

# Bridging the Silos: Memory as Conceptual Binder in Teaching and Research across a Large Public University

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Received: May 6, 2026

Accepted: June 13, 2026

Online Published: June 16, 2026

doi:10.5430/ijhe.v15n3p66

URL: <https://doi.org/10.5430/ijhe.v15n3p66>

## Abstract

This convergent mixed-methods study examines a case for a bottom-up approach to identifying key areas for inter- and trans-disciplinary research at a large R1 university. The study of memory, broadly defined, was the key concept explored across faculty research and teaching. Survey data were collected from 347 faculty respondents. Quantitative analyses examined whether disciplinary background and career stage predicted self-reported engagement with memory, while qualitative coding of open-ended responses identified disciplinary and collective forms of memory use. Regression results indicated that faculty in the humanities and arts reported significantly higher engagement with memory in both teaching and research. However, qualitative findings showed that faculty across disciplinary areas described practices involving temporality, disciplinary history, change over time, and socially situated understandings of the past, even when they did not explicitly name these practices as memory work. Findings suggest that memory may function as a latent conceptual bridge across disciplinary teaching and research, while also revealing how disciplinary vocabularies shape whether faculty recognize and articulate shared concepts.

**Keywords:** higher education, disciplinary memory, collective memory, collaboration

## 1. Introduction

The silos established in higher education frequently point to overly specialized research dependent on specialized vocabulary that can be opaque to those not steeped in a particular field (Sibbald, Peirson, & Boyko, 2015; Soledad Norton, Sonetti, & Sarrica, 2022; Vienni-Baptista & Pohl, 2024). Research institutions have invested in initiatives to help break through these silos and realize the generative potential of interdisciplinary research, but the extent to which research and teaching are siloed in departments, programs, and disciplines (Soledad Norton et al., 2022; Tett, 2016; Vienni-Baptista & Pohl, 2024) remains fraught. One way to bridge such silos is to research the concepts that faculty may use across disciplines. For several decades, the concept of “memory” has been used as an interdisciplinary connector across a wide range of disciplines, from the natural and social sciences, the humanities, and the arts (Brown, Gutman, Freeman, Sodaro, & Coman, 2009). The identification and acknowledgment of the interdisciplinary interest in memory centers around “memory studies.” This relatively new interdisciplinary field has experienced growth across a number of disciplines, particularly in the past fifteen years (Olick, Sierp, & Wüstenberg, 2023). That growth has been institutionalized through various mechanisms, such as the Memory Studies Association, and a premier journal, *Memory Studies* (Olick et al., 2023).

Memory is often considered to be the property of individuals and their minds. Memory is a crucial resource in cognitive practices, forming not only a body of information but also a horizon of expectation (Reich, 2026). In the early twentieth century sociologists began to think about the ways in which memory has social and cultural dimensions as well (Halbwachs, 1925/1980). We can see these dimensions in memory studies, which uses intellectual strands from a variety of different disciplines to explore how social groups mediate individuals’ memory of past events. The act of collective remembering, a process that involves discussion across experiences as opposed to a particular area of expertise, can reveal commonalities across groups (Wertsch & Roediger, 2008).

Integrated views of teaching and research increase the impact and responsiveness of higher education institutions to student needs (Kedracka and Rotidi, 2017), yet siloed approaches to curriculum-development and research are most common and often lead to redundancies and missed collaborative opportunities (Kirwan, Bhatti, Pacey, Gray, & Dean, 2022). Here, we answer the calls like this and those by Olick et al. (2023) to “break down the boundaries of what have become conventional frameworks for memory studies by opening dialogues with other established

enterprises” (p. 1401). In this article, we explore how faculty across a large research university use the concept of memory in their teaching and research, and consider how uses of memory may be a centering point that encourages interdisciplinarity.

### *1.1 Context*

This research took place at a large, public and urban-serving university, seeking to encourage transdisciplinary innovation that addresses societal challenges in the city in which it is located. The university’s strategic goals focus on enabling researchers and educators to collaborate across disciplines, and with community partners. This includes encouraging faculty to innovate together, and to build a collaborative research culture with an eye towards impact locally and beyond.

Before this research was conducted, the university engaged in several projects that sought to connect researchers, instructors, and students across the silos that can isolate them. One such project assigns an annually selected book to be read by all incoming first year college students. These books bring people together to discuss issues and lay the groundwork for opportunities to collectively solve some of the biggest problems of our time. As part of this initiative, the university encourages faculty, staff and students to read the book and to participate in a series of programs aimed at teaching, research and community connections. As one example, a recent selection centered around a podcast series that examined how societies across the globe confront their difficult histories, leading to discussions about how to frame complex social issues interdisciplinarily. This program is emblematic of the investments that universities make to create opportunities to engage across disciplines and contexts.

Many attempts to forge connections between researchers in diverse fields begin with administrators who sponsor events like those described above, or identify a particular funding opportunity and invite potential team members to collaborate. This article reports on a bottom-up effort to assess the extent to which a concept - memory –is being addressed in teaching and research across the university. Academic fields tend to adopt disciplinary memory, or a portrait of what a specific discipline knows based on its histories, adopted theories, and foundational knowledge (Roediger & Wertsch, 2008; Vienni-Baptista & Pohl, 2024). Disciplinary memory shapes scholarly identity and can act to reinforce intellectual boundaries and limit interdisciplinary collaboration that is necessary to address many complex societal challenges. By contrast, collective memory is a term that describes the ways in which representations of past life are shared and sustained by social groups (Reich, 2026; Wertsch, 2009). The shared knowledge inherent in collective memory can help to explain why the past is framed differently by racial and political social groups. Those differences impact community engaged work in various areas, such as medical initiatives, the arts, humanities, social science, and education. Collective memory provides a framework for understanding how representations of past life mediate people’s perception of, for example, the care that they can expect to receive at the university hospital, or how they feel about social science researchers engaging with local institutions.

The authors are members of a Memory Studies Lab, aimed at examining and engaging with local and global memory studies through an interdisciplinary research approach. This consortium represents disciplines such as history, political science, education, comparative literature, paleo-anthropology, and urban planning. One practice we have engaged in as an interdisciplinary group is to begin each year with a discussion of the key conceptual pieces on memory informed by different disciplines (see Assmann & Czaplicka, 1995; Harvey, 2003/2005; Morrison, 1993; Nora, 1989; Olick et al., 2023; Ross, 2010; Savage, 1997; Wertsch, 2021). Our research explores the extent to which memory, as a metaphor for how social groups retain and lose information about the past, has come to preoccupy scholars from a broader range of fields, including medicine and the natural sciences. In the course of our work in the Memory Studies Lab, generative discussions about the differences between approaches inspired the following research questions.

RQ1: What are the approaches to memory within our university?

RQ2: To what extent is memory, as a conceptual framework, employed by researchers and teachers across our institution?

This study contributes to higher education research by examining how disciplinary and epistemological backgrounds shape the language that faculty use, and how that language affects recognition of shared conceptual work across teaching and research. In addition to how interdisciplinarity is employed as an administrative structure, or as curricula initiatives, we examine whether a shared concept, memory, appears across faculty work in different disciplines. As a result, this study offers empirical insights for how institutions might identify latent conceptual connections that might support interdisciplinary collaboration in teaching and research.

## 2. Method

To explore how memory as a conceptual framework lives in research and teaching practices across a large research university, we investigated how faculty at a large urban public university on the East Coast engage with memory in their teaching and research. At this university, there is a main campus serving both undergraduate and graduate students in schools and departments in arts, education, social work, government and public affairs, engineering, business, and humanities and sciences, and a medical campus with undergraduate, graduate, and professional training in public health, dentistry, pharmacy, medicine, and health professions. More than 28,000 undergraduate and graduate students are enrolled in over 200 degree programs at the university. The university employs approximately 2,400 full-time faculty. For this study, all full-time and active adjunct faculty were invited to participate.

We opted for a mixed-method design as the subject of our research question – memory – is interdisciplinary by its nature, and thus difficult to capture singularly with just qualitative or quantitative work. We employed a convergent parallel mixed-method design, where both quantitative and qualitative data were collected simultaneously, and then results from each paradigm were used to interrogate findings from each strand. A convergent parallel mixed-method design reveals a more complete understanding of the observed relationship between the studied phenomenon through comparison, confirmation or disconfirmation of findings in each paradigmatic strand. Due to differences in epistemic traditions from each analytic strand, mixed-method approaches to data collection and analysis help address paradigmatic weaknesses inherent to solely qualitative or quantitative approaches (Creswell & Plano-Clark, 2019). For a depiction of the study design see Figure 1.

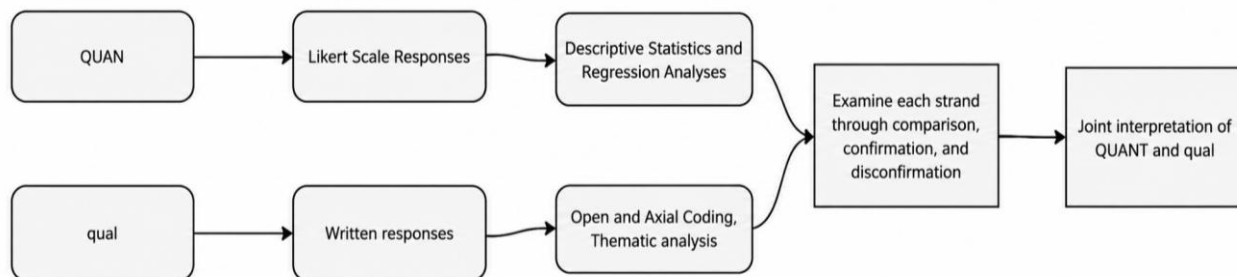


Figure 1. Convergent Parallel Mixed-Method Design

Note. QUAN refers to quantitative evaluation and qual refers to qualitative methods.

To capture participants' experience with memory in their scholarship and teaching with this mixed-methods approach, we designed an online survey instrument to identify and examine where the idea of memory is salient as a tool for faculty conducting research and teaching at our university. The survey was reviewed and approved by the university Institutional Review Board. The survey protocol was then designed in REDCap, a university-sponsored secured web application for building and managing surveys. It was deployed by the university Survey Evaluation Research Lab (SERL) and sent to faculty members across career stage, type, and discipline (n=3,291).

Respondents were asked to self-report their disciplinary background from a drop-down menu including the following categories: Applied Sciences, Arts, Engineering, Humanities, Mathematics, Medical, Natural Sciences, and Social Sciences. They were further asked to identify their Career Stage (Early, 1-8 years; Mid, 9-16 years; Late, 17+ years), whether they were full-time or adjunct, and with which university campus they were affiliated. The survey featured 5-point Likert scale questions to capture the degree to which faculty engage memory in their teaching and research. The survey also featured follow up open-ended questions which prompted respondents to describe how they use memory in their teaching or research. See Appendix A for the survey prompts.

Homogeneous convenience sampling (Jager, Putnick, & Bornstein, 2017) was used to recruit faculty members from the main and medical campuses of a single university. Homogeneity was defined at the institutional level (shared employment context), while disciplinary background and career stage provided analytic variation. Participants were recruited via institutional email and invited to complete a brief REDCap survey; respondents were eligible to enter a raffle for a \$40 gift card. The survey was distributed to 3,291 faculty email accounts over a three-week period during the 2024 academic year, yielding 347 responses (10.5% response rate). Four cases were excluded as complete nonresponses across all items. Two partially completed surveys were retained in the analytic sample. Because of item-level missingness, the analytic sample varied slightly across analyses; descriptive and regression analyses used all available cases for each outcome.

### 2.1 Quantitative Analysis

Descriptive statistics were conducted to examine the frequency of several categories (disciplinary background, faculty type, career level, etc). Contingency tables were created to examine faculty use of memory in research and teaching by disciplinary background. Following descriptive analyses, ordinary least squares (OLS) linear regression analyses were conducted to investigate whether career level (“Early, 1-8 years”, “Mid, 9-16 years”, and “Late, 17+ years”) and disciplinary background (“Applied Sciences”, “Arts”, “Engineering”, “Humanities”, “Mathematics”, “Medical”, “Natural Sciences” and “Social Sciences”) predicted faculty use of memory in their teaching and research (“never”, “slightly”, “moderately”, “very”, “extremely”). Applied Sciences was selected as the reference category because it provided a theoretically meaningful comparison with disciplines in which memory is more often explicitly framed through historical, cultural, social, or interpretive epistemologies. Given the relatively small size of the Applied Sciences subgroup, discipline-level comparisons are interpreted cautiously.

We initially estimated ordinal logistic regressions; however, the Brant omnibus test indicated violations of the proportional odds assumption. Inspection of category distributions suggested that disciplinary differences were not uniform across response thresholds, with stronger differentiation emerging at higher levels of the outcome scale. Because the outcome was a five-category Likert-type measure conceptualized as reflecting an underlying continuous construct, the variable was treated as approximately continuous and analyzed using linear regression. This is a common approach in educational research when proportional odds assumptions are not satisfied (Norman, 2010; Rhemtulla, 2012). The direction and magnitude of disciplinary effects were consistent between ordinal and linear models, supporting the robustness of the findings. Because group sizes differed substantially across disciplinary categories, models were estimated with HC3 robust standard errors as a conservative approach; the results from the models were substantively consistent with conventional standard errors.

Diagnostic tests indicated no evidence of multicollinearity: all adjusted GVIFs were approximately 1.00. Because predictors were entered as categorical indicators, no linearity assumption check between predictor values and the outcome was required. Visual inspection of Q-Q plots and residual distributions indicated no substantial deviations from normality. Examination of Cook’s distances indicated no influential observations exceeding conventional thresholds. Observations were treated as independent.

### 2.2 Qualitative Analysis

To analyze participant qualitative responses we opted to utilize constant comparative analysis (Glaser & Strauss, 1967). In constant comparative analysis, data are constantly compared against other data points to elicit analytic codes and categorizations. The data were uploaded to Atlas Ti.Web (version 9.24.1), and first descriptively coded by one of the authors; these descriptive codes were created using the respondents’ Likert scale responses, and the specific question the respondent was responding to (e.g., the descriptive code *slight\_recog\_teaching* was applied to respondents who wrote a response for the teaching question, but who also responded with “slightly” on the Likert response). This was done to organize the written responses by 1) which question they were answering (e.g., research or teaching), and 2) the level of Likert response.

Following the descriptive coding each author was assigned a descriptive code group to inductively code the qualitative responses. Corbin and Strauss (2015) describe this process as Open Coding, where any unit of data that is relevant is tagged for discussion. In this process, we coded and discussed responses to the research and teaching questions separately. Authors wrote comments on written responses that merited special attention and discussion with the larger group. Once each author had worked through their descriptive code group, meetings were held to discuss findings, emergent themes, and to create and define analytic codes. This iterative process of refinement and re-refinement is described by Corbin and Strauss (2015) as Axial Coding, where open codes were grouped and analytic codes emerged through comparison across open codes. Coding disagreements were resolved through deliberation and refinement of our coding definitions. Through this process, we reached agreement on our analytic codes and definitions and made sure that our codes were applied consistently across written responses. One strength of these meetings was that each of the authors approached the data with different disciplinary backgrounds (paleo-archaeology, urban planning, and education). These differences led to robust discussions about patterns in the data and helped the team examine how memory was articulated across different disciplines.

### 2.3 Mixed-Method Integration

A strength of mixed-method research is in how integration of the data nuances and reveals new findings that might otherwise be obscured by each individual paradigm. In this study, the integration process utilized participant written responses to reexamine quantitative responses; written responses were analyzed, coded, and examined against

participant Likert responses to reveal instances of friction and confirmation. Participant responses were tagged with the analytic codes *social\_use\_of\_memory* and *disciplinary\_use\_of\_memory* to capture instances where they utilized memory in this manner. These analytic codes were dichotomized, and then contingency tables were constructed to examine the distribution of responses by disciplinary background.

#### 2.4 Limitations

We approach these findings with several limitations in mind. First, the study relied on convenience sampling; participation was voluntary and participant responses may reflect a greater interest in memory. Convenience sampling may also account for why certain disciplines, such as the Applied Sciences, Engineering, and Mathematics groups reported lower subgroup sizes. In addition, the open-ended survey responses were brief and could not provide the depth that interviews or focus groups might offer. Lastly, our findings should not be interpreted as generalizable to all other institutions. The convergent-mixed method design is an explanatory design meant to explore specific contexts, not to generalize to other institutions. Future research across multiple settings would help clarify the patterns we explore here.

### 3. Results

#### 3.1 Quantitative Analysis

##### 3.1.1 Descriptive Statistics

Survey respondents reported their discipline area from eight options in a drop-down menu (Table 1). Social Sciences (28%) and Medical (25%) were the highest reported areas, while Engineering (3%), Applied Sciences (4%) and Mathematics (4%) were the least reported.

Table 1. Distribution of Participants by Self-Reported Disciplinary Background

Disciplinary background	Number of occurrences	Percent of total
Applied Sciences	13	4%
Arts	38	11%
Engineering	11	3%
Humanities	50	15%
Mathematics	13	4%
Medical	86	25%
Natural Sciences	35	10%
Social Sciences	97	28%
Total	343	100%

To better understand the university context of respondents, we collected information about employee career level (Table 2). Respondents were well represented across the early career (24%), mid-career (31%) and late career (46%) stages. Most of the respondents were full-time faculty members (85%), while the remainder of respondents reported being part-time adjunct faculty (15%).

Table 2. Distribution of Participants by Career Level

Career level	Number of occurrences	Percent of total
Early (1–8 years)	81	24%
Mid (9–16 years)	106	31%
Late (17+ years)	156	46%
Total	343	100%

Survey respondents were asked to rank their use of memory in their research and teaching on a 5-point Likert scale. Contingency tables were then constructed to examine the relationship between disciplinary background and their self-reported use of memory in teaching (Table 3) and research (Table 4).

Table 3. Likert Responses for Memory Use in Teaching by Disciplinary Background (Row Percentages)

Disciplinary background	Not at all	Slightly	Moderately	Very	Extremely	Total
Applied S.	1 (7.7%)	3 (23.1%)	5 (38.5%)	3 (23.1%)	1 (7.7%)	13
Arts	2 (5.3%)	1 (2.6%)	9 (23.7%)	11 (28.9%)	15 (39.5%)	38
Engineering	2 (18.2%)	1 (9.1%)	1 (9.1%)	5 (45.5%)	2 (18.2%)	11
Humanities	3 (6.1%)	0 (0.0%)	2 (4.1%)	17 (34.7%)	28 (57.1%)	49
Mathematics	4 (33.3%)	3 (25.0%)	0 (0.0%)	3 (25.0%)	2 (16.7%)	12
Medical	13 (15.1%)	17 (19.8%)	26 (30.2%)	13 (15.1%)	17 (19.8%)	86
Natural S.	12 (34.3%)	9 (25.7%)	4 (11.4%)	3 (8.6%)	7 (20.0%)	35
Social S.	11 (11.3%)	11 (11.3%)	20 (20.6%)	33 (34.0%)	22 (22.7%)	97
Total	48 (14.1%)	45 (13.2%)	67 (19.6%)	88 (25.8%)	93 (27.3%)	341

Note. Values represent frequencies and row percentages. Responses were measured on a 5-point Likert-type scale ranging from 1 = not at all to 5 = extremely. Applied S. = Applied Sciences; Natural S. = Natural Sciences; Social S. = Social Sciences.

Table 4. Likert Responses for Memory Use in Research by Disciplinary Background (Row Percentages)

Disciplinary background	Not at all	Slightly	Moderately	Very	Extremely	Total
Applied S.	1 (7.7%)	3 (23.1%)	4 (30.8%)	3 (23.1%)	2 (15.4%)	13
Arts	3 (7.9%)	1 (2.6%)	6 (15.8%)	9 (23.7%)	19 (50.0%)	38
Engineering	4 (36.4%)	0 (0.0%)	2 (18.2%)	2 (18.2%)	3 (27.3%)	11
Humanities	4 (8.0%)	0 (0.0%)	10 (20.0%)	14 (28.0%)	22 (44.0%)	50
Mathematics	4 (30.8%)	1 (7.7%)	3 (23.1%)	5 (38.5%)	0 (0.0%)	13
Medical	14 (16.3%)	16 (18.6%)	14 (16.3%)	23 (26.7%)	19 (22.1%)	86
Natural S.	7 (20.0%)	7 (20.0%)	8 (22.9%)	8 (22.9%)	5 (14.3%)	35
Social S.	4 (4.1%)	8 (8.2%)	7 (7.2%)	36 (37.1%)	44 (45.4%)	97
Total	41 (12.0%)	34 (9.9%)	54 (15.7%)	100 (29.2%)	114 (33.2%)	343

Note. Values represent frequencies and row percentages. Responses were measured on a 5-point Likert-type scale ranging from 1 = not at all to 5 = extremely. Applied S. = Applied Sciences; Natural S. = Natural Sciences; Social S. = Social Sciences.

### 3.1.2 Regression Analysis - Research

A linear regression was conducted to examine how disciplinary background and career level predicted faculty use of memory in research. Using applied sciences as the reference discipline, faculty in the humanities ( $B = 1.03$ , robust  $SE = 0.39$ ,  $p = .008$ ) and arts ( $B = 0.96$ , robust  $SE = 0.40$ ,  $p = .017$ ) reported significantly higher levels of memory use in research. The medical, engineering, mathematics, natural sciences, and social science disciplines did not differ significantly from applied sciences. Controlling for disciplinary background, mid-career faculty reported a

significantly lower engagement with memory in research than early-career faculty ( $B = -0.40$ , robust  $SE = 0.19$ ,  $p = .042$ ) (see Table 5).

Table 5. Linear Regression Predicting Faculty Memory Use in Research From Career Level and Disciplinary Background (Robust HC3 Standard Errors) (Applied Sciences = Reference Discipline; Early Career = Reference Level)

Predictor	B	Robust SE	t	p
Intercept	3.24	0.38	8.59	< .001
Career level				
Late (17+ years)	-0.05	0.18	-0.25	.801
Mid (9–16 years)	-0.40	0.19	-2.04	.042*
Disciplinary background				
Arts	0.96	0.40	2.41	.017*
Engineering	-0.14	0.60	-0.23	.818
Humanities	1.03	0.39	2.65	.008**
Mathematics	-0.60	0.54	-1.12	.265
Medical	-0.73	0.39	-1.86	.064
Natural Sciences	-0.42	0.45	-0.93	.354
Social Sciences	0.33	0.38	0.88	.377

Note. Unstandardized coefficients are reported. Outcome treated as approximately continuous (1–5 Likert scale). Robust HC3 standard errors were used to account for potential heteroskedasticity. Reference categories were early career and applied sciences. Model fit statistics are based on the original OLS model:  $F(9, 332) = 9.46$ ,  $p < .001$ ,  $R^2 = .20$ , adjusted  $R^2 = .18$ .  $p < .05^*$ ,  $p < .01^{**}$ ,  $p < .001^{***}$ .

### 3.1.3 Regression Analysis - Teaching

A linear regression was conducted to examine how disciplinary background and career level predicted faculty use of memory in teaching. Using applied sciences as the reference discipline, faculty in the humanities ( $B = 1.30$ , robust  $SE = 0.35$ ,  $p < .001$ ) and arts ( $B = 0.90$ , robust  $SE = 0.36$ ,  $p = .014$ ) reported significantly higher levels of memory use in teaching. Differences between applied sciences and engineering, mathematics, medical disciplines, natural sciences, and social sciences were not statistically significant. Career stage was not a significant predictor of memory use in teaching, as neither mid-career nor late-career faculty differed from early-career faculty after controlling for disciplinary background. Overall, the pattern suggests that disciplinary orientation, rather than years of experience, was more strongly associated with how faculty reported memory use in their teaching practices (see Table 6).

Table 6. Linear Regression Predicting Faculty Memory Use in Teaching From Career Level and Disciplinary Background (HC3 Robust Standard Errors) (Applied Sciences = Reference Discipline; Early Career = Reference Level)

Predictor	B	Robust SE	t	p
Intercept	3.02	0.33	9.27	< .001
Career level				
Late (17+ years)	0.14	0.18	0.78	.435
Mid (9–16 years)	−0.12	0.18	−0.64	.523
Disciplinary background				
Arts	0.90	0.36	2.48	.014*
Engineering	0.29	0.55	0.52	.603
Humanities	1.30	0.35	3.75	< .001***
Mathematics	−0.38	0.58	−0.65	.518
Medical	−0.03	0.35	−0.09	.925
Natural Sciences	−0.47	0.41	−1.14	.257
Social Sciences	0.41	0.34	1.21	.227

Note. Unstandardized coefficients are reported. Outcome treated as approximately continuous (1–5 Likert scale). Robust HC3 standard errors were used to account for potential heteroskedasticity. Reference categories were early career and applied sciences. Model fit statistics are based on the original OLS model:  $F(9, 332) = 6.75$ ,  $p < .001$ ,  $R^2 = .15$ , adjusted  $R^2 = .13$ .  $p < .05^*$ ,  $p < .01^{**}$ ,  $p < .001^{***}$ .

### 3.2 Qualitative Analysis

This section is organized by types of memory, showcasing examples from the survey data that illustrate themes arising from the analysis. The questionnaire asked respondents: “How does your teaching engage remembering the past or recognition of change over time? The qualitative analysis of the brief written responses identified two major ways in which respondents discussed the use of memory in their teaching and research: a disciplinary focus and a socio-cultural/ collective focus.” In teaching, responses coded for having a disciplinary focus tended to discuss either the course material that they hoped students would “remember” or they discussed the importance of teaching students the history of the discipline and/or the development of key ideas and research techniques associated with it ( $n=155$ ). Respondents who framed their response around socio-cultural/collective forms of memory discussed the importance of teaching students that the disciplinary knowledge that emerges from scholarship has real-world implications for different social groups ( $n=59$ ). In answers to the question about the use of memory in their research, the majority of respondents discussed memory in relation to building knowledge in their field ( $n=193$ ). A smaller group discussed memory in relation to the production of knowledge that is connected to social groups, group membership, society, the public, and/or some type of collective outside of academia. First, we describe the findings related to disciplinary memory in both university teaching and research. Then we outline the key findings specific to how collective memory is used in research and teaching practices. See Appendix B for the counts and definitions of our analytic codes.

#### 3.2.1 Disciplinary Memory in Teaching

The largest group of respondents ( $n=155$ ) discussed the use of memory in their teaching in relation to their specific disciplines. They did so by discussing the importance of the history of their field and the development of disciplinary methods, findings, and theories. Those mentions took several forms such as discussing memory in terms of knowledge of the development of the discipline over time, and knowledge of change over time as the subject of their discipline. The following quotes from our data set illustrate this common concern among many of our respondents.

For the respondents that were coded with disciplinary memory in teaching, we found that they often discussed familiarizing their students with the history of their profession, with a focus on how this history might affect the future of student practice. One respondent noted: *“I teach policy analysis, and understanding the historical roots of social welfare policy, as well as how attitudes, knowledge, and political environments change over time is essential for learning how to be an effective advocate.”* (Mid-Career 9-16 years, Social Sciences). A late-career professor of dentistry discussed how current practice builds on past practice teleologically: *“... research and training plus current dental school training techniques combine to deliver ‘Evidence (and Experience)- based Dentistry’”* (Late Career, 17+ years, Medical).

Respondents whose primary responsibilities are clinical, often wrote about the individuals they treat and the ways in which pathologies develop over time. The following quote captures this trend: *“Discussing changes in medical therapeutics over time are often topics of discussion. Also discussion of patient histories and disease trajectory.”* (Late, 17+ years, Medical). Similarly, a late-career professor in the marketing program explained why knowledge about the past is essential for practitioners:

*In the world of digital marketing, the rapid influence of changing technology impacts what we purchase and how we communicate to our target market. If we do not evolve in the marketplace, as things change, the impact on our business and organization is detrimental.* (Late Career 17+, Social Sciences)

For others, knowledge of the past is the subject of their teaching. This concern does not only apply to history instructors, but emerges in other disciplines, such as social work. The following quote, from a late career social scientist, illustrates that perspective:

*I teach research methods and statistics classes to social work students, so we do use research to look at social trends over time, as well as how to use research to evaluate treatment effectiveness (which involves looking at how a client has changed over time based on an intervention or lack of intervention).* (Late Career, 17+, Social Sciences)

Across these examples, instructors framed knowledge of the past—disciplinary histories, practitioner techniques, and broader social contexts—as essential to novice learning. According to these respondents, to be effective in the present, students need a grasp of the origins and development of the core concepts of the discipline. We understand this as a disciplinary memory, a body of knowledge that members of the social group, in this case people trained in a particular discipline, share as part of their membership in that group.

### 3.2.2 Disciplinary Memory in Research

Of the survey responses related to research, the largest group of respondents (n=193) were coded for “Disciplinary Memory in Research.” For survey responses coded as disciplinary memory in research, respondents often discussed memory in their discipline as an awareness of how their disciplinary methods came to be, and how these methods influence current practices. For example, one respondent noted:

*Digital marketing requires that we research new and evolutionary methods of connecting with our target market and understanding where we’ve been, what methods are fruitful and how we can evolve to connect with the marketplace.* (Late-Career 17+, Social Sciences)

Another respondent noted the following:

*Remembering and comparing past and modern approaches and techniques, as well as recognizing the future impact of high performance computing in the era of gen AI is a big part of my everyday job.* (Mid-Career 9-16 years, Natural Sciences)

In these instances disciplinary memory acts as a reference point to the present, a pathway to current methods and ways of conducting research. For faculty in the sciences, disciplinary memory was instrumental not only in executing proper conduct, but because memory of the discipline existed within the larger community and affected current research practices. For example one respondent noted:

*Addressing historical injustices, including a legacy of unethical medical treatment and experimentation, is extremely relevant to informing current prevention approaches and reaching communities today.* (Mid-Career, 9-16, Applied Sciences)

For others within this code group, such as those within the humanities and social sciences, memory was described as an integral aspect of their disciplinary practices. Sometimes respondents noted that the connection between memory and their disciplinary practices were obvious, and should be overt to those outside their profession. For example one respondent simply noted: *“It’s core to the discipline of History”* (Late-Career, 17+ years, Humanities). When asked how their research engaged remembering the past or change over time the same respondent simply noted *“Again:*

*Historian*” (Late-Career, 17+ years, Humanities). Others were more explicit about how memory is used within their discipline. For example, one respondent noted: “*We ask students to remember places they have been, things they have seen, and how events made them feel. They use these memories to create art.*” (Late-Career, 17+ years, Arts). Similarly, another respondent noted “*Part of studying systems change in education includes studying history and how historical context influences current policy decisions*” (Early-Career, 1-8 years, Social Science).

### 3.2.3 Collective Memory in Teaching

A smaller group (n= 59) of respondents went beyond disciplinary memory to write about memory as something that exists beyond the individual. We coded these instances as collective memory because they speak to a broader, socio-cultural form of memory rather than the ways that memory might inform specific disciplinary practice. For many of these respondents, teaching with collective memory focused on how shared beliefs and narratives are used by social groups to construct an understanding of the past. For example, one respondent noted:

*I teach policy analysis, and understanding the historical roots of social welfare policy, as well as how attitudes, knowledge, and political environments change over time is essential for learning how to be an effective advocate.* (Mid-Career, 9-16, Social Sciences)

Similarly, another respondent stated that their teaching attended to “*Remembering the past in terms of social movements and history over time, as well as recognition of change over time in the self*” (Early-Career, 1-8 years, Social Sciences)

These examples outline a trend that was common in disciplines which were oriented towards exploration of the past, such as history and social science. For others, collective memory was an orienting tool to help their students make sense of and navigate the present. For example, one respondent noted

*You have to teach about what has happened in the past in order to understand where we are now (whether that's looking at the New Deal initiatives and how Reagan really messed all that up, or the types of direct action that have been successful in shifting/stifling empires that would be useful in our long-term strategizing today).* (Mid-Career, 9-16, Social Sciences)

Another respondent noted:

*I do several case studies and show movies that go over historic microbiology events, their impact on society, and whether or not society has changed since these events. For example, the flu pandemic of 1919 or how covid has impacted poliovirus vaccination efforts.* (Mid-Career, 9-16, Applied Sciences)

Lastly, a small portion of respondents sought to disrupt student understanding of the past, and its influence on the present by questioning how collective memory is moderated by the social contexts of the present. One respondent noted:

*I try to show students how our ideas of the past and how we choose to 'remember' it are all constructs of our present lived experiences...There is no singular, monolithic idea of the past or history; rather, there are changing ideas on the past and the histories written about it.* (Mid-Career, 9-16 years, Arts)

Another respondent discussed how memory can exist in the form of invisible assumptions which act on the present:

*Social data embeds a lot of assumptions about society, such as the recent change in Census-recommended racial demographics. Some of my teaching includes discussing how social assumptions get 'baked in' to data and other records and information, and how that data becomes an invisible social record of assumptions about society.* (Mid-Career, 9-16, Social Sciences)

### 3.2.4 Collective Memory in Research

Another subset of the coded responses (n= 61) were categorized with the collective memory in research analytic code. These responses went beyond how memory pertains to specific faculty disciplines, to discuss how memory affects research within a larger socio-cultural context. As a result these responses tapped into a larger, and shared memory beyond the confines of the academy. Some disciplines were by their nature more attuned to this broader socio-cultural memory (e.g. social science, and humanities). For example, one respondent noted:

*“I teach and research the lived experiences of people of the present and past who produced art, architecture, and material culture that continues to exist across temporal and spatial contexts. The past for me is inextricably tied to our present day lives, it defines much of our lived experiences while these experiences simultaneously define and determine what the past was through our constructions of different historical narratives. The past isn't a place but a construct that relies on narratives and the materiality of remembrance.”* (Mid-Career, 9-16 years, Arts)

Some faculty note how a collective memory not only affects how their work is conducted, but how the memory of their work will affect others. For example, one respondent noted: *“Understanding the evolution of civil rights laws and court precedent is integral in applying it to the experiences of people in today’s world.”* (Mid-Career, 9-16 years, Social Science). The ramifications of these court cases were significant for a broad audience, and their interpretation and use today influences current legal decisions. Another respondent noted:

*Personally my professional work and expertise is in the adaptive reuse of existing/typically historically significant buildings, so understanding the history/memory the place holds and working to acknowledge that building memory in the renovated building through design choices is at the core of that process.* (Mid-Career, 9-16 years, Arts)

Within disciplines that interacted with the fields of medicine, natural science, and applied sciences, collective memory was sometimes considered a moderating factor in research. For example one respondent, a gerontologist, noted: *“We often take into consideration the historical impact of ageism and intersecting identities and how those impact how people interact with various systems (healthcare, long term services and supports, accessibility of services and care, etc.).”* (Early Career, 1-8 years, Social Science)

For other medical researchers, their work seeks to inform collective memory using scientific techniques. A biologist, noted:

*Through evolutionary genetic approaches, we evaluate genetic differences within and between populations over time and space...This approach is essentially looking into the history of the genome, capturing the ‘memory’ of all these processes over time and space. The genome of every individual holds the memory of thousands of generations of these processes.* (Late-Career, 17+, Natural Sciences)

### 3.3 Data Integration

To further interpret the quantitative findings, we examined respondents’ written answers alongside the regression results. The quantitative analyses indicated that faculty in the humanities and arts reported greater engagement with memory in their teaching and research compared to other disciplines. However, written responses from faculty in other disciplinary areas suggested that memory was being conceptualized and enacted in both similar and distinct ways. Written responses were coded using analytic categories developed during qualitative analysis, and the presence or absence of each code was represented dichotomously (Yes/No). Contingency tables were then constructed to examine the relationship between disciplinary background and the incidence of coded themes, including disciplinary memory in research (Table 7) and teaching (Table 8), as well as collective memory in research (Table 9) and teaching (Table 10).

Table 7. Disciplinary Use of Memory in Research by Disciplinary Background

Disciplinary background	No n (%)	Yes n (%)	Total
Applied Sciences	3 (23.1%)	10 (76.9%)	13
Arts	8 (21.1%)	30 (78.9%)	38
Engineering	4 (36.4%)	7 (63.6%)	11
Humanities	17 (34.0%)	33 (66.0%)	50
Mathematics	7 (53.8%)	6 (46.2%)	13
Medical	58 (67.4%)	28 (32.6%)	86
Natural Sciences	19 (54.3%)	16 (45.7%)	35
Social Sciences	36 (37.1%)	61 (62.9%)	97
Total	152 (44.3%)	191 (55.7%)	343

As shown in Table 7, all disciplines engaged with some form of disciplinary memory in their research. The highest proportions of disciplinary memory in research were among faculty in the arts (78.9%), applied sciences (76.9%), and humanities (66.0%), whereas lower proportions were observed in medical (32.6%) and natural science (45.7%) disciplines, suggesting uneven engagement with disciplinary memory across fields.

Table 8. Disciplinary Use of Memory in Teaching by Disciplinary Background

Disciplinary background	No n (%)	Yes n (%)	Total
Applied Sciences	7 (53.8%)	6 (46.2%)	13
Arts	20 (52.6%)	18 (47.4%)	38
Engineering	9 (81.8%)	2 (18.2%)	11
Humanities	23 (46.0%)	27 (54.0%)	50
Mathematics	10 (76.9%)	3 (23.1%)	13
Medical	47 (54.7%)	39 (45.3%)	86
Natural Sciences	23 (65.7%)	12 (34.3%)	35
Social Sciences	49 (50.5%)	48 (49.5%)	97
Total	188 (54.8%)	155 (45.2%)	343

Table 8 indicates more modest disciplinary differences in teaching compared to research, with humanities faculty showing the highest proportion of coded references (54.0%), while engineering (18.2%) and mathematics (23.1%) reported substantially lower engagement with disciplinary memory in teaching contexts. Again all disciplines had some written responses that were tagged with the disciplinary memory code.

Table 9. Collective Memory in Research by Disciplinary Background

Disciplinary background	No n (%)	Yes n (%)	Total
Applied Sciences	11 (84.6%)	2 (15.4%)	13
Arts	26 (68.4%)	12 (31.6%)	38
Engineering	11 (100.0%)	0 (0.0%)	11
Humanities	33 (66.0%)	17 (34.0%)	50
Mathematics	13 (100.0%)	0 (0.0%)	13
Medical	86 (100.0%)	0 (0.0%)	86
Natural Sciences	33 (94.3%)	2 (5.7%)	35
Social Sciences	69 (71.1%)	28 (28.9%)	97
Total	282 (82.2%)	61 (17.8%)	343

As displayed in Table 9, collective memory in research appeared relatively uncommon across most disciplinary groups, with humanities (34.0%) and arts (31.6%) showing the highest proportions, while some fields (engineering, mathematics, and medical disciplines) showed no coded references to collective memory.

Table 10. Collective Memory in Teaching by Disciplinary Background

Disciplinary background	No n (%)	Yes n (%)	Total
Applied Sciences	11 (84.6%)	2 (15.4%)	13
Arts	28 (73.7%)	10 (26.3%)	38
Engineering	10 (90.9%)	1 (9.1%)	11
Humanities	35 (70.0%)	15 (30.0%)	50
Mathematics	13 (100.0%)	0 (0.0%)	13
Medical	82 (95.3%)	4 (4.7%)	86
Natural Sciences	34 (97.1%)	1 (2.9%)	35
Social Sciences	71 (73.2%)	26 (26.8%)	97
Total	284 (82.8%)	59 (17.2%)	343

Patterns for collective memory in teaching (Table 10) were similar to those observed in research, though less common overall, with humanities (30.0%), social sciences (26.8%), and arts (26.3%) indicating higher engagement relative to other disciplines, where references were limited (e.g., engineering, medical, and natural sciences) or absent (mathematics). Our findings from these contingency tables indicate that the silos that appeared in our regression analyses were less pronounced than our model would initially indicate for disciplinary memory, whereas collective memory remained relatively siloed. For example, even though those with medical disciplinary backgrounds did not significantly engage with memory in our regression analyses, nearly a third (32.6%) of our analytic sample described using disciplinary memory in their research, and almost half (45.3%) reported attending to a disciplinary memory in their teaching practices. These patterns suggest that disciplinary epistemologies may shape how faculty recognize and label memory practices rather than whether such practices occur.

#### 4. Discussion

##### 4.1 How does Memory Live in a Large Public University?

This study investigated the conceptualization and application of memory among faculty within a large public research university. Through a convergent mixed-methods approach, the data reveal that while memory is a consistent presence across the academic landscape in our sample, its recognition within disciplines is highly fragmented. This finding is consistent with other, recent studies that explore the fragmented nature of research in higher education (Soledad Norton et al., 2022). Quantitative models indicated that a significant disciplinary divide exists, with faculty in the humanities and arts reporting substantially higher engagement with memory in both pedagogy and research compared to their counterparts in other fields. However, consistent with other qualitative studies of knowledge regimes in higher education (Vienni-Baptista & Pohl, 2024), our findings offer a more complex picture: faculty across all disciplinary strata described practices inherently consistent with memory work—such as the preservation of institutional knowledge and the navigation of temporal social change, even when they lacked the specific epistemological vocabulary to label it as such. Taken together, these findings suggest that:

- (1) Faculty engagement with memory functions more as a feature of how most disciplines categorize and pass on institutional knowledge and less as a discipline specific construct.
- (2) Despite widespread engagement with memory, disciplinary differences exist in how the idea is operationalized and articulated across academic cultures.

It should be noted that these findings should be anchored with our limitations in mind; we utilized convenience sampling within a very specific context (Large, Southern United States, R1 University). While these limitations affect the generalizability of our findings to other institutions, the tensions outlined by our findings have important implications for interdisciplinary collaboration and for how universities conceptualize and encourage interdisciplinary knowledge work.

#### 4.2 Breaking down Discourse Silos

Universities have identified a need to promote rigorous, interdisciplinary work. To that end, they tend to create top-down incentives that are driven by funding opportunities. Our findings suggest that conceptual links are extant in everyday faculty teaching and research that are likely to be missed by administrators but that may prove to be a useful tool for creating organic interdisciplinary research teams. In our context, memory served as one such link. Among respondents, memory appeared to function as a conceptual resource across multiple disciplinary areas. Our quantitative models indicate that faculty in the humanities and arts reported significantly higher engagement with memory in their teaching and in their research compared to other disciplines. In our qualitative findings, respondents' written responses reveal that memory is employed in both disciplinary forms, such as understanding the historical grounding of one's field, and collectively in the form of socio-cultural or collective memory, such as an awareness of how past events in the community affect and shape current projects. The integration of both our qualitative and quantitative data suggests that memory use in both teaching and research is greater than what our survey instrument initially estimated as faculty in disciplines outside the humanities and arts frequently described practices consistent with memory frameworks without explicitly labeling them as such.

While the idea of disciplinary memory was engaged widely across a variety of disciplines, respondent responses which indicated engagement with a collective memory remained more siloed. No respondents who self-identified with the disciplines of Mathematics, Medicine, or Engineering wrote about collective memory as a concept they employ in their research. This trend might be influenced by a variety of factors; for example those disciplines which featured no coded collective memory responses often feature research traditions that favor deductive reasoning, quantitative methods, and tested hypotheses. In these contexts, efforts to isolate variables and minimize external influences may make researcher consideration of larger, socio-cultural forces less visible.

Even with these considerations, the mixed-method findings suggest that disciplinary silos may be due less to conceptual differences regarding disciplinary memory, and more due to differences in how these ideas are named, valued, and measured. The challenge that administrators face in building productive interdisciplinary collaborations is how to bridge epistemic and linguistic barriers in academic fields often considered remote from each other. As universities seek to build robust interdisciplinary projects, investing in how to break down disciplinary language between collaborators may reveal conceptual grounding that can foster fruitful interdisciplinary work, such as memory. By identifying memory as a "shared language" rather than a siloed humanities construct, universities can better encourage interdisciplinary knowledge work. However, simply placing scholars from different disciplines together is insufficient; interdisciplinary work requires mechanisms for translating concepts across epistemic frameworks (Soledad Norton et al., 2022; Vienni-Baptista & Pohl, 2024).

#### 5. Conclusion

Our findings indicate that memory is indeed salient to teaching and research across a broad swath of academic disciplines. Although faculty in the humanities and arts reported the strongest explicit engagement with memory, qualitative responses complicated this pattern. Faculty across different epistemic and disciplinary traditions reported engagement with different types of memory, even though they did not name it as such. For those in higher education, this suggests that interdisciplinary work does not necessarily require the establishment of novel shared concepts, but rather the development of infrastructure to support unpacking existing conceptual work through identification and translation across academic traditions.

Institutions that wish to cultivate inter- and transdisciplinary work must consider the barriers that inhibit collaboration across fields, especially when disciplinary language and epistemic traditions may obscure shared conceptual beliefs, such as memory. It is not enough to call for more interdisciplinary research. Universities should consider how to structure incentives that reward building sustainable cross-disciplinary relationships, and provide space for interdisciplinary researchers to bridge their disciplinary divides before moving into collaborative work, especially if those involved come from academic disciplines with great epistemological differences.

In addition to these organizational supports, this study highlights a few gaps that merit future study. Future research into how faculty conceptualize memory should employ in-depth qualitative methods such as interviews, focus groups, or long form written responses to better understand how they articulate memory in their teaching and research contexts. Additionally, research which examines other institutional types (e.g. R2, liberal arts colleges), would help determine whether the patterns observed in this study are specific to our institutional context, or reflect broader trends. Lastly, the absence of collective memory in certain disciplines warrants further investigation. Future studies should explore whether this trend reflects differences in epistemological orientation, disciplinary language, or rather a limitation in how conceptual memory was elicited through survey-based methods.

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## Appendix A

### Distributed Survey

1. What is your disciplinary background? (drop down menu: humanities, social sciences, natural sciences, applied science, engineering, medical, arts, math)
2. What is your primary departmental affiliation? (drop down)
3. What point of your career are you currently in? (Early 1-8; Mid 9-16; Late 17+ years).
4. Is the impact of humans on the world or the impact of the world on humans part of your work?
5. Does your research engage remembering the past or recognition of change over time?
  - a. How? (written response up to 100 words)
6. Does your teaching engage remembering the past or recognition of change over time?
  - a. How? (written response up to 100 words)
7. If you are interested in participating in an optional interview with the study team regarding the role of memory in your teaching or research, please share your work email with us.
8. If you are interested in interacting with the \_\_\_\_\_ Memory Lab, such as being invited to join a panel, learning about events, and research/grant opportunities, please share your work email with us. (written response)

## Appendix B

### Analytic Codes Definitions and Counts

#### Analytic Codes

Analytic Codes	Definition	Number of Instances
Collective Memory in Teaching	Texts coded discuss how the content being taught has implications beyond understanding or knowing a disciplinary knowledge to its broader implications for social groups.	59
Disciplinary Memory in Teaching	Text coded discusses the importance of teaching students the history of the discipline and/or development of ideas, research techniques in the discipline. Also coded are discussions of teaching the results of disciplinary work (experiments, findings) over time with students.	155
Collective Memory in Research	Texts coded discuss some type of knowledge that is connected to groups, group membership, society, the public, and/or a collective. Recognition that their work is connected to, impacts, involves social collectives outside academia.	61
Disciplinary Memory in Research	Texts coded discuss building knowledge for individuals or their field/ investigative lens.	193

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