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Students' Perceptions of Mattering in the Classroom

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Abstract: A blooming field of research in the educational community is students' perceptions of what it means to matter in educational institutions, to their instructors, and their peers. Psychologists typically define mattering as feeling as though one is valued by and adding value to another person or space as signaled by the relationships and interactions they have with others. Mattering has been shown to promote student engagement, achievement, and overall well-being. A lack of mattering has been strongly associated with anxiety, depression, and suicidal ideation. In this project, I explored when and the extent to which Yale undergraduate students feel as though they matter within their courses to their professors. To complete this, I employed a questionnaire that asks students about their overall feelings of mattering to their instructors within their classes. This research is limited by the subject pool, methodology, and limited focus on the professor-student relationship, but it can help to promote further promote research on college student mattering.

Key Phrases:

Mattering: Being made to feel as though one is valued by and adds value to another person or space. For this project, this will refer to the actions of instructors that make students feel as though they are valued and adding value.

Acknowledge: The feeling of being valued by another

Importance: The feeling of adding value to a space or person

Instructor: A person who teaches in the course, such as teaching fellows and professors. This term is used synonymously with 'Professor.'

Course Subject: The broad area of study for the course (i.e. Humanities, STEM or Social Science). This term is used synonymously with 'Course Discipline.'

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This capstone is a work of Yale student research. The arguments and research in the project are those of the individual student. They are not endorsed by Yale, nor are they official university positions or statements.

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Students' Perceptions of Mattering in the Classroom

Within recent years, the role of the professor has evolved into more than simply educating students. Higher education instructors are being tasked with providing multiple avenues of support and care, creating a collaborative relationship with students, and cultivating students' feelings of mattering, making students feel as though they are valued and add value to their courses as both individuals and scholars. This responsibility can prove extremely difficult for instructors, especially with a lack of increased support and funding. Research has nevertheless shown that cultivating student mattering is necessary to generate greater student engagement, achievement, and well-being. The first step to determine the need for further professor support is through measuring the extent to which students currently feel as though they matter. Therefore, this project explored when and the extent to which Yale students feel as though they matter to their professors in their courses.

Mattering is a complex topic. Scholars often differ in defining it, but mattering is generally defined as feeling as though one is valued by and adding value to a space or person due to the actions of someone else.¹ This concept is subjectively defined, with acknowledgement broadly meaning to feel valued while importance broadly means to add value.² In terms of mattering, acknowledgment is more concretely defined as the idea that we matter because others realize that we exist. For example, if a professor remembers a student's name, interests, or traits, the student may feel acknowledged, or valued, by their professors. One could also feel valued by having their personal narrative and identity incorporated into the classroom discussions or curriculum. When others do not acknowledge us, acting as though they have never seen us

¹ DeForge and Barclay, "The Internal Reliability of a General Mattering Scale in Homeless Men"; Elliott, Kao, and Grant, "Mattering"; France and Finney, "Conceptualization and Utility of University Mattering."

² Elliott, Kao, and Grant, "Mattering"; Elliott, Colangelo, and Gelles, "Mattering and Suicide Ideation"; Flett, Khan, and Su, "Mattering and Psychological Well-Being in College and University Students."

before or not remembering aspects of our identity, it often signals that we lack value and fail to matter to others. Importance is more concretely defined as the belief that one is the object of interest or concern and that one is adding value to a space or another person. Students may detect their importance through the support they do or do not receive from professors as well as the professors' acknowledging their accomplishments, difficulties, and/or failures.³

The best courses I have ever taken at Yale have been those in which I felt as though I mattered by being acknowledged by my professor and feeling as though I added value to my class and the greater discipline. While the form of this interaction hinged on the design of the course, it universally manifested as the professor's remembering who I was (i.e., my name and things I had mentioned), acknowledging my accomplishments and failure, and/or recognizing the situational factors impacting my life by providing academic or interpersonal support.

For example, I off-handedly remarked that I was in the marching band during one of my English classes. After this moment, my professor would consistently check in with me about my experiences and upcoming events. She would also consistently acknowledge the events impacting my student experience (i.e., the COVID-19 pandemic, a death in the family). Additionally, she supported me when I began cultivating an interest in psychology, referring me to faculty with similar interests. This experience made me feel as though I was valued by the professor as an individual and scholar and that I was able to add value to the class and my fields of interest. Without this experience, I doubt I would have felt competent and capable enough to continue studying psychology.

Fostering mattering is a seemingly easy feat to complete in seminar courses through the multiple avenues of conversation available, but it can even be fostered in lecture courses through

³ Elliott, Kao, and Grant, "Mattering"; Elliott, Colangelo, and Gelles, "Mattering and Suicide Ideation"; Flett, Khan, and Su, "Mattering and Psychological Well-Being in College and University Students."

simple actions. In my introduction to social psychology lecture, the professor would begin each class by acknowledging the current events that may be impacting us (i.e., the recent loss of a fellow student, the Black Lives Matter protests). Additionally, she implemented policies that created avenues to accommodate and support students in response to these events. Despite her not knowing my name, let alone my interests, this signaled that she understood the struggles we faced as students and individuals. Due to these factors, I was able to engage more deeply with the materials and take the time and space I needed to maintain my personal well-being.

While mattering is an individualized and complex experience, my professors' simple actions made me feel as though I mattered as a person and a scholar. I cultivated a deep interest in these courses and began engaging with materials outside of the scope of these classes. If I did not believe that I mattered both as an academic and a person to my professors, I do not believe that I would have enjoyed nor excelled in those courses.

In this capstone, I sought to understand whether and when Yale students felt as though they mattered to their instructors. This study may help Yale professors understand the extent to which students feel as though they matter so that they can promote student achievement, engagement, and overall well-being.

Yale University

Since this study will focus on Yale University, I believe it is important to provide a background on the institution's current statements and approaches to promote student inclusivity, belonging, and mattering. Since I am focusing only on the professor-student relationship within the classroom and educational spaces, I will also discuss only the aspects of Yale University that are relevant to these domains.

Yale is a private institution with fewer than 7,000 undergraduate students who come from a variety of ethnic, racial, socioeconomic, national, and personal backgrounds. For the admittees for the class of 2026, Yale states that over half of the class is female, 53% of students identify as people of color, 18% are first-generation, and 53% are low-income (receiving a need-based financial award).⁴ This suggests that the Yale classroom is a very diverse community that encompasses a myriad of identities.

In addition to looking at the student body, it is also important to look at the university's faculty demographics. From 2009 to 2021, the percentage of white faculty at Yale has remained somewhere between 62% and 75%, with Asian or Asian American faculty being the closest follow up, making up 17% to 21% of the faculty. Additionally, during this time, the percentage of female faculty has remained between 34 and 36%, with only five faculty members identifying as non-binary between 2018 and 2020.⁵

In 2021, the Yale president's office announced a group of initiatives titled "Belonging at Yale" to promote a welcoming environment, inclusivity, respect, diversity, support, and equity for students. Through student input, they defined six areas they will target throughout the next five years. These activities focus on enhancing student belonging at Yale. However, increases in student belonging do not directly correspond to promoting student mattering. Rather, these initiatives focus on acknowledging the inequalities within the institution and classroom to create a more diverse community. As the university continues to implement initiatives that acknowledge the students, it is vital that they begin reviewing student mattering as well.

Literature Review

⁴ "Yale College Class of 2026 First-Year Class Profile."

⁵ "Faculty Development & Diversity: Faculty Demographics."

Mattering is a complex topic that builds upon one's identity and feelings of belonging towards their environment. Therefore, to properly study and understand what it means for one to feel as though they matter, we must establish a definition of belonging.

Belonging

Belonging can be broken down into two components: (1) a sense of valued involvement and (2) a sense of fit.⁶ One needs to feel as though their characteristics are present within the environment to feel as though they belong. Within the educational institution, all students are connected to one identity group: studenthood. However, if they do not feel they are involved in a meaningful manner or that their identities do not fit in the environment, they will not feel as though they belong to the identity of studenthood or their greater institution. Belongingness has been strongly associated with academic motivation and achievement. Students who express a stronger sense of belonging have been found to express greater academic self-efficacy, intrinsic academic motivation, and task value.⁷ Conversely, students who lack strong feelings of belonging have reported less academic motivation and performance.⁸ It has also been documented that certain student demographics have consistently reported weaker feelings of belonging such as women, students of color, low-income students, and LGBTQ+ students.⁹

Mattering

⁶ Asher and Weeks, "Loneliness and Belongingness in the College Years"; Hagerty and Patusky, "Developing a Measure Of Sense of Belonging"; Laursen and Žukauskienė, *Interpersonal Development*.

⁷ Fong Lam et al., "It Feels Good to Learn Where I Belong"; Freeman, Anderman, and Jensen, "Sense of Belonging in College Freshmen at the Classroom and Campus Levels"; Nichols, "An Exploration of Students' Belongingness Beliefs in One Middle School."

⁸ Levett-Jones et al., "Belongingness"; Osterman, "Students' Need for Belonging in the School Community."

⁹ Ostrove, Stewart, and Curtain, "Social Class and Belonging: Implications for Graduate Students' Career Aspirations"; Duran et al., "A Critical Quantitative Analysis of Students' Sense of Belonging"; Galliher, Rostosky, and Hughes, "School Belonging, Self-Esteem, and Depressive Symptoms in Adolescents"; Graham and McClain, "A Canonical Correlational Analysis Examining the Relationship Between Peer Mentorship, Belongingness, Impostor Feelings, and Black Collegians' Academic and Psychosocial Outcomes"; Walton and Cohen, "A Question of Belonging."

While mattering and belonging are closely related, they are different phenomena. Belonging focuses on one's position within a group. Mattering, however, builds upon the foundation of belongingness and is the individual's interpretation of others' behaviors towards them. Fostering a sense that students belong and matter to their educational institution and professors has been shown to promote students' academic achievement and engagement.¹⁰ Mattering, however, is believed to impact students more intensively in these domains than belonging and is specifically impactful to students' overall wellbeing.

Psychological Well-Being

Feeling as though one matters is highly impactful on one's psychological well-being. Research has shown that having low levels of mattering is tightly related to psychological distress. In one community-based study, DeForge (2008) and colleagues sought to identify the mechanisms that predicted depressive symptoms in adults. While this study did not intend to focus on mattering, the authors found that those who reported the greatest number of depressive symptoms also reported lower levels of mattering to those around them.¹¹ Another study by Lewis and Taylor (2009) supported these findings and noted that individuals who reported high levels of support and mattering also expressed greater psychological well-being. An addition to this literature, is that minority groups experienced a greater increase in psychological well-being than did their counterparts with the same degree of increase in mattering.¹² Multiple studies have replicated these findings, noting that lower feelings of mattering are strongly associated with a sense of worthlessness and greater insecurity.¹³

¹⁰ Moschella and Banyard, "Short Measures of Interpersonal and University Mattering."

¹¹ DeForge et al., "Personal Resources and Homelessness in Early Life."

¹² Lewis and Taylor, "THE SOCIAL SIGNIFICANCE OF RELIGIOUS RESOURCES IN THE PREDICTION OF MATTERING TO OTHERS."

¹³ Elliott, Colangelo, and Gelles, "Mattering and Suicide Ideation"; Flett, Khan, and Su, "Mattering and Psychological Well-Being in College and University Students"; Lewis and Taylor, "THE SOCIAL SIGNIFICANCE OF RELIGIOUS

Academic Performance and Satisfaction

Beyond improving psychological well-being, mattering is strongly correlated to academic achievement and degree satisfaction. Schlossberg (1989) measured college students' feelings of mattering to the university and respective faculty and their academic performance, academic stress, and motivation to learn. They noted that lower feelings of mattering correlated strongly with poorer academic performance, greater academic stress, and less motivation to learn.¹⁴ A critique of this study, however, noted the small sample size and lack of standardized measures. Following these findings, France and Finney (2010) conducted an extensive study with 259 participants who completed standardized measures of mattering, academic self-efficacy, attitudes toward learning, help-seeking attitudes, and student worry. They found significant associations between university mattering and academic self-efficacy, social anxiety, and orientation toward help-seeking behaviors. Stronger university mattering was associated with high self-efficacy, lower social anxiety, and less help-seeking behaviors.¹⁵

Promote Mattering

Because mattering has been defined as an influential factor in overall student well-being, academic achievement, and academic satisfaction, it is important that universities find methods to promote feelings of mattering in their students. Much of mattering has been correlated with institutional factors of the classroom, such as class size, course discipline, and perceived faculty support and empathetic understanding.¹⁶ Tovar, Simon, and Fujimaki (2008) found that students'

RESOURCES IN THE PREDICTION OF MATTERING TO OTHERS"; Moschella and Banyard, "Short Measures of Interpersonal and University Mattering."

¹⁴ Schlossberg, "Marginality and Mattering."

¹⁵ France and Finney, "Conceptualization and Utility of University Mattering."

¹⁶ Flett, Khan, and Su, "Mattering and Psychological Well-Being in College and University Students"; Moschella and Banyard, "Short Measures of Interpersonal and University Mattering"; Rayle and Chung, "Revisiting First-Year College Students' Mattering"; Schlossberg, "Marginality and Mattering."

perception of mattering is enhanced by the quantity and quality of interactions they have with individuals at the institution, specifically their instructors. Some scholars have suggested that student-professor interactions can become more frequent through smaller class sizes.¹⁷

Additionally, some research notes how the course's subject may impact students' perceived ability to connect with their professor and peers.¹⁸

Class Size and Mattering

College-level courses are typically categorized by size as seminars or lectures. During lectures, professors provide many students with an introduction to a topic, often highlighting the broad, key aspects of that topic. Lectures typically have relaxed attendance policies and a reliance on office hours to communicate directly with one's professor.¹⁹ Seminars, however, allow a small number of students to explore a topic in depth and in the context of one's prior knowledge and experiences through group discussions between their peers and instructor(s). Seminars typically have stricter attendance policies and allow students to work directly with their instructors.²⁰

While class size is known to impact a student's mattering experience, studies have directly researched it. Student testimonies have been a vital part of the discussion on this topic. Many students have reported that their seminar courses created an environment in which they could bond and 'get to know' their peers and instructors on an individual and personal basis.²¹

¹⁷ Fiksdal, *A Guide to Teaching Effective Seminars*; Marshall et al., "Sense of Belonging and First-Year Academic Literacy"; Townsend and Wilson, "The Academic and Social Integration of Persisting Community College Transfer Students"; Gray Davies and Dickmann, "STUDENT VOICES IN THE TRANSFER PROCESS."

¹⁸ Stivers, "Reflections on the Role of Personal Narrative in Social Science *Telling Lies in Modern American Autobiography* . Timothy Dow Adams <i>Jessie Bernard"; Chan, "Being an English Major, Being a Humanities Student"; Evans, "Teaching the Humanities"; Salazar et al., "Marginality and Mattering"; Muindi, Ramachandran, and Tsai, "Human Narratives in Science."

¹⁹ Bligh, "What's the Use of Lectures?"

²⁰ Fiksdal, *A Guide to Teaching Effective Seminars*.

²¹ Marshall et al., "Sense of Belonging and First-Year Academic Literacy."

Additionally, students in smaller sized classes often noted that they were able to work closely with their instructors, often reporting a greater increase in feelings of mattering.²² In large class sizes, however, many students reported feeling that no one knew who they were and that this anonymity in lectures was overwhelming. Because of this anonymity, there was a lack of interactions between students and professors, resulting in a lack of indication of who was invested in how they were truly doing.²³

The size of a class is not enough to determine whether one will feel as though they matter and belong in their courses. Within these same studies, some students mentioned that their small class sizes perpetuated their lack of belonging, exacerbating preexisting cultural divides and differences. These students reported a lack of connection with their instructor and a lack of confidence in their ability to engage with the course material.²⁴

Course Subject and Mattering

Course discipline has been suggested to impact students' experiences of mattering in the classroom, possibly mediating the quality of interactions students have with their professors. Course disciplines have not been directly compared against each other, but they have been independently studied in relation to fostering mattering, expressing student identity, and incorporating personal narratives.

Mattering in relation to class subject has been most extensively studied in the STEM fields, specifically the natural sciences and mathematics. Throughout these studies, researchers highlight students' feelings of disconnect between their peers and instructors, inability to express

²² Townsend and Wilson, "The Academic and Social Integration of Persisting Community College Transfer Students."

²³ France and Finney, "Conceptualization and Utility of University Mattering"; Gray Davies and Dickmann, "STUDENT VOICES IN THE TRANSFER PROCESS."

²⁴ Fiksdal, *A Guide to Teaching Effective Seminars*; Marshall et al., "Sense of Belonging and First-Year Academic Literacy."

their identities and narratives, and academic and personal inadequacy. STEM courses are predominantly lecture-based courses with a small-group component, such as labs, office hours, or group discussion sections. While these small groups are often used as a means to cultivate belongingness and meaningful student-instructor relationships, these groups have low attendance rates overall, with women and low-income students particularly attending less often.²⁵ Recent research has studied how to include students' individual narratives into their science courses. The incorporation of students' identities and narratives into their science courses was shown to increase student engagement with their course work, interest in scientific research, and feelings of belonging and mattering in their science courses. This was particularly impactful for women and minorities.²⁶ These studies have highlighted the inherent lack of individual narratives and interpersonal narratives present in STEM courses.

Compared to the literature on STEM courses, humanities courses seem to inherently foster a strong sense of mattering and belonging. Humanities courses have less literature on increasing students' feelings of mattering in the classroom, but researchers have highlighted the manner in which student identity is inherently important in these courses. Humanities courses are typically seminars and rely on students using prior experiences to facilitate learning.²⁷ Some studies have noted these courses strongly depend on their ability to translate into students' daily lives and experiences.²⁸ The lack of research on increasing student mattering and belonging within humanities courses, as well as the findings that student identity and narrative are directly related to humanities courses, suggests that the humanities discipline may be better suited to develop student mattering compared to their STEM counterparts.

²⁵ Salazar et al., "Marginality and Mattering."

²⁶ Muindi, Ramachandran, and Tsai, "Human Narratives in Science."

²⁷ Evans, "Teaching the Humanities."

²⁸ Chan, "Being an English Major, Being a Humanities Student."

The relationship between student mattering and social science courses is highly understudied in comparison to STEM and humanities courses. One of the few review articles discussing social science courses in relation to mattering researched the manner in which personal narratives are inherently tied to the study of social sciences. They noted that social science courses seem to be tied deeply to personal narratives, and the removal of them would directly hinder students' experiences of learning and mattering.²⁹

Student-Professor Relationships

Many individuals are influential in students' experiences of mattering such as college deans and peers. However, research has shown that professors are one of the key characters in signaling to students that they matter in the classroom, to the academic institution, and to academia as a whole. Therefore, I am focusing solely on the students' perceptions of mattering in relation to their professors.

Recent studies have suggested that the quality of professor-student relationships in the classroom is highly influential to the mattering experience of students. Schriver and Kulynych (2021) collected standardized measures of student mattering and professor-student rapport. They noted a strong relationship between the professor-student relationship and reported mattering as well as academic performance.³⁰ Another study noted that a strong instructor-student relationship creates a transformative space in which students feel supported; affirmed in their professional, academic and personal capabilities; and cared about by their professor and institution.³¹

Other studies have noted the importance of instructors being responsive to students' identities and needs, acknowledging the impact these factors could have on the student's

²⁹ Stivers, "Reflections on the Role of Personal Narrative in Social Science *Telling Lies in Modern American Autobiography* . Timothy Dow Adams <i>Jessie Bernard."

³⁰ Schriver and Harr Kulynych, "Do Professor–Student Rapport and Mattering Predict College Student Outcomes?"

³¹ Gillespie, "Student-Teacher Connection."

academic and personal experiences.³² Barnett (2006; 2011), conducted insightful studies researching how the student-professor relationship was impactful to student outcomes.³³ They used student reports and measured the instructor's use of caring instruction, appreciation for diversity, and mentoring to measure the extent to which students felt valued by the instructor's actions. These studies found that students who felt known and valued by their instructor had greater academic persistence and academic self-efficacy.³⁴

Faculty Perceptions of Mattering

The mattering literature has a deficit of studies detailing the faculties' perspectives. One of the few studies conducted was by Pychyl and collaborators (2023). They conducted interviews with 12 professors who were recognized for their teaching excellence in which they gauged the professor's perceptions of mattering in their own self-reported beliefs and attitudes as well as the teaching practices they employed to convey to students that students matter. All of the professors agreed in their belief that students deserve to feel as though they matter and purposefully altered their pedagogy to convey this. Common practices included treating students as individuals who are collaborators, showing students they care about them as students and individuals, and avoiding practices that result in students becoming disengaged and disillusioned.³⁵ Other studies have supported these findings, noting that teachers want to provide students with a caring environment and intentionally alter their curriculum and pedagogy in an attempt to accomplish this.³⁶

³² Hurtado, Ruiz Alvarado, and Guillermo-Wann, "Creating Inclusive Environments."

³³ Barnett, "Validating Experiences and Persistence Among Urban Community College Students"; Barnett, "Validation Experiences and Persistence among Community College Students."

³⁴ Swanson and Cole, "The Role of Academic Validation in Developing Mattering and Academic Success."

³⁵ Pychyl et al., "Faculty Perceptions of Mattering in Teaching and Learning."

³⁶ van Uden, Ritzen, and Pieters, "I Think I Can Engage My Students. Teachers' Perceptions of Student Engagement and Their Beliefs about Being a Teacher."

While there is a need for more quantitative research on this aspect of mattering, these professors desired to cultivate an environment in the classroom that promotes student mattering and engagement. Additionally, since these professors were recognized for their teaching excellence, it also shows that generating student mattering is a common factor in their pedagogical practices.

Research Question & Scope

Research Question

Fostering a sense of mattering in the classroom is known to improve students' academic performance, academic satisfaction, and psychological well-being. Multiple factors have been shown to be highly influential in fostering a student's sense of mattering such as the professors in the classroom, the size of the class, and the course's discipline. Therefore, this capstone is exploring the extent to which Yale students feel as though they matter due to the actions of their instructors in relation to the class's size and discipline. My research question is: When and to what extent do Yale students feel as though they matter to their professors in the classroom?

Scope

This study surveyed undergraduates at Yale University about their experiences with their professors within the classroom. It focused only on the student's perceptions of their professors within the classroom, a focus that minimized the complicated and robust mattering experiences students undergo. Additionally, this study did not directly research the actions professors are taking to foster mattering in the classroom, only the environmental factors surrounding students' experiences of mattering in the classroom. The nature of Yale University as a private, liberal arts school may also impact the generalizability of this study. While these findings may be generalizable to other institutions, further research is needed to determine their replicability.

Finally, these findings demonstrate only students' feelings of mattering in the classroom and do not determine attributes of the curriculum, institution, or professor that generate those feelings, nor does it properly exemplify the efforts professors make to promote mattering.

Additionally, due to the nature of this project and my ability, my analysis will be limited. I will be analyzing only how mattering experiences (overall, by class size, and by course subject) is associated with binary demographics (i.e., financial aid status). Due to time constraints and lack of analysis experience, I will not be performing analysis on demographic questions with multiple levels such as race and class year.

Methodology

Participants

Yale undergraduate students were recruited to complete an electronic survey (see survey outline at the end). Eligible students included undergraduate students who were enrolled in Yale courses in the Spring and Fall of 2022 and were over the age of 18. For this study, IRB exemption and participant consent were obtained before data was collected.

This study utilized a convenience sampling and snowball sampling technique, using flyers, tabling, and student-based email solicitations to recruit participants. Participants were predominantly recruited through student-based email solicitations such as student clubs and organizations, residential colleges, and majors and certification programs. Participants answered a survey about their mattering experiences at Yale (see Appendix A). A total of 78 students completed the survey, but participants who were not enrolled in both the 2022 Spring and 2022 Fall semesters were excluded from this study (12), and those who did not complete the survey were excluded from the study (14). This resulted in a total of 52 participants whose responses were used for analysis. Demographics of the sample are shown in Table 1.

Procedure

The manner in which mattering has been measured throughout the literature varies. The two most common tools used to measure mattering are the General Mattering Scale and the Mattering Index. Both instruments ask individuals a set of questions using a Likert-type scale. The survey used in this study was informed by these prior metrics.

Students completed an online survey in which they were asked to reflect on their experiences of mattering in their courses during the Spring and Fall semesters of 2022. Participants were provided with a broad definition of mattering to contextualize the experience of mattering. The extent to which students felt as though they mattered was measured through a 3-point Likert-type scale (not mattering, somewhat mattering, fully mattering). They were asked to report the extent to which they felt as though they mattered to their instructors in these courses in relation to the course's size (seminar or lecture) and discipline (STEM, humanities, or social sciences). Additionally, they were asked to report how important they thought it was to foster mattering in the classroom. Finally, students completed demographic questions and were provided the opportunity to elaborate upon their experiences and responses.

Analysis

Participants reported the total number of classes they took and the number in which they felt like they fully, somewhat, or did not matter to their instructors by the categories discussed above. Their numeric responses were transformed into fractions for analysis (i.e., if a student reported that they felt as though they somewhat mattered in 2 of their 4 lecture courses, this was transformed into $\frac{1}{2}$). Then, responses were averaged. The degree to which students found it important for mattering to be fostered in the classroom was rated on a 1-5 scale, with 1

representing “Extremely Important” and 5 representing “Not at all Important”. Reported importance for mattering to be fostered by instructors in the classroom was simply averaged.

For additional analysis, linear models were used to find the association between certain demographic data and participants’ reported feelings of fully mattering and not mattering at all. Specifically, first-generation low-income (FGLI) status, association with the LGBTQ community, and financial aid status. Since this study had an overwhelming number of feminine and domestic students, gender and international status were not included in this analysis.

Results

Overall Mattering

On average, the students surveyed reported feeling as though they mattered fully in 46.86% in all of their classes, somewhat in 29.1%, and not at all in 21.99% (see Figure 1). No significant association between any of the demographic metrics and students’ feelings of mattering fully was found. There was a significant association between students’ FGLI status and not mattering ($b = 0.28$, $SE = 0.06$, $t(42) = -4.5$, $p < 0.001$) with FGLI students ($M = 0.35$, $SE = 0.22$) feeling as though they do not matter to their instructors in significantly more classes compared to non-FGLI students ($M = 0.15$, $SE = 0.21$).

Mattering by Class Size

Lectures

On average, students reported feeling as though they mattered strongly in 32.2% of their lecture classes, somewhat in 34.5%, and not at all in 34.5% (see Figure 2).

A significant association was found between participants’ FGLI status and feelings of strongly mattering in their lectures ($b = 0.24$, $SE = 0.11$, $t(40) = 2.11$, $p > 0.5$). FGLI students ($M = 0.2$, $SD = 0.16$) reported feeling as though they strongly mattered in significantly fewer lecture

courses than their counterparts ($M = 0.36$, $SD = 0.39$). There was also a significant association between participants' feelings of not mattering in their lectures and FGLI status ($b = -0.43$, $SE = 0.11$, $t(42) = -4$, $p < 0.001$), with FGLI students ($M = 0.54$, $SD = 0.35$) reporting feeling as though they did not matter in significantly more lecture courses than non-FGLI students ($M = 0.26$, $SD = 0.36$).

Seminars

In seminar courses, students on average reported feeling as though they mattered strongly in 57.28%, somewhat in 30%, and not at all in 12.7% (see Figure 3).

A significant association was found between students' feelings of fully mattering in their seminar courses and their financial aid status ($b = 0.21$, $SE = 0.1$, $t(39) = 2.11$, $p < 0.05$) and identification with the LGBTQ community ($b = 0.22$, $SE = 0.11$, $t(39) = 2.03$, $p < 0.05$). Participants not receiving financial aid ($M = 0.7$, $SD = 0.33$) reported feeling as though they fully mattered in significantly more seminar classes compared to students receiving financial aid ($M = 0.51$, $SD = 0.29$). Students who identified as being LGBTQ ($M = 0.62$, $SD = 0.28$) reported feeling as though they mattered fully in significantly more classes compared to those who did not identify with the LGBTQ community ($M = 0.54$, $SD = 0.35$).

FGLI status was significantly associated with feelings of not mattering in students' seminar courses ($b = -0.3$, $SE = 0.1$, $t(19) = -3.03$, $p < 0.01$). Students who identified as FGLI ($M = 0.18$, $SD = 0.15$) reported feeling as though they did not matter in significantly more classes than their counterparts ($M = 0.07$, $SD = 0.14$).

Mattering by Course Discipline

Humanities

On average, students reported feeling as though they mattered strongly in 61.8% of their humanities courses, somewhat in 26%, and not at all in 12.2% (see Figure 4).

There were no significant associations between students' demographics and the extent to which they felt as though they mattered to their instructors in their humanities courses.

Social Science

Students reported feeling as though they mattered strongly to their instructors in 48.75% of their social science courses, somewhat in 25.3% of these courses, and not at all in 19% of these courses (see Figure 5).

Students' financial aid status was significantly associated with feelings of fully mattering in these courses ($b = -0.36$, $SE = 0.17$, $t(19) = -2.13$, $p < 0.05$). Students who received financial aid ($M = 0.48$, $SD = 0.37$) reported feeling as though they fully mattered in significantly more of their social science courses compared to those who did not receive financial aid ($M = 0.17$, $SD = 0.26$).

Students' feelings of not mattering in their social science courses were significantly associated with students' FGLI status ($b = -0.3$, $SE = 0.1$, $t(19) = -3.03$, $p < 0.05$). Students who identified as FGLI ($M = 0.32$, $SD = 0.27$) reported feeling as though they did not matter in significantly more courses compared to their counterparts ($M = 0.16$, $SD = 0.34$).

STEM

In STEM courses, students reported feeling as though they mattered fully in 46.4% of these classes, somewhat in 29.34%, and not at all in 18.4% (see Figure 6).

Students' feelings of mattering fully to their STEM instructors were significantly associated with FGLI status ($b = 0.4$, $SE = 0.12$, $t(29) = 3.41$, $p < 0.01$) and identification with the LGBTQ community ($b = -0.32$, $SE = 0.1$, $t(29) = -3.11$, $p < 0.01$). Non-FGLI students ($M =$

0.53, SD = 0.4) reported feeling as though they fully mattered in significantly more classes than their FGLI counterparts (M = 0.27, SD = 0.19). LGBTQ students (M = 0.52, SD = 0.38) reported feeling as though they mattered fully in more of their STEM courses compared to their peers (M = 0.34, SD = 0.33).

There was a significant association between students' feelings of not mattering in their classes and students' FGLI status ($b = -0.3$, $SE = 0.12$, $t(29) = -2.5$, $p < 0.05$), LGBTQ identification ($b = 0.27$, $SE = 0.11$, $t(29) = 2.6$, $p < 0.05$), and year ($b = 0.17$, $SE = 0.07$, $t(29) = 2.57$, $p < 0.05$). FGLI students (M = 0.31, SD = 0.34) report feeling as though they do not matter to their instructors in their STEM courses significantly more than their non-FGLI peers (M = 0.12, SD = 0.29). LGBTQ students (M = 0.16, SD = 0.32) report feeling as though they do matter in significantly less STEM courses than their counterparts (M = 0.23, SD = 0.33).

Importance of Mattering

On average, students reported finding mattering to be moderately or very important (M = 2.85, SD = 0.6) with no participants stating that they believed fostering mattering was "Not at all Important" or just "Slightly Important."

Discussion

Previous research has established the importance of fostering mattering in the classroom, leading to effects such as better academic performance and student well-being. This literature has also established that professors are a key factor in a student's mattering experience.

This project sought to better understand whether, when, and to what extent Yale students felt as though they mattered to their instructors in their courses. I surveyed Yale students who were enrolled in the Fall and Spring of 2022 about the extent to which they felt as though they mattered to their instructors. These survey questions were categorized by class size (seminar and

lecture) and course subject (humanities, social science, and STEM). These findings were then further analyzed to better understand how student background - financial aid status, association with the LGBTQ community, and FGLI identification - was associated with the extent to which they felt as though they mattered to their instructors.

Overall Mattering

Participants reported feeling as though they fully mattered to their instructors in less than half of their courses and reported feeling as though they did not matter at all in nearly a quarter of their courses. This supports previous research that notes classrooms typically lack an environment that makes students feel as though they matter,³⁷ and that the student-instructor relationship may be a primary point of intervention.³⁸ One factor that this study found to influence this was the students' status as a first-generation, low-income (FGLI) student. Students who identified as FGLI reported feeling as though they did not matter in significantly more of their courses - twice as many classes as non-FGLI participants. Previous research has noted that first-generation, low-income students typically experience weaker feelings of belonging³⁹ and have greater difficulty navigating interactions with their professors,⁴⁰ possibly contributing to this finding. Additionally, students' perceptions of Yale as an Ivy League institution may be particularly intimidating to FGLI students, but further research would be needed to understand this finding.

³⁷ Elliott, Colangelo, and Gelles, "Mattering and Suicide Ideation"; Flett, Khan, and Su, "Mattering and Psychological Well-Being in College and University Students"; Lewis and Taylor, "THE SOCIAL SIGNIFICANCE OF RELIGIOUS RESOURCES IN THE PREDICTION OF MATTERING TO OTHERS"; Moschella and Banyard, "Short Measures of Interpersonal and University Mattering."

³⁸ Schriver and Harr Kulynych, "Do Professor-Student Rapport and Mattering Predict College Student Outcomes?"; Gillespie, "Student-Teacher Connection"; Barnett, "Validation Experiences and Persistence among Community College Students"; Barnett, "Validating Experiences and Persistence Among Urban Community College Students"; Hurtado, Ruiz Alvarado, and Guillermo-Wann, "Creating Inclusive Environments."

³⁹ Ostrove, Stewart, and Curtain, "Social Class and Belonging: Implications for Graduate Students' Career Aspirations"; Walton and Cohen, "A Question of Belonging."

⁴⁰ Schlossberg, "Marginality and Mattering."

Class size

Less than a third of students felt as though they fully mattered in lecture courses, while over half of students felt as though they fully mattered in their seminar courses. This finding appears to support previous research noting that lecture courses do not inherently foster frequent interactions between students and instructors.⁴¹ Without frequent interactions, students would be unable to develop a sense of mattering to their instructors. Additionally, lectures have been found to make students feel overwhelmed by their anonymity.⁴² However, my sample was predominantly female. Studies have found that women particularly experience a lack of mattering and belonging within lectures.⁴³ Therefore, the composition of this sample could be perpetuating this disparity.

Students' affiliation with the LGBTQ community significantly influenced the extent to which students experienced mattering in their seminar courses. These students expressed that they felt they mattered fully in more of these classes. This could be due to seminar courses allowing more dialogue between professors and students.⁴⁴ Alternatively, since students choose which classes to take, LGBTQ students may be choosing classes that focus on their identities and experiences. This selection bias could be confounding and inflating this result. Finally, there could also be something inherent about Yale seminar courses that allow students to feel safe expressing their LGBTQ identities.

⁴¹ Fiksdal, *A Guide to Teaching Effective Seminars*; Marshall et al., "Sense of Belonging and First-Year Academic Literacy"; Townsend and Wilson, "The Academic and Social Integration of Persisting Community College Transfer Students"; Gray Davies and Dickmann, "STUDENT VOICES IN THE TRANSFER PROCESS."

⁴² France and Finney, "Conceptualization and Utility of University Mattering"; Gray Davies and Dickmann, "STUDENT VOICES IN THE TRANSFER PROCESS."

⁴³ Salazar et al., "Marginality and Mattering."

⁴⁴ Townsend and Wilson, "The Academic and Social Integration of Persisting Community College Transfer Students"; Marshall et al., "Sense of Belonging and First-Year Academic Literacy."

Finally, FGLI students reported feeling as though they did not matter in significantly more classes for both seminars and lecture courses compared to their peers. This result could be due to them reporting feeling as though they did not matter in more classes overall, as discussed previously. This finding could also elaborate upon the difficulties FGLI students face when navigating interactions with instructors. For example, FGLI students have been found to experience more intimidation and discomfort in navigating conversations with their instructors.⁴⁵

Participants who received financial aid also reported feeling as though they did not matter in significantly more seminar classes than did their peers who did not receive financial aid. This finding could be due to low-income students typically lack a strong sense of belonging and mattering.⁴⁶ Seminar courses have been known to perpetuate these feelings of not belonging and mattering because seminars acknowledge their status as lower-income students more directly in these courses.⁴⁷ This result may be influencing the extent to which low-income and FGLI students feel as though they matter in their seminar class.

Class Subject

Students reported feeling as though they mattered fully in nearly two-thirds of their humanities courses. Compared to social science and STEM courses, students felt they mattered more fully in their humanities courses. Since these courses tend to incorporate student narratives and identities, these courses may be creating an environment that inherently fosters a stronger sense of mattering. Additionally, the lack of associations between students' experiences of mattering in their humanities courses and their demographics may support the suggestion that

⁴⁵ Ostrove, Stewart, and Curtain, "Social Class and Belonging: Implications for Graduate Students' Career Aspirations"; Duran et al., "A Critical Quantitative Analysis of Students' Sense of Belonging"; Schlossberg, "Marginality and Mattering."

⁴⁶ Salazar et al., "Marginality and Mattering."

⁴⁷ Fiksdal, *A Guide to Teaching Effective Seminars*; Marshall et al., "Sense of Belonging and First-Year Academic Literacy."

humanities courses inherently foster mattering. Alternatively, this result could be another example of selection bias in which students are opting for humanities courses that focus on their identity or personhood.

In social science courses, students who received financial aid reported feeling as though they mattered fully to their instructors in more of these courses than their peers who do not receive financial aid. While social science courses have typically been overlooked in belonging and mattering research, they have been shown to typically integrate personal narratives and environments. Therefore, these courses may inherently acknowledge some of the factors impacting lower-income students. Alternatively, students who receive financial aid may be opting into social science courses that focus on experiences typically shared by these students. However, FGLI students reported feeling as though they did not matter in significantly more of these courses. This result may be due to these classes acknowledging the experiences of lower-income students but not those of being first-generation college students.

Overall, students expressed weaker feelings of mattering to their instructors in their STEM courses. This lack of mattering was disproportionately represented in FGLI students. This supports previous research that FGLI students likely have difficulty navigating interactions with their instructors and generally have weaker feelings of belonging and mattering.⁴⁸ Additionally, LGBTQ students reported feeling as though they mattered fully in significantly more of these courses compared to their peers. This could suggest that there is something particular about the classroom environment in STEM classes at Yale that fosters greater feelings of mattering in these students. However, this finding would directly contradict previous findings that LGBTQ

⁴⁸ Schlossberg, "Marginality and Mattering"; Duran et al., "A Critical Quantitative Analysis of Students' Sense of Belonging"; Ostrove, Stewart, and Curtin, "Social Class and Belonging: Implications for Graduate Students' Career Aspirations."

students often feel disregarded, or even targeted due to their identification with the LGBTQ community.⁴⁹ Therefore, it is also possible that these findings are skewed by my sample population. Since I have close proximity to many STEM communities and LGBTQ spaces, it is possible that these individuals are disproportionately represented in my sample.

Implications

These findings suggest that Yale students do not feel as though they matter strongly, if at all, in many of their classes (include findings about importance). However, something about seminar and humanities classes seems to contribute to developing students' senses of mattering to their instructors. As policies and programs continue to be made to foster a classroom environment where students feel as though they belong and matter, there is a need for further research analyzing what factors currently promote student mattering, such as those present in seminar and humanities courses. Additionally, as students who identify as FGLI seem to experience weaker feelings of mattering, this population should be targeted in future research. As Yale continues to recruit a diverse student population, it is not only vital that Yale research students' mattering experiences overall, but also by their individual identities. From this research, it is clear that there is a deficit in student mattering that is aligned with student identity. It is important for the institution to acknowledge these experiences to promote student well-being, academic motivation, and achievement.

Limitations

This study provided a very rudimentary and limited look into the mattering experience of Yale students. This study used a simple survey to measure students' extent of mattering. By asking questions about students' perceptions of mattering to their instructors, this study severely

⁴⁹ Galliher, Rostosky, and Hughes, "School Belonging, Self-Esteem, and Depressive Symptoms in Adolescents."

simplifies students' mattering experiences. Additionally, the definition of mattering used in this survey was abstract, allowing participants to superimpose their own definitions. This likely caused participants to respond differently based on their interpretation of what it means to matter. While the survey questions were made with prior metrics in mind, they did not systematically measure participants' feelings of mattering, thereby further increasing the likelihood of different interpretations.

Additionally, this study did not control for how students' perceptions of a professor or class as "easy" or "likable" influenced these findings. Since mattering is a subjective experience, it is likely that these factors could influence how students experience mattering and how they perceive their professors' interactions. Additionally, this study did not account for courses that students dropped, which may underrepresent the extent to which students felt as though they did not matter. Future research needs to explore how perceptions of classes and professors may impact students' feelings of mattering, as well as include students' experiences in classes they may not have fully completed.

Participants for this study were recruited primarily through the use of Yale-student email lists, such as those for extracurricular clubs. While tabling and flyers were used to extend the population that could be reached, many of the participants came from these email lists. Therefore, this sample may be biased toward certain kinds of students. Additionally, the participant demographics of this study do not represent the general Yale population. Therefore, this study may better reflect the experiences of female students at Yale instead of the entire Yale student body. This limits the generalizability of these findings to other Yale students and college students as a whole.

Finally, the categorization of students as being low-income was made through their financial aid status. While receiving financial support from Yale could be perceived as being lower-class, there is no income cutoff for financial aid. In 2022, students whose families made above 250,000 were awarded on average 50% financial aid assistance.⁵⁰ Therefore, many students who receive financial aid may not qualify as low-income

Conclusion

Research has demonstrated the need for students to feel as though they matter to their instructors. Professors maintain a unique relationship with their students and are a vital part of students' maturing experiences. Yale continues to create programs and initiatives to promote inclusivity, student well-being, and multiple avenues of support. Many of these initiatives focus on fostering student belonging, which is a necessary prerequisite to cultivating student maturing, but these programs do not acknowledge the individualized experiences and interactions students have. While my methods provide only a sliver of the entire story, this project has begun to explore when professors make students feel as though they matter, are acknowledged, and are important. As student mental health continues to steeply decline, it is vital that Yale University and other institutions begin focusing on how to foster an environment that promotes student well-being and subsequently student maturing. As research continues to exemplify how this can be fostered, it is important that we also begin implementing ways to train and support professors to take on these necessary but strenuous responsibilities.

⁵⁰ Yale University, Yale Admissions, "Affordability: The Details."

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Tables & Figures

Table 1

Baseline Characteristic	Total	Percentage
Gender/Pronouns		
She/her/hers	30	58%
He/Him/His	6	12%
They/Them	8	15%
Other	4	8%
Prefer not to say	4	8%
Race		
Black/African American	3	6%
Asian	10	19%
White	20	38%
American Native/Alaska Native	0	0%
Native Hawaiian/Other Pacific Islander	0	0%
Prefer not to say	2	4%
Other	2	4%
Multiracial	15	29%
Year		
Sophomore	12	23%
Junior	9	17%
Senior	29	56%
Prefer not to say	2	4%
LGBTQ		
Yes	25	48%
No	25	48%
Prefer not to say	2	4%
FGLI		
Yes	17	33%
No	33	63%
Prefer not to say	2	4%
International Status		
Yes	4	8%
No	46	88%
Prefer not to say	2	4%
Financial Aid Status		
Yes	34	65%
No	14	27%
Prefer not to say	4	8%

Figure 1

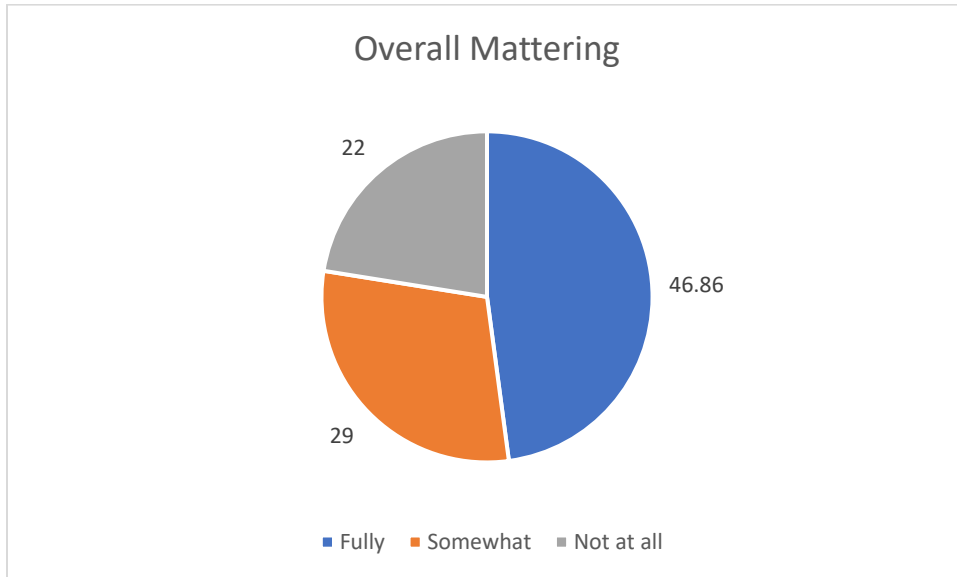


Figure 2

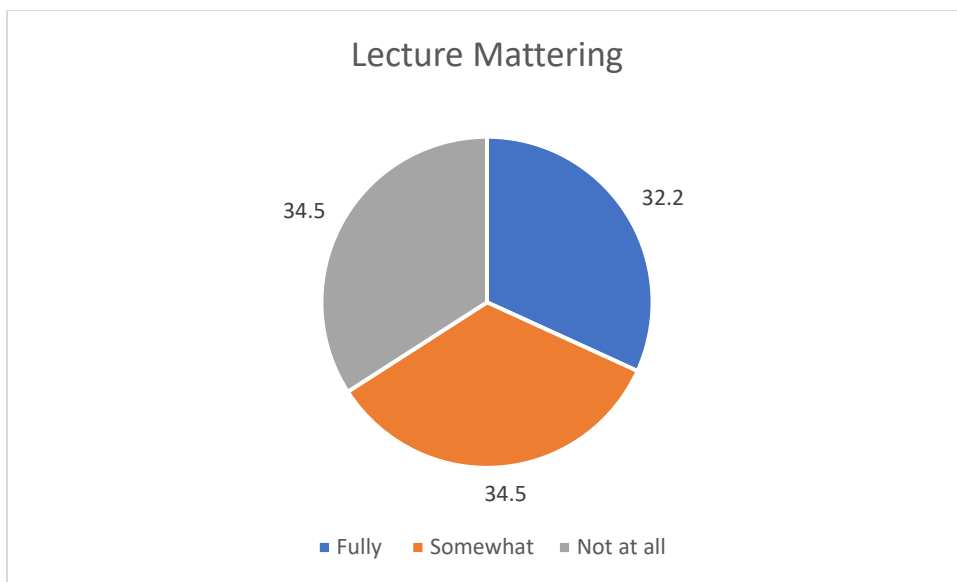


Figure 3

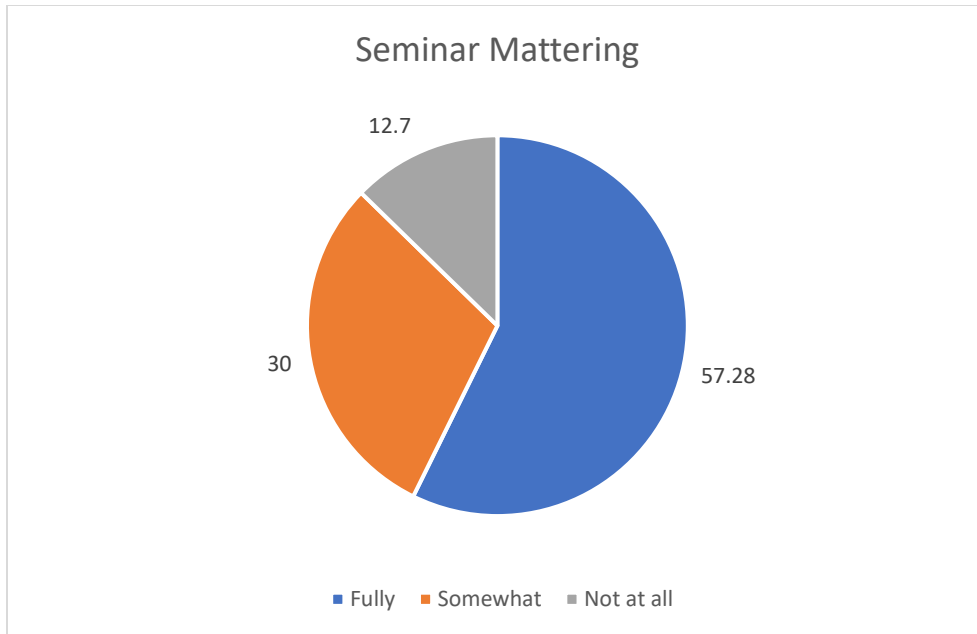


Figure 4

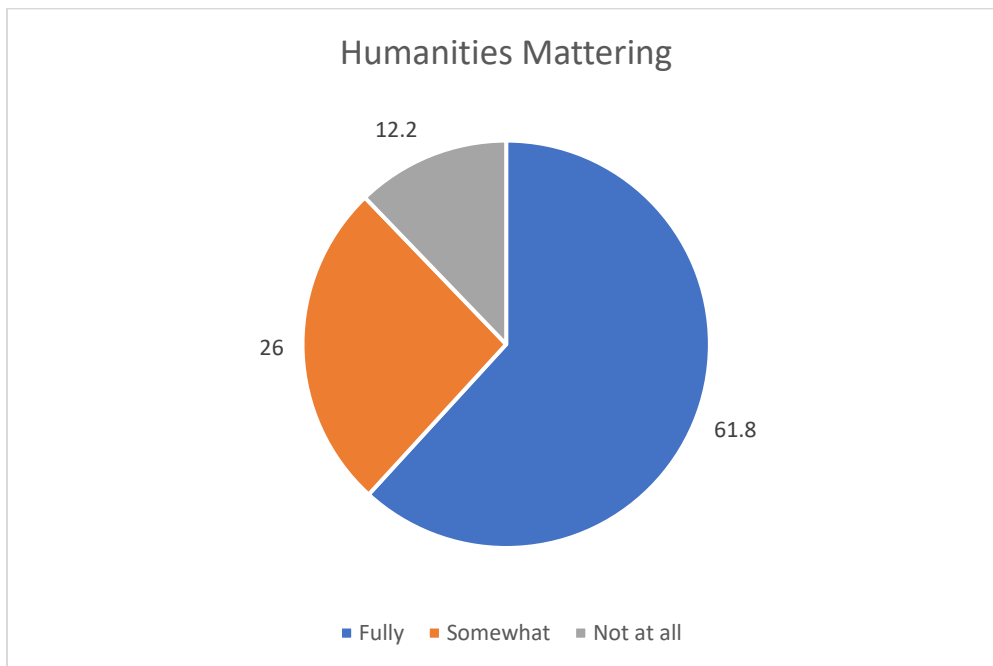


Figure 5

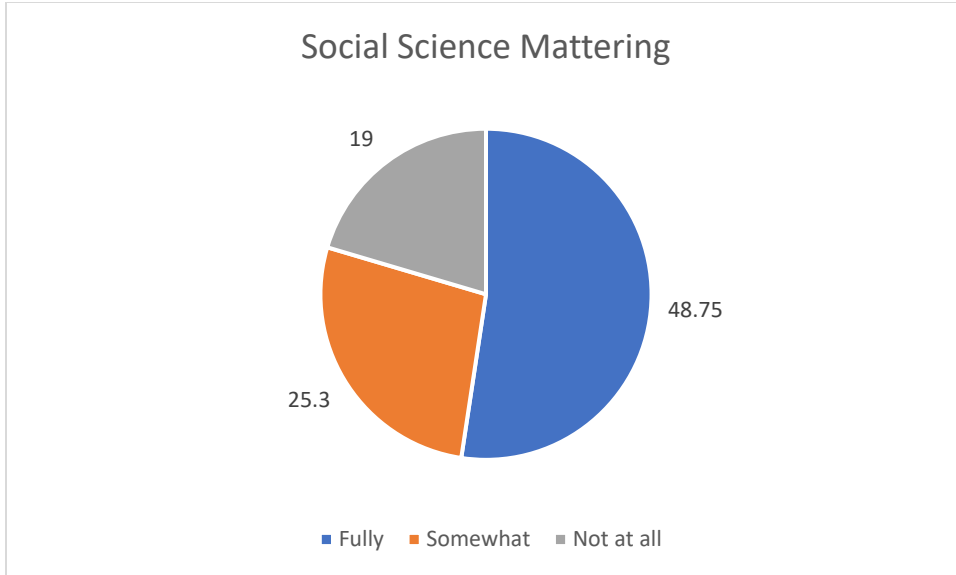
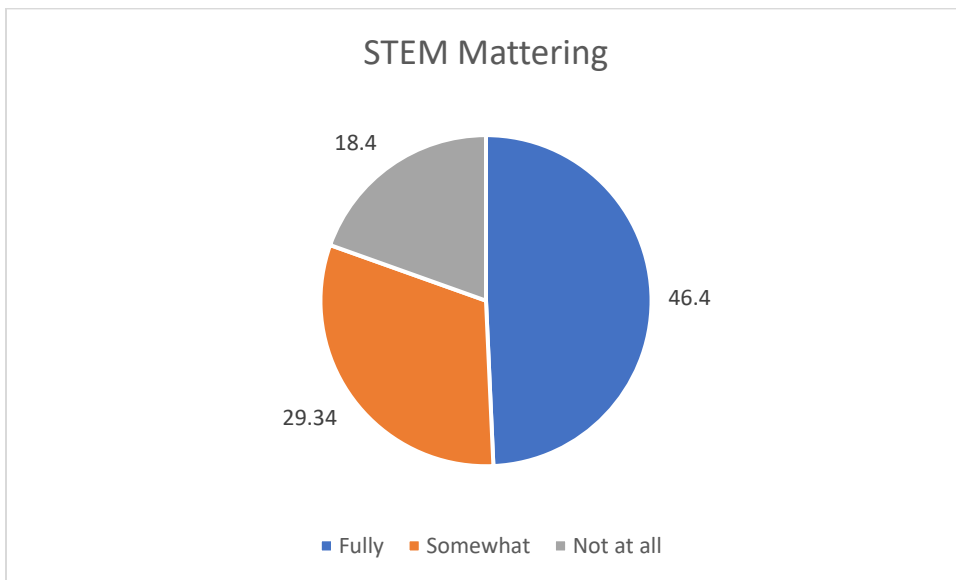


Figure 6



Appendix A

Introduction to Survey

This study seeks to better understand how, when and whether Yale undergraduate students experience “mattering” to their instructors in the classroom. Specifically, I am researching what the underlying conditions are, such as course discipline and size, that create strong relationships between students and their instructors.

Study activities include answering questions about when and whether you have felt as though you mattered to your instructors. This study will take approximately 10-15 minutes to complete. There may be some risks from participating in this study, such as feeling discomfort reflecting on your experiences. This study may have no benefits to you, but this study will help Yale better understand whether and when students feel as though they matter to their instructors and promote more research about this.

Taking part in this study is your choice. You can choose to take part or you can choose not to take part in this study. You may also change your mind at any time.

All of your responses will be anonymous, and no identifying information will be collected.

To participate, please complete this short survey about your experiences at Yale University in the classroom. Your responses will be recorded, but this survey will not collect any identifying information.

If you have any questions, please contact me at janice.dean@yale.edu or 1(606)671-0648. If you have any questions about my research, you can contact the [Yale University Human Subjects Committee](#), human.subjects@yale.edu.

By completing this survey, you are consenting to participate in this study.

This survey takes an estimated 10-15 minutes to complete. By completing this survey, you are consenting to participate in this study.

(Qualtrics 2nd frame)

Eligibility

1. Are you 18 years of age or older?
 - a. Yes/No
2. Are you a current Yale sophomore, junior, or senior?
 - a. Sophomore/junior/senior

(Qualtrics 3rd frame)

Mattering

This section will ask you to think about the courses that you have taken in the last two semesters and when you felt that you mattered to your professors. Your level of mattering can be thought of as:

- Feeling that you strongly mattered to your instructor (when you were *regularly* acknowledged, cared about, recognized, and known by your instructor)

- Feeling that you somewhat mattered to your instructor (that you were *sometimes* acknowledged, cared about, recognized, and known by your instructor)
- Or feeling that you didn't matter to your instructor (you did not have these kinds of experiences)

While this idea of mattering labels specific experiences, mattering is based on each individual's perception, so experiences may be different for each person.

With this general definition in mind, the following survey questions ask you to reflect on your classroom experiences at Yale.

1. Over the last two semesters (Spring 2022, Fall 2022), how many courses have you completed?
 - a. Please list them.
2. How many of these courses were lectures?
 - a. In how many of those courses did you feel that you:
 - i. Strongly mattered to your instructor?
 - ii. Somewhat mattered to your instructor?
 - iii. Did not matter to your instructor?
3. How many of these courses were seminars?
 - b. In how many of those courses did you feel that you:
 - i. Strongly mattered to your instructor?
 - ii. Somewhat mattered to your instructor?
 - iii. Did not matter to your instructor?
4. How many of these courses were in the humanities?
 - c. In how many of those courses did you feel that you:
 - i. Strongly mattered to your instructor?
 - ii. Somewhat mattered to your instructor?
 - iii. Did not matter to your instructor?
5. How many of these courses were in the social sciences?
 - d. In how many of those courses did you feel that you:
 - i. Strongly mattered to your instructor?
 - ii. Somewhat mattered to your instructor?
 - iii. Did not matter to your instructor?
6. How many of these courses were in the STEM field?
 - e. In how many of those courses did you feel that you:
 - i. Strongly mattered to your instructor?
 - ii. Somewhat mattered to your instructor?
 - iii. Did not matter to your instructor?

(Qualtrics 4th frame)

Closing Questions

1. Reflecting on your responses, for the courses in which you strongly matter do you see any patterns?

2. How important is mattering in the classroom to your experience as a learner?
 - a. 1-5, 5 being most important
3. Please add ideas/stories you want to share about how mattering in a classroom impacts your experience as a learner?

(Qualtrics 5th frame)

Participant Background

The following section asks some demographic questions about your background. This allows me to share data about the diversity of my sample of Yale students without giving any individual identifying details.

1. What is your Major?
2. Residential college?
 - a. Ben Franklin; Berkeley; Branford; Davenport; Ezra Stiles; Grace Hopper; Johnathan Edwards; Morse; Pauli Murray; Pierson; Saybrook; Silliman; Timothy Dwight; Trumbull
3. Preferred pronouns?
 - a. She/her; he/him; they/them; other: ___
4. How would you describe your racial and ethnic identity? Check all that apply
 - a. White; Black or African American; American Indian or Alaska Native; Asian; Native Hawaiian or Other Pacific Islander; Hispanic or Latino; Other:___; Prefer not to say
5. Do you identify with the LGBTQ+ community?
 - a. Yes/no
6. Are you an international student?
 - a. Yes/No
7. Are you on financial aid?
 - a. Yes/No
8. Do you identify as FGLI (first-generation and/or low-income)?
 - a. Yes/No

End of Survey