had not let them impede their choice. There was a common narrative of students with a science and humanities double major being comforted about their career prospects by their science major, and needing to profess that widely.

Transferable Skills

Once further into their majors, many participants who had described previously associating a humanities major with future low earnings or unemployment were able to articulate clearly the transferable skills and professional interests that they had cultivated within their major coursework. A few, even nearing the end of their Grinnell education, only recognized a small number of potential careers that had obvious relevance to their humanities major, rather than being aware of the transferability of skills into different content areas. Only one student expressed a counter-narrative to the idea that STEM majors would more easily find a relevant career to their major, and she identified this idea as one that only became apparent later in one's college career.

A number of participants perceived connections between majors and specific careers, and ascribed importance to those majors or were mindful of the

I'm trying to think about {humanities discipline}, and I don't see it necessarily being directly useful in being a librarian. But, indirectly, I think it will be useful because first of all, it's something that I love and I think that it's something that's interesting. And [second], it's something that I can bring into the curriculums that I'm going to be developing. ... But also, I didn't see Grinnell as a means to an end, except for building myself. That was the end [goal]. (Josie)

I don't like to emphasize [future employment] because I like to be here to learn, and be educated. I don't like to think about my time here as just prepping to get a job. (Quentin)

Anyone I would want to work for would realize the value of having a major where you are forced to intensively think about something, whether it's research or translation, and that the sort of synthesizing skills necessary for that is much more important than the face value of what's the degree, to some extent. ... You can wed {humanities discipline} with any sort of field, ... as long as you're promoting the skills that you've acquired. (Lucy)

We just moved to America. And.. I could see all the hardships that my parents went through, having been through a war, moving to two different countries, coming to America, not knowing the language, not knowing anybody here. And I felt sort of in debt. I feel like I have to pay them back, somehow for all the sacrifices they made. So that's one of the reasons that I sort of want to go into the medical field. I'll earn plenty of money, so I can help them out. Because they helped me out when I was a bit younger. (Herbert)

My grandparents would've wanted me to do something more practical, like maybe a doctor or something business related. But I definitely didn't want to do that. It definitely took a lot of courage for me to separate myself from that pressure. In the beginning, I really felt not following their wishes. But now I'm really happy I did that because I know what I want to do, and I think I'll be happy because of that. (Emma)

[My Professor] helped me with trying to understand whether I have the financial obligation to my family or whether it is okay for me to be like, "I can't support everybody." ... I think that I will help them, but I don't think that I would be supporting them all the way." So, [I felt] that kind of relief of, "Okay, I don't have to do everything." I can actually do something I enjoy. (Violet)

I was able to justify it and calm those fears inside myself when I was talking to people. But then I got over that whole fear of the practicalness of the major, and I realized that's not a real thing; you can do whatever you want to do. (Wendy)

I was thinking about being a {social studies discipline}/{humanities discipline}. And then my dad, typical fashion, stepped in and said, "No, you can't do that." He is a business man in every traditional sense of the word. And he was saying that when you go to college you have to find a job afterwards, and you're not going to be able to find a job with GWSS. (Felix)

My mom, when she looks at my time here, she wants to see that I spent my time efficiently in classes. I think in her mind, she would expect that I would be taking all these science classes and dedicating all my time to research. (Beth)

career prospects and earning potential stemming from a particular major. However, others expressed less of a concern for their career when considering their major choice. A handful of participants believed that the knowledge content learned in a major mattered less for one's future endeavors than the skills acquired. Others felt the need to express some rationale for their major and their intended career, but were content with the connection being fairly loose, or at least not initially intuitive. A few described a journey from believing that a major should be practical to the understanding that it is the college degree, not the major, that is likely to lead them to interesting professional paths.

I felt pressured by my parents to continue to do economics; ... it's a degree in which [they] knew that... I could find employment much more easily. (Ian)

My mom's thing really is that she has struggled a lot with finances and with finding a career over the course of her life. And she really does not want me to ever have the same issues. (Ollie)

Where some participants were able to make this cognitive step to recognizing the professional flexibility afforded Grinnell graduates regardless of major, a handful of participants described their parents as being less inclined to believe this. These participants expressed parental or familial pressure—real or perceived, articulated or just understood—to choose a major in a specific set of fields or with a specific professional outcome. The impact of these pressures on any participant's ultimate choice of major varied, but lower-income students often felt obliged to support family members, whether this expectation had been stated by their parents or assumed by the student.

I ended up choosing bio over biochem because there was more freedom in the electives. (Clare)

I just am really into plant physiology right now, but I think it has a lot to do with, like, the way the professor's teaching it. (Ed)

Coursework

Individual, specific courses were important in keeping a student in a major; a good experience enticed

There aren't even many biochemistry classes. (Karla)

I came in thinking that I was going to do pre-med, and if not pre-med, I wanted to do some kind of science. Because my family steered me that way. ... Economics was a negotiation with my family, between being like, "I don't like these hard sciences", but, "I know you don't want me to do sociology or anthropology, so what about economics? (Sonya)

People's expectations of these jobs change over the years ... If you major in art, parents in [my country] would be like, "What's your job going to be?" But now they're realizing that maybe [art students] could arrange museum demonstrations, or be [a docent]. [They now see] there are all multiple ways for people to find a job. (Marion)

The computer science curriculum is pretty set. There's not much room for variation in it. You do the intro sequence, you have one elective, and then you're required to take all these other classes. (Toby)

{Humanities discipline} is just interdisciplinary in general. So it's easy to get the vibe of a social science class in it.
(Beth)

It gives you autonomy to choose what you want to do with the major. You actually have some flexibility to design your own [path]. (Vivian)

[I like] the freedom involved more in the humanities, in terms of choosing your track, and your direction that you want to take. (Ivy)

GWSS is so interdisciplinary that I've taken history, I've taken sociology, I've taken biology, and they all count. It's more about the topic than about the major itself. So that's been really cool for me, so I've taken a bunch of sociology classes that have counted towards it. (Helen)

students to continue taking courses in the department. As detailed earlier, good faculty in the early courses played an important role. Beyond interesting courses that were well taught, the curriculum itself—specifically the amount of autonomy in constructing one's path through the major—was of varied importance. For some, having flexibility within their discipline for electives in completing the major was necessary to be happy with their choice. Others preferred the cohort approach with limited autonomy over course selection. This approach was readily apparent in the sciences. The other salient factor to an enjoyable curriculum for some was the level of difficulty. Particularly participants taking CS courses preferred to be challenged rather than bored. Other participants expressed appreciation of some less-demanding classes to provide balance in a schedule.

I thought I could research and learn about what I was interested in on my own time, and I didn't necessarily need to make my majors about that. And I could just do {two science disciplines}, and it would be easy to follow a prescribed track, and still leave me time to do what I was interested in on my own. (Fred)

It seems more likely that people will switch majors if they're unhappy, than if things are just okay. So, a barrier to people finding a really great major might not be that the major is bad, but just that it's good enough. (Felix)

No Clear Alternative Major

All the factors above exerted a positive reaction to retain participants in a major and contributed to them being generally satisfied with their choices. A few participants were either unhappy or not overly enthusiastic about their major, or felt that if they had the opportunity to make the choice again, they would choose differently. Understanding the circumstances that caused students to continue in a major even when they were dissatisfied with their choice for one reason or another, may be instructive for advising future students to find the major that is the most rewarding for them. Some students found that, by the time they

There's several people in my political courses where you clearly see them [being] like, "Oh, I just have to get through this!" They're not extremely passionate about it.
(Melanie)

Calc II was easy, so I thought that's it. And then [CS] 151 was really, really hard. I was having a hard time, and [by] 'hard time,' I think I had a B in the end, or something like that. But I was constantly working for my assignment. And if we had five problems, I would do four and a half. Always, there would always be something that I just couldn't finish, no matter how long I spent. And I think that was the first time in my life that that happened to me, that something was [so tough] I didn't know how to do it. And I could Google and look at books, and I couldn't finish it. ... I kept thinking, how, like, in 151, like, I would not sleep to finish the assignment. I would ask for extensions to just try and like, get it done. And it would bug me so much to not finish it. And then, at the same time, when I didn't know something from linear, I was like, "Who cares?" (Amanda)

It felt kind of liberating, going from {a science} to {social studies discipline}. But then it's also kind of scary because, when I'm walking in the street, or if I see someone and they ask, "What's your major?" And I say, "{Social studies discipline}," the reactions are just weird, compared to when I said, "I'm a {science} major." (Ursula)

It wasn't until I had to declare my major, that I realized, I'm not having a lot of fun in these classes. Maybe, that's not just the classes, maybe it's the whole discipline. So it was wasn't an immediate [dislike, where] I went into Day 1 of Intro, and thought, "This isn't for me," and then stuck with it. It was a longer process. (Ollie)

I'd have a rough conversation on the phone [saying things] like, "I don't know why I'm here. I don't know what I'm doing. I don't know why I'm studying this." And [my mother would say things] like, "Can't you switch?" And around that time, it's like, "Not really." I could, but then I can't study abroad." And to me, studying abroad was really important and part of the reason why choosing Grinnell was a good option, to study abroad. (Ian)

I'm able to at least take pride in that I'm doing something that I know, like, a bunch of other people have just simply dropped off from. It's more [a sense of] taking pride in my resilience and resistance in everything that the {humanities discipline} major throws at me than it is with anything else in particular, I guess. (Peter)

realized they would have preferred a different major, it was too late to switch. Others were aware of classmates who have had this experience. Some students stayed in a major purely because they saw no other viable alternative, so they kept going in a set path until they made a decision by failing to act in any other way

Working through the effects on an individual's social capital that is accrued through a major was an unexpected factor in keeping students in a major they may not like, or making them reticent to switch. Being in a major that was notoriously challenging, and therefore carried considerable social capital on campus, was sufficient to make up for the disagreeable parts of a major for at least one student. The idea of losing perceived social capital by switching to a less well-understood or less prestigious major did not dissuade another participant from changing their major, but she noticed the effect on her social identity.

[My] biggest fear was I really didn't know how I'm going to use it after Grinnell. Because I really never saw myself as a computer scientist. For me, a computer scientist is this dude, closed in a room, 24/7, looking at 1s and 0s, or making games. And that's totally not what I want to do, but I didn't have anything better at the time, so I just kind of kept going. (Amanda)

It was just really, really, really boring. I think that I knew that that probably was more about the professor than it was about the major. But given that I was having so much better experiences in other classes, and I wasn't really thinking of doing a double major at that point, I just [though], "What's the point? I know that I really enjoy [one discipline], this [other discipline] wasn't great; I don't feel like pursuing that further." (Rachel)

I didn't like the particular class that I took or the professor. Nothing against her, I know some students have a very, very good relationship, but it wasn't my cup of tea. (Xanthe)

I did 3 semesters of {humanities discipline}, and at that point, I was thinking, "I could probably major in this." But then I had a bad experience in my 3rd semester with one of the professors, and I decided, "No, enough is enough now." (Toby)

Factors that Deter Students from a Major

One of the reasons why I didn't want to do {discipline}, was I really didn't care much for the student body that was studying {discipline and other related discipline}. (Ian)

As participants discussed what attracted them to and kept them in their majors, they also mentioned a variety of barriers, negative experiences, or other factors that deterred them from considering particular majors. Some participants were put off by interactions with the personalities involved in their introductory classes—generally the faculty, but sometimes the other students in the department were not the individuals with whom they wanted to have classes for the next few years. Others were put off by less than stimulating teaching in their early classes.

As I [was] getting into higher level math class, I [was] getting less and less interested because you start stopping the solving math problem part of it and going into the doing very rigorous logical proofs. And I was not interested in that either. (Nina)

Sub-Optimal Experiences

[Those two classes were] maybe enough to help me understand problems in the world in a different light, that I don't think I needed to major in that to get this lesson that has been important to me. (Zane)

Only a minority of participants had a distinctly negative experience in the classroom to dissuade them from a major. It was more common for participants merely to find that a subject was less interesting than they had originally expected. When participants had deeply enjoyed a subject in high school and they continued to take it in Grinnell, they sometimes had an incomplete understanding of what studying that subject in college would mean, in terms of the type of work involved. Other participants found that just a few classes were sufficient to fulfill their curiosity on a topic, or that a different discipline was more absorbing. In this sense, it was more common that other majors attracted participants than their originally intended majors pushed them away.

The more {humanities discipline} classes I took, the less I enjoyed it. I enjoyed [some part of the work] and stuff but the actual coursework wasn't interesting to me and I also didn't feel like I was making a lot of progress, professionally or personally. It didn't feel like, "Yes! I'm growing and learning." (Kristin)

I wasn't that interested in it, and I didn't really like the labs that much. They were a lot of work. We worked with worms, and that's not what I'm necessarily interested in. ... I didn't want to just do a major because it would help me for grad school. (Helen)

I liked the English course, it just wasn't something I could see myself going further in, because I felt reading for me is a hobby and an escape. I [didn't] want to turn that into my major. (Lucy)

The reason that I don't like labs was probably [because] they're [laughs] too much group work, and there are too many uncertainties within the lab. (Marion)

I enjoyed writing, but I don't think I enjoyed it enough to do a major that was solely focused on writing. And I also didn't feel like it was sort of clear cut enough for me. I liked science more because it was more black and white. ... It was challenging for me, I guess. It was difficult to think that way. (Clare)

I wanted to major in math, but my GPA would have been pretty low. I wouldn't say that doing well is the deciding factor. But I'm not going to deny that it played a role. (Charles)

I didn't like the feeling that I was learning something that every intro chemistry student in America was learning. ... You have to get to a certain point in science at Grinnell to be in that part where you're engaging with new material and drawing new conclusions. And I liked that in [my sociology class in my], first year, I was drawing new conclusions, engaging with new material, articulating theory, and making connections. (Wendy)

My intentions on being a bio major went out the door almost immediately. After pre-registration of my very first semester, I didn't get in to a bio class or a chem class, and, my advisor, who was a bio professor, told me that it's very, very difficult to be a biology major if you don't get into one of those two classes your first semester, which makes a lot of sense with how their major is structured. (Ollie)

While challenging courses were engaging and interesting to numerous participants, it was not uncommon for students to be deterred from a given major because they found the material too difficult for the level of success they envisioned for themselves. There were other cases of students recognizing that while the topics were interesting, the epistemology of the field or the way in which they would need to work (e.g., writing-intensive homework, or final papers versus examinations) was not best suited to the way they thought and performed optimally.

Logistical Barriers

Some participants recounted finding specific majors were impossible for them to consider due to timing issues. Many science curricula were described as having a pre-determined class sequence. If a student misses a class in that sequence, getting back on track effectively to be able to complete the major is a substantial challenge. Instead, participants found other majors. There were also cases of classes or labs clashing with other courses, such that these majors became unfeasible. Thus, for participants who engaged in wide exploration and wandering around possible majors early in their time at Grinnell, it seems reasonably common for them to find that they have not taken the courses they need for any given major by the time they need to have completed them to gain access to advanced classes in their major. Major completion in this situation then becomes a notable logistical challenge.

I think, honestly, a lot of it is the methodology that's used in poli sci. I'm just not very statistically or quantitatively-minded. I very much prefer the more abstract, theoretical thinking that a lot of cultural anthropology does. (Ollie)

I considered most of the other ones in the humanities, but either the intro courses didn't fit into my schedule, or they were already under the branch of Classics. Because Classics is the ultimate humanities. (Lucy)

By the second semester of my second year, I hadn't taken the classes that I needed to take to realize that I could just do the psychology major. (Will)

Other {humanities discipline} majors have said that they are unable to do a double major because of the constraints of the {humanities discipline}. (Peter)

The only reason I dropped psych was because my first semester here, I had lab for intro as well as sports, as well as my observation hours for my intro education class. And both my hours for education and my lab were on the same day. That was enough for me to [realize], "I don't have to do psych." (Peter)

Chinese classes [are] five days a week. You're going to have to sacrifice one class if you want to actually take the Chinese class. (Karla)

By second year, I was down to {two social studies disciplines}, maybe. But I had only taken one class. So it was kind of about scheduling, and how much I would have to fit in, and doubling up on courses. (Sonya)

When I was trying to plan things out, I also wanted to study abroad. The classes just wouldn't fit, and a lot of them required taking two classes at a time for music. And then I just couldn't fit that with {science discipline}; since the {humanities discipline} and {science discipline} departments [are not] as big, for example, as {other science departments}, there's only one section. And sometimes it alters every other year, so it was really restrictive in that sense. (Emma)

I really was also interested in being a physics or biology major, but it seemed like it would have been a rush to try to get all of the requirements done to still go to medical school. And I really wanted to study abroad, and I would have been super limited on that front too. (Nicole)

If I had decided to do {humanities major} during my second year, I'm not sure I would have been able to study abroad. When I was doing my four year plan, [I was really intent on] the goal of studying abroad. [Doing so] hampers that chance of doing a double major. (Ian)

I didn't have time [to study abroad] because of two majors plus premed. (Sarah)

Off-Campus Study. Studying off campus was a notable concern for students considering how to fit in all the requirements for their majors. Some students found that they had to prioritize either studying abroad or their first choice of a major, if the two were incompatible. Numerous participants wishing to double major and study abroad found that fitting in all their major courses was notably challenging and sometimes impossible. Studying abroad and completing two majors, when possible, often left students taking almost exclusively major classes in at least one of the three semesters in their final two years. While the logistical challenges and restrictions on double majoring imposed by studying abroad were regrettable for a cadre of participants, a few expressed delight that it was even possible to do as a (single) science major.

My friends who are {science discipline} majors who did get to go abroad, a lot of them had to very pointedly choose how to work out their schedules. And a lot of them knew that they were going to do {science discipline} a lot earlier than I did. (Ivy)

It's just so cool how you can do a science major and still be able to study abroad. At least in the one I took. (Helen)

I took two really intense semesters to be able to fit in that study abroad semester. So that was a struggle, living with it, afterwards. (Paula)

I understand some people [double major] because it helps them get a job, or something. If you have two it seems stronger. [Ursula]

I think there's just a general culture within society now that your degree shows what you know. And having a degree in two different departments would end up not only showing how much you know [but also] how well-rounded of an individual you are. (Peter)

I have a friend, who in her second semester, third year just added a [humanities] major and, is going to have to take six [of that department's] courses next year. A big part of that that I got from talking to her about it was she just doesn't feel like she's doing enough. (Quentin)

Double Majors

Double majoring helps build up this mage of myself: "I'm double majoring. I can work really hard. And I can deal with all the stress." (Charles)

Half of the participants in this study double majored; additional participants wished to double major but ultimately decided not to or were unable to do so.

Motivations for Adding a Major

Participants provided multiple distinct reasons for double majoring. One motivation was that they believed it would enhance their career prospects. There was a perception that being well-rounded—which was interpreted as majoring in two different divisions—would make participants appear more competitive for any number of opportunities in the future. Some participants felt that having two majors would provide them with distinct qualifications for a particular job or to work in a specific sector, or improve their skills once they were in a career.

I guess [I felt some pressure to double major] because it adds another thing to your application that you also majored in {a language}. [Sarah]

It was not for me necessarily that I needed to double-major, but it was for me to know that other people would see. (Julie)

I'm sure there's a little bit of pride in there that I need to do this to prove myself to other people in a lot of ways. (Ed)

It's kind of stressful that everyone else thinks that you don't want to study that hard or invest that much time. (Vivian)

Another strong motivator was to enhance their social capital on campus. Participants conveyed a very clear narrative that it was important to be seen as working hard and as being smart. These qualities of an industrious high achiever were described as being admired on campus, and it was important to participants that their efforts were being noticed, and then rewarded with the accompanying social capital. Being seen as working hard also justified their identity as a true Grinnellian, building up their sense of belonging on campus. The result of the social cache of double majoring was a frequent sense of inferiority

There's sort of an undertone sometimes [of], "I double in {a science discipline} and {a humanities discipline}, so obviously I have more work than you." (Rebecca)

A huge problem at Grinnell is, "Are you working hard enough?" And are you working as many hours as people? And if you're not working as many hours and you're not putting in as [many] hours, you're looked more down upon, I think. And so taking one major may seem kind of lazy. You know, not wanting to put in enough hours to actually double major. (Karla)

People who double major do have a certain, I don't know, positive quality. Endurance, or [it's] like they do seem very proud of having double majored. And I don't feel proud for having a single major. (Dawn)

[My path declaring my major] sort of forced me to only be a single major at Grinnell. And I understand that's fine, but it made me feel a sense of inferiority to people that doubled in the major. So that's what I struggled with, the sense of inferiority. (Herbert)

When you only have one major, it comes across that you're not doing as much, and especially if your only major is studio art. Because most people [think of it as] a side major. (Violet)

Without having the major requirements of being a double major with a concentration, I could take a more diverse course load. And so, I think I was self-conscious of how it appeared on the outside, but, I felt like I was getting a more liberal arts college education by being able to drop it. (Sonya)

Every one of the {humanities discipline} majors is a double major. As a result, probably, of the stigma attached to something like {humanities discipline}. (Wendy)

among those who were “just” single majors. Students completing one major were perceived as taking the easy route because they were only obligated to pass one set of advanced courses and seminars, and were free to fill up their schedules with introductory and 200-level courses.

The {science discipline} major is perceived to be really challenging. And so [because] I'm [in that] major, people are like, "Okay." No-one thinks that I'm not working hard." (Paula)

I think there is a sense of, "Well you have all this room in your schedule, why are you not doing a double-major?" (Clare)

Connected to the social capital theme is the hierarchy of majors mentioned earlier in relation to majors' perceived direct applicability to careers. Participants who majored in the arts or languages were very clear that these were perceived as ‘side majors.’ Languages were very commonly paired with another major, and there was an expectation that studio art, theater, or music would also not be a student's only major.

It's just a general attitude [toward] theater, languages, and ... poli sci. Where ... people tend to expect you to double more. (Paula)

I [felt pressure to double major] from myself a little bit. I wanted to get the most bang for my buck. (Charles)

Another common narrative was feeling pressure to double major at Grinnell just because it is perceived to be easy to do (i.e., because of the open curriculum) and normalized through marketing materials and the wide acceptance of double majors from faculty and students. With so many Grinnell students self-identifying as high achievers, it is understood as a natural and obvious choice to double major just because it is logistically possible.

The pressure to be a double major [intensifies] if you're majoring in a language. I've accidentally caught myself, [when] someone [says], "I'm a German major," I [say something] like, "Oh, German, and what else?" And they're like, "Just German." (Paula)

I really try not to. I really do. But I think for sure [I] and others are definitely guilty of, "Oh, you're just philosophy? What are you going to do with that?!" But then again, it's like, I've never taken a philosophy class. And I don't know that person. I don't know if that's all they can handle, then they have no other option. (Charles)

Another common set of circumstances that ended up with a student double majoring, even without the intent of becoming a double major, was because students continued taking classes in a department that they enjoyed, outside of their major, until they realized at some point that they were close to

I did come in knowing that I wanted to double, but, that's kind of [due to] seeing Grinnell as giving that possibility. (Ed)

I thought that it made more sense to do two, than to just pursue one. I think that was because I had multiple interests and I knew there were different majors that looked interesting to me. I thought, "Well, if it's possible, and other people are doing it, then I think it's something that I want to pursue also." (Melanie)

If I was going to continue to take classes, I might as well take just a few more classes and get the major. Not that it would be a waste to continue taking the classes. But, I [thought], “I can double up on {humanities discipline} courses for a semester my senior year and have the major or I can continue on this trend of just taking one class a semester and be a class short of the major.” (Clare)

The reason I double is because I came in and placed into third year {language}. So I was essentially done with the major by the end of my second year. (Felix)

Eventually, as I just kept taking more and more classes, I [felt], “I’m very far along in the major, so not finishing it to get that recognition of the work I’ve done felt kind of stupid. (Rachel)

They advertise [the possibility of double majoring] so much, you feel so compelled to feel like, “Well, if this is the one thing they advertise, I should do it.” (Karla)

completing the major requirements. At this point, many participants decided that they “may as well” complete the major, even if this was not their original plan and even if it meant they had to take one or two courses they would otherwise have not taken, instead of courses they would have preferred. It was common for them to feel that, since they had completed a substantial amount of work focused in a particular discipline, it would feel good to have a degree to show for their efforts in this area. They felt that with a single major, all the other work they had done in their second field would not be recognized without completing the major.

I took a {humanities discipline} class and a [second] class [in same department]; I thought it was really fun, and I did decently in it, so I was just like, “Oh, it’d be possible do this, so I might as well add it on.” (Beth)

I haven’t dropped my {social studies major}, even though I really am not into it. It seemed pointless to have worked for almost my entire college career towards that major, and then drop it, when I only had one class left. (Ollie)

There were some distinct academic benefits that stemmed from the unique nexus of two particular majors. For a few students, this academic ‘sweet-spot’ that was the combination of knowledge in both fields was where their specific academic interests were focused. They found the sum of the parts was substantially more rewarding than earning either of the majors alone. For example, one student was specifically interested in history of a particular country; he needed the language and a history major to dig deeply into his field. Other double majors found that they could pursue specific career paths that required the combination of knowledge gained from both majors because they were uniquely positioned with specialist knowledge, skills, and interests to fill these jobs. Two examples include a computer science/philosophy double major who is going to work in

My {humanities discipline} major is more [for] personal satisfaction rather than what I plan to do with it after college. I think {social studies discipline} was more like, “This will give me skills post grad.” It was also something I’m really passionate about, while {humanities discipline} is just like my personal fulfillment. (Leonora)

The fact that I’ve declared may mean that I will take a class that I wouldn’t normally choose, just because it’s the only one that fits with my schedule. I’ve got this far, I might as well finish it. (Toby)

I kind of want to show all the time that I’ve put into {humanities discipline} through coming out with a major. The further I got along, I was just kind of like, “Okay, well, I’m this far already, in the major; I need to finish it.” (Sarah)

I feel like I’ve gotten the depth of that experience in the education [department], but other people have a name to put on it and we don’t. So other people get credentials for that, whereas our department doesn’t. So that part is where [I feel] “This is weird.” (Xanthe)

Because my majors [in different divisions] complement each other so much, it has allowed, me a deep dive into what I’m interested in. (Quentin)

For me, sometimes more important than the major was the double, the combination it would create. Like, peanut butter and jelly, or something! (Ursula)

Being double major {in two sciences}, I have flexibility in both the thinking about theoretical knowledge and, [thinking] through algorithm. And also, being a programmer, being somebody who can develop a code-base in a well, reasonable fashion that can be maintained. (Adam)

Things just started really randomly, just like a mosaic. [Content from my two majors] didn't seem like it was connected. And now, with every day, it's getting more and more connected in my head. (Amanda)

In my {science discipline} classes I get to bring in the {other major} perspective. Because someone [says], "How can they even relate?" And I [say], "Oh, they relate a lot, on all these different factors." ... And this is giving me a new perspective to bring in to various {science discipline} talks. (Helen)

I just thought it was really beneficial for me to become a double major. Because ... being really involved with [the major's community] is just pretty important. (Helen)

artificial intelligence, and a classics/computer science double major who plans to study natural language processing. Beyond specific interests and careers, however, a few participants who were double majoring displayed some cognitive flexibility in making two seemingly disparate subjects relate to each other in a creative but persuasive manner, displaying appreciation of their unique paths.

I think the combination of majors is very good at making me more flexible, even when I'm not doing something within them. (Ed)

Something I didn't really think about, but looking back is nice, is being a part of the {humanities discipline} department as a community, where we do things together sometimes. There [are department] events, and I've just felt more connected to the department as a major. (Zane)

A minority of students described specific benefits that came from adding a major, including access to seminars or advanced classes, a greater likelihood of getting into specific classes, the ability to do research over the summer, or to really feel part of that major's community. Essentially, beyond the logistical access provided by declaring a major, there was some social validation to be gained from formally becoming part of the department.

There isn't a ton of space in the courses and if you're not a major, then you might not end up in the course, and then, also other opportunities like taking the seminars (.Julie)

Effect of Double Majoring

Participants who double majored described several effects of having done so. There were two common, but opposing, notable narratives here: perceived narrowness or breadth to their education. The narrowness discussed by some participants was because they found that they did not have enough room in their schedules to take as wide a variety of courses as they would have liked. Instead, they just had to take pre-determined courses to complete their majors. A few participants were quite pleased at this narrowness by the time they got into the latter half of

I was like "I like {science discipline} a lot more than I like {other science discipline}, and this will help me get summer research." (Paula)

A double major goes against the whole idea of the liberal arts, because you're not pursuing the breadth. You're specializing in these two areas from the outset, which is very limiting in scope. (Adam)

Double majors who study abroad really don't take anything outside of those two divisions. And I didn't want to limit myself in that way. (Paula)

I feel it limits you a little bit. I don't think it's a bad thing to double major if it's something you're passionate about and you think that you can use it in whatever you want to do, postgrad. (Rebecca)

I didn't really mind having to do that buckling down, and just focusing, because I already did do so many different things [on campus]. (Ivy)

Double majoring in such different disciplines definitely helped me get a wide range of classes and disciplines. So I think that really helped me get a well-rounded education here. (Zane)

The thought of having two disciplines that I was pretty much entirely focused on was very appealing to me. (Julie)

The fact that it's interdisciplinary has really been helpful. Because I have not taken a lot of straight {major} classes. (Helen)

I took things outside of my major. I think what really was good for me as a double major was that I had a lot of AP Credits that transferred over. And also the fact that my majors were in humanities and science, there was already a large breadth of departments. (Ed)

their studies. They felt that they had identified their academic interests and now enjoyed just being able to focus on them.

The breadth argument was put forward by participants whose majors were in two different divisions. They could point to deep knowledge in two very different disciplines, as well as pointing out the breadth of knowledge they had gained around their subject. Absent from participants' discussion of breadth was consideration that their credits in any given division may have been all in one field—their majors—thus making questionable their claims of true breadth.

A few participants, both double and single majors, reported some particular challenges of completing two majors, in addition to shouldering the heavier workload of completing two sets of advanced classes and seminars. One participant with two non-complementary majors expressed having experienced difficulty “code switching” between the modes of thought necessary for his two different majors. He reported it required some time and could be mildly cognitively disorienting at first, with some detrimental effects on his psyche. Other challenges included cases where students had completed all but one or two courses in their second major and then determined that they would be unable to complete it due to scheduling conflicts. Another common challenge for participants who have spent substantial time early in their education completing major requirements was that they found towards the end that they had some free time slots they need to fill, but they were unable to do so with great variety because they had not taken the introductory or prerequisite courses early on (having been focused on their major requirements instead). Therefore, although they would have liked to take 200-level courses to round out their education, they could not, and they often felt like they did not want to take a 100-level course as a fourth year.

I've gotten to take different seminars on very specific subjects [within my major], so even though it's within one field, I would still say there's a lot of variability in what you study. (Charles)

As I found more free blocks in my schedule this past couple of semesters, I've had a hard time filling them because I didn't have time to take prerequisites for the courses in my earlier semesters at Grinnell. So, that limited a lot of the courses that I could take this year. (Julie)

The thing that prohibits me from taking more classes outside of my majors is the pre-requisites for the classes that sound interesting to take. (Lucy)

Doing two majors as a non-science major is so much simpler. You don't have [to do so much] planning. It doesn't matter; you can just take a bunch of classes. (Wendy)

I've since dropped my {humanities discipline} major, so that I could take a more robust course load, and try philosophy, and religious studies, and these other classes. (Sonya)

I sort of accepted that I just prefer the flexibility with having one major. (Ursula)

To me, the major itself was not too important. I think the point of me coming to a liberal arts college is to take many course in many departments. Not to actually know professionally what you're going to do. So that wasn't a really big thing to me, the double major. (Vivian)

The Decision Not to Double Major

Participants who were intent on taking a range of courses around the curriculum were often happy not to double major, because they wanted to allow themselves the full breadth possible. One participant found that after switching their major, even relatively early on, they would not have been able to complete two majors. One could argue that this is not explicitly a decision not to double major, except that the student was aware of the limitation on double majoring as she made her choice to change major. Another participant said that in her first year she was advised against double majoring by an older student because that student had felt that, by double majoring, she had not been able to get as much depth as she would have liked in either of her majors. Other reasons included being involved in a variety of groups and activities on campus that either precluded the time investment to take multiple upper-level courses at the same time, or that fulfilled a need to enjoy diverse interests. Wanting to keep a subject as something that was fun, such as language learning because it is enjoyable, or reading as a hobby, motivated a few students not to major in a discipline in which they had a strong interest. One student made the important point that double majoring would have been stressful and anxiety-provoking, and she wanted to avoid any obvious challenges to her mental health, and thus decided not to double major.

I'm a very high anxiety person. ... [Double majoring] seemed to me like a great way to have constant panic attacks. And so I was, like, "Probably not!" I figured my mental health was probably better. (Violet)

I thought about double majoring in Spanish. But, then, I [thought] if I put Spanish into a major, I [would] feel pressure [in] learning it, rather than [learning for interest]. (Marion)

I didn't feel the need to have the official label of a double major on my diploma. And I realized that I could get what I wanted, and take sociology classes but still have the freedom to take other courses too, without getting all the requirements for this extra major. (Daniela)

Retrospectively, all of those classes, I think, helped me figure out what I liked and what I didn't like, and what was important to me. (Beth)

I've had a lot of semesters where I've taken, like, half science, half humanities. And I think it's a really good combination. Especially at Grinnell. They overlap a lot more than expected. (Nicole)

Because my friends are from different disciplines, I'm always learning about what they are learning about in class, but the nice, quick, easy to understand version of what they are doing. ... We do engage in very intellectual conversations about our classes, not just personal conversations. That also contributes to a lot of challenging my views as well as just verbalizing what I think and like seeing if I agree with what I even said. (Leonora)

Becoming Liberally Educated

A big part of Grinnell is taking a well-rounded course load ... so that you can use that to inform whatever position you're taking. (Ben)

Participants generally recognized the value of a liberal arts education. Each participant who discussed their liberal arts experience, either explicitly or obliquely, had an individual—but often generalizable—interpretation of what the liberal arts meant for them and how they benefited. Taking a broad selection of classes was widely recognized as contributing to a true liberal arts education. Doing so was also seen as the best way of identifying one's interests and values. A few students also understood that their education was not restricted only to the classroom; there was much to learn in daily interactions with friends and in activities, formal or informal.

A big thing that has come out of college is realizing that I can pursue my interests without the structure of a class. I can research things, and do readings about things on my own, and find a lot of understanding. (Quentin)

Grinnell was able to provide for me that experience of getting to do everything I wanted, getting to try out everything I wanted. (Ivy)

In addition to direct comments on the liberal arts, participants also spoke more obliquely (and at greater length) about how a liberal arts education has contributed to their intellectual and personal growth. In response to a question about what participants had learned in classes outside of their major that changed their perspective, or that will be a lasting lesson to remain with them well beyond Grinnell, some of the key components of a liberal arts education are readily visible. Often without naming the components as such, participants gave examples of acquiring new understandings of themselves, accepting that there are multiple perspectives through which people view the world, acquiring new ways of thinking, and adopting new outlooks on life. Often participants could

I had a very narrow mindset before coming here, and it's still maybe not as wide as it can be, but it's definitely wider than it was before. (Emma)

I learned [that] different disciplines have explanations for the same phenomenon; it's like their approaches are different. I like that they are different, because it helps me to think about a problem with different perspectives. (Marion)

[My first anthropology] class absolutely changed my entire worldview; it changed how I approach any other classes. (Ollie)

I took a computer science class and it changed the way I thought, and I thought that was awesome! I was actually thinking through things differently from how I was before. That's amazing. That's part of why I enjoyed it so much. (Kristin)

I took Intro to Philosophy, because a lot of my friends are philosophy majors, and it seemed like they were smarter than me, so I wanted to see what they knew that I didn't. And then I took [two more] Philosophy [courses]. ... Those classes really dramatically affected my outlook. (Ollie)

Intro econ was surprisingly insightful. It was just an intro class; I didn't learn any high level econ, but it was just a new way to look at the world, which is not what I was expecting. It was just a different framework, different language with which to look at the world, and that was really cool. And I was just taking it because my friend was taking it. (Josie)

I wouldn't say that you have to know ahead of time, because I didn't really know what it was gonna be that was going to connect everything. But, part of it was that in taking all these classes that I was interested in, I was sort of drawing in all the threads of what I was interested in, and that allowed me to figure out what it was that I was interested in. (Kristin)

I've wanted to be able to connect all of my classes in an interdisciplinary way. I think it's sort of what I'm supposed to be doing, liberal arts-wise. And so that's a good thing. (Will)

For political science, if I'm analyzing policy, [it's policy] about what? So every other class I could possibly take would inform that in some way. So I'm mainly interested in {two content area} policies, so I think that, for the most part, the other classes I took were to better inform that. (Daniela)

Over the course of my time at Grinnell, I've adopted the idea that it's not enough to not be part of the problem; I want to be an active part of the solution. (Ben)

pinpoint this growth in their modes of thought and increased cognitive flexibility to specific classes, although some participants took a more holistic and aggregated view of how they had grown during the course of their time at Grinnell.

Uniquely Curated Paths

As discussed earlier in the section about students double majoring to get at a specific nexus between disciplines, some participants were able to craft unique interests and career paths out of their particular majors or coursework. For many of these participants, the eventual path they were creating was not necessarily apparent as they did it. However, as they reflected on their interests to think about job opportunities, or delved further into particular disciplines in advanced-level classes, the paths they had unwittingly been constructing started to emerge with some clarity. Such new understandings helped some participants conduct a more focused job-search or plans for graduate school. For a few students, finding this hidden gem of a serendipitous collision of academic interests was the perfect embodiment of the liberal arts.

[My research] connects to my desire to look at policy and {content area}, because social justice issues are definitely going to start playing out on technological platforms. This is the whole liberal arts thing that I wanted to try to do, is bring together all of these disparate fields. (Fred)

It changed a lot of things about my world view; this class is the reason I'm a vegan. I wasn't expecting that. (Will)

In my first year, I really wanted to do a {science discipline} and {humanities discipline} double major because I was interested in the concept of {a profession that ties them together}. (Emma)

There was always a sense that [my two majors are] very similar, to me. But finding a way to explain that to people has been one struggle that I've [had]. (Lucy)

Computer science can be applied to any field. You just have to figure out how best to apply it. (Lucy)

Even in high school, I knew that I was interested in {social problem} and education topics, and there wasn't really a clear way that I could link those to scientific research. But, I have been able to in {social studies discipline}. And, once I got to my third year ... I found out that with {subfield and major} research, you can look into any field that you want to. That was when I felt like I had made the right decision with my major. (Sonya)

I feel like there's a lot of those stories where people are really taking specific things from majors, and then kind of creating their own way. (Amanda)

I've always been interested in creation {creative activities}. ... I liked being able to make something and see a result. I'd only previously considered that in the context of material things. But when I took CS, I found that it was really amazing, because I could write lines of code and create things from that. ... I kind of see it like playing God. I got to make whatever I wanted. And I could make a video game if I wanted or create an entire world. (Kristin)

I think that advisors should play a much larger role. I wish that my tutorial professor had talked to me about why we have an open curriculum. I think that it was always conveyed as, "Take whatever you want, and whatever, for any kind of reason." It wasn't very intentional, how to design your course load. It felt like advisors had a lot of trust in you, that you would figure it out for yourself. And, I think that's nice to be given that amount of freedom, but, as an 18-year-old, I didn't know what would be best for me. ... So, I think that advisors should have one-on-one meetings, and they should be more than just, a, "Well, tell me what you are thinking of taking, and I'll sign off on it." (Sonya)

He makes all his advisees write down their reasoning and present it to him on paper. ... Just the writing aspect of that, in addition to having to hash out the reasoning of why I'm taking this class, would probably shed some light as to why I really want to do that.
(Adam)

Suggestions

Since major choice often rested upon finding a department with interesting and motivating material, with professors who were warm and engaging, and with a supportive and present community within the major, choosing classes that allowed students to assess these criteria was an overarching theme of many suggestions. Most pertinent to this was the imperative to take a breadth of introductory classes early. Part of class choice, however, is advisors' roles in working with students as they plan their educational path. Therefore, this section on participants' suggestions begins with their reports of advising practices that helped, or they perceived would have helped, as they explored and honed in on their intended major(s).

Advising Practices

Participants had a range of suggestions around advising practices and advisors. They generally recognized that there is a range in how involved faculty advisors are; some serve a purpose merely to sign off on a student's choice of classes, where others are more involved academically and as psychosocial support for their advisees.

A number of participants wished that tutorial advisors had been more proactive in either encouraging them to use their advisors more, beyond approving courses, or prompting them to think about class choices. Those whose advisors had done this appreciated it. They cited the need for advisors to question even students who think they know what they want to do, and to push very strongly for students to take a wide breadth of classes, stepping outside of their comfort zone, and asking them to justify each of their classes for any given semester. Essentially, participants felt that advisors could suggest to many students to be more intentional in their course choices, even while exploring a variety of disciplinary options and possible avenues of interest.

Participants who had experienced some difficulty deciding on a major expressed gratitude for advisors who were thoughtful in their interactions around this discussion. They appreciated that advisors would encourage them to decide in a variety of ways, such as narrowing down the list of possible majors by cutting out majors that would be uninteresting, discussing what a major entails with students at length, and encouraging students to talk to older students in different majors.

Selecting an advisor had been a troublesome or fraught experience for many, while others had reflective suggestions on how to improve this process. Numerous participants remarked that most students choose their

What my advisor did for me is push me out of my comfort zone to take classes that I wouldn't have usually taken. (Leonora)

I would only truly go in when I needed signatures or to review a course-load. Because I didn't know what else I needed advising on in order to go and ask them what I needed. In order to ask them for advice, you know? (Peter)

I'm just very grateful that my tutorial advisor helped me to narrow things down. And, I think for people like me, that's very important, just, to list out a few [options]. [My professor] also invited students who declared their major to talk to us in our tutorial classes. (Marion)

There needs to be a large suggested push-back from advisors to make sure that you [are] focusing on breadth first, as opposed to picking your major early, unless you really know what you want to do. But even then, you still have to ask the question, "Do you really know what you want to do?" (Adam)

It was very helpful to have our advisors [say], "No, branch out right now. Get out of your field. Do something else." (Violet)

I really enjoyed Professor {name}. I took a course with her, and before I decided who I thought my advisor would be, I really thought that I would want to be her advisee. But a lot of people said, "Oh, well she's super busy. She has a lot of advisees. If you need things, she kind of takes a while to get back to you." So... I guess I didn't really pursue relationships in the same way because of that. (Melanie)

Because I didn't know what my focus was, I ended up taking a ton of things that weren't just not my focus, but they weren't even my second choice. (Will)

advisor from the faculty members in their intended department who have taught them a class. This practice, although common, was recognized as restrictive, especially if a student had not taken many classes by the point of declaration. There was also some reticence to ask a faculty member to become their advisor if students perceived that professor to be very busy, for fear of becoming a burden or not having sufficient access to her or him.

A problem in Grinnell is that you take all these introductory classes with usually a very similar set of professors that always teach these same classes every year. And so you think, "I have to choose a professor between the set of classes I had taken." (Karla)

I hadn't taken a class with him, and it felt weird to me to just go into someone's office and be, like, "Hey, can you be my advisor?" (Ed)

A number of participants mentioned that if a tutorial professor is not in the same division as the student's academic interests, there is a high likelihood that the professor will not be fully equipped to advise about strategic course choices to position students well for major completion. Numerous participants mentioned as problematic non-science faculty not recognizing the courses that many lab-based science majors need to take early in their time at Grinnell to keep up with the sequence of required courses and pre-requisites. Thus, having some cross-divisional advising for first years would have helped a number of participants.

He had [many] more [advisees] than how many he was supposed to have. So I couldn't really be an advisee of him. And then I had to go talk to another professor. And he was also very full. But the study he was doing [was closely related to my interests]. (Vivian)

My tutorial advisor was a professor in the English department, so he actually had not much idea about [what] majors in the social sciences [are] like. And so I didn't really know who to talk to at that time. (Vivian)

While some students may find a faculty mentor in a different division, not all were comfortable taking the initiative to do so. Thus, a more formalized method of providing access for students to faculty in all the divisions to assist with class choice could be helpful.

Some professors don't really open themselves up to meeting with new.. students outside their classes. They don't make it known that you can do that. And students don't know that. (Karla)

Not all participants had recognized, early on, the importance of the advisor-student relationship. They felt, in hindsight, it would have been helpful to hear that it was important to consider factors beyond just a

Whatever department your tutorial advisor is in, you have access to that department. Great. But you don't have access to other departments. If I had come in and said, "I'm maybe interested in something humanities focused, but I'm not really sure." I wouldn't have known really who to go speak to about that. (Clare)

Tutorial professors [should be] very aware of the various majors and their requirements. (Helen)

[It would be good] if tutorial professors are better equipped to set up students in a way that they could go multiple different pathways and still be pretty well set up. (Paula)

I also don't think people know how great it is to have a professor that works best with you. Some students just pick a professor because [they think], "Who cares? They just approve your classes." Just being aware of that is very important. (Karla)

Really the most important part is finding the faculty member that really jives with your interests and experience. (Melanie)

I didn't utilize my advisor enough. I have been of the philosophy that I'm doing absolutely fine if no-one's telling me that I'm doing something wrong. Which, in hindsight, is only applicable in some very specific instances. It's better to assume that there's a better way to do what you're doing, and explicitly ask how to do so. (Peter)

If your tutorial advisor is not the greatest advisor, not very personable, [they should] find a mentor. So if they've taken four classes that first semester, their tutorial advisor is supposed to be their go-to person, but there are so many sub-par tutorial advisors who just do the bare minimum. And so I always advise them to find a professor mentor. (Wendy)

faculty member's department and possibly their research interests. These participants noted as instrumental to the relationship could be the faculty member's personality, style of interaction, expectations of the student and their role in the relationship, and non-academic interests.

Finally, a few participants discussed the challenges of having a tutorial professor in the department in which a student ultimately majors. In such cases, it is common for the student to keep the same advisor for all four years at Grinnell, through default, but not necessarily by choice. These students articulated discomfort at the prospect of telling a faculty member that they would select the major but wished to have a different advisor. Instead, it would be preferable for all students to have to re-select an advisor at a given time, with the assumption being that students would not continue with their tutorial advisor. Currently, participants felt a common expectation for students not to change advisor if they declare in their tutorial advisor's department.

When people feel like they're trapped with [their tutorial] advisor because they don't feel comfortable saying they want a different advisor in the same department, ... maybe the college could institute a thing where all first years have to either re-declare with that advisor, or just make it so that they're not left in that position of saying, "No, I don't want you as my advisor anymore." Make it more of an affirmative process. (Rachel)

Class Choice

Very many participants strongly advocated for students to be pushed to take a breadth of classes during their first two or three semesters at Grinnell. Even students who think they firmly know what their intended major is should be strongly encouraged to explore classes around the curriculum. Numerous participants described either finding a new subject that they loved this way, even if they did not ultimately major in it. In some cases, students described having no idea what specific disciplines were or what it meant to study that subject. Without such knowledge, they would not be able to know whether these majors would be a good fit.

Taking a range of introductory courses also allowed participants to make connections with material from other classes, of which they otherwise would have been unaware, thus deepening their learning across the curriculum and general liberal arts education. Some participants had taken this approach and had found it

Encourage students to take classes they are passionate about rather than [for] postgrad options. I find that a lot of students are concerned about jobs postgrad and how much money they will make, and then talk about how much they are struggling in class, how much they don't really like the subject. (Leonora)

I like the idea of coming into Grinnell, your first semester, taking your three classes in all different divisions, and likewise for the second semester of your first year, hopefully [with none in the same department. (Herbert)]

For me it was just a matter of taking lots of intro classes and thinking, "Am I enjoying this? Taking a 200 level class, am I still enjoying this?" I'm not sure if it's really something that Grinnell the institution can help with, other than encouraging people to just try a bunch of stuff in their first couple of years. (Toby)

Trying so many different things is key. My first semester, I took two subjects that I was sort of familiar [with], and two that I had absolutely no clue [whether] I would do well in. And that's kind of how I spent my first year, picking two things that I was comfortable with, and two things that I really wasn't, or I had no idea how it would turn out. Because the things that you don't know are the ones that are going to surprise you. (Lucy)

I was not familiar with all of the majors or what was offered, given my high school experience. [It] didn't offer sociology, for example. So I wouldn't have known what that really was. Or to be interested in it. (Xanthe)

No matter what major you choose there are going to be some classes in it that you don't like. You're just going to have to put up with that. And I had been told that was a thing., and I sort of knew it was a thing. But I was hoping it wasn't a thing. But, it's a thing. (Kristin)

to be very helpful. Others had not, and regretted their early class choices due to lack of breadth and exploration. A few also made the point that taking a large range of introductory courses early on prepares students to take a wide array of 200-level courses outside of their major if they have the time and inclination to do so in subsequent years.

With hindsight, many participants recognized courses that they wished they had taken, or areas in which they had been able to study more in depth. Some also reflected that if they could redo Grinnell, their major choice for at least one of their majors (in the case of double majors) would be different. Other regrets or hindsight about class choice included logistical issues—labs conflicting with studio art classes, classes in the course catalogue that were not offered in the participant's four years at Grinnell, and the practice whereby students who do not need a course to complete their major are often the first ones to be cut from a class.

Major Identification

Exploring disciplines through a broad range of classes was the single most frequent recommendation to help students find the best major for them. Other recommendations and suggestions were more nuanced and, naturally, reflected elements of the speaker's educational experience. Participants who had crafted a unique blend of majors for themselves, but had struggled to make sense of their combination advised that students should try to find classes that speak to their hobbies and non-academic interests, when and as they appear in class material or in whole courses. A number of participants also commented that faculty and the CLS could provide a greater range of examples of how two disparate disciplines can be tied together in a career, or how learning in one field can be extremely useful to other studies or a profession, even if a student does not complete the full second major.

Sometimes you find things that you never thought you would enjoy (Rachel)

I made a mistake when I came in with the idea of declaring these two majors. I think I should have taken more classes to get a sense of what other aspects the college has to offer, what other interesting classes I could take. (Adam)

If I could take 8 short courses instead of four four-credits, I would do that. [It would give] more flexibility. (Ursula)

The problem is that [at] Grinnell, if we don't start first year in these, liberal, social justicey courses, we feel like we don't have the language to do them later. (Wendy)

Taking {two science courses}, which were two things I'd taken in high school, really stunted that first semester of [feeling] like, "I'm in college! But I'm taking the same things I learned last year." (Ian)

I just didn't take full advantage of the ability to bounce between the two: the humanistic side and I guess [the sciences]. (Peter)

If I knew that there's something that brings {humanities discipline} and {science discipline} together, I would have been so much more ready to just follow the passion. And then let me lead it. (Amanda)

I would encourage people to get down to what they are really interested in and find the connections in all the different classes and divisions, and explore those connections. So, for me, it's stories and world building. If you can isolate and figure out what it is that you are most interested in, then you can start to see how that relates to a bunch of different areas. And, then, explore those different areas before you decide on one of them as the most fruitful area to explore. (Kristin)

I've always thought back on what could have saved me, and I always think, after I got that C+ in intro {social studies course}, [I should have said, "Screw it. Never. No. I didn't enjoy that class. Why would I take another one?"] [The college should be] letting students know, "It's okay. If you do poorly in a class and you don't enjoy it, then there shouldn't be pressure to

[Having declared late,] it was a little bit tight. I had to take around three [major] classes per semester since then. And I didn't end up getting an internship over the summers because I always felt like I was a little bit behind other people in that area. Other people had been doing it for longer. (Kristin)

While many students recognized the importance of exploration, there was acknowledgment that declaring a major relatively late can be burdensome later on, when students have to take multiple courses in their major each semester to complete it.

A participant who had strongly disliked his major regretted not paying attention to his experience and performance in an introductory course that he had disliked. Rather than recognizing that it was not something that would be a good fit for him, he continued taking classes in the department and continued not enjoying them, even as he completed his major. He advised students to pay attention to their early experiences in a department and not continue in a path just because it was an earlier choice that they had made; there should always be the opportunity to revisit a decision.

The process of declaring was challenging for some students, especially those wishing to study abroad. The need to complete paperwork for both processes at a similar time was stressful to some. They wondered if these processes could be combined into a more efficient manner. If, for example, there could be more awareness of which courses in which programs would count towards their major, without them having to ask department chairs for that approval prior to deciding on a location for a semester off campus.

Making it more clear to students how to fit studying abroad into their schedule. Because that can be really intimidating to figure it all out and fit it into your major as you're declaring. (Nicole)

Social Capital and Majors Hierarchy

We have already discussed the clear hierarchy that the student culture attributes to various majors, and the social capital gained among students by taking difficult classes, being seen to work the hardest and sleep the least. As a result, it seems important to consider what action may be beneficial pertaining to these cultural artifacts. While we acknowledge that culture change is slow and difficult, it appears important that faculty and staff pay attention to how students perceive measures of social capital, and any change that is occurring in this regard. Awareness of what bestows social capital can serve as the foundation for a

There's certain people that I just sort of lost a desire to be friends with, because all of our conversations now surround their med school applications or what schools they did or didn't get into, or being stressed about what grad school they're going to choose. Choosing between the four Ivy League grad schools they got into. ... So that's stressful. (Clare)

For some reason, this particular class is very into bragging. I don't know why, but we have to talk about grad school all the time. There was one particular class where for some reason, we had to go around talking about what grad schools we got into, but I didn't really want to talk about that. (Karla)

Grinnellians don't compare grades. But they compare how much sleep they got, ... how much work they did. And it's all a contest of who has it worst. Probably the only thing I dislike about Grinnell is that it's always who has the harder time, more stressed out. Who got the least amount of sleep. And I think that's where some of the double major stuff comes in. I see it with science majors over some humanities majors, as well. (Rebecca)

Pre-med students or science majors will take your classes as their I-don't-care class. They'll take your 200-level sociology of deviance and subcultures as their easy class, their class they don't really care about. And then they don't engage with the material in a way that a major would. And they don't really put effort in. And at the end they're able to write it off as, like, "Wow, what a joke!" (Wendy)

I think minors would help with the fact of having [fewer] credits to take. But then also, acknowledging, "You did this." (Sarah)

if our school had more emphasis spatially or even just rhetorically in our marketing materials about humanities and the social sciences, and you could only do one major, I think our mental health would be through-the-roof better. (Wendy)

discussion in class and informally about practices that may begin to dismantle this element of the student culture. Similarly, majors that may languish in the lower end of the established hierarchy may usefully be carefully re-marketed to improve their standing and begin to remove these hierarchical relationships. The positioning of double majors as superior (inferred by the sense of single majors as “inferior”), may warrant a careful investigation of whether adding the ability to minor in a discipline would better support the mental health of students.

Community Building

Since communities within majors and establishing belonging in a department are important both for attracting students to and retaining them in a major, making intentional efforts to enhance community could be instrumental. Departmental events, and establishing the expectation or sense that everyone can and should attend, whether informal or formal, academic or social, could help here. However, obligatory use of free time could also deter students from the major. At the least, SEPCs should clearly accept the charge to create multiple events a semester—even without expanding the budget. Ideally, these events would focus on making students feel welcome in the department, increasing time spent together, and giving opportunities for students in the major to get to know each other better. If faculty were also to attend informal events, it would increase the likelihood that students would foster stronger relationships with them, as well as allow more first and second year students to get to know departmental faculty prior to having to select an advisor.

Having common physical space was seen as exceptionally important by many participants. Those in the sciences, which have common rooms in Noyce, frequently extolled the virtues and benefits of these rooms. They recounted the enjoyment and belongingness they derive from frequenting these rooms, as well as the growth in their self-efficacy for continuing in the major. Participants not in the sciences were frequently aware of these rooms and the community they built or enabled. They looked upon them sometimes with envy, other times just imagining what it would be like to have that spatial proximity to others in their major, and the chance encounters or conversations that might occur during prolonged studying in a shared space. As noted earlier, there was hope that every major that does not have a common space may get one in the new Humanities and Social Studies Complex.

Several participants mentioned how helpful it would have been to be able to hear from older students about their experience in their major and choosing a major. They recognized the wealth of experience and information that could be shared by older students, but remembered not always being sure how to gain access

Outside of class, there's not a lot of opportunities for majors to get together, and hang out, or go to events as a department, which I think other departments do a little bit of a better job on. (Ollie)

One thing I am very disappointed with is the SEPC. I don't think [it] does a very good job of building the community. (Dawn)

Just having a place where {humanities discipline} majors exist would help a lot in building community. ... I really do think that [what] would probably help the most is having a space where individuals who are working on their homework can find other individuals who are also working on {humanities discipline} and be like, "Yo, can you help me with this specific thing?" (Peter)

I benefitted a lot from having older students that shared similar goals to me, that had already been through part of the process on their own, and then were able to help me explore what I was looking for at Grinnell earlier than I would have been able to without their help (Ben)

I know a few people who hang out in The Grill, and I'll run into them there. It would be cool to have a space [where] I would know I would see people who are in my classes, and I could be, like, "Oh man! Have you done the reading?" Or, like, "Help me with this idea." (Josie)

In the first year, when you're taking courses, there are just a lot of students who feel lost, and don't even actually know how to start finding a major. And, for me, I know it was very difficult to actually reach out and be, like, "Hey, I don't really know what I'm doing. Can, have some advice from somebody?" (Emma)

I would wish that some of the upper classmen were more willing to discuss the major (Herbert)

I also like the idea of students talking to other students. I think people tend to pay attention a little bit better when it's a peer talking to them, and it's more meaningful to them. (Rebecca)

to the information if they did not already have established relationships with older students in a range of majors. Building communities in the major could assist in this, since students spending time in a common area and attending events together may be more likely to establish relationships with students in older years. Another approach could be mentoring relationships, with students placed into mentor-mentee dyads via a formal mechanism; a third could be organized events where first and second years can hear from older students in a variety of majors, much like a majors fair.

Maybe something like a mentorship program. Or even just weekly, biweekly, monthly during the first year, talk with student in a different major. Go to lunch for an hour, and have a conversation about, "What's your major like, what do you spend your time doing? Would you have done it again, if you could go back? Why did you do it in the first place?" (Fred)

Appendix I: Interview Questions

- 1) Tell me how you chose your major.
- 2) With what did you struggle as you made your choice?
- 3) Why did you end up rejecting any other majors that you were considering?
- 4) What role did advisors (of any sort) play in your decision process?
- 5) What was your tutorial on/which department was it in?
- 6) Do you feel like a _____ (person who does major)?
- 7) Do you feel like you belong in your major?
- 8) Tell me about any community that exists in your major.
- 9) How do you get on with faculty in your department?
- 10) If minority: We know there are fewer (type of minority) in your major. How does this play into your experience in the major and your process of choosing your major.
- 11) Tell me about the culture of your department.
- 12) What makes you pleased to be in this major, if you are, or regret your choice?
- 13) Here's a copy of the classes you have taken at Grinnell. Can you tell me broadly how you chose these courses, particularly those outside of your major?
- 14) In what ways do you think your Grinnell education will be useful to you in the future? Both in terms of your major and other learning?
- 15) If double major/concentrator: Tell me about your decision to double major/add a concentration.
- 16) If single major: Did you consider double majoring/concentrating?
- 17) What do you think Grinnell should do to help students discover the best major for them?
- 18) Is there anything else you think we should know about your process and sentiments around major choice?

Appendix II: Survey Results in Brief

Method and participants for the 22-item survey on major choice are detailed on pages 5 and 6. Here we present the findings in brief.

In general, the survey finds that students enter Grinnell with some degree of certainty about their division of interest (described in the survey as ‘general focus’) but with less clarity about interest or passion for a specific field of study or major within a division. Students who profess an interest in the sciences (47 percent of respondents) are the most certain of their interest upon entry, but even of those students who say they are ‘very certain’ of their focus, less than half know which major they will be part of when they arrive. The measure of certainty in focus (both general and for major) was a critical part of constructing the interviews sample. The common narrative for students (as seen in findings below) is that interest in the content, faculty relationships, a supportive community, and positive experiences in an introduction course seem to play an important part in major selection. Although there may be slight variations in a student’s path, the majority of students find their way to this general path, give or take one item or another, during their time at Grinnell College.

Consistent with what is widely perceived on campus, students indicate that their interest in the content of a particular major is a very important factor in their decision process. This holds true across divisions. Additionally, students report that their personal success in an introductory course has moderate import in their decision process. Lifetime earning potential remains of low overall concern across divisions but is slightly higher in the sciences.

The vast majority (over 70 percent) of respondents considered multiple majors during their time at Grinnell College. Students do not seem to opt out of difficult majors, indicating that difficulty of another major compared to their final decision was relatively unimportant overall. Under a quarter of students in any given division indicate that the epistemology of a major they once considered ultimately turned them away from that major as a final choice. Of the survey questions we asked, no reason stood out as a particular deterrent from a major option. This indicates that students are drawn to, rather than pushed from, a major.

Students’ peer groups are of less of a concern when choosing a major, potentially because their peer groups change over time. However, sense of belonging in the department of choice is relatively important. Students generally report that they feel accepted in their departments across divisions, and that they are pleased to be in the major they ultimately chose. The ability to work with a specific faculty member in their major was a factor in their ultimate choice, although students in the performing arts, and humanities rank this item as more important overall than their peers in other divisions. Faculty play a critical role in students’ choice of major, with 42 percent of respondents indicating that a faculty member in the department of interest was their most important source of information when choosing their major.