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**Why Are We Doing This:
How Students Find Meaning in Research Writing Across Contexts**

By

Scott Lasley

BA, University of Louisville, 2011

MA, University of Louisville, 2014

DISSERTATION

Submitted to the University of New Hampshire

in Partial Fulfillment of

the Requirements for the Degree of

Doctor of Philosophy

in

English: Composition Studies

May, 2021

This thesis/dissertation was examined and approved in partial fulfillment of the requirements for the degree of Doctor of Philosophy in English: Composition Studies by:

Dissertation Director, Dr. Christina Ortmeier-Hooper,
Associate Professor of English

Dr. Cristy Beemer, Associate Professor of English

Dr. Alecia Magnifico, Associate Professor of English

Dr. Bronwyn T. Williams, Professor of English, University
of Louisville

Dr. James Webber, Associate Professor of English,
University of Nevada-Reno

On February 17, 2021

Approval signatures are on file with the University of New Hampshire Graduate School.

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ABSTRACT

WHY ARE WE DOING THIS:

HOW STUDENTS FIND MEANING IN RESEARCH WRITING ACROSS CONTEXTS

by

Scott Lasley

University of New Hampshire, 2021

Building on the work of Eodice, Geller, and Lerner and other Composition and Higher Education scholars, my dissertation examines what factors create a meaningful research writing experience. Specifically, this study explores two research questions: 1) How do advanced-level student writers define themselves as writers who use research? 2) How do those identities influence how they understand and utilize research writing concepts? I pursued these questions through a year-long, IRB-approved, qualitative study of junior and senior university students across the disciplines, including English, Neuroscience, and Computer Engineering. Using surveys and interviews, I asked them about meaningful research writing they have done in college and what made those experiences meaningful for them. The study results suggested that an undergraduate's relationship with their research mentor and their perception of seeing research writing as a one-dimensional practice tended to complicate their attempts to develop an identity as a research writer and how they might utilize information literacy practices in the future. I argue for writing instructors across the disciplines to reconsider how their writing curricula aid students in understanding the major practices of their discipline and the ways students could use those practices after college. Such considerations are vital for writing faculty across the disciplines so we can help our students to better understand what it means to be a professional in our fields and see the relevance of doing research writing across disciplines.

CHAPTER I: REVISITING THE AIMS AND PURPOSES OF RESEARCH WRITING

By the spring semester of 2011, I had wondered if I had made a mistake. I was a senior English major getting ready to graduate, and unlike some of my classmates, I had no idea where I was going after graduating. While I had enjoyed most of my courses, the vast majority of my writing had been one-offs, never to have a life beyond that class. By that point, most of my experience had been fulfilling requirements but not really understanding where those experiences might go after college. During this final spring semester, I took a course on the teaching of writing. For the first time in my undergraduate career, the research and pedagogical work we did felt meaningful, in large part because my professor had encouraged me to attend grad school and consider teaching. “You’ve got a knack for it, so if you enjoy it, you should pursue graduate work,” he would say when I would visit his office hours to talk about wanting to pursue teaching further. By the end of the semester, I had begun drafting application materials for grad school.

Five years later, I was a writing teacher working with students who were much like how I was when I was an undergraduate. I had been teaching writing classes for three years around that time and the idea of “fake news” had just become a catchphrase in American politics. It was also around that time that Stanford released a report concluding that across high school and college settings, students tended to struggle with interpreting the validity of various sources, particularly sources coming from sites they often frequent, such as Twitter (Stanford History Education Group). Much like how I was as an undergraduate, I saw my students' frustration with struggling to see what value information literacy had for them outside academics. I saw, and still see, such frustration in the students I work with in my writing courses. For many of my students, research writing is an interesting but dreadful experience emphasized by the amount of time and effort put into it rather than what is learned along the way and how it aids them in achieving their

academic, personal, and professional goals. These students' struggles to see research writing as a meaningful activity relevant to their future selves raises serious questions for writing instructors across the curriculum. If students are struggling to connect a purpose for doing research writing with their future interests, then how does that influence the way in which they engage with research after our classes? Perhaps even more importantly, how does that struggle influence what information literacy practices they utilize after college?

The Purposes for Research Writing in Composition Classes

These concerns over students' information literacy practices are not new to Composition Studies. Though discussions of purposes of research writing and its relevance to Composition have been addressed in earlier decades (see Levin, Brown, Harrington, and Grieder Jr for an overview of these earlier conversations), questions around its purpose and value to students particularly developed during the 1980s and 1990s with the development of more doctoral programs in Rhetoric and Composition and more critical investigations into the value of Composition's traditional research writing pedagogy. In a 1982 *College English* issue focused on questions concerning student research papers, several Composition scholars of the time raised questions as to the purposes of having students doing research writing. For example, Shamon and Schwegler raise concerns on the attempts of Composition instructors at the time to connect the research paper into the other writing assignments done in the course. Specifically, they argue that such efforts problematize how they teach students research practices because such an approach "[treats] the research paper as an offshoot of the standard thesis-and-support essay, telling students that it 'may be a little more technical' because of its length and the need to document sources, but that it is not 'drastically changed' in matters of form and content from the

informative (expository) and persuasive essays they have been writing” (14). They continue on to argue for greater attention to teaching students how to write academic research, emphasizing the role of testing a hypothesis or responding to scholarship and of students more explicitly thinking about the role of methodology and conventions in directing their research projects. What is worth noting here is the emphasis on the criticism toward composition instructors conflating the forms of different kinds of essays. By suggesting that research writing is more or less the same as other forms of writing, writing instructors mislead students and hinder their ability to transfer their research writing experiences into new contexts in their disciplines.

In another article in the same issue of *College English*, Larson takes Shmoon and Schwegler’s criticism one step further by arguing the traditional research paper is a non-genre that has no real connection to actual genres outside First-Year Writing courses. Because such an approach connects research primarily to this essay and typically not other essays taught in said courses,

“instructors in writing signal to their students that there is a kind of writing that incorporates the results of research, and there are (by implication) many kinds of writing that do not need to do so. ‘Research,’ students are allowed to infer, is a specialized activity that one engages in during a special course, or late in a regular semester or year, but that one does not ordinarily need to be concerned about and can indeed, for the most part, forget about it” (814-815).

Larson goes on further to argue that the issue lies in conflating research writing as a universal practice rather than something that is distinct for particular kinds of writing. Larson suggests here that Composition instructors must be careful about taking that conclusion too far. Doing so runs the risk of implying that research has little relevance to multiple genres of writing (such as

narrative) and is a distinctly school activity with little connection into non-academic contexts. What Larson and Shamoon and Schwegler similarly raise about the aims of research writing is the importance of methodology and aiding students at seeing research writing as more than an activity involving collecting, compiling, and describing library research.

Later on in the 1990s, Bruce Ballenger took up this idea of helping students move beyond seeing research as collecting and reporting information in his 1999 book, *Beyond Note Cards*. While seemingly agreeing with Larson's argument that Composition can't realistically teach the discipline-specific conventions of research writing, Ballenger argues that Composition can aid students in developing "habits of mind" which he highlights as being able to suspend judgment, to respect ambiguity, to see meaning-making as a dialectical process, among others (75). According to Ballenger, it is through these habits of mind that students begin to understand what it means to be an academic researcher rather than just reading through the product of such inquiry, the academic texts they find in libraries and the readings they're given in their courses. By emphasizing the habits of mind when teaching the research paper, Ballenger argues that Composition instructors can aid students in transferring those experiences into the research work they do after they leave those courses.

Around roughly the same time, Davis and Shadle raise similar arguments emphasizing, "...instead of wanting to possess, or even 'know' the other, we want to sustain the experiential excitement of not knowing, the seductive wonder we feel at discovering that the other is beyond us, unknown, inexhaustible. The ideal of alternative research writing is exploration freed from its historical weight of conquest and enslavement" (422). What is perhaps most noticeable here is their emphasis on experimentation and students finding excitement in testing and examining new ideas. However, my own research work with interviewing and surveying students on their

perceptions on research suggests that while students find that kind of exploration interesting from a content standpoint (what is learned about topic), they are still preoccupied with the reality that their research will be graded by a professor and the actual process they've gone through has little bearing beyond the course, save some basic mechanics in finding and collecting research (Lasley, Fraser, and Williams).

These concerns around research writing's relevance to future experiences has been extended in recent years with the rise of undergraduate research (UR) scholarship across multiple disciplines. For example, in Psychology, Davidson and Lyons conducted a study amongst British undergraduates and their experiences with collaborating with research staff on particular projects. While limited due to the scope of their study, they argued for the importance of having undergraduates not just participate with faculty on research projects but also “[present] at an academic conference [as it] has a further beneficial impact on the researcher identity of undergraduates” (44). In this context, the purpose of research pedagogy is to aid students in not just understanding information literacy concepts, but more importantly, in understanding how such concepts are applied into actual research writing projects that have value as preparation for potential work they might do as an academic professional.

Biologists Mraz-Craig et al. also found similar conclusions with STEM undergraduates. Arguing for an blending of traditional pedagogy focused on teaching students basic science concepts and opportunities to develop the skills toward producing actual research, they examine how students develop investment in pursuing further science research in courses focused on students developing scientific research skills (what they refer to as course-based undergraduate research experiences or CUREs). They conclude that while some undergraduates were still disengaged with doing research projects and were interested in opportunities focusing on

engineering and secondary education positions, they found that students were more likely to pursue future research projects in the sciences, whether as lab staff or graduate students (74). Much like in Davidson and Lyon's study, the aims of research pedagogy here focus around students seeing these moments of doing research writing as preparation for future work they do in their jobs or in graduate school. In this sense, research writing is a means of understanding what it means to be a scientist, both in terms of method and methodology.

Rhetoric and Composition has also seen increased interest in undergraduate research scholarship in recent years. While most of that scholarship has been focused around the development of undergraduate research programs and how English Studies can support UR in their institutions, there has been some work done that addresses the purposes of the research paper in an introductory writing course. Downs and Wardle's chapter in *Undergraduate Research in English Studies* argues for students conducting what they refer to as "contributive" research based on Rhetoric and Composition scholarship. Discussing Downs' publication for undergraduate Rhetoric and Composition scholars, *Young Scholars in Writing*, the authors emphasize:

The important point, neither subtle nor intuitive, to understand about this difference in purpose is that a library research paper, for all its hope of having the writer reach a new insight, is not learning based on discovery new to *other* inquirers. Such discovery is simply not expected. In stark contrast, the teachers who made the assignments that resulted in these *Young Scholars in Writing* submissions explicitly *did* expect to read something in their students' papers that they did not already know (177).

There's a clear distinction between the purpose of inquiry here. While Ballenger and Davis and Shadle seem to argue for the importance of the writer's discoveries, Downs and Wardle place emphasis on audience, particularly the value of students' research in providing new insights for a particular discourse community. Ideally, by having the discovery provide meaning to the larger discourse community that students are writing for, those students find value in the research process. The process is made meaningful and worthwhile because their hard work leads to a potential publication. However, much of this approach focuses on Composition studies discourse. While certainly, students can find questions that connect writing to their professional and personal interests, how does this aid students who have interests in other discourse communities? Even further, these differing arguments for what research writing instruction is supposed to provide for students leads to another question: while Composition instructors may disagree on the aims and purposes for teaching research writing, how does that line up with students' perceptions of conducting research?

The Perspective of the Student in the Context of Research Writing

These questions are taken up in Composition scholarship, such as Jennie Nelson's 1994 article on the theoretical implications of the traditional research paper. She particularly highlights the conflict between how students often perceive research writing as a "rhetoric of the finished word" rather than a "rhetoric of doing." While ideally, composition instructors aim for students to embrace the exploratory aspects of research inquiry, that is not often the case. As Nelson notes, "Clearly, if most students view the research paper assignment as an exercise in reproducing information for the teacher-as-examiner, then it cannot promote independent thinking, critical analysis, or responsible writing" (66). Nelson argues later in the article how

composition instructors might aid students in seeing research writing as a rhetoric of doing by emphasizing students' roles in the course as the expert of their subject matter as well as the rhetorical situations in which they are writing. However, what is of note for this study is how Nelson addresses students' perceptions of their role in the inquiry. It would seem that part of the issue of students' struggles with information literacy, particularly in academic contexts, lies with how students reconcile their aims for inquiry with those of their instructors, whether those aims are conveyed through what grades students receive or how assignments are designed.

In a review of Shmoon and Schwegler's essay on the aims of the research paper, Baer also highlights the conflict between composition instructors' and students' perceptions of research writing. Citing Nelson's 1994 study as well as Valentine's more recent 2001 study, Baer notes that students surveyed in these studies emphasized the role shortcuts and teacher's evaluation criteria played in defining their research process (Baer 41-42). She concludes that these studies highlight the importance of pedagogical strategies for better engaging students in developing more robust information literacy practices. "Effective pedagogical practices include: breaking down the research process through staged assignments and learning activities, providing instructor feedback throughout the learning process, emphasizing the value of genuine questions and investigation, and inviting students to reflect on their own learning and research process" (42). While these practices may seem quite familiar to a current composition instructor, my research with college students at all levels suggests that there is still a disconnect between the pedagogy and how students apply it after the class has completed. For instance, as part of a study exploring high school and college students' perceptions of research writing, my researchers and I "saw considerable "teacher talk" in the responses, indicating to us that students jump through the hoops we set for them within our assignments, specifically in choosing sources and expressing

feelings about the importance of research” (Lasley, Fraser, Williams). So, it would seem that further examination is required in order to understand why the disconnect persists despite our efforts to create a pedagogy that promotes an evolving research process over a static perception of it.

This conflict is also expressed in library scientists Detmering and Johnson’s work on information literacy narratives of first-year college students. While their argument for information literacy narratives as a way for students to critically reflect on their practices warrants attention, the way in which they articulate the conflict students have with seeing their identities in the research writing they do is what concerns this study. They state, “Students want their own voices to be present in the paper. They want the voice to be authentic, but the way that they have conceptualized or understood library or academic research creates a struggle for many of them to achieve what they feel is an authentic piece of “research” (13). The issue, it would seem, lies not just in pedagogy but also in how students see themselves as researchers conducting meaningful research.

Melzer and Zemliansky also address the importance of students’ perceptions of themselves as researchers by what students perceive as “authentic” research. In documenting a student’s discussion of the narrative writing he did before doing the the research essay, the authors conclude, “What his response shows, however, is that, in his mind, there is very clear distinction between researched writing which is objective, neutral, and needs to be documented, and personal or "fictitious" writing which is subjective, loose, and not based on external data” (Melzer and Zemliansky). Along similar lines as Larson’s earlier arguments, Melzer and Zemliansky argue that research writing is perceived as something academic and controlled,

having little bearing on the kinds of writing and perspectives that students bring to personal essay writing.

Wilson's examination of research writing in the context of expressivist writing pedagogy indirectly addresses those questions. He states, "The writers of these textbooks, in using a model of what they conceive of as scientific research, adopt a 'scientific' vocabulary ('observations,' 'facts,' 'experimentation,' 'evidence') which denies uncertainty and ambiguity and which completely excludes the act of writing from the discussion" (243). More recently, Richard Edwards has defined this sentiment as the modernist approach to research. "Here for research to be knowledge, it must in some sense provide a true, that is, methodologically validated reflection or representation of reality. In this view, reality is out there to be examined. What that reality is, how it works and why it works in the ways it does is the rightful terrain of research. It is through the practices of research that reality gives up its truths" (Edwards 49). Research writing, in this sense, is an act of presenting a clear representation of reality. In considering Wilson's and Edwards' arguments here along with the previously mentioned studies, it would seem that the kind of language used to define what research is supposed to be further complicates students' abilities to see their academic research as any relevance to them beyond schoolwork.

Beyond just how students perceive research writing, there is also the conflict of how students perceive the process of doing research writing. For example, Carol Dweck defines two goals that influence student achievement: performance and learning goals. While learning goals may seem obvious (a desire to learn skills and learn from mistakes and failed projects), her definition of performance goals warrants closer examination. Dweck defines a performance goal as "about winning positive judgments of your competence and avoiding negative ones. In other words, when students pursue performance goals they're concerned with their level of

intelligence; they want to look smart (to themselves or others) and avoid looking dumb” (15). While students having performance goals is not inherently negative, my past research talking with high school and college students leads me to believe that it does influence how they perceive the act of doing research. For a number of students that participated in that research study, to do research writing is to demonstrate their intelligence or understanding of course content to their professor or instructor (Lasley, Fraser, and Williams). I contend that is part of why students often feel dread about doing research writing. If part of the struggle students face with finding meaning in research writing is the performative nature of an assignment’s feedback loop (i.e. get assignment->do research->write paper->get grade), then how can research writing really move beyond just being an academic hoop for students to jump through on their way toward completing their degree? How does that perception influence how they see the research writing they do as being as valuable and important as their instructors see it?

Meaningful Writing, Agency, and Engagement

My past research (Lasley, Fraser, and Williams) into students’ experiences with research writing has sought to examine those questions more closely. In survey responses from high school seniors to college upperclassmen, students frequently noted that while research may be time-consuming and challenging, it was made more meaningful when they had a personal stake in either the research or the writing (or both). Students also noted that such research projects were meaningful ways for them to enter into conversations in a particular discourse community, academic or non-academic. We noted a recurring pattern of students expressing a great deal of emphasis on the importance of the “mechanics” of research writing, such as citation, plagiarism, library database navigation, evaluation of sources, etc., rather than what students wanted to do

with all the research they collected. Our study was left with the following questions: how are students developing identities as researchers through these experiences and how do their identities inform the way in which they engage with writing in a more meaningful way beyond the act of collecting research?

In response to those questions, my dissertation study aims to examine how students perceive research writing as meaningful for developing a research writer identity and how those meaningful research projects aid them at not just engaging with research but also utilizing those experiences in future research writing contexts. By meaningful, I am particularly building on Eodice, Geller, and Lerner work from their book, *The Meaningful Writing Project: Learning, Teaching and Writing in Higher Education*. Though focusing on writing in general, they examine the role agency and engagement played in how students described their meaningful writing experience. When examining how agency played a role in their student respondents' experiences, they state, "Agency, from the perspective of students participating in our research, consists of opportunities to pursue matters they are passionate about and/or to write something relevant to a professional aspiration or future pursuit" (35). They conclude that such moments are often connected with how students identify as writers because students see that what they are doing has value now and in their future writing experiences.

Along with Eodice, Geller, and Lerner's examination of meaningful writing, this study's use of "meaningful" is informed by Wenger's work, *Communities of Practice*, particularly his term "negotiation of meaning." He defines it as, "The negotiation of meaning is a productive process, but negotiating meaning is not constructing it from scratch. Meaning is not pre-existing, but neither is it simply made up. Negotiated meaning is at once both historical and dynamic, contextual, and unique" (54). Meaning, then, is an interaction of the self and the world outside

the self, an interaction between writer and discourse community. In the case of research writing, this negotiation of meaning is often a matter of how students construct a professional research writer identity in their particular discipline. For example, an undergraduate in writing studies might find meaning as a young scholar by not just learning how to conduct research in writing studies but also developing contributive research on a particular topic in the field.

Wenger also positions this negotiation of meaning around the ideas of participation and reification, how meaning is constructed through one's involvement in a particular discourse community and the objects created through such experiences, respectively. Wenger suggests that meaning is created through a balance of the two.

If participation prevails – if most of what matters is left unreified – then there may not be enough material to anchor the specificities of coordination and to uncover diverging assumptions...if reification prevails – if everything is reified, but with little opportunity for shared experience and interactive negotiation – then there may not be enough overlap in participation to recover a coordinated, relevant, or generative meaning (65).

In the case of research writing, this entails more than just students writing meaningful research but also sharing their work with their intended audience, whether through an actual publication, such as *Young Scholars in Writing*, undergraduate research conferences, or other spaces for circulating their work. This study, then, seeks to examine this negotiation of meaning by examining how students perceive themselves as researchers and members of particular discourse communities.

Identity and Its Connections to Research Writing

This study is also informed by scholarship around writing and identity. Given the role identity plays in this study, it is important to first establish what I mean by identity. Because this study examines how undergraduates' research writer identities emerge out of meaningful research writing experiences, this study works with scholarship on identity and community. Specifically, this study builds on Hyland's work with disciplinary identity in academic discourse. For instance, he describes identity as "...not the state of being a particular person but a process, something which is assembled and changed over time through our interactions with others. Here the self is formed and developed within the structures of understandings, allegiances and identifications which membership of social groups, including disciplines, involves" (Hyland 2). While Hyland positions this in the context of academic discourse communities, I would extend this definition to non-academic discourse communities. For example, an individual may define themselves as a researcher through their participation in an online community. That participation has not just encouraged them to embrace the identity but to also refine it based upon new challenges and experiences.

Part of this process of identity formation is also a matter of understanding expectations in a particular discourse community through not just imitating an identity in that community but also improvising and modifying that identity. As Hyland notes:

Rather, individuals are socialised through habitual experience to 'fill in' and manage the positions they adopt so that actions derive from 'a command of an idiom' which they enact from one moment to the next and become more comfortable with over time. In other words, we consciously improvise

performances to assume identities as good students, hard-working lab technicians, Nobel scientists, contentious researchers or whatever (Hyland 7).

In the case of younger undergraduates, this can sometimes manifest in efforts to “please the teacher” by being preoccupied with source requirements, citation, and thesis statements. However, as students progress through their disciplinary work, the performance becomes a matter of learning the styles, mannerisms, and methods that particular discipline values.

The important point here is that identity is not innate but is very much based upon an individual’s perception of who they are and who they could be as part of a particular discourse community. A student’s identity of themselves as a researcher is dependent upon what they have experienced as well as what possibilities they see for themselves in the future. “So while the gaze of others places limits on how far individuals can opt in or out of prefigured roles or subject positions, they are by no means simply the products of disciplinary discourses. They learn to be the people they are through the meanings they give to their interactions” (Hyland 21). Part of determining what interactions are meaningful is them seeing such experiences having relevance and value for what they see themselves doing in the future. For example, an undergraduate who is interested in working in Psychology might put greater weight on developing an identity as a researcher in that field because they see those efforts as helping them to enter into that discipline once they land a job in that field.

Another part of that determination is if an individual feels that developing an identity in a particular discourse community is worthwhile. When students learn the expectations of a particular discourse community, as Hyland notes, those expectations often inform how they see themselves as members of that community. This may be part of why some students see doing research writing as more of a classroom exercise or an academic hurdle to overcome without

much bearing on their lives. It also is part of why some students see the challenges and struggles that come with doing research as not meaningful. If those students' areas of interest, for example, aren't valued in a particular discourse community, then why would they bother putting in the time to develop an identity and presence in that community? From my past research work working with high school and college students, this seems to be a major question influencing the feelings of dread students convey when hearing that they will be writing research papers. Part of why this study is so interested in how students develop identities as research writers is examining not just how they identify themselves this way, but also how the discourse communities they inhabit influence how those identities become meaningful beyond students' time in college.

Theoretical Framework for Study

Given the nature of this study's interest in how undergraduates perceive meaningful research writing experiences and develop research writer identities through said experiences, this study's theoretical framework is built on three bodies of scholarship in Rhetoric and Composition and Education: Navé Wald and Tony Harland's work with authenticity, Roz Ivanič's work with identity and academic discourse communities, and Deborah Brandt's concept of literacy sponsors. Specifically, this dissertation works with Wald and Harland's definition of authenticity as a degree of meaning. When describing what is meant by "a degree of meaning," they state, "In this sense, we argue that the authentic self is influenced differently by experiences ('real world' corresponding or otherwise) that have more or less personal meaning" (757). Part of understanding what makes for an authentic research writing experience, then, is examining the motivating factors and literacy sponsors that influence the meaning of that experience.

A critical part of those motivating factors and literacy sponsors is the academic discipline that an undergraduate is entering and the discourse community members that make up that discipline. As Ivanič notes, “Academic discourse communities are constituted by a range of values, assumptions and practices. Individuals have to negotiate an identity within the range of possibilities for self-hood which are supported or at least tolerated by a community and inscribed in that community’s communicative practices” (82). For example, an undergraduate who is encouraged by their professor to present their research at an academic conference may have a significant impact on influencing how that student sees themselves as more than just a student but a young scholar in that field. Another undergraduate in the same course who may not have been reached out to may continue to be unaware that such a conference even exists or would be interested in their work. While that second student may go on to develop a research writer identity in that field, the perception has been shifted by not necessarily seeing that their research writing work could have value in the near or distant future.

In many ways, this idea is also informed by Brandt’s idea of sponsors of literacy. She defines sponsors as “...any agents, local or distant, concrete or abstract, who enable, support, teach, model, as well as recruit, regulate, suppress, or withhold literacy—and gain advantage by it in some way” (Brandt 556). As noted earlier, identities aren’t created in a vacuum but are continually molded and re-sculpted by an individual’s experiences. So by examining how various sponsors influence how that identity is shaped or discarded, composition scholars can better understand how research writing can aid students in developing an identity as a research writer, even if those students do not pursue further academic work after graduating. I would argue that part of students developing that sense of belonging isn’t just through students learning the ropes of the discipline, so to speak, but by also seeing what they have written and done has

value beyond themselves through their interactions with their professors, mentors, peers, and other professionals in the field.

Purpose of this Study

Using this theoretical framework, this dissertation study seeks to examine how the relationship between authenticity, agency, and identity manifests in the research writing that students do during their time in college. More specifically, my dissertation addresses the following research questions:

1. How do advanced-level student writers define themselves as writers who use research?
2. How do those identities influence how they understand and utilize research writing concepts, such as evaluating and synthesizing sources and positioning their ideas in past research? How do they operationalize their prior experiences with research writing into those experiences for future work?

This study is particularly interested in research writing experiences amongst undergraduates because of the historical interest and concern surrounding research writing. As noted earlier, concerns about the purpose of having students do research writing is an old concern, however, the problems and frustrations both students and teachers experience persist. I believe that such an approach is vital to better understand how we can better prepare students to evaluate, interpret, and build upon the information they encounter outside our classrooms. Through this dissertation study, I investigate how composition scholars can re-conceptualize what undergraduate research is and what value it has for students beyond fulfilling course requirements. Doing so not only helps to better prepare our students for the professional and civic world, but it also ensures that we are doing everything we can to help them effectively participate in those worlds.

To provide some contextual and methodological background for this study, Chapter II outlines the study's methodological framework for analyzing the data, including the code used for conducting its content analysis of students' survey and interview responses. Chapter II also provides a brief discussion of the research site used for this study, a public, 4-year, research university in New England. After establishing how I designed this study, the next three chapters provide results and analysis for the three prominent patterns that persisted across the data. Chapter III tackles the first prominent pattern: authenticity in research writing experiences. This chapter uses Wald and Harland's work with authenticity in learning experiences to examine how students' identities shape their perception on what is authentic research writing and how those perceptions influence what information literacy practices students internalize after a meaningful research writing experience. Chapter IV introduces the concept of control to address the second prominent pattern: students' perceptions of identity and meaningful research writing complicated how agentive a research writing experience was. This chapter builds on Ivanič's work with identity and discourse communities to explore ways in which a student's sense of control over their research writing, of seeing research as designed by them rather than entirely for them, can play a major role in shaping the kind of researcher they want to be after college. Chapter V examines the third and final pattern: the roles of research mentors in shaping a meaningful research writing experience. More specifically, this chapter uses Brandt's concept of literacy sponsors to examine how these relationships facilitate undergraduate research experiences that aid students in constructing an identity as a researcher. Chapter VI concludes the dissertation by examining key takeaways from the study and the analysis of the three prominent patterns and providing readers with pedagogical, curricular, and administrative considerations for creating research writing experiences that aid undergraduates in not just developing an identity as a

research writer but also helps them to connect and adapt the information literacy practices they've learned in college to future research writing experiences after college.

CHAPTER II: METHODOLOGY AND SITE ANALYSIS

As noted in the previous chapter, this dissertation study examines how advanced-level college students perceive themselves as researchers and how their experiences with research writing have influenced their identities as research writers. To address these considerations, this project consisted of a two-pronged empirical study: collecting student survey responses and conducting interviews with students at a public, suburban, 4-year research university. A singular site was selected to allow for a better understanding of how particular students' learning environments interacted with one another by speaking to distinct aspects of this university, such as its large, annual undergraduate research conference. Using Glesne and Saldaña's methodology for conducting a content analysis, this study analyzed the data, specifically noting patterns around how students identify themselves as researchers, how they describe their research work as meaningful, and how they perceive the research writing work they do as having bearing on their future selves. By conducting surveys and interviews, the study positions itself in the various identities students bring into research writing and how those identities provide important considerations for how writing teachers teach research writing and how they provide spaces for students to craft meaningful research writing. The subsequent sections outline the research site and each part of the study followed by an explanation of the particular analytical approach this study took to examine the student data.

Research Site

As mentioned in the previous section, the research site was a public, suburban, 4-year university. This university has a student body of approximately 12,000 students. While the student body is predominantly white, there are students of color represented as well,

predominantly Asian American and Latino/a/x students. Gender is a bit more balanced with a slight majority of students identifying as female. Across the colleges, the liberal arts, life sciences, and business colleges make up the majority of undergraduate students.

This site was selected for two primary reasons: its prominent Undergraduate Research program and recent efforts to provide more support for undergraduates conducting research. For being a medium-sized research one (R1) university compared to other R1s in the nation, the university has one of the largest undergraduate research conferences in the nation. During the spring semester, the undergraduate research conference consists of over 2000 of the university's undergraduates presenting their research at various professional and artistic locations on campus. The events also frequently provide undergraduates, particularly those in the pre-professional degrees, with opportunities to win prizes and network with professionals in their field.

The university has also taken steps in recent years to expand support for undergraduate research, mostly through the library's First-Year Librarian, who works with students on navigating the library databases and honing their information literacy practices through academic and non-academic databases. The university's First-Year Writing program also has an interesting position in collaborating with the university's First-Year Librarian in supporting undergraduate research during the First-Year Writing course. This project usually spans six or seven weeks unlike other programs that have an entire course dedicated to exposing students to research writing across a variety of genres. While other courses also expose students to information literacy practices, those courses are often much later in an undergraduates' academic career, usually in a statistics or research methods course.

While focusing on a single research site does limit the applicability of my data, I believe that such an approach does allow me to more effectively examine the particular experiences and

learning environments that influence and shape how undergraduates see themselves as researchers. To aid in examining this site and the students who studied at it, I used a two-pronged approach to collecting data via surveys and interviews with advanced-level students about their experiences with research writing during their time at the university. The following sections outline the methods for each.

Methods

Surveys

The first portion of this study consisted of a survey distributed to 200 upperclassmen (juniors and seniors) across all of the university's colleges with 62 of those 200 having participated in the survey. Criteria for survey participants included students who had completed their First-Year Writing course or a research writing project in at least one of their courses before taking the survey. I tried to get a diverse group of student participants (different genders, ethnicities, etc.) to have a more representative sample, however that proved less successful due to difficulties in recruiting students to participate in the study. The chart below provides a breakdown of some of the demographic data for the survey participants based on ethnicity and gender:

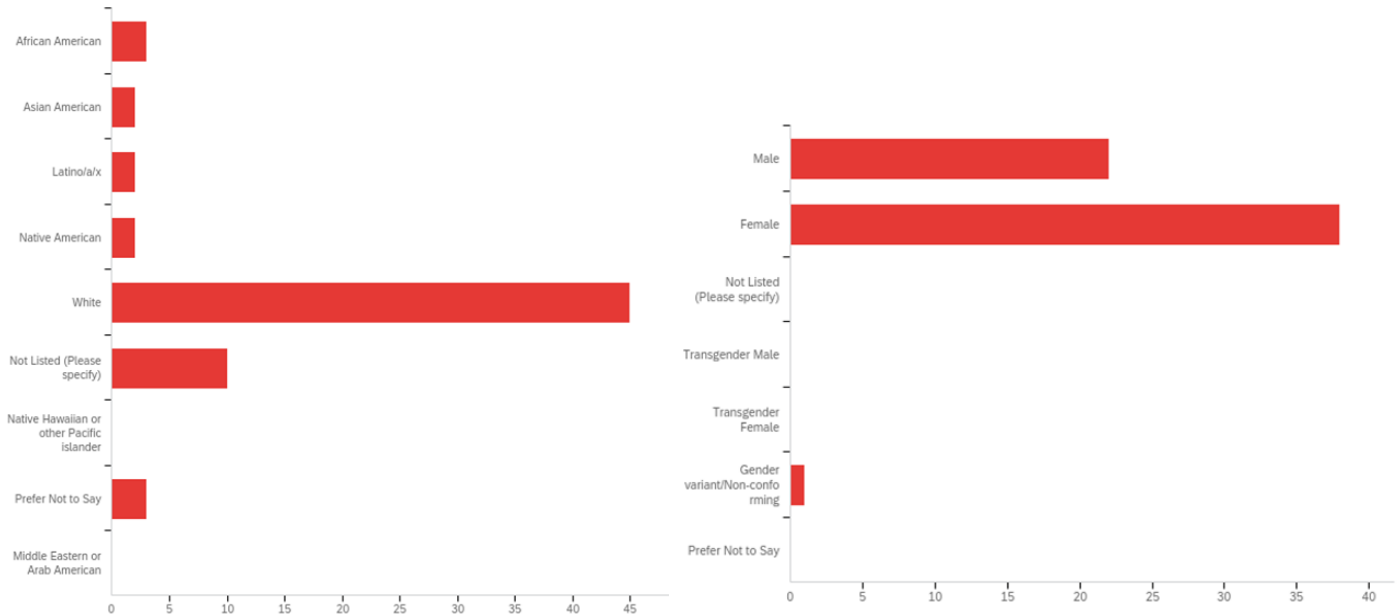


Figure 1. Ethnicity and Gender Demographic Data for Student Survey Responses

As illustrated by Figure 1, the survey participants tended to be white, female students; however, I was able to recruit some students of color and students who identified as international students (represented by nine of the ten students who selected “Not Listed”).

Survey data also tended toward students in the liberal arts and engineering with some representation from the life sciences and other colleges. It is important to note that part of why the demographic data tended toward the liberal arts and the engineering and physical sciences students was because I was most successful at gaining access to the students in their courses and departments whereas those efforts were largely unsuccessful in health sciences and business departments. While the number of student participants of diverse backgrounds was lower than I was hoping for, making generalization to the university population not completely viable, I was able to get representation from all of the major colleges on campus, providing student perspectives from a variety of disciplines across the university.

The survey was designed and conducted through Qualtrics. Appendix A provides a listing of the survey questions asked. Professors and instructors in upper level writing-intensive courses were emailed beforehand for permission to distribute my survey and explain the project in their courses. Once instructors had granted permission, the survey was distributed online to their students through a recruitment email with the link to the survey (Appendix C) and in person during a short presentation to students during one of their class sessions. Students followed the link, read the consent form (Appendix E), and completed the survey anonymously. Students who participate in the survey were entered into a drawing for a \$25 Amazon gift card that was conducted at the end of the spring semester.

The survey asked students to describe and reflect upon their past research writing experiences (in and out of the classroom) and how they perceived themselves as a researcher in the present and in the future. While the survey responses cannot necessarily speak to the entire college student population (at a 5% margin of error, the study would have needed at least 373 responses to be an adequate sample size for the target population of 12,000), the goal of these surveys was to note particular patterns in how students describe themselves as researchers and how they define (or don't define) the work they do as meaningful. Using those patterns, I could begin to examine them more in-depth through the study's student interviews.

Interviews

The second portion of this study consisted of interviews conducted with 12 advanced-level students, 6 juniors and 6 seniors. Much like the survey data, the interview participants tended to white and female due to difficulties in recruiting students to participate in the interviews. Table 1 provides a breakdown of the demographics of the interview participants.

Gender	8 Female and 4 Male Students
Ethnicity	9 White, 1 Asian, and 2 African American Students
College Affiliation	5 Liberal Arts, 2 Life Sciences, 2 Business, and 3 Engineering

Table 1. Demographic Breakdown for Interview Participants (N=12)

As Table 1 illustrates, the interview participants tended to follow a similar trend as the survey participants with the majority of students being white, female, and being in majors in the liberal arts and engineering.

Of the 12 students that were interviewed, 9 were selected to be discussed in the dissertation based upon the exemplar details they provided on particular issues associated with authenticity, control, and relationships with research mentors. The other three cases were used in discussing the data as a whole but not used for the discussion of individual interviews. Interview participants were recruited through recruitment email (Appendix D) and by visiting advanced-level writing courses, writing-intensive courses in the disciplines, and capstone courses. As part of the recruitment email (Appendix C), survey participants could opt into participating in the interviews by replying to that email to express interest. Students could also opt into the interview by responding to the final question of the survey. Students who agreed to participate in the interviews were asked to complete the consent form (Appendix E) and survey before the interview. I selected interview participants based upon the following criteria: 1) students must have completed their First-Year Writing course or have completed a research writing project in at least one of their courses before the interview; and 2) no more than 2 students could be selected from a single department, in order to focus on interviewing students from a variety of academic disciplines. Students who participated in the interview received a \$15 Amazon gift card.

These semi-structured interviews took 60-75 minutes to complete and were done in-person, at the participants' convenience. Participants were asked to narrate through particular meaningful research writing experiences in their previous academic/non-academic work as well as talk through how they saw research connecting (or not connecting) into work they planned to do in the future. These questions can be found in Appendix B. While I expected that some students might elaborate on these points in their survey responses, the goal of these interviews was to have more specific cases to illustrate how students were finding meaning in the research writing they do. Though these particular interviews won't necessarily provide insight into how all college students develop an identity as a researcher, they do provide a fuller picture of particular cases for how students have used their past research writing experiences when approaching new experiences. In preparation for the interview, participants were asked to bring a copy of a meaningful research writing project they had done and any course materials that they had surrounding that project to talk through its development and why it proved to be meaningful for them. As part of the data collection process, interview participants were asked for permission to record the interviews with all 12 consenting. Every interview was recorded, and the recordings were transcribed using the Descript, a professional transcription company. I reviewed and edited each transcription to ensure the accuracy of the transcription.

Data Analysis

Once the survey and interview data were collected and transcribed, that data was analyzed with MAXQDA, a data analytic and coding software program, using a content analysis approach. Using Corrine Glesne's approach to thematic analysis, this study looked specifically at particular terms/concepts that students referenced in their survey and interview responses and

what commonalities and patterns were conveyed through their responses. To help aid in the preliminary analysis of the data, I started with an initial set of codes based on themes or concepts I anticipated students referencing. These codes were based upon my previous studies on students' perceptions of research writing as well as Eodice, Geller, and Lerner's conclusions on meaningful writing. Specifically, it was initially focused around three categories: 1) motivation, 2) autonomy, and 3) authenticity. After my initial round of rough coding, I used Johnny Saldaña's *Coding Manual for Qualitative Researchers* as a framework for my final code as I re-analyzed my survey and interview data. The final code used in the analysis was divided into three categories: control/agency, relationship with research mentor(s), and authenticity. Each of these codes has 3-4 subcodes, based upon the most frequent patterns seen across the responses. These codes are outlined with descriptions and examples of each in Tables 2, 3, and 4.

Name of Sub-Code	Description	Example
Student Identity	Instances where students emphasized their interest about research writing allowing them to convey a genuine research writing identity.	"I felt like this was research I would do in my job once I graduate."
Text/Assignment	Instances where students emphasized their interest about research writing being connected to real world concerns.	"It wasn't like your typical research paper. We presented them in front of the department faculty talking about our papers and the research we did."
Audience	Instances where students emphasized their interest about research writing having an authentic audience.	"We actually got to do this project for a local company and what they wanted us to do. It was fun."

Table 2. Sub-Codes for Authenticity Code

Name of Sub-Code	Description	Example
Convenience/Time	Instances where students associated being in control of their research writing with convenience or time-related concerns.	“I enjoyed my research methods class because we had the whole semester to work on this project.”
Comfort/Discomfort	Instances where students associated being in control of their research writing with feelings of comfort/discomfort about new situations or challenges.	“I hated my chemistry research writing experience because the professor wanted us to use particular kinds of sources.”
Open/Bound Perceptions of Research Writing	Instances where students’ sense of control over their research writing was influenced by how open or resistant they were about doing research.	“I’m a journalist. I don’t care about doing research in my biology class.”

Table 3. Sub-Codes for Control Code

Name of Sub-Code	Description	Example
Supportive	Instances where students described their research mentor as supportive of the students’ research or their concerns/fears with doing research.	“The TA was always happy to give detailed feedback on our research papers to help us improve. She would also give us recommendations to check out should we want to pursue our research further.”
Rapport/Collegial	Instances where students described their research mentor as collegial. These students felt like they were treated as young professionals in the field.	“The way the professor structured the class was showing us what we could expect when we start doing marketing research for our jobs.”

Apathetic/Absent	Instances where students described their research mentor as unavailable or disinterested with the students' research or their concerns/fears with doing research.	"I don't think my professor really cared about my research. He was never available during office hours to even talk about it."
Condescending/Infantilizing	Instances where students described their research mentor as treating them as incapable of doing meaningful research.	"The professor just wanted us to pick our topic from her list and do a report on it using the textbook. It just felt like another research paper I'd done before. Blah."

Table 4. Sub-Codes for Relationship with Research Mentor Code

Using these codes, I hoped to elucidate major patterns seen across the student survey and interview data that pertained to the various environmental factors that make up a research writing experience, such as the student as researcher, the student's research mentors, and the text or research project the student is crafting.

In the subsequent chapters, I present the results and an analysis of findings for each of these codes (authenticity, control/agency, and relationship with research mentor). These chapters not only demonstrate three of the prominent patterns across the survey and interview data, but they also illustrate how my methods aid in showing both the breadth and depth of my data from this particular university. Though a small study, I believe this approach helps shed light on how larger, longitudinal studies might approach examining how students develop research writer identities and internalize information literacy practices through meaningful research writing experiences.

CHAPTER III: AUTHENTICITY AND UR WRITING EXPERIENCES

A second-semester freshman sits at his desk while listening to his First-Year Writing instructor pose questions about Ginsberg's, "Howl." While his instructor enthusiastically discusses the rhythm and allusions in the poem, the student stares out the classroom window, crafting a story about his misadventures in attending an anime convention for the first time, a text whose allusions and rhythm felt more real. While the poetry of "Howl" faded into obscurity for the student, the stories his instructor let him tell remained. I was lucky. My First-Year Writing instructor was cool with his students not sharing his love for Beat poetry but above all, he wanted our writing to feel real to us. While much of the essay that spawned from that brainstorming session was exaggerated to say the least (though sitting in an auditorium while the entire room sang the theme song for a show I never watched as a kid was 100% real), the act of writing it and the meaning that spawn from it was genuine. Pouring over videos on cosplaying, interviewing friends who were into it, among other things felt enjoyable rather than a necessary means to an end; it was authentic for me.

Looking through the student survey and interview data, I find myself returning to the questions my experience as a First-Year Writing student posed: what is authentic research writing? What makes it authentic? And, perhaps most importantly, what does it do to the writer, in terms of what research writing they pursue after the experience? For me, I went on to spend much of my undergraduate career in fiction and creative writing workshops where writing felt more real to me compared to my literature courses. For several of the students surveyed and interviewed for this study, that authenticity meant spending their undergraduate courses seeking professional research writing opportunities because they felt like they were more relevant to the real world than another research paper. While authenticity is hardly a new discussion in terms of

research writing and undergraduate research scholarship, its connection to motivation, identity, and information literacy practices is worth renewed examination. The purpose of the chapter, then, is to examine what students internalize from that connection.

In this chapter, I argue for writing instructors to reconsider how they design their research writing assignments around students engaging in authentic disciplinary research that embraces and challenges students' perceptions of what research entails. More specifically, the chapter makes this argument by examining how these students' professional and disciplinary identities shape their perception on what authentic research writing is and how those perceptions influence what information literacy practices students internalize after an authentic (or inauthentic) research writing experience. The chapter addresses survey data and three exemplar student interviews (Michael, Tamara, and Janine) that raise important considerations for how students perceive three major elements of research writing as authentic: 1) the research text itself, 2) the audience the text is written for, and 3) the disciplinary/professional identities that students seek to develop through their coursework. The chapter concludes by highlighting how writing instructors might go about redesigning their research writing assignments around creating authentic research writing experiences that engage students in broadening their perspective on what it means to conduct research as a professional in their field.

Authenticity as a Degree of Meaning

Given how extensive authenticity has been discussed and defined in rhetoric and composition as well as education scholarship, it is important to first establish what I mean by authenticity. I am particularly working with education scholars Wald and Harland's definition of authenticity: "We were able to identify three ways of understanding authenticity that were

relevant to our inquiry: (1) Authenticity as relating to the ‘real-world’, (2) The existential authentic self, (3) A degree of meaning” (752). The third way of understanding authenticity is of particular importance with this chapter. Wald and Harland emphasize that approaching authenticity as a degree of meaning highlights the way in which students develop personal meaning in a learning experience and how that meaning is influenced by internal and external forces. They state, “In this sense, we argue that the authentic self is influenced differently by experiences (‘real world’ corresponding or otherwise) that have more or less personal meaning” (757). Authenticity, then, is a relationship between how students interpret the meaning of a particular learning experience and how educators influence the meaning students see in that learning experience. Such definitions of authenticity are particularly valuable for writing instructors as authentic writing is not necessarily a matter of having student craft generic writing valued by a discourse community, though that is certainly still an important part of an authentic research writing experience. Rather, it is how we create learning environments that have a degree of meaning to students. It is how we engage with and mentor students through the writing experience and challenge them to evolve their identities and practices as researchers, so they are able to inhabit a more authentic self that serves them well in future research writing experiences.

Past writing scholarship has explored this relationship between students’ sense of meaning and how that has been shaped by educators and other literacy sponsors in how authenticity is sometimes associated with a students’ sense of self. Writing scholar Anne Elrod Whitney uses Brené Brown’s work to define authenticity as “‘cultivating the courage to be imperfect.’ Defined this way, being authentic means not only doing things that are real, and not only seeing what is real in another person or situation, but also *revealing* what’s real about yourself and what you are doing” (16-17). Part of that revelation is what identity students

perceive themselves exhibiting after a learning experience. For example, a student taking a qualitative methods course and designing a study with particular qualitative methods may learn what it would be like to be a professional researcher but that experience's authenticity is filtered through how that student defines the experience as relevant to their authentic self and how the experience can aid them in reaching that sense of self. The research study experience may prove more powerful and real to them because they see it as preparation for the research they anticipate doing after college.

Composition scholar Joseph Petraglia also highlights this connection between present and future authentic selves when examining the history of the university's mission of creating well-rounded citizens instead of solely offering career training:

Although writing historian and theorist James Berlin (1987) suggests that this sort of elite idealism was largely a spent force after the 1930s, the rhetorical appeal of well-roundedness and liberal education remains with us today. Whereas the new elite idealism is no longer rooted in the sort of crass elitism of a century ago, the idea that education is not about being trained for the world of work, but about nurturing a humane and socially conscious citizenry, is still with us and is still compelling. To some, therefore, the move to make learning real may sound reactionary rather than liberatory (29).

In light of having undergraduates who have lived through and crafted academic identities in the wake of the Great Recession of 2008 during their middle school years (and with another currently happening as they leave higher education), this conflict continues today, several years after Petraglia is writing. While some undergraduates who participated in this study highlighted the joy of learning outside their disciplines, a much louder and prominent group of them

expressed preoccupations with getting opportunities to do real research writing rather than doing another school research paper. Therefore, if we are to consider how students perceive research writing experiences as authentic, then we must also consider how our perceptions of authentic research writing are conveyed through our writing assignments, feedback, and mentoring sessions.

Authenticity and Motivation

Before examining this conflict and its role in influencing what information literacy practices thrive and die out for an undergraduate research writer, it is important to first establish authenticity's relationship with theories of motivation. While scholarship on theories of motivation in literacy studies and composition is extensive to say the least¹, some in particular have defined motivation's relationship to authenticity around students constructing a future self in a particular discourse community connected to the research writing experience. Though not explicitly discussing writing, psychologist Johnmarshall Reeve argues, "A lot of motivation, however, is forward-looking exploration, investigation, and foraging to check out new things and new possibilities" (Reeve 31-32). In the case of undergraduate research writing, that act of wanting and seeking out opportunities to facilitate change is also influenced by not just the identities students have constructed already but also the ones they are seeking to explore and create. In this context, motivation is not just something that some students have and some do not; it's a confluence of where students have been and where they see themselves going.

Cognitive scientist J.D. Trout notes similar connections when discussing motivation's relevance to achieve a goal:

1. See Bronwyn Williams' *Literacy Practices and Perceptions of Agency: Composing Identities* for further discussion on motivation and authenticity

To produce actions culminating in the achievement of the goal, the driving force must overcome the operative restraining forces that would inhibit the achievement of the goal. These restraining forces can include the pursuit of alternative, mutually exclusive goals, the demandingness of the task, as well as a general preference to conserve energy and resources (311).

In the case of research writing, these restraining forces are not just students prioritizing time and energy for more meaningful tasks (ex: focus on course work in major over the projects in gen ed courses), but also the students' sense of identity in a particular field. If a student sees the experience as having little meaning beyond completing the course, then there is little internal motivation to adapt and develop the information literacy practices gained from that experience. Put simply, such experiences have little meaning because those students see such work as not "real" research a professional in their field would do. Even in instances where students internalize meaningful information literacy practices from less meaningful experiences, it is still speaking to the motivation to become the future self they have envisioned.

Previous studies around authenticity and undergraduate research have also noted this connection. For example, Mraz-Craig et al.'s study on student identities in what they call course-based undergraduate research experiences (CUREs) concludes the significance of this connection in creating meaningful and authentic research writing experiences. They conclude:

Although we cannot fully isolate students' identities and career goals as directly linked to participating in our CURE, we did find evidence to support a connection between taking part in the authentic research and student-stated intentions to pursue a research-based STEM career. Many of our participants took ownership of their project, which is known to positively impact an individual's decision to

stay in STEM (Hanauer & Dolan, 2014). We found this perspective to be an identifier of those students' showcasing a scientific identity within our study (73).

This idea of taking ownership of a research writing experience, then, influences how students saw themselves as authentic young scientists and engineers rather than students role-playing at being scientists and engineers. They weren't just motivated during the experience but also by its relevance to helping them become future scientists. For the purposes of this study, then, it is particularly important to examine not just whether students were motivated by meaningful research writing experiences but also how those motivations complicate our efforts to create authentic research writing experiences for our students. If we are to understand how to design authentic research writing experiences, then we must take into consideration what students believe those identities to entail.

Analyzing the Student Data

Along with examining the student survey responses, I chose three exemplar student interviews (Michael, Tamara, and Janine) for this chapter. Specifically, their interviews highlighted three major elements in the data that students defined as critical to making a research writing experience authentic: 1) the research text itself, 2) the audience the text is written for, and 3) the disciplinary/professional identities that students seek to develop through their coursework. Using the methodological frame outlined in Chapter II as well as Wald and Harland and Trout's work with authenticity and motivation as a theoretical lens, the student data was coded using the sub-codes for authenticity that were outlined in Chapter II. They are reiterated here in Table 2:

Name of Sub-Code	Description	Example
Student Identity	Instances where students emphasized their interest about research writing allowing them to convey a genuine research writing identity.	“I felt like this was research I would do in my job once I graduate.”
Text/Assignment	Instances where students emphasized their interest about research writing being connected to real world concerns.	“It wasn’t like your typical research paper. We presented them in front of the department faculty talking about our papers and the research we did.”
Audience	Instances where students emphasized their interest about research writing having an authentic audience.	“We actually got to do this project for a local company and what they wanted us to do. It was fun.”

Table 2. Sub-codes for the Authenticity Code

Using this code, I analyze how these three major elements of an authentic research writing experience manifested across the student survey responses and interviews.

Through this analysis, I illustrate how these students not just define authentic research writing but also how such experiences influence the kind of research writer identity students inhabited after those experiences. The subsequent sections address each of the three major elements by using one of these three student interviews along with examples of how that pattern manifested in the student survey data.

Authenticity Found in Relevance - Michael

For several of the student participants, an authentic research writing experience was typically one in which the project had relevance to the students’ future research writing efforts,

such as research writing work they anticipated doing in their professional lives after college. For these students, these moments were authentic in part because they imparted a degree of meaning for students to connect what they were doing to the authentic self they were seeking to create, a young professional learning the tricks of the trade, so to speak. For example, these are a few ways survey respondents defined positive research writing experiences: “I conducted further research to relate the experiments to real-world applications.”; “This was my first introduction into writing a research paper and honestly I enjoyed the process and made me feel like a professional early on in my college career.”; and “Writing a research proposal- it was a good experience that will prepare me for my future endeavors.” While some students defined authentic texts around non-professional interests, such as exploring topics they were simply curious about learning, the connection between authentic texts and professional identities proved to be the prominent reference across the survey and interview data when students referred or implied authenticity.

This was particularly the case for Michael, a senior political science/justice studies double major looking to pursue work in the federal government. He was an interesting case in that he was one of the only non-traditional students participating in the study, having originally joined the U.S. Army before going to college. While attending college, he worked as a paralegal for the Army and noted that much of his information literacy practices developed through that experience. When discussing his enjoyment for doing research, he explained:

It's kind of like when you're in training to be a paralegal in the Army like we get told that like Command is always going to ask you random questions and just assume you're going to be able to find the answer and we don't get taught the answers. We got taught the process to find the answers, and so I was like 17 when

I went to you know join the Army and become a paralegal so that's always just been like if I want to know something I better research it or else, you know, I won't know the answer.

While this emphasis on process shares a number of similarities to the university's writing courses he had taken, the fact that these earlier experiences were grounded in professional contexts influenced much of how Michael perceived research writing. Specifically, it influenced how he determined what constituted an authentic research writing experience by how it felt like the actual practices of a professional researcher.

This was reflected in the research writing experience he defined as positive. This was an experience he had as a junior in one of his political science courses. In that experience he and his classmates were tasked with analyzing a pre-existing data set using quantitative research methods, coding practices used in political science, and presenting their findings at the university's undergraduate research conference. He explains how atypical but important this experience was for him:

Yeah, this is my first article assignment. Most of my stuff has been like research something and then write about it. I wish people had more assignments like this because I think this is more realistic but that's just me. No, I feel like this is good for someone who wants to actually understand academic writing...It's nice because you're actually framed...like the methods section. You actually talk about what you actually did to get a research and then your findings you could like separate it from your data and actually present in a more scientific fashion that just trying to articulate it and make it sound nice.

While learning the process of doing quantitative research and analyzing a data set proved to be meaningful to him, it was the act of creating what he perceived to be an authentic text that made the experience meaningful for him. Rather than writing a typical research paper, he felt he was creating academic scholarship in the field, emphasized by his excitement for creating methods sections similar to the scholarship he had read for the project. Such research writing experiences would seem important moments for students like Michael because the texts they create are based in professional or disciplinary genres of writing and those texts are also rooted in disciplinary research methods that these students believe they will use in the future.

That wasn't the case for some of his earlier undergraduate experiences. His least meaningful experience was from his First-Year Writing course in which he had to write a typical argumentative researched essay. He describes the experience:

I was like the oldest person in my class too, so that didn't help and also like I just got out of training so I had gone off active duty and I was a paralegal who had like presented things in court with a lawyer. So it looks like we're writing these like rhetorical analysis and persuasive essays and I was just, "this is so dumb." But also like it felt inconsequential just because like I said, it was just like you picked a topic and then you wrote it and then you never touched it again. Like each paper was disconnected from each other and then in the end we never did anything with it.

While part of his frustrations seemed to stem from being a non-traditional student and not understanding how the course's concepts might serve him well in future writing contexts, the role his professional identity played in defining what constitutes an authentic research writing experience warrants closer examination. Much like his meaningful research writing experience,

this experience was defined by the text not feeling like a “school” exercise but instead, a meaningful step toward developing as a young professional in political science. Because both the process and the text felt similar to past research papers and his research writer identity had already moved into the professional world as a paralegal in the Army, these earlier experiences were defined as tedious and a waste of his time. This disconnect also speaks to his frustrations with the genres of writing he was expected to do. Because the various genres of writing in his First-Year Writing courses (rhetorical analysis, researched essay, and personal essay) were deemed inauthentic to his professional aspirations (i.e. “this is dumb”), he felt less motivated to connect what he was learning to his future interests and dismissed it to be just school stuff with little bearing on his future identity as a researcher in the professional world.

This dismissal warrants closer examination. While Michael’s perception of the relevance of his FYC experiences seems limited by him not understanding how rhetorical and research writing concepts learned in the course might aid him in future writing projects, that limited perception seems particularly influenced by his more rigid perception of what “real” research is supposed to be. Though Michael’s experience highlighted that part of creating authentic research writing experiences is by being exposed to the genres and texts of a discipline, such efforts are complicated when students already have a clearly defined perception of what the research work of their discipline or profession is. While students like Michael bring in their past perceptions of what is or isn’t “real” research, that rigidity warrants closer examination when mentoring students like Michael through the process of developing those texts.

Further, Michael’s rigid definition of authentic research writing texts complicates his abilities to see research writing as a dynamic and multifaceted process. While his experiences in the Army and his political science course helped him to see how research is a recursive process

that had relevance to his future interests, his perceptions of research writing only moved when the experience fit his perception of what he thought professional writing should be. In essence, the degree of meaning he placed on a research writing experience limited what he could gain from research writing experiences that didn't explicitly have personal meaning to him. Given that his perception had more or less fossilized by the time he started college, being able to formulate new and varied research writing identities proved difficult for him. That's not to say that his perception of authentic texts got in the way of him being able to use non-major research writing experiences for developing the future identity he was seeking to evolve. Rather, his perception of authentic research texts and his motivations for doing research writing limited what he could gain from other research writing experiences. As writing instructors, if we are to design research writing experiences around guiding students through authentic research, then part of that pedagogy must entail both supporting and challenging students' efforts in seeing how what they learn in this experience has relevance to their personal and professional aspirations.

Authenticity Found in Audience - Tamara

Similar to students whose perception of authenticity stemmed from professional identities, other students defined an authentic research writing experience as one that entails writing for audiences outside the course. For these students, such an experience moves beyond just doing an assignment and offers them a meaningful way of doing research writing relevant to professional and community audiences. For example, here are examples from the survey respondents when they inferred or directly referenced the importance of writing for or presenting to an authentic audience: "It was nice because we actually got to see all the things that went into a full academic research article and we were able to present this research"; "..it was very

interesting to be able to...have the opportunity to present it to the entire university and have people that were truly interested in my findings come up to me and ask questions about it”; and “The project had no real relevance and had to be based on a fantasy world setting.” For these students, the relevance of the audience of a research text influenced how authentic the experience was and how motivated they were to engage with it.

This was particularly the case for one of the interviewees. Tamara, a senior marketing major, spoke at length about her capstone project experience. In that experience, she was a member of a group worked with a professional client, a regional insurance company. For this capstone, she explained that the experience felt quite similar to doing research work in a professional setting, stating, “it's more instead of just like randomizing people and putting them into groups, we filled out a sheet about all of our different qualities and strengths and stuff like that...So we have like a wide variety of people who are good at different things...” While fitting into a particular role (i.e. being the group’s main presenter) helped make the capstone an authentic experience that for her, it was interacting with the insurance company and working with them directly that made the experience relevant and authentic.

Part of this collaboration consisted of her group members receiving feedback from their client throughout the project as well as being their client being present for the midterm and final presentations of the research project. Tamara explains, “They were actually there for our midterm presentation too which was kind of cool but very intimidating, so yeah, it was good to get some feedback from them and hear a little bit differently than what they want versus what my professor thought they would want to so it was cool.” For her, the act of research writing became authentic as soon as she realized that she was receiving feedback from her client rather than simply her peers and professor, a common audience for a class research project. While she, along

with other students who mentioned presentations, noted that the change in audience changed the dynamic of how they perceived research presentations (“was kind of cool but very intimidating”), it’s important to note Tamara’s excitement for the shift (“it was cool”). The professional audience didn’t just make the experience more authentic for her, but it also aided her in constructing the research writer identity she was seeking to create (that of a professional in marketing).

Because the meaning of the experience changed from past class-based research assignments to this pre-professional research project that was being utilized by her group’s clients, Tamara found the lessons learned from the experience to have a great deal of value to her after college. Later in the interview, she talks about what made certain research writing experiences more meaningful than others. She notes, “Sometimes with certain things like with my senior project definitely because like we’ve been working with that company and I feel like that looks really good on a resume and it’s definitely something I’ve talked about in interviews and stuff. So that’s been really nice to have that something that I have literally produced from nothing, so that’s been good.” As with Michael’s case, Tamara’s perception of authentic research as relevant experience to prepare her for her professional life heavily influenced how she felt about the experience and what she internalized from it. This would suggest that such professional development opportunities are invaluable for students like Tamara to not just see the research writing they do in college as authentic but also to more clearly see themselves as young professionals in their field. Along with that, it also suggests the importance for writing instructors to create research writing opportunities that allow students to write for actual audiences outside the professor rather than simply simulating that experience of writing for a specific audience.

However, in her case, much like Michael's, experiences that didn't line up with her burgeoning professional identity tended to be viewed as elementary and inauthentic. In those experiences, she felt more motivated to do them to placate professors and move on to the next assignment. In discussing a case study she worked on regarding a pasta company, she repeatedly referred to her professor and his perceived expectations over the project as a major factor for motivating her, albeit begrudgingly. She states:

“...it was it was just like really frustrating because I had a certain set of questions that I had to answer and I felt I had did that with like a set of information that I had already taken, but he also wanted different data to support the information so I had to like throw in different financial ratios, which I found to be completely unnecessary because I was like because then at that point I was like where am I going to put this in to make it seem like it's you know part of my the part of the whole where it's like going to contribute to my final analysis? And so that was more annoying than anything and obviously like sometimes he's like you need to only use the book and that was really annoying too because I was like, there's so many other resources out there like come on give me a little something to work with.”

While her frustration with her professor's requirements is clear (“more annoying than anything”), what is implicit here is her frustrations with what she perceives as an inauthentic audience (and text by extension). Much along with Michael and biologists Mraz-Craig et al.'s conclusions around course-based undergraduate research experiences, Tamara perceived the experience as inauthentic in part because the text felt like another school assignment rather than

an authentic piece of business research writing, emphasized by her continual references to her professors requirements and thoughts on what the text should be.

However, this wasn't the case for when she discussed working with the insurance company during her capstone project. She saw their feedback as genuine and meaningful, in part because the text her group created was being used by that audience. Along with that, Tamara saw her role in that relationship between her group and the insurance company as an authentic role she expected to inhabit while working in marketing after college. The degree of meaning she placed on a research writing experience in a lot of ways depended upon how the experience had relevance to helping her develop her professional identity. Much like Michael, however, her rigid perception of authenticity suggests a potential challenge she experienced with utilizing information literacy practices gained from this experience, especially considering that most research writing experiences entail professors being the actual audience of the text. If we want to create authentic research writing experiences that allow for students to engage with audiences from their discourse communities, then such efforts must entail creating spaces that allow students to interact with those audiences, such as through a presentation, and providing guidance to students in finding venues or opportunities to circulate their work to those audiences, such as through a publication or in the form of a research grant.

Authenticity Found in the Development of Disciplinary Identities - Janine

Along with authentic audiences, students also positioned authenticity around moments of identity development. While for some students, this manifested in the opportunity to pursue research related to their interests (a discussion to be explored in Chapter IV), this also manifested in how students described authentic research writing experiences as being important moments in

which they felt they were actual researchers in the field rather than just students. In the survey responses, these moments of identity development led to students seeing the experience as a more meaningful step toward developing an identity as a member of their discipline or profession. For example, here are some examples of how students described positive and negative research writing experiences as factors for developing an authentic student identity: "the fact that the grant was accepted made me feel better about my writing abilities."; "To me, the research was so interesting that I still keep sharing knowledge of black hole to people near me every time I have a chance."; and "It was a very boring assignment for me because I just found myself re-wording what the authors of the articles I had researched already said." Authentic research writing experiences, then, were frequently defined by how they afforded or didn't afford opportunities for students to learn the basic practices of their disciplines and, perhaps even more importantly, to see themselves as being capable of being an experienced research writer.

For example, Janine, a senior philosophy and history double major, defined her meaningful research writing experience around being able to present her historical work on John F Kennedy to the class. In that experience, her capstone history project, she conducted an analysis on a specific civil rights speech JFK did during his presidency. While part of what made that research writing experience meaningful was being able to work with her professor, a JFK historian and scholar (an aspect that will be explored in Chapter V), the act of sharing her work with her peers and professor helped make the project a more authentic research writing experience. When asked about why she described research writing as exciting, she particularly noted the act of sharing it. She explains: "So I was allowed to like present in class and that was exciting too because I got to talk about what I've been struggling with for the past, you know, few months and I think this is really cool. Let me tell you that it's cool. So I think it's definitely a

process of it starts kind of with not good vibes, but then it gets better.” For her, the act of circulating her work to the class and in a sense teaching them about this speech and its historical significance proved particularly validating for her in seeing research as a challenging (“starts kind of with not good vibes”) but meaningful experience. The act of sharing her work made the struggles she dealt with in finding a topic and narrowing her research questions feel worthwhile. This sense of the challenges being worthwhile wasn’t just because she was able to present her work, however. Perhaps even more significantly, this experience validated her desires to become a historian, the authentic professional self she was seeking to become after college.

Later on in the interview when she elaborated on her feelings on the experience of presenting her project to her peers and professor, she inferred this connection when describing how the experience made her feel more confident in who she was as a researcher. She explains:

After I presented it and through presenting it though I felt better about it myself because I could just tell them why I was happy about it and having people listen to it was nice because it wasn't just in my head anymore. It was kind of out there in the world. And once I said it in a way that made sense to me, I just felt better about it. “No, this actually, this is interesting.” I think seeing their response to it was a good response to it might have helped too.

While she notes the importance for being able to share the piece to her peers and professor (“it wasn’t just in my head anymore”), the continual references to feeling better about the project and herself helped confirm to her that she wasn’t a student doing an assignment but a researcher presenting her research to other young historians and an accomplished JFK scholar, an important transition toward her becoming a more experienced researcher. For her, then, the act of sharing her work proved to be an authentic experience in part because it solidified in her that she is a

young historian and not just a student doing research. The authentic experience was meaningful because it provided a space for her to share her authentic self. While it was not necessarily in front of an audience outside her class, the act itself proved to be a moment of identity development for her; she was doing the work of a historian and was excited and motivated to engage in that work in the future. I would argue that while professionalization experiences can help students see research writing experiences as authentic, even experiences that aren't necessarily designed to be professional research writing opportunities can provide authentic research writing experiences. Creating authentic research writing assignments, then, isn't just a matter of having students write disciplinary genres for audiences outside the classroom. Rather, it is also a matter of providing opportunities for students to explore an identity as a researcher in that discipline.

This authenticity extended into her professor encouraging her to present her work at the university's undergraduate research conference. Though she hadn't yet done the presentation at the time of our interview, she noted similar feelings of validation of her authentic self. She states:

Yeah. I'm looking forward to it. Again, I'm a little nervous, but I think once I'm doing it and afterwards, I feel really good about it. So I am looking forward to it that that way and I think it would be cool to tell 'cause the people in my class kind know about JFK little bit but having that wider audience who might not even understand or might not even know really what this speech is even about so it would be kind of cool to bring it to a wider audience.

Much like in Tamara's case, Janine notes here the importance of having an authentic audience to present her work. However, considering that this is an extension of the authentic research writing experience mentioned in previous paragraphs, it is worth considering a bit further. Given the

positive and motivating experience that was her class presentation, one authentic experience influenced her desire to pursue another authentic research experience (presenting at a local undergraduate research conference). In her case, the experiences created an authentic self for her because it conveyed a strong sense of personal meaning for her. Put another way, the earlier presentation experience proved to be authentic not just because it provided a space for Janine to present her authentic research writer self but it also helped her to see how such experiences could aid her in the future as a historian who would most likely be presenting work to a variety of informed and uninformed audiences. Creating research writing experiences in which students develop an authentic research writer identity, then, should consist of opportunities for students to explore the possibilities of what such an identity could be and for students to share the fruits of their research work, whether that be with their classmates or outside audiences.

Creating Authentic Research Writing Experiences

Across all three cases, what is abundantly clear is that an authentic research writing experience is more than just what students are writing, who they are writing for, and how they are developing identities through said work. Rather, it is especially influenced by who the student sees themselves as being and what that student sees as being genuine research for their discipline or profession. While all three student interviews examined in this chapter have differing backgrounds and research writing experiences, the identities they sought to improve or craft influenced how they interpreted a research writing experience as authentic for them. Though those identities certainly varied. While Michael and Tamara came into their research writing experiences with a firmly entrenched professional identity (Michael's being the most defined before college), Janine came into such experiences seeking to find validation and

foundation for the research writer identity she had been trying to form as a historian. Despite the variations, their identities flourished in part because the research writing experiences provided what they perceived as new and relevant aspects of the research writing process. In all three cases, aspects of research writing methodologies in their field played a central role in the experience. It wasn't necessarily a matter of learning how to navigate the library databases or how to evaluate sources but rather, learning how to construct a study or position their research in past scholarship. One of the core tenets of creating authentic undergraduate research writing experiences starts with designing those experiences around students learning the methods and practices of their field and seeing how those practices have relevance to the research work they do after college.

The cases also highlighted that while authenticity doesn't necessarily stem from solely professional-oriented research writing experiences, that orientation does play a major role in influencing if a student sees a research writing experience as authentic and meaningful. While for the students, it was a matter of seeing what it's like to create and present professional research (in Tamara's case presenting to a specific professional audience), it was also a matter of seeing these experiences as meaningful steps toward professionalization and preparing for the professional research they anticipated doing after college. Instances where the research writing seemed to have a less clear or undefined connection to students' professional identities tended to be perceived as less authentic. That's not to say that it was universally the case across the data. Janine's case highlighted that authentic research experiences can be found in experiences that are more traditional in design (i.e. research projects around a particular topic, JFK in her case, which are presented to the class at the end of the project). However, the students' preoccupation with

research writing experiences being relevant to their professional interests and identities loomed over each of the cases.

The significance of a students' professional identity (whether developed or perceived), then, creates a major challenge for research writing instructors across the curriculum, especially in cases where students are not majoring in that particular discipline. As something that will be expanded on further in subsequent chapters, this influence seemed to limit what kinds of research writer identities students would develop. For example, while part of why Michael wrote off his First-Year Writing experience as meaningless was because the experience felt like just another school assignment in comparison to what he had already done in the military, that perception was also influenced by the fact that the experience didn't match up with the research writer identity he was seeking to create (i.e. a legal professional working in the federal government). I would argue that part of addressing this challenge entails reconsidering how we approach research writing in those non-discipline courses. While instructors should not be expected to teach students the research methods and genres of all students' fields, part of helping students to see those research writing assignments as relevant might entail taking a more interdisciplinary approach to teaching those assignments. That could consist of helping students like Michael to draw connections between the work of the course and how what they've learned might be utilized in future experiences. It might also consist of challenging students' rigid perceptions of what counts as authentic research for their discipline by designing assignments and readings around students seeing what kind of research exists in the other disciplines. For example, a student in biology may not realize that scholarship on science writing and education is a well-established area of research both in the sciences and in Literacy Studies. By exploring that level of work, that student may find new avenues of research that is of interest and relevance to their

future aspirations. The goal, then, is to not dismiss students' professional aspirations but to broaden them to potentially expose them to new opportunities and perspectives that may better speak to their professional interests and identities.

Another challenge presents itself when considering Michael's case: what role do earlier courses, particularly general education courses, play in creating authentic research writing experiences? While there were some cases that highlighted early experiences as authentic, the vast majority of cases were much like the three presented here in that they tended to focus on upper level experiences, such as capstone projects. It makes sense that they would be the primary focus given that they are typically more recent experiences, however, as Michael's and Tamara's cases highlight, a number of students seemed to see earlier experiences as more akin to school work rather than authentic research writing experiences. The challenge, then, is how research writing in those earlier experiences might be better seen as authentic experiences, as part of students developing multiple research writer identities rather than a singular one. While part of these efforts might entail reconsidering how undergraduates are advised in terms of course selection, it might also consist of using those core curriculum courses to introduce students to the possibilities of future research work. That might entail designing research writing assignments around introducing students to the methods and practices of those disciplines and having students draw connections between their disciplines and the work of the course. Another part could entail faculty mentoring students through the process to help them see how their major or their interests have relevance and bearing in that field. The goal, then, is designing these courses around not just helping students develop basic academic skills in a variety of disciplines but also showing them how such work has bearing in their future research writing.

Another, more university-wide approach, could entail developing an undergraduate research conference for students to present and share their work to local audiences invested in what they are presenting. While most students will not go the route of an academic, those kinds of experiences help students to see what research writing can look like in a setting outside the classroom and that their work has value to audiences beyond the professor, particularly when said events invite members of the community or the discipline to attend. Chapters 6 will expand on and develop this idea further as a more sustainable research writing across the curriculum practice.

In both class- and university-wide approaches, it is important to consider how we engage with Harland and Wald's idea of authenticity as a degree of meaning. Experiences like those outlined in this chapter point to the importance of not just reflecting upon what influences we have on students' authentic selves, but also how we use the personal meaning they attach to a research writing experience to shift their way of perceiving what research writing can do for them. For Michael, that entail learning how research methodologies could aid him in his desires for a career in federal government. For Tamara, that entailed learning how to write for and collaborate with professional audiences. For Janine, that entailed having her fledgling historian identity validated by her professor and her peers. Writing instructors can help students see that authentic research writing is not necessarily a matter of being relevant to their future careers, but it is a matter of exploring the possibilities of what one could do with said research writing. In the next chapter, that emphasis on relevance and how students perceive research writing experiences as meaningful will be explored further by building on Eodice, Geller, and Lerner's *Meaningful Writing Project* and Roz Ivanič's work with identity in discourse communities. Specifically, Chapter IV expands on this chapter's discussion around authenticity by examining the influence

of how students saw themselves as having the ability to exercise control over the design and process of their research projects.

CHAPTER IV: CONTROLLING RESEARCH WRITING EXPERIENCES

In a small room in the basement of the library, I sat across from Jay, a bioengineering student going through his junior year in college. We had spent the past 30 minutes talking about his exciting experiences with doing research for his associate degree at a local technical college, though the conversation swerved when it came time to talk about what he had done since transferring to the local research university. What started as a question about comparing his experiences at the technical college with those at the university evolved into the student eulogizing what once was. He described the research writing he had done since transferring to the research university as tedious and dry. When I asked him why, he explained:

...academic writing like sometimes even they want the sentence structure like the same one just over and over again. They want the exact same words. It has to do with the facts, but there's not really any freedom with structure or anything like that. So that just became tedious because if I don't feel like free to just express myself in the writing because I have to conform to another pattern. Yeah, and I'm not interested in the subject in the first place that I'm assigned a research topic then it becomes tedious. I think I was thinking too that was so tedious.

While part of this comment was informed by his frustrations with feeling like bioengineering didn't value his identity and interests as a writer, I couldn't shake the connection he was drawing. This wasn't a student grumbling about having to do research projects in his non-major courses; this was the research work of his field. A lack of choice seemed to influence what he felt was a loss of agency; that such research writing experiences were defined for him rather than by him.

Comments like Jay's weren't unusual across the students surveyed and interviewed for this study. Meaningful research writing experiences tended to occur when the students surveyed and interviewed had a direct hand in determining how their project was designed and such control influenced whether a research writer identity in that discipline would develop. In many ways, those experiences helped those students to see how they could inject their identities into the work they were doing because they felt their authority was valued as a rising member of their field. In considering these patterns, I found myself returning to these questions: how does a student's sense of control over their research writer identities and what authority they have to control their research writing factor into not just creating an agentive experience but also a meaningful research writing experience? Even more importantly, how does that meaningfulness connect with who students see themselves as being after college?

In considering these questions, this chapter examines some of the factors that inform this desire and how they influence how an undergraduate develops an identity as a researcher. More specifically, the chapter analyzes student survey data and three exemplar interviews of students (Angela, Katie, and Jay) and their experiences with research writing. Through these examinations, I explore ways in which a student's sense of control over their research writing, of seeing research as designed by them rather than entirely for them, can play a major role in shaping the kind of researcher they want to be after college. I conclude the chapter by arguing that part of helping students to exert control over their research writing (and their identities embedded in that writing) is creating learning environments that allow them to draw connections between their various identities across different research experiences and how they might utilize those identities after college.

Control and Complicating Agentive Moments

Before examining these three cases, I first need to make clear what I mean by control. I am specifically defining control in two ways outlined in the following sections: how students create limitations or boundaries around research writing experiences and how students align their identities to those experiences. Firstly, I am defining control as the interplay between the possibilities afforded in a research writing experience by the instructor or the assignment itself and the restrictions students put upon the experience, such as selecting a topic of interest to pursue or designing the project to relate to their major. To help illustrate this concept, I provide the following figures to show the relationship between an agentive research writing experience and a student's controlling factors over the experience:

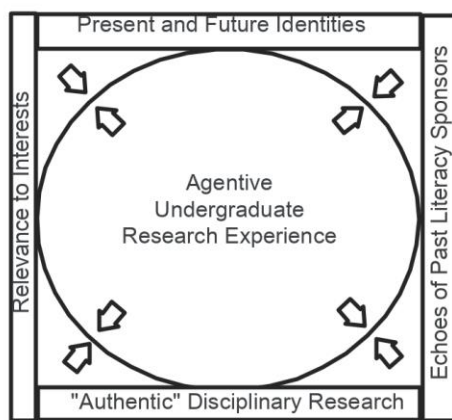


Figure 2. Restrictive Control

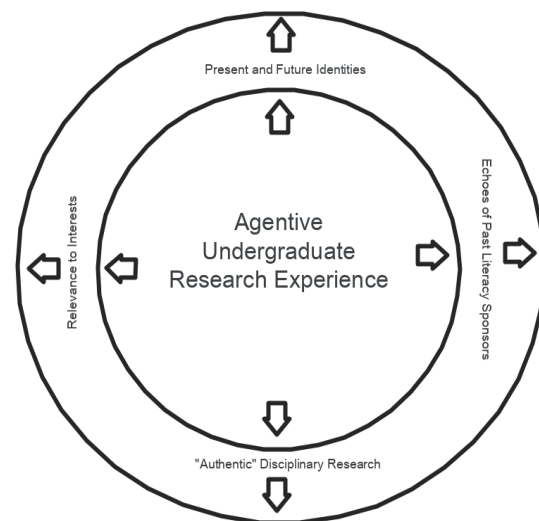


Figure 3. Flexible Control

Each figure entails four types of controlling factors students in the study placed around an agentive UR experience. The arrows represent the relationship between the students' controlling factors around a UR experience and the boundaries convey through what the experience can provide for the student. Figure 2 illustrates this dynamic when students approach an agentive UR

experience with rigid controlling factors (something to be explored further in Katie and Jay's experiences later in the chapter). In this dynamic, the student's controlling factors (ex: their perceptions of what "authentic" research is) limit how meaningful the agentic undergraduate research writing experience can be because the student's controlling factors don't provide room for new approaches to thrive unless they fit in the boundaries those factors create. Put another way, the student's controlling factors work against rather than with those inherent in the experience, as illustrated by the arrows.

Figure 3 illustrates the dynamic when students approach research writing with more flexible controlling factors (i.e. being open to new research methods/genres of writing). In this instance, as highlighted by the arrows in the figure, student's controlling factors are more flexible and more open to the new ideas, approaches, or identities presented in the agentic UR experience. Put simply, the controlling factors students place on the experience work with those inherent in the experience, such as assignment requirements. While these figures admittedly simplify a complex dynamic, particularly the faculty's controlling factors conveyed through the UR experience, they do emphasize a central idea for examining control in this way. Understanding the relevance of students feeling in control of their research writing is a matter of not just how students are perceiving UR experiences as agentic but also how their open and restrictive perceptions of research writing complicate whether or not the agentic experience has meaning to them beyond the course.

In approaching control in this way, I am employing writing scholars Eodice, Geller, and Lerner's approach to agency and Williams's discussion of control and motivation to expand that discussion to define control around how a student's conscious or subconscious efforts to control the experience are informed by the types of restrictions or boundaries they put upon the

experience. In their book, *The Meaningful Writing Project: Learning, Teaching and Writing in Higher Education*, Eodice, Geller, and Lerner position their definition of agency around how students perceive particular writing acts as agentive. Building on education scholars Moje and Lewis's work, they state, "...students' sense of meaningfulness was a particular kind of agency rooted in 'new ideas, practices, or discourses learned through their participation in a learning activity,' namely their meaningful writing projects. In other words, our claim is that students' perception that their writing is meaningful is also a perception of that writing experience as agentive" (35). While they do not take up a discussion of control explicitly, this connection between perception and agency does speak to how I am defining control. While Eodice, Geller, and Lerner position agency around meaning and self-efficacy, I want to take that a step further to position control around how meaning and agency are influenced by the range of possibilities the experience, the instructor, and the student afford for the experience.

Bronwyn Williams explores this connection between meaning and agency further in his work on examining the connections between internal motivations, control, and identity. Utilizing Mihaly Csikszentmihalyi's concept of flow, Williams examines the relationship between an individual feeling in control of the goals and process of a literacy task and an individual's internal motivations for literacy practices. He states, "The importance of control in shaping perceptions of agency reminds us that desire and motivation are not only about the product at the end of an experience but also about the process--how production takes place, who gets to control it, and why" (71). Therefore, part of understanding how agency functions meaningfully in a classroom setting is examining how students perceive those research writing moments as in their control, particularly through having a role in defining the boundaries of their research writing

experiences. In essence, the power to exercise control over the design and topic of a research project influences how this student perceives a research writing experience to be meaningful.

That said, I want to further this discussion to consider how the boundaries students create around a research writing experience complicate how they engage with said experience. In this study, one of the more commonly noted limitations was students' perceptions of what they felt was "relevant research." For example, a student's rigid perception of what research writing entails for a professional in their field may result in them only feeling in control over the design and process of a research writing experience when the experience fits that rigid definition. That rigidity results in that student placing research experiences into a binary: it's relevant (meaningful) or it's not relevant (not meaningful). Put simply, an agentic moment may prove meaningful and empowering for a student but how that student controls the experience to fit their perception of meaningful research can complicate how they engage with research writing experiences that don't fit that limited perception. I argue, then, if we are to understand how students perceive and engage with meaningful research writing experiences, then we must examine the boundaries they place around those experiences and how those boundaries create potential challenges for that student utilizing literacy practices from research writing experiences outside those boundaries.

Aligning Identities and Control

In that sense, then, how a student perceives their sense of control over a research writing experience is also a matter of how they align their identity to a particular task, in this case, a research writing project. Given that much of an undergraduate's writing career is spent exploring and developing a disciplinary and professional identity through their coursework, it is important

to consider the relationship between identity and discourse communities. Writing scholar Roz Ivanič addresses this relationship in her work on how identities are developed in academia. Building on Harris, Swales, Myers, and other scholars' work with discourse communities and identity, she states, "Academic discourse communities are constituted by a range of values, assumptions and practices. Individuals have to negotiate an identity within the range of possibilities for self-hood which are supported or at least tolerated by a community and inscribed in that community's communicative practices" (Ivanič 82). In this sense, students' perception of who they are as researchers becomes misaligned in part because those students perceive they have little control over constructing a research writer identity on their terms in a discourse community or that said discourse community serves little purpose to the identity they are constructing for the future. What could be a potentially powerful literacy moment fails to connect in part because students cannot connect their identities with the research project. It becomes just another example of a "boring" and "tedious" research writing assignment to get done and out of the way. Part of exercising control over a research writing experience, then, isn't just students being able to see how these experiences are meaningful to them, but it is also a matter of how students internalize what they've learned with who they see themselves being in the future.

Analyzing the Student Data

As seen in the three student cases (Angela, Katie, and Jay) that will be discussed shortly, their sense of control over their research writing experiences played a critical role in influencing how they internalized what they learned from the experience into the research writer identity they had been developing throughout college. In order to examine how students' desire for

control over their research writing experience influenced how their research writer identity thrived or wilted after the experience, this chapter uses a content analysis approach and the sub-codes for the control code, outlined in Chapter II. Specifically, they are as follows in Table 3:

Name of Sub-Code	Description	Example
Convenience/Time	Instances where students associated being in control of their research writing with convenience or time-related concerns.	“I enjoyed my research methods class because we had the whole semester to work on this project.”
Comfort/Discomfort	Instances where students associated being in control of their research writing with feelings of comfort/discomfort about new situations or challenges.	“I hated my chemistry research writing experience because the professor wanted us to use particular kinds of sources.”
Open/Bound Perceptions of Research Writing	Instances where students’ sense of control over their research writing was influenced by how open or resistant they were about doing research.	“I’m a journalist. I don’t care about doing research in my biology class.”

Table 3. Sub-codes for Control/Agency Code

Using these sub-codes, I analyzed the exemplar, salient details from the three cases that illustrated how they perceived and spoke of having a sense of control over their research writing. Specifically, I examine the prominent ways in which these students’ desire for controlling their research writing manifested in their confidence in their researcher identities, their preoccupation with having choice in shaping their research writing, and their emphasis on their burgeoning professional identities when talking about research writing experiences. While these instances

were also noted in other cases, the three cases speak to how students' concerns about having control over their research writing persist across disciplines and backgrounds.

Confidence in Researcher Identities - Angela

Over the course of the student surveys and interviews, there was a noticeable desire to control research writing projects that stemmed from students' comfort or discomfort with a particular research writing experience. A student's comfort/discomfort with a research writing experience tended to play a major role in how they defined research writing as well as themselves as research writers. Comfort, in this sense, was noted as both how a student described the text/assignment and their sense of security/stability in doing the research writing task. For example, when asked to describe their first reaction when thinking about research writing, these were some of the responses students provided: "daunting, time-consuming," "anxiety, busy, tedious," and "apprehension, pressure." Their comfort or discomfort due to interactions with their professors, peers, etc. (ex: "My professor thought my paper was terrible and not worth his time") will be addressed more in-depth in Chapter V: Student's Relationship with Research Mentors.

With regards to students' desire to control their research writer identities, comfort particularly manifested in how students conveyed a sense of confidence (or lack thereof) in their identities due to boundaries being set by them or their instructor. For instance, one of the more common patterns seen across the comfort/discomfort sub-code was students emphasizing the importance of having instructor feedback on their research writing throughout the process. When asked about a negative research writing experience they had during college, these are some of the responses students provided: "I didn't get detailed direction from my professor until most of the

work was already done” and “A lack of instructions resulted in difficulty in writing this.” This idea of not being given direction from a professor or someone outside themselves persisted across several of the interviews.

To illustrate this idea, I turn to the case of Angela, an English and Sustainability double major transitioning into her senior year. Along with taking courses in both departments, she had also worked as a writing tutor at the university writing center and as a blog writer for a local energy nonprofit. Unlike several of the other student interviewees, she explicitly labelled herself as “not much of a researcher,” though she had done research work in both English and Sustainability courses. In fact, she specifically highlighted her project on designing and creating a book chapter for a future sustainability textbook as a meaningful research writing experience. Though having a multitude of research writing experiences in and out of the classroom, she was particularly concerned about lacking guidance from her professors, connecting meaningful research writing experiences with receiving feedback from faculty. Instances where she didn’t receive regular input from her instructor proved to be more negative experiences for her. For example, she detailed her frustrations with a negative experience she had working on a research paper in a Sociology course as follows:

I really liked being able to use English in that class, but I just didn't feel like there was enough feedback throughout and there wasn't...I feel like just more check-ins and being like, hey, maybe bring an outline to class and we'll discuss it with the person sitting next to you or maybe bring one or two pages to like my office. I feel like something just like that would have been helpful because it was a small class.

While part of this response stems from Angela's relationship with her professor, what is pertinent to examine here is the way in which her desire for control over her text was defined by a lack of confidence in her identity as a researcher. Her discomfort with not having instructor input and the assignment not having enough scaffolding (i.e. more check-ins and smaller assignments to aid in creating the project) suggests that part of feeling in control over her research writing entails feeling confident and secure that she is moving along the "right" path. In that sense, her sense of control over her text was more defined by whether it meets her professor's expectations rather than a desire to exert authority over its design. It was more about working inside the boundaries set by her professor's comments (i.e. "This evidence is strong" or "You need to provide more evidence to prove your point here") rather than seeing herself as in control of determining some of those boundaries (i.e. asking her professor to respond to particular questions or concerns she had about the draft). This is to be expected given that this student was a second-semester junior beginning to be exposed to the professional discourse of her disciplines, English and Sustainability. To her, if her professor provided guidance and feedback, then her attempts at claiming authority over her research writing gained validation.

Despite the experience being negative for her, her professor encouraging her to combine her English work with Sociology did make the process initially meaningful because she was able to exercise control over the design of the project to a degree. She may not have been interested in becoming a sociologist but that guidance showed her that her interests had relevance in the world of Sociology, allowing her to better see how what she had learned could inform her research work in Sustainability and English. That failed to sustain itself in part because Angela felt she lacked the means (not getting more regular feedback from her professor) to exercise a degree of control over her research work. For her, she reverted back to the role of the student fulfilling the

requirements of an assignment rather than a young researcher because she felt her efforts to create boundaries for her research project throughout the process were not validated by her instructor. Though she did feel like she was able to exercise control early on in taking an active role in shaping the focus of the project around her interests, what control she could have exerted was diminished because of her perceived lack of faculty support, so the research process became much like the hurdles that impede genuine learning.

However, I see issues with her perception of her sense of control over this research writing experience because her emphasis on teacher-made boundaries resulted in a more restrictive sense of control. In other words, her sense of control was bound around what she believed her professor wanted rather than what she felt she could do with the new approaches gained from the experience. For example, while she described the early mandated meeting meaningful, she was frustrated by never really receiving feedback during and at the end of the project outside the grade it received. While part of the issue stems from a lack of feedback, it also seems to stem from her reticence to exercise control of her research writing experience by visiting her professor during office hours to talk about her project or by asking her professor for input on the project. For her, it would seem that her sense of control stemmed more from what her professor initiated for her rather than something she chose to initiate. She didn't feel she had agency in part because her controlling factors (i.e. my professor tells me what to do) limited both how she perceived the experience as agentive and what possibilities and literacy practices the experience could afford her. Given how prevalent this pattern was across the interviews and surveys, it can be surmised that part of Angela's desire for controlling her research writing identity stemmed from dependencies upon how her professors took control over the design of her

research project (i.e. setting up times for her to meet with him about the project throughout, giving her feedback rather than her peers, etc.).

Similar to the other double majors interviewed for this study, Angela also conveyed a differing level of confidence in her burgeoning researcher identities depending on what major she was discussing. Particularly, Sustainability played a more prominent role in shaping how she saw herself being a researcher in the future whereas English was more seen as non-existent or taking on a secondary role to Sustainability. For example, when asked if she would describe herself as a researcher, she separated her English identity from her Sustainability one. She stated:

So I'm like, I'm not really that much of a researcher, but I feel like if I had to like choose I'd say like I am in sustainability, but not as much in English because I feel like there's less it's more like analysis and that's classes I've taken and like close reading in English and just going off of like the dictionary definitions or like the book you're reading and less able to like go to like other articles or like other sources because they just want you to focus on that one like part the close reading.

In Angela's case, her sustainability research writer identity felt more defined in part because it felt like something beyond coursework. While Angela's perception of what English research looked like was underdeveloped given her focus on what she felt literary analysis entails, it is worth noting that part of her emphasis on Sustainability was because she saw it more directly connecting to the work she would do after college. In this sense, she felt some control over her English research writer identity but had little idea of what to do with it after her coursework was done whereas she had already made those connections with her Sustainability work. For her, research writing in Sustainability felt more "real" and visible because she saw it existing outside of classroom settings. As she would go on to later explain in the interview, "I feel like it's just

Sustainability already has like the mindset that this is a current problem and you have to like draw on a lot of current sources and past sources like to fix it.” Exercising control over her research writing experiences was more than just the power that she believed she had to determine the course of her research writing, but it was also a matter of her having a sense of what paths she could take because of her research writing experiences or what she could do with the research writing after the course was completed. She had more control over her research writing in Sustainability not just because she was able to align her identity to it but she also was able to align a future identity to what she was doing at the present moment. Put another way, it was meaningful because she knew why she wanted to claim authority over her research writing, building up her confidence as a researcher and giving her a reason to move beyond just being a student writing a research paper.

If we want to help students like Angela gain control over their research writing, then they need to be able to see themselves as research writers and as active members of a discourse community invested in what they have to say as Ivanič reminds us. If Angela wasn’t just encouraged to explore topics of interests but also guided in the habits and practices of a researcher, she may have had an easier time exercising control over her research writing as a young scholar because she would be better able to connect those practices with the identity she was trying to create as part of that community. The role a research mentor plays in promoting such habits and practices will be expanded on when discussing the role of research mentors in Chapter V.

Control, Independence, and Dichotomous Researcher Identities - Katie

While confidence in their identities as research writers played an important role in influencing several of the study participants' sense of control over their research writing, other students noted a desire for greater independence. In the survey responses, students associated that independence with having choices to conceptualize and develop their research writing on their terms. Here are some responses that illustrate this pattern: "I had two classes where I was forced to do research on something that did not interest me and it was dreary and made me want to not ever do research writing again" and "I find when the guidelines are really rigid, it's harder for me to enjoy it. I understand that different professors might prefer this method, but at this point in my college career I am able to identify what source is reliable and accurate and how to use those." This desire for greater independence also manifested in the interviews, perhaps most exemplified in the case of Katie, a marketing major ending her junior year. She had a rather negative perception of research writing in general, labelling it as "painful," which seemed to inform much of her experience writing with research. She also had several misgivings about the faculty given her past experiences with them being negative and informed by restrictions and demands she felt were put upon her.

For her, research writing tended to be a miserable experience not just because it was time consuming, but also because the reasons for doing the work never really felt like they originated from her. When talking about why her initial reactions to research writing were described as awful, she stated, "When writing with research, ugh, it's painful to me. Writing about other people's research has...it's just...I don't like it. I don't care for it. I don't care for long...(sighs) I'm not sure how to put into words. I just...it's mostly things I'm not interested about that have been assigned to me and I just don't care for it. It's very time-consuming things I don't

particularly care about.” While she mentions time and length of writing here, those factors seemed not as significant as having control over her research writing, as she would go on later in the interview to proudly state that the paper that came out of her positive experience was 21 pages long and took a long time to do. What is worth drawing attention to here is her desire to gain greater independence as a burgeoning professional through controlling the course and direction of her research writing. If too many boundaries or restrictions were put upon her research projects or if her research writing was not related to her personal or professional interests, she would disengage and go through the motions as needed.

She would go on later in the interview to emphasize this further, creating a binary of sorts with how she perceived and navigated through various research writing experiences. She would invest her time and effort if and only if it had relevance or value to her. Every other instance would be treated as an academic hurdle to clear rather than a meaningful learning experience. Her perception of research writing through these binaries (it’s either related to my interests or it’s not worth my time) complicated her efforts to develop her information literacy practices because she perceived her research work as being bound by instructor-based restrictions rather than boundaries defined by her, much along similar lines as Angela. So, the only way she felt she could control the situation was through disengaging and going through the motions if the work didn’t align with her professional identity. In many ways, her perception of what research work a professional in marketing does defined whether it was worth investing in a research writing experience. While part of this perception seems to be informed by trends toward students seeing themselves as consumers of higher education or purchasing a degree for future employment¹, her perception also seemed heavily influenced by her desire to exert control over her writing rather than it being defined by her professors.

1. See Molesworth, Scullion, and Nixon’s “The Marketisation of Higher Education and the Student As Consumer: The Student as Consumer” for a more in-depth discussion of this phenomenon.

Her emphasis on exerting control in her research writing through this dichotomy manifested quite tellingly when we talked through a piece of meaningful research writing she brought to the interview, a literature review done in preparation for her honors thesis, which deals with consumer behavior differences between online and brick-and-mortar stores. As she excitedly pointed things out on her computer screen, she stated:

And I didn't really answer to anyone on it, of course. It's for my Consumer Behavior class so I visited her a couple times to make sure it's on the right track because she was going to give me a grade to pass or fail and Shane who was the honors...he's not even really professor. He just oversees the class. We met once a week to sort of just talk about it. And, I didn't really answer to him either. And so I really liked it.

The repeated emphasis on not having to answer to TAs or professors is particularly striking. For her, it was empowering to not have the professor's expectations defining her research writing beyond the simple pass/fail grade for the course. In her eyes, she only answered to herself and what she wanted out of the project, which made getting through the amount of research and scholarship that made up her literature review more manageable. While part of this ownership seemed to stem from her perception of higher education in general (i.e. college's main purpose is to prepare me for my career), it also seemed to stem from what she believed a professional in business should be: someone who leads, designs, and directs research projects rather than being told what to research.

Control, in this sense, help her see the value in developing a research writer identity not just because this was the first step in her honor's thesis, but that such work also had bearing on the professional she saw herself becoming. She seemed to see herself more as a young

professional doing research, emphasized by her comment about the instructor not being a professor, though her experience was still bound around what her instructors and mentors thought of her work (emphasized by her reference to the pass/fail grade and visiting them to make sure it's right). In this sense, controlling her research project didn't just give her agency to develop research the way she wanted, but also to see herself more as a marketing professional.

However, having complete control (or a lack thereof) also influenced which research writing practices she continued to use and which she disregarded after the research writing experience. When describing her research process, she described it as follows:

Oh when I research things I do like I read. I will read endlessly on that first...I'll highlight important things and then I will apply I'll put it into my own words using that as a reference. That's a kind of writing I really like. I'm very much an analytical writer and I like to apply what I've learned, which is why I'm here in college. I'm going to apply it. If I don't like it, I will just paraphrase what I just read and leave it at that. I will not. I don't want to apply it. I don't care.

In this sense, Katie's control over the project influenced whether she would use particular research writing methods. While paraphrasing has value and is used quite extensively in particular fields, here, it seems more a way to quickly repeat what a particular source or text says without really doing the kind of analytical work she would do during projects she was interested in. As with her other research writing experiences, this moment is framed by restrictive controlling factors, in this case, binaries: it must interest or relate to her directly or it is not worth her time. If it's something she enjoys, she will apply herself to it and see how her identity can connect to what she's doing. If not, then she will perform what she believes her professor wants her to do, forgoing developing a

meaningful research writer identity. These binaries seemed to limit Katie's development as a research writer and an aspiring business professional because they created misperceptions of how non-major research writing experiences might still aid her professional research interests. Considering my definition of control here, Katie's sense of control was quite restrictive, limiting how meaningful a research writing experience could be and how it might aid her professional aspirations. This raises serious questions: Is she really learning anything or is her desire for independence and control over her research writing here more a means of maintaining what she already was doing? Put another way, how do students like Katie really see how research writing experiences could connect to the writing they see themselves doing in the future, which in her case was her future as a marketing professional?

Controlling Professional Research Identities - Jay

That concern around professional identities was not unique to Katie. Across the surveys and interviews, students often saw themselves as doing research professionally but not as much in other areas, such as in their personal or civic lives. For example, when asked in what parts of their life they expected to do research writing after college, 51 of the 62 survey respondents said that they expected to do research in their professional lives. In other questions, survey respondents described meaningful research writing experiences as “[making] me feel like a professional early on in my college career” and “a good experience that will prepare me for my future endeavors.” While this concern around professional identities is hardly surprising given that students often come to college with the goal of preparing for a career, what is worth considering is just how powerful these students' professional identities were over determining

what were meaningful research writing experiences and what were not. Though he emphasized the importance of discovery and being able to explore a variety of topics of interest to him, Jay, the junior bioengineering student introduced earlier in the chapter, also exemplified this preoccupation with his research work aligning with his professional aspirations. In his case, this concern about professional aspirations manifested in how he described his experiences doing research writing in bioengineering and his frustrations with a lack of choices over the topic and design of the research work in his major. For example, when telling me about a negative research writing experience he had, he described a group project he did in his major where his group had to select a topic from a list of predetermined options: "...we were all in groups so I couldn't just pick whatever one I wanted. I had to pick whichever one my group decided on so there wasn't a lot of choice. Bio and all the other classes have always been the same project for everybody. You have no choice. They're just like this is what you're doing and this how you need to do it. Go do it. That's kind of it." While Jay seemed to not consider how the practices gained from the experience might speak to his interests as an aspiring bioimager, he struggled to align that identity to the coursework because he felt he had to forgo his interests to collaborate with those with different interests than his. While such collaboration is a common occurrence in professional discourse and he noted having no major issues with his peers, the combination of having to compromise with his peers' interests and what options his professor provided warped a potentially meaningful experience into another hurdle to overcome, much along similar lines to Katie's experience.

The passage also speaks to Jay's desire to have his professional identity validated by his professors. His case was a rather unique one in that he had transferred into the university after completing his Associate's Degree at a local technical college. Noting later on in the interview of

the powerful and meaningful research writing he had done during his technical college experience, he felt that earlier experience validated and spurred his interest in bioimaging because he was able to pursue lines of inquiry that were compelling to him, something he felt rarely happened since transferring to the research university. While the lack of boundaries in his 2-year college experience helped him to develop confidence and authority over his research, his later experiences at the research university were hindered by what he perceived as constraining boundaries that didn't align with his interests in bioimaging.

Jay felt these boundaries constrained his desires for discovering new ideas and concepts in bioimaging because in his eyes, the curriculum didn't afford a space for that identity to develop. When he would describe his experience at the technical college in much more positive ways than his time at the research university, he also emphasized that part of why the earlier experiences proved more positive and more meaningful was because his interest in bioimaging was valued and promoted rather than disregarded in favor of instructor-selected topics. As he notes when reflecting upon his past research writing experiences:

But like here, I know I've been curious about biomedical imaging since before I came here and I haven't been able to take a single class or do a single practical project yet because nobody's researching it. It's not in any of the classes and there's no freedom to research anything in the classes since the bioengineering program is more geared towards people producing pharmaceuticals. Like there's nothing wrong with researching that and like there's people that need to research that but that's not what I was interested in. That's not what I'm doing. I'd rather be doing the bioimaging. At least at this university since I think there's just so many

more kids, it's like a factory. I think there's no room for the curiosity I found at my tech college.

The stark contrast between the two settings is striking. While for him, the tech college experience was defined by freedom and individuality, the research university experience was defined by limitations and uniformity. Even in his tech college courses where he didn't do research related to bioimaging, such as his First-Year Writing course where he did research on black holes, he found those experiences meaningful because he had control over the concept or research question he pursued in his project. For Jay, freedom and having the ability to control his research writing experiences were heavily influenced by whether his disciplinary coursework provided a space for him to explore his interests in bioimaging. When that space wasn't provided, he defined himself as being forced into being like the rest of his peers, directed along a particular trajectory that didn't align with the identity he wanted to explore. Though he did not approach every research writing project in the sort of "do or do not" way that Katie did, Jay still positioned meaningful research writing around how it aligned with who he saw himself being as a bioimager.

He would expand on this idea further when he described a bioengineering course he had taken that was centered around pharmaceuticals. Stating the course "should have been an elective not a major required course," Jay explained why he defined the course as not a particularly meaningful experience using the metaphor of a woodworking class: "I guess if you are forced to take a class in like, woodworking, you might be interested in that but maybe let's just say you don't care. Like you have a chair, and you're perfectly content to let other people make the chairs and write about them but you're forced to write about chairs or work in the woodworking class." The prominence of control in this woodworking metaphor warrants greater consideration.

Because he felt he had little use for learning about pharmaceuticals (the woodworking in this case) since he had no interest in a career in making pharmaceuticals, he labeled the experience as not relevant or meaningful. He also felt he had little power to change that trajectory since the course was required to complete his degree. Control over his research writing experiences, then, was influenced by this feeling of being forced to take up coursework that didn't align with who he saw himself being professionally and lacking spaces to pursue the research work he wanted to pursue.

However, much like Angela's and Katie's cases, Jay's perception of meaningful research writing was limited by a rather restrictive sense of control that didn't allow for considerations on how research writing experiences might aid him in his future prospects, even when they didn't afford spaces for pursuing his specific research interests. Because his projects were often quite proscriptive and connected to areas of bioengineering that didn't appeal to him, he dismissed those experiences as having little to offer him. While the way in which he described his experience is more akin to the language of a young academic ("that's not what I'm doing") than Angela and Katie, he too also may have missed out on valuable research experiences that could provide information literacy practices useful for his bioimaging work because of this rigid perception. This raises an important question: how do research writing instructors help students to exercise control over their research writing but in doing so, help students to push beyond the rigid perceptions of what it means to be a research writer?

Supporting Student's Control over Research Writing Experiences

While I will address this question more in detail in Ch. 5, I want to conclude this chapter by exploring it a bit while talking about the student data. Across these student responses and the

prevalence of concerns around controlling their research writing experiences, it is abundantly clear that the student participants cited a certain degree of control over their research writing as a significant part of what made such writing meaningful to them. The way in which the student participants described who they were as a research writer during and after the experience was significantly influenced by whether they had the chance to exercise control over what they were writing. Choice, then, not just in terms of topic but also in terms of conceptualizing the design of the project itself, would seem a viable consideration for writing instructors who are working towards research writing assignments that better promote students understanding and integrating themselves into that field's discourse. This conclusion is much in keeping with the conclusions of Eodice, Geller, and Lerner's *Meaningful Writing Project* study as well as other studies into motivation, agency, and literacy, including Williams's *Literacy Practices and Perceptions of Agency: Composing Identities* and Herrington's *Persons in Process*.

However, that desire for control was also influenced by what identities and perceptions about research writing students brought with them into the experience, such as Katie and Jay, whose restrictive sense of control compartmentalized their identities as researchers, potentially limiting what meaning could be gained from indirectly-related experiences. When students had an unclear sense of who they were as a research writer, they tended to have a harder time connecting their research writing work into future meaningful experiences after college. These students tended to create restrictive boundaries around an agentive research writing experience based upon what they believed their instructors wanted or what they had done in the past. These boundaries, then, resulted in a more restrictive sense of control for these students because they tended to struggle with seeing how research writing might relate to their lives after the course. In Angela's case, her Sustainability research work felt more relevant and more in her control

because she could see those conversations happening on her social media feeds while her English research experiences ended once her classes were done. Along with that, when students had a clear sense of who they were as a researcher, such as Katie and Jay, they tended to emphasize experiences outside of that field (or sub-field) as being less meaningful and in more school-related terms. These patterns raise some important questions about the trajectory of research writing that students do across their tenure in college: while it seems that much of the meaningful research writing experiences that students have occurs late in their academic career, such as senior seminar and capstone projects, what does that mean for research writing in the earlier stages of their career? Is it merely a means to an end, preparing students to enter disciplinary discourse and research methods, or do those experiences have vital meaningful moments that students may be missing? Also, how can writing instructors aid students in developing a more flexible sense of control that allows for new approaches to research writing to inform and work with the research writing they desire to do after the course?

Part of addressing these questions is introducing students to the research methods and practices of that discipline in introductory courses. That doesn't necessarily mean that students in an intro to biology course should be preparing studies to publish, but rather, they could be learning what it means to be a professional in biology. So rather than reading textbooks, students are reading scholarship or other texts of the field; it's about making the classroom more a space of apprenticeship rather than a replication of what students have experienced in their high school careers. As Malachowski's 2003 study on systemic approaches to implementing undergraduate research has noted, that is not always an easy task, especially when department culture and resources hinder such efforts. However, if we want students to not just feel in control of their writing, but to also develop a sense of agency as active members of their disciplines, then we

need to provide the space and time to assist them in exploring their research writing as introductions into what they want to do with it after college. Undergraduate Research programs can also aid in promoting a campus culture of research apprenticeship, offering resources for helping faculty transition into the position of research mentor, and providing opportunities for students to take university-wide courses around the process of designing and conducting a professional research project.

Another part of helping students achieve a greater sense of control over their writing is helping them to see their research writer identities as an evolving rather than static entity. A student like Jay may identify as a bioimaging professional, for example, but that student's perception of what it means to be a bioimaging professional may not take into consideration the various fields and areas of coverage that they may enter as a professional in that field. However, while labelling research in professional ways was a common response across the surveys and interviews, there were also a number of students who felt they would be doing research outside that part of their lives. They would be exploring and examining presidential candidate's policies and platforms; they would be interrogating a company's business practices seeing if they were using sustainable practices; they would dive further into issues after participating in conversations over social media.

Therefore, if part of the goal of general education courses is exposing undergraduates to research across several disciplines, not just their major, then we, as writing instructors, must reconsider how we aid them in seeing research writing (and their identities embedded in that writing) as multifaceted rather than one-dimensional. While providing them the space to see how their interests can speak to the research work done in their non-major courses offers up a great way to show research writing's multifacetedness, it might also entail designing research writing

curricula and student mentoring around challenging students to draw connections between different fields, a practice commonly seen in interdisciplinary fields, such as Biomedicine and Rhetoric and Composition. By doing so, they may be better able to exercise control over those new experiences that are not just the ones they expect to experience in their professional lives because they see themselves as research writers in multiple discourse communities. They may never find themselves scouring through EBSCOhost or other academic databases, but the practices and meaningful research writing gained from those experiences can inform their research writer identities beyond just being prospective professionals. Having a sense of control isn't just a matter of having power over one's writing but it also having a sense of how one might use what one has learned. The trick, then, is helping students to see ways in which those experiences can be used after college, which starts with how we mentor our students and help.

As sponsors of literacy who play a critical role in shaping students' perceptions of the literacy practices (Brandt), writing teachers across the discipline have a valuable opportunity to mentor students to exercise greater control over their research writing. When students described their desire to have more control over their research writing, it tended to be associated with a conflict between who they saw themselves as and who they thought their instructor or professor wanted them to be. As noted in the cases mentioned above, such as Jay and Katie, excitement and frustration was often reinforced by what kind of relationship students had with their instructor or professor. The next chapter delves into this further because while students may call for great control over their research, part of developing meaningful research writing and helping students develop a sense of agency in their research writing stemmed from what kind of relationship they had with their research mentor.

CHAPTER V: THE ECHOES OF RESEARCH MENTORS ON UR IDENTITIES

It's a cold October day in New Hampshire. The leaves are slowly beginning to transition into vibrant autumnal colors. A lot slower than usual. I bristle as the cafe door opens, welcoming in the biting cold. It is a usual spot for my advisor and I to meet up to talk about my dissertation and plans for the semester and beyond. Sometimes every week, sometimes once a month, we meet and chat. I fidget in my booth as I wait for her to read over the previous chapter of this dissertation. We've met together hundreds of times by this point and her guidance has been more than invaluable throughout my doctoral work, and yet here I am, anxious about what she'll think. As she's still reading through, she says, "This a lot better. The sections work a lot better now that things are set up by case study. I feel like I have an easier time understanding these particular students' experiences now that I didn't have with the last draft." My muscles relax as I listen to her suggestions for moving on with this draft.

In considering moments like these, these echoes of past research mentors still inform who I am as a research writer and my research writing process. Most of what I knew to be a working relationship with a research mentor came out of grad school while my undergraduate experience was often defined by feeling research writing served little purpose beyond demonstrating competency and getting by to the next degree requirement. Coding the data for this dissertation provided a number of instances of students voicing similar joys and frustrations regarding their relationship with research mentors. Across the survey data, when students referred directly to a research mentor, it was usually related to the level of instruction or guidance given to them on a research project. In the interviews, students noted how important of a role their interactions with a research mentor played in influencing how they developed an identity as a research writer active in their discourse community, a process outlined in Chapter I when discussing Hyland's

use of the term identity. To reiterate, Hyland outlines the process of individuals developing an identity through the relationship between what they have experienced as well as what possibilities they see for themselves in the future. “They learn to be the people they are through the meanings they give to their interactions. They gradually understand community expectations through the ways others respond to their discourse and behaviours” (Hyland 21). Part of this gradual understanding, then, is shaped by the relationships that students have with the various research mentors they work with throughout a learning experience.

Through this chapter’s examinations of undergraduate research mentoring, I call for greater integration of research mentoring in both the curriculum and in how writing instructors across disciplines use research writing to professionalize their undergraduates. More specifically, this chapter examines student survey data and three exemplar student interviews that speak to major patterns seen across the data regarding undergraduates’ relationships with their research mentors, specifically students’ desire for their mentors to engage with them as young professionals rather than as students; to approach their interests with curiosity and investment; and to make time to work with them throughout the process. Given that these patterns were typically bound up in professional identities that students were seeking to create, the chapter also examines the challenges and implications that such preoccupation with professionalization create for healthy mentor-mentee relationships. The chapter concludes by providing some considerations for how meaningful research mentorship can be promoted from a curricular and campus environment perspective, with much of the practical aspects of those considerations being expanded upon in the final chapter of this dissertation.

Mentorship and Literacy Sponsorship

Before examining the three cases (Cassie, Erica, and Kendra), I first want to establish what I mean by mentorship and how I am analyzing it in this chapter. With regards to what I mean by mentorship, I am specifically building on Palmer et al.'s definition of it. In their review of the literature, they highlight eight components of how scholarship has defined research mentoring, five of which warrant closer consideration for this chapter:

- (1) Mentors provide direct emotional and psychological support, (b) direct assistance with career and professional development, and (c) role modeling.
- (2) Mentoring often involves direct interaction.
- (3) Mentorships offer a safe environment for self-exploration and self-management.
- (4) Mentoring results in an identity transformation in the protégé.
- (5) Mentorships produce positive career and personal outcomes (Palmer et al. 414).

While these components are geared more toward faculty mentors, I would also extend this definition of mentorship to also include other research mentors, such as librarians, TAs, other undergraduates, and family members. While such mentors do not have the same kind of interaction or relationship as a professor or instructor does with a student, their interactions with students often consist of several of these components. As with two of the cases to be discussed later on in the chapter, family members played a vital role in both supporting and guiding those students through their research experiences in a way beyond just moral support. A research mentor, then, is as much a sponsor of an undergraduate's information literacy as they are a means of support and guidance through a research project.

My definition of research mentor specifically uses Brandt's idea of a literacy sponsor given that it best encapsulates the pervasiveness of a mentor's influence on how a student

internalizes and perceives themselves as a researcher and even more importantly, the conflict between old and new sponsors with differing goals. Brandt notes this conflict when concluding her influential book *Literacy in American Lives*. She states:

Sponsors can be benefactors but also extortionists – and sometimes both in the same form. Often...opportunities for literacy learning – including the chance to divert resources for projects of self-development or resistance – open up in the clash among sponsors. These clashes typically are between long-standing residual forms of sponsorship and the new: between the lingering influence of literacy’s conservative history and its pressure for change. The to-and-fro of this competition can make openings for literacy learning multiple, various, yet also unstable and frustrating to learners (Brandt 193).

We see this conflict in undergraduate research mentorship through what mentees and mentors bring to the experience, from what we believe is important about undergraduate research to what both parties perceive to be the purpose of research as an aspect of writing. For example, if a professor perceives research writing as a vital component of participating in academic discourse but the student perceives it as a class-based activity after years of writing research papers and reports on broad topics that were shared only with the instructor, that disconnect can begin to explain why they might perceive the act of doing research as not meaningful. Therefore, part of understanding how relationships with research mentors work is also understanding how other sponsors (both corporeal and ideological) form a major part of influencing both the mentor-mentee relationship and what students internalize and take from it once it is over.

Perhaps the strongest overwhelming ideology that warrants consideration before talking about the cases is students' preoccupation with professionalization and understanding how their curriculum prepares them for their careers. These students are all what would typically be considered as traditional-aged undergraduates at the end of their time in college (roughly ages 20-23) and went through middle school during and after the Great Recession in 2008. The economic value of one's learning combined with efforts outside of higher education, such as Bill Gates' efforts to revamp K-12 education and his more recent work with trying to quantify the worth of a college degree¹, create even further influence over these undergraduates' concerns for the professional value of their education.

Even though these economic factors aren't necessarily born from the mentor-mentee relationship, they definitely inform it. As Brandt notes, "Fierce economic competitions, including the changes in communication they stimulate, can destabilize the public meanings and social worth of people's literate skills. They also can reconfigure the social and economic systems through which people must pursue literacy and pass it along to others" (Brandt 26). This competition warrants consideration when examining the following student cases because while a student may have several sponsors of literacy throughout their lives, those sponsors do not wield the same level of power over influencing that student. That imbalance of power influences both how a student perceives interactions with a research mentor and what students internalize from that experience. The following analysis, then, is informed by not just my definition of a research mentor (i.e. as information literacy sponsor) but also the competing influences from literacy sponsors (ex: research mentors and calls from employers for more career

1. For more information and an analysis of the Gates' efforts in education, see Nicholas Tampio's *The Conversation* article on the Postsecondary Value Commission.

training for undergraduates) that shape how students perceive a research writing experience as meaningful.

Analyzing the Student Data

Along with examining the student survey responses, I chose three exemplar student interviews (Cassie, Erica, and Kendra) for this chapter. Specifically, their interviews highlighted three major patterns in the data related to research mentoring: 1) the importance of professional support as a means of building an identity as a research writer, 2) the challenges that come with research mentoring in courses, specifically the ways in which students perceive a research mentor's unavailability or perceived apathy for the student's research writing, and 3) the role of research mentors outside the classroom in shaping a meaningful research writing experience. Using the methodological frame outlined in Chapter II as well as Brandt's concept of literacy sponsors as a theoretical lens, the student data was coded using the sub-codes for relationships with research mentors. They are reiterated here in Table 4:

Name of Sub-Code	Description	Example
Supportive	Instances where students described their research mentor as supportive of the students' research or their concerns/fears with doing research.	"The TA was always happy to give detailed feedback on our research papers to help us improve. She would also give us recommendations to check out should we want to pursue our research further."

Rapport/Collegial	Instances where students described their research mentor as collegial. These students felt like they were treated as young professionals in the field.	“The way the professor structured the class was showing us what we could expect when we start doing marketing research for our jobs.”
Apathetic/Absent	Instances where students described their research mentor as unavailable or disinterested with the students’ research or their concerns/fears with doing research.	“I don’t think my professor really cared about my research. He was never available during office hours to even talk about it.”
Condescending/Infantilizing	Instances where students described their research mentor as treating them as incapable of doing meaningful research.	“The professor just wanted us to pick our topic from her list and do a report on it using the textbook. It just felt like another research paper I’d done before. Blah.”

Table 4. Sub-codes for Relationship with Research Mentor Code

Using this code, I analyze how these three major patterns around research mentors manifested across the student survey responses and interviews. Through this analysis, I illustrate the influence particular research mentors had on these students’ research writing experiences and the kinds of research writer identities students inhabited after those experiences. The subsequent sections address each of the three patterns by using one of these three student interviews along with examples of how that pattern manifested in the student survey data.

Professional Support as a Means of Building Research Identities - Cassie

One of the more common patterns seen from this survey and interview data was the importance of students’ research mentors providing a certain degree of professional support for

their projects, experienced early in their career and later on, such as through capstone courses. Part of feeling that such support was meaningful entailed feeling that their mentors validated the professional identity they were trying to create. In the survey responses, this feeling of validation manifested when students praised (or criticized) their instructor/professor for allowing them to pursue their research interests in the bounds of the course. Here are some examples from the survey responses that illustrate this connection between meaningful research writing and mentoring support (or lack thereof): “While [doing research on] syntax was difficult, our professor gave us complete control of the assignment and I felt like I could do whatever I wanted with it.” “I had to write a paper on memory using articles selected by my professor...I hated having to write on something I wasn't interested in.” Across the survey responses like these examples, it wasn't just a matter of having the agency to pursue their research interests, but it was also a matter of how the research mentor mentored students as young professionals who could potentially contribute to their fields rather than just students fulfilling assignment requirements.

This preoccupation with professional research interests was also noted in the student interviews as well. It was best illustrated by Cassie, a white, senior, journalism major, transitioning to graduate school to specialize in foreign policy journalism. Across her survey responses and throughout our interview, she frequently distinguished meaningful research writing experiences as ones that involved supportive relationships with instructors and other mentors for helping her develop an identity as a journalist. Part of this entailed feeling like she was being taken seriously as a professional rather than just as a student. For example, when talking about the meaningfulness of being able to pursue her interests in research projects, she highlighted a particular experience she had in a first-year college journalism course. In detailing

that experience, she put a great deal of emphasis on her interactions with her journalism professor, who encouraged her to pursue her interest in the use of military drones in Afghanistan during 2015. She states:

My professor actually encouraged me to [pursue the topic], you know. He was like, yeah, I'm so glad you're bringing not only what you learned a couple months ago, but you're bringing your personal interest with it. You're combining it with it with the skills you picked up from this class to have a final product that will satisfy the requirements, but also it will satisfy yourself because you're going to be enjoying it. So you're going to do a much better job and you're also going to learn a new thing, you know, you're going to be able to talk to this expert which is super cool even if it's another professor in another department here. You're going to be able to talk to them and you know, just get out of the way like all the questions you have about the issue and all this stuff.

This professor's success as Cassie's research mentor was complemented by Cassie's parents' continual encouragement of her interests in research. She was in many ways primed for meaningful journalism research in part because of being raised in a household that encouraged her to pursue research in politics and foreign policy. That said, it is worth noting that part of what made this interaction meaningful for her was because Cassie saw the experience as an important step in exploring her interests as a fledgling journalist. She felt her instructor's encouragement as a validation that she was more than just a student taking a course but a young professional learning what she can add to journalism.

These practices (connecting her interests with the work of a course and pursuing questions by talking with other professors and journalists) would manifest later on when she

described more recent practices. For instance, her most positive research writing experience in college was a research project in an upper-level political science course where she coded data and later presented her findings at the university's undergraduate research conference. She described her political science professor as "very hands-on...just learning how to actually use the coding and analyze the data. He was one of the professors that believes in 'You learn the most on your feet.'" While this would suggest that Cassie found hands-on research writing experiences as especially meaningful, it wasn't the determiner that made an experience meaningful. For her, the importance came from her professor treating her as a fledgling journalist interested in politics and foreign policy, making the course an important stage in her development as an aspiring journalist.

Cassie would later highlight that part of what made this happen was feeling able to meet with her political science professor regularly to get feedback on ideas and concerns she had regarding the research process. She explained:

It's like, you know, this isn't working. I'm getting frustrated. I'm going to throw this out the window like what do I do? And he was very open to not only helping me with the same text with actual research itself but he also helped me, you know, we had a lot of discussions of like, oh, this is actually a really cool finding that you had. Why don't you explore this more?

For Cassie, her mentor asking her questions and helping her reconsider avenues and questions to pursue validated her interests while also helping her to learn how to merge the political science work she was doing with her professional aspirations as a journalist. I argue that the fact that her instructor integrated regular and varied research mentoring opportunities to work with Cassie on developing her professional research interests

proved to be highly influential in making the experience meaningful and one she felt she could build upon in her professional aspirations. This sponsorship moment worked in part because her professor made it an important and regular part of the course rather than a one-time occurrence. Part of creating meaningful research mentoring experiences for students like Cassie, then, would seem to stem from creating and sustaining opportunities for those students' ideas to be supported and guided.

That said, however, this kind of research mentoring wasn't the case for her negative experience, a hands-on Chemistry project where her and her group members were tasked with collecting water samples from a local pond and analyzing their components. In this experience, she defined her mentors (her Chemistry TA and her group mates) as either absent or in contention with her ideas and found the experience irrelevant to her interests as a journalist. For example, when describing her lab instructor, a graduate TA, she described her as having "a lot of her own work to do," a theme expanded upon when discussing the next student case. Cassie explained in her interview, "So even though [the graduate TA] did devote one of our lab classes for us to just...get our design groups down to a final decision on what we're going to study, even though we had those four hours to [get support from the TA], we didn't have much contact through [the project]." This Chemistry experience failed to be meaningful for her not just because it didn't directly connect her interests in foreign policy into the work of the course, but she also perceived her TA as being less invested in trying to help Cassie connect her research interests into the experience.

Granted, part of that conflict stemmed from the dichotomy Cassie created for her research writing experiences that was highlighted in other cases in Chapter IV (i.e. it's either worthwhile because it relates to my professional or personal interests or it's not because it doesn't relate).

This is perhaps best illustrated when she described her annoyance with the research task of collecting water samples where she states, “I mean I couldn’t care less if there's life in that kind of pond over there, which was all mushy. I don't care about that.” So, even if her Chemistry TA had validated her interests, Cassie had written off those experiences as not meaningful and more a means of fulfilling her degree requirements. What sponsoring the TA and her peers provided was hindered because she wrote the experience off as not relevant.

Active and continual support from a research mentor proved most successful at encouraging Cassie to develop and internalize information literacy practices when she believed forming a relationship with that mentor would aid her in preparing for her career. While certainly not every class should be focused around the process of doing professional forms of research, research support, especially for students like Cassie, does require more active integration as an integral part of the research writing experience and an investment toward helping students craft a identity in a discipline or discourse community.

The Role of the “Busy Professor” in Shaping Research Mentorships - Erica

The need for more integrated mentoring into research writing experiences is perhaps best accented by how significant of a role students’ perceptions of their instructors as “too busy” for them played in influencing how they saw themselves as research writers. They felt this perceived apathy was not just for the research writing they were doing but also for the learning process itself. For example, when asked to rate which factors were most influential in making the experience feel negative for them, over half of the survey respondents positioned the instructor’s role in the project as being one of the top three factors for making the experience negative. When asked to explain what the negative experience entailed, students noted the absence of instructor

support or an absence of communication between them and their instructor: “lack of communication between teammates, lack of guidance from instructor, last minute work” and “I never got feedback [from instructor] on the final paper itself, either, so it sort of felt like a waste of time.” While students’ perceptions did not always account for their misunderstandings of the realities of being a professor at a research university and uncertainties with reaching out to their instructors or TAs for support, this breakdown in communication resulted in making the whole project feel dreadful and something to be completed in a hurry.

While several student survey responses noted this lack of communication or collaboration with their instructors, one of the more intriguing cases from the interview data was Erica, a white, junior, neuroscience and psychology double major. As one of the few transfer students amongst the interview participants, Erica’s experience at her former institution, a small liberal arts college in New England, provided a meaningful comparison to explore her perception of what she felt was her research university professors’ indifference to her research writing.

For instance, during our interview, she described her interactions with several of her professors as cold and impersonal. She states:

Yeah a lot especially here where it's very like research-driven, so a lot of the times professors only teach the bare minimum and then like they have the requisite office hours, but they really don't want to see you and they kind of make that clear when they go over like the syllabi and even if they have posted office hours, like either there's a big long line of students asking like conceptual questions where you need to know for the exam, so by the time you get to the lab report like you had maybe had like 10 minutes with them and you can't really go

and have a meaningful productive conversation. Some professors just outright said I don't want you in my office hours. Like this is basically not my problem.

While the anger in her comments is palpable, the relationship between apathy, time, and meaningfulness is worth noting here. For her, research mentoring at the research university had been mostly defined by her professors being too busy (long lines at office hours that hinder any attempts to mentor research projects) or too disinterested in working with her (“this is not my problem”). While she was able to pursue and develop other research projects and was not deterred from continuing to pursue a career in doing psychological research, these experiences did influence how she saw herself as a research writer at a research university. Much like Cassie’s experience with her Chemistry TA seemingly being too busy to mentor her through her group’s research project, Erica also perceived herself as just another student to inconvenience the professor rather than a young scholar passionate about doing psychological research.

This perception also influenced her research writing process, particularly toward making her loathe having to write her lab reports and research papers for those courses. When describing one of those courses, an introduction to physics course, she states:

...like it was always the last thing I did it was I would put it off because it made me feel gross inside. And it was just not a fun experience like okay, you don't care about me. Why do I have to do this really perfunctory thing...and it's like I'm a junior. I feel like I put in my sort of time as you know, like lowly taking all of those boring classes and I wanted to have that relationship with a professor and be able to get feedback. I was just like I don't want to do this.

Granted, it is important to consider that courses like this one typically have large class sizes where the kind of mentoring she was expecting face multiple complications because of the sheer

number of students. Much like Michael in Chapter 4, Erica also misses potential connections the experience could provide in part because she felt it was not the kind of research work a junior should be doing. That said, while part of her perception here is informed by her frustrations with being required to take lower-level courses after transferring to the research university, her professor's comment about asking students not to visit him during office hours and her inability to have much of a mentoring relationship with him resulted in her writing off the experience as a waste of time. Her feeling "gross inside" when doing her research projects for that class also suggests an important consideration when thinking about research mentorship. If students like Erica think instructors do not really care about the work their students create, then that can have a strong influence over how students go about the research process. In this case, that meant making the research process a tedious school assignment to get out of the way rather than an opportunity to develop information literacy practices or even a research writer identity. For Erica, that the lack of a continual channel of mentoring support and integrating mentoring opportunities into the course created a disconnect between what Erica wanted out of her research writing experience and what the professor seemed to have designed for that assignment.

This tediousness was not the case when it came to her earlier experience at her liberal arts college. For her, those experiences helped cultivate her desires to pursue psychological medicine. For example, she described her interactions with her Sociology of Medicine professor as enabling her to see not just why she was learning what she was learning but how she might apply it professionally. This mentoring through helping students build connections between the content and possible future applications also manifested in how she described how he mentored them through the research process. She states:

He kept like grounding us and making sure we were on the right track. He had due dates for drafts and then he would sit down with each of us for an hour for each draft and give us sort of his feedback on organization. He gave us like resources that we can use with the Writing Center or other research or like professors or seniors who would be able to help us and give us some more guidance as well as like actual papers and what they traditionally looked like so you have something to compare to and also like the more you read those research papers the more you were able to write them, so he kept on using all sorts of different teaching methods. And kept us really engaged involved.

Compared to her experiences with feeling like some of her professors at the research university were disinterested in her research work, this moment proved to be meaningful in part because she felt her professor was invested in her development as a researcher interested in medicine. He made time to work with her one-on-one and by providing a variety of resources to help “ground” her in how she might use the literacy practices she learned in future research projects. Unlike the later experience, that also translated into her feeling both engaged and excited to do the research assignments of the course because she knew her professor was invested in what she pursued.

Once again, the important implication from this student’s experience is how important it is to continually engage with students in research mentoring through the process and to guide them through the various new challenges the experience presents. If we want undergraduates to engage with research writing and to develop disciplinary identities that aid them in their future academic and professional pursuits, then this kind of continual support is vital to promote student engagement.

However, I would also argue that her perception is complicated much in a similar way to Jay, the student whose experience at a technical college and a research university was discussed in Ch. 4. In Erica's case, her experience at her first institution tended to inform how she defined research mentorships at the research university. If those mentorships were not like what she experienced at her liberal arts institution, they were perceived as inadequate to meeting her needs. This distinction isn't entirely surprising because generally speaking, liberal arts colleges tend to put greater emphasis on teaching and service as well as having environmental conditions that are conducive to strong mentorships, such as small class sizes and more time available for working with students one-on-one. As she explained in the interview, this Sociology of Medicine course had 12 students in it, something that was not the case for her course at the research university with classes sizes of at least 40. That said, it is important to note that she had meaningful research writing experiences at the research university, particularly her work with a local high school in developing a writing center. However, the disconnect between her coursework at both schools and her perception of research mentorship from her liberal arts college experience not adapting into the new learning environment of a research university resulted in her disregarding the potentially valuable information literacy practices she may have been exposed to in those negative experiences at the research university.

This disconnect further emphasizes why integrating research mentoring into the curriculum is so important. While certainly such mentoring poses logistical challenges, if we want students to build upon past research writing experiences rather than dismissing them as irrelevant, then a sustained and consistent level of mentoring support and a clear mentoring network is vital for students like Erica to see even frustrating research writing moments as opportunities rather than pointless endeavors.

The Role of Research Mentors Outside the Classroom - Kendra

Even in instances where students felt they did receive support from faculty mentors, how they perceived their research mentor's attitude toward them and their work played an important role in influencing how meaningful the experience was for them. For example, one of the patterns seen in these survey responses when talking about a negative research writing experience was students connecting meaningful research writing to feeling that they had to meet their research mentor's perceived expectations. Here are some examples of how students described this feeling in the survey responses: "The professor was opinionated. So like you've had to find out what she believed" and "If I don't tailor my writing to a specific professor, I won't do well." This pattern of feeling they had to meet their instructors shifted research writing to being an act done primarily for making their professors happy rather than being a valuable step towards developing a disciplinary and professional identity. A research mentor's perceived attitude toward their students, then, seemed to play a role in shaping how meaningful a research writing experience was for these students.

Across the interviews, one case exemplifies this significance of how a student feels how a research mentor perceives them as a research writer. Kendra, an African American neuroscience major who is now a senior, was one of the few participants to be a McNair scholar, a federal educational program designed toward getting more students from underrepresented groups into doctoral programs by providing those students with research support and research development opportunities. In Kendra's case, that consisted of presenting her neuroscience research at a conference and the experience of discussing her research work with fellow scholars rather than the students and professors of her university.

This opportunity proved to be an especially meaningful one for her as she described the experience as confirmation that she wanted to pursue a career in neurological medicine. Specifically, her interactions with a faculty member she met at a McNair Scholars conference, did much of the same that Cassie experienced with her faculty mentor: her identity as a young professional in the field was taken seriously and validated. When narrating through her time at the conference, she described her interactions with this professor as:

...I met a professor and he was really intrigued to meet me too, so just like that first initial like warm welcoming. I was like, oh my God like this is awesome...like for the rest of the day, I was just telling everybody I was like, oh my God, like I met this really cool guy. He was awesome. So, he gave me a tour of his lab. I met his postdoc stuff like that and everybody was just so kind, so I'm like, "I love this. I love this" and then he was like "Hey, like you want to come to like the lab meeting?"

In this instance, this professor's excitement for Kendra's research and his invitations for her to observe his team's lab meetings helped her to not just see what it was like to work in a large university's science lab, but it also aided her in internalizing her identity as a researcher in neuroscience. As noted in Chapter IV, for an undergraduate to be able to develop a professional disciplinary identity, "[they] have to negotiate an identity within the range of possibilities for self-hood which are supported or at least tolerated by a community and inscribed in that community's communicative practices" (Ivanič 82). In Kendra's case, she was not just a visitor; she felt she was treated as a prospective member of the lab. So even though they did not have the same kind of ongoing mentorship that she had with her faculty mentors, this moment of sponsorship proved an especially meaningful moment for Kendra. Such moments are invaluable

for aiding undergraduates like Kendra in not just developing a disciplinary research writer identity but also for ingratiating those students into our discourse communities.

This kind of meaningful interaction with a research mentor was not always the case, however. In the case of her coursework, while it had been mostly positive, her perception of it (and her identity as a research writer) was significantly influenced by an earlier negative experience she had in a pre-med course. She described the course as being an introduction into the professional world of medicine and learning how to create documents for med school applications. One assignment she was tasked to do was crafting a personal statement, a project that involved her doing quite a bit of research to determine the core elements of what makes up a personal statement. During the class where her and her peers brought in their drafts for peer review, her professor read hers during the class, leading to this exchange:

So then she comes over at me and she reads mine aloud and says like this like awful...I was just like I'm like, okay. She was like, this is not like she was like you're not going to get into med school with this. I was just like okay...You called me out in front of everybody like this is great, and I just like maybe it's just not for me. Like I mean I do actually understand I'm not good at writing like I understand that but like for her to say in that way I was just like, all right, I think that's a little too far.

While Kendra labelled the experience as her instructor trying to prepare her for the harsh realities of trying to get into med school, the mentoring relationship broke down in part because Kendra perceived her professor's comments as a rejection of her identity as a prospective medical student and professional. That rejection, in turn, also influenced her perception of being a "bad writer," a theme that would recur when she would talk about

doing research writing. While other past sponsors no doubt influenced her literacy practices (she referred to herself as “never being a good writer”), the overwhelming presence this experience seemed to have on her identity as a research writer and young professional cannot be ignored as it persisted even through talking about her more recent research writing experiences.

However, another literacy sponsor for her, her mother, shifted her perception back to seeing herself as more than capable of doing it. Later on in the recount, Kendra noted that the experience was so negative that she did something she rarely did: call her mother to talk about it. She recounts:

...I was just like I was like, should I be doing this? I was like is this really like am I just kind of just like that happy person, American Dream, think you can do whatever you strive out to do? And she was like you're going to be like the first one of the family to graduate from college. She was like if you want to like obviously you set your mind to go to college. She's like if you're just here she's like basically she probably said cheesy stuff like along the lines of like don't just let that one person prevent you from going on.

Though not a typical research mentor, her mother's guidance in refocusing Kendra's efforts provided similar literacy sponsorship as that of the professor she met at the McNair Scholars conference she met. Much like in Cassie's case with her family encouraging her research efforts, Kendra's family, her mother in this instance, played a significant role in shaping how she perceived herself as a fledgling researcher. Kendra's mother influenced how Kendra compartmentalized her negative experience with her research mentor's views of her research writing. Rather than being perceived as evidence

that she was unfit for the medical world, Kendra saw her instructor's criticisms as merely one perspective and ended up using it to motivate her toward her aspirations in medicine, culminating in becoming a McNair Scholar and presenting her kinesiology research to several scholars in the field.

While this finding highlights an important area for future study around the role of familial literacy sponsors in influencing a student's research writing experiences, it also speaks to the powerful influence of a student's perception of how they research mentors see them as research writers. If we, as writing instructors and administrators, want our undergraduates to embrace a professional identity as an active member of our disciplines, then we must reconsider how we create research mentoring opportunities that welcome and guide students into those discourse communities and treat them as young scholars in our fields. If we want our fields to thrive and for new voices to enter our disciplines, then we must reflect upon how our mentoring efforts in and outside the classroom help students internalize research writing identities that matter to them.

Developing Meaningful Research Mentoring Environments

This chapter has argued that creating meaningful research mentorships entails 1) an active integration of research mentoring into writing curriculum, 2) a sustained and consistent level of support throughout a research project, and 3) a research mentorship environment that acknowledges and guides students efforts to develop a discourse community identity.

Undergraduate research mentoring is relevant and important to an undergraduate's curriculum because it helps students to create and position an identity in their field, seeing how they could contribute and participate in that discourse during and after college. As education scholars

Griffin et al. note, “Developmental interactions that established accessibility and fostered trust, challenged students while providing instrumental and emotional support, and offered encouragement as students found and expressed their voices and individual interests formed strong foundations for students to find their own voices” (Griffin et al. 7). Considering the chapter’s claims and Griffin et al.’s argument here, if we as educators are to support undergraduate research as a developmental step in students becoming professionals in their fields, then we must consider the kinds of learning environments we create that promote integrated, sustained, and meaningful research mentorships. It is not just on faculty to create learning environments conducive to meaningful research mentorships. Rather, it requires faculty and staff to work together to create a campus environment that supports research mentorships.

Part of developing an integrated and sustained space for research mentoring in the classroom entails reconsidering how we act as information literacy sponsors for our students. For example, composition scholar, Ryan Dippre takes Brandt’s concept of literacy sponsors and builds upon it with his own concept of “sponsorshaping.” He describes the concept as a means for teachers (K-12 in his case though much of the concept would apply to college instructors) to “...shape the sometimes-contradictory messages of distant sponsors as they enter the classroom. Describing the sponsorshaping that occurs in the classroom reveals the power that classroom teachers have when representing, through talk, tools, and text, the sponsors in their classrooms” (Dippre 3). In the case of research mentoring, sponsorshaping would ideally provide instructors with a means of using research mentoring to help them shape how those sponsors show up in their interactions with their mentees.

In some ways, that is seen in the case of Cassie, Kendra, and Erica’s cases where their positive research writing experience consisted of a mentor who aided them in connecting what

they were doing with what they could do with it in the future, even if the course was outside their majors. Cassie, Kendra, and Erica's mentors no doubt knew how powerful of a literacy sponsor the job market was for those students. They used the mentoring experience to make the concerns Cassie, Kendra, and Erica had internalized about research writing (i.e. how is this preparing me for my future career prospects) to challenge those perceptions and make that challenge meaningful for them. On a small scale, such an approach could potentially aid instructors in making research mentorships an integrated part of the curriculum rather than something purely extracurricular or outside the undergraduate's realm of experience.

However, it is important to note that pedagogical approaches like this one face transfer and interdisciplinary challenges. For example, while Cassie, Kendra, and Erica spoke of meaningful mentorships with instructors who used their concerns about future employment after college to help them see how what they were learning had value in those endeavors, those experiences were also more confirmation of what those students already believed. The sponsorshaping in these experiences helped students to develop information literacy practices and identities as researchers in meaningful ways, as all three students were planning to go to grad school to pursue further research work in that field. However, that wasn't always the case for mentors in other disciplines, such as Cassie's experience with her chemistry TA. This raises some major questions: while research mentors can help shape how students internalize how meaningful that sponsoring moment was, how are those efforts complicated when other sponsors in their department or at their institution present conflicting messages?

While part of promoting such mentorships depends upon research writing instructors designing research writing experiences that are integrated, sustained, and supportive of students' identities as researchers (something to be expanded upon in the next chapter), it is also critical to

reconsider these questions as more institutional and systemic questions rather than purely pedagogical ones. On a departmental level, part of addressing this question may start by establishing a definition and guideline for what that department sees as being meaningful undergraduate research. For instance, Kinkead and Grobman outline what that entails for English Studies at the beginning of their edited collection on undergraduate research in the field. They define it as “actually quite similar to other disciplines and may be outlined as follows: the identification of and acquisition of a disciplinary and interdisciplinary methodology; the setting out of a concrete investigative problem; the carrying out of the actual project; and finally, the dispersing and sharing a new scholar’s discoveries with his or her peers—a step often missing in undergraduate educational programs” (Kinkead and Grobman xi). While this provides a useful start for demonstrating both the relevance and the commonalities of undergraduate research at the university, it might also extend into how a discipline shows how faculty discuss and promote undergraduate research on a departmental level. As noted in the Council of Undergraduate Research’s *Characteristics of Excellence in Undergraduate Research*, when outlining qualities that have made for successful undergraduate research programs, “Not all faculty scholarship will involve undergraduates, but it is essential that faculty members value both the contribution of undergraduates to scholarship and the participation of undergraduates in scholarly activities as an important part of their education. Such faculty should seek to create opportunities for undergraduates to be involved in research” (Hensel 3). Part of encouraging faculty support of undergraduate research initiatives is by getting them involved in designing how their department’s statement on undergraduate research builds upon what the university’s UR program puts forth. The goal, then, is a matter of helping faculty (and the students of their courses) to

better make the connections between the undergraduate research experiences they have across the disciplines and how those experiences can inform one another.

That said, however, the heart of promoting meaningful undergraduate research mentoring entails a strong campus culture and institutional support for undergraduate research for all students rather than just honors students, a point outlined in CUR's *Characteristics of Excellence*. This is not just a matter of students receiving the quality support they need to develop as undergraduate researchers in their fields and professions, but it also is a vital component to demonstrating the quality of the university. In other words, it makes clear that the university has made an investment in creating an environment that actively supports and engages with undergraduate research. While part of creating this environment would be through developing definitions for what is meant by undergraduate research and how that speaks to the UR work students do across disciplines, it also entails how mentorship is treated as an integral part of a student's university experience. For example, Malachowski et al. have argued for undergraduate research mentors to be compensated for their work with their mentees. They state, "Redefinitions of faculty workload beyond standard course-load designations, recognition of UR in tenure/promotion criteria, and incorporation of UR into the curriculum are all effective measures that institutions in this project have implemented" (97). The realities of higher education budgets and faculty's ever-growing list of responsibilities no doubt complicate these efforts, especially in departments and programs that have a smaller number of undergraduate majors. That said, if we want to create an environment that encourages faculty to engage in UR mentoring and aids students in seeing research writing as a meaningful writing experience in preparing them as professionals, then faculty compensation has to be a consideration.

Along with that, there is also the question of how an overstretched faculty can add such UR mentoring to their already long list of service expectations. I argue, as Malachowski and other undergraduate research scholars have, that a critical part of making undergraduate research writing both meaningful and sustainable is by developing the institutional supports that allow for UR initiatives to be sustainable. Part of that starts with the development of a UR office that provides workshops, mentoring, and other means of support for faculty who assign research projects. This is not just in keeping with the Council of Undergraduate Research's recommendations for developing UR efforts on college campuses, but it also provides faculty with a similar channel of support to that of a WPA or CTL (Center for Teaching and Learning) office.

As the student data discussed in this chapter have highlighted, the role of a research mentor does not just contend with the realities and challenges faculty face when mentoring an undergraduate, but it also entails considering how students use those experiences to thrive and develop into experienced researchers. If we, as writing instructors and administrators across the disciplines, want to make research writing meaningful for students, then part of those efforts might begin with how we create sustainable learning environments that help students to see how these experiences have meaning and relevance beyond the classroom. In the next chapter, I outline a possible structure for developing more sustainable and meaningful research writing experiences that help students to shift into that professional research writer identity.

CHAPTER VI: CREATING UR ENVIRONMENTS FOR IDENTITY DEVELOPMENT AND OWNERSHIP

Warm breath hits my mask as my glasses fog up again. It's 2021, and as a doctoral candidate at the end of the line in his program, I come to this final chapter. It is hard not to wonder what all of this means and who cares, questions that have slinked in the shadows of this manuscript since its inception. Amidst the global pandemic that influences how I see myself now as a researcher, the question of my own meaning remains: what does it all mean if students, like those ones interviewed and surveyed for this study, are mostly interested in research writing that helps them move forward in their burgeoning careers? What does it mean to be a research mentor if we are limited in our abilities to effectively mentor all of our students rather than the select, elite ones?

Part of beginning to address them is to reconsider how universities approach undergraduate research writing as an integrated and sustained part of both the curriculum and the learning environments that students experience across the university. By and large, the students who participated in this study valued having meaningful undergraduate research experiences in their coursework and felt it helped them to understand and conceive a place for themselves in their discipline. That said, it is not on just faculty to create these kinds of experiences, but rather, faculty and staff working together to promote meaningful UR experiences. This chapter, then, calls for a three-level approach for creating meaningful undergraduate research writing environments. Specifically, this chapter builds on Malachowski's call for a "Research Across the Curriculum movement" and Cox, Galin, and Melzer's recent work with systemic approaches to sustainable WAC initiatives and programs to reconsider and outline approaches for creating meaningful undergraduate research writing environments that are integrated and sustained at the

course, departmental, and university levels. The chapter first outlines past and present challenges for UR initiatives before addressing the approach I am proposing. I conclude by calling on writing instructors and administrators across the disciplines to embrace UR as an integral part of their curriculum.

Making Sense of Undergraduates' Perceptions for Undergraduate Research

Before considering these approaches, it is first important to recap my study and its major findings. This study explored questions around how students identify as research writers and how those identities helped or hindered how they utilized research writing practices during and after the experience. Over 60 students' responses through survey and interviews helped to shape the findings discussed in the previous chapters. The limitations of the study are that I only used one research site and faced challenges getting students to participate. However, I would note that the students involved represented juniors and seniors, representing four different colleges and over 30 majors. Across the three previous chapters, I outlined three major findings from the survey and interview data:

1. An undergraduate's perception of seeing research writing in binaries (i.e. if it's relevant to me or not) and as a one-dimensional practice tended to complicate their attempts to develop an identity as a research writer and fossilized old information literacy habits. In agentic research writing moments, this more restrictive sense of control limited their perceptions of how non-relevant experiences could have relevance to their research and professional interests.
2. An undergraduate's perception of what it means to be a research writer in their field (both academic and non-academic professions) tended to create a sort of

tunnel vision for students as they conducted research projects across their curriculum.

3. An undergraduate's perception of their research mentor's investment in the student's research work and identity as a research writer tended to influence how that undergraduate saw themselves as a research writer in that field in the future.

These three major findings are in some ways in keeping with conclusions made by other Composition scholars, such as Williams' argument for reconsidering how we facilitate agency and engagement through the way we approach our students as colleagues. He explains, "If we approach students as colleagues, from whom we may learn, may argue with, but also respect, it changes how we can think about responding to their ideas and their writing. It is this kind of respect and mature exchange of ideas that motivates and transforms students..." (Williams 185). In the case of this study, I would take up Williams' call here to argue that such shifts in how we perceive students also benefits our relationships with them as research mentees. Throughout the study, seen in cases like Jay's from Chapter IV and Kendra's from Chapter V, one of the recurring themes was students wanting faculty to take their research writing seriously. If students felt that level of collegiality and respect, then it wasn't just engagement that went up, but so too did students' investment in developing an identity as a research writer.

The study was also left with a lingering tension for future research: how do students' perceptions of identity complicate the idea of how undergraduates craft identities in their disciplines and other discourse communities? While the student participants did suggest a similar concept of identity to that of Ivanic's work with students navigating through the possibilities of identities allowed in a discourse community, their perceptions of what even were those identities and what they entailed seemed flawed or underdeveloped. Future research into how

undergraduates' perceptions of disciplinary researcher identities might shed light on this question. There is also a deeper conflict present in the data that is worth examining before any kind of suggestion is made: the conflicting messages and ideologies of what a college education is to entail, more specifically, the conflict between higher education as a means of career/job preparation and a means of developing well-rounded citizens. This conflict is noted quite clearly in the conclusions outlined earlier in this chapter. Specifically, this conflict highlights the important role a student's developing professional identity plays in both determining what research writing experiences were meaningful and what practices they internalized from the experience. This was demonstrated in several student cases highlighted in the previous chapters, such as Tamara from Chapter III who voiced frustrations about having to use particular sources that didn't pertain to the kind of data she believed she'd work with as a marketing professional and Cassie from Chapter V who felt her Chemistry project was pointless because she felt it had little use to an aspiring journalist. The tunnel vision toward research writing these students convey raise some serious questions when conceiving a research across the curriculum movement: how do university reconcile the multiple ideologies that inform the typical college curriculum (i.e. core curriculum and disciplinary curriculum) and how do we aid students in seeing value in seeing research writing as multifaceted rather than a one-dimensional activity even in their particular fields?

That said, it is important to acknowledge that these students' perspectives were also limited by a lack of experience and incomplete understandings of how faculty perceive them. For instance, Michael from Chapter III may have assumed that his First-Year Writing instructor did not care about him or his professional interests, but he also never reached out to her to see if there were ways for designing his assignments to connect into his past experiences in the

military. Doing so may have presented new opportunities for both understanding how his instructor could support him and his interests. Jay from Chapter IV may have assumed his bioengineering professors had little interests in supporting his interests in bioimaging, but he did not reach out to his professors for ways in which the work of his courses might build into doing bioimaging research. While certainly several of these students disengaged from research writing because they felt they were not being taken seriously, that perception was also limited by the students not reaching out to their professors, TAs, or other research mentors or not having a clear or nuanced perception of what being a research writer across multiple discourse communities entails.

These findings also speak to unresolved questions posed in Composition scholarship. Specifically, Eodice, Geller, and Lerner *Meaningful Writing Project* was left with the lingering question, "What factors account for some students realizing meaningful goals through their writing projects while others do not/cannot?" (139). This study's findings provide some insight into that question. While part of those factors entails the mentoring relationship a student has with their faculty, their peers, and other literacy sponsors, these findings suggest that a major factor that warrants our consideration is the significance of a student's burgeoning professional identity. That identity and students' perceptions of what makes for authentic research writing and research practices of that profession played a major role in influencing how students saw the potential meaning and relevance of a research writing experience. In some instances, such as Tamara in Chapter III and Kendra in Chapter V, their experience of learning how to do professional research proved to be meaningful because those experiences validated their efforts to become a professional in their respective fields and ingratiated them into those discourse communities through interactions with authentic audiences and texts. That said, students'

concerns with professionalization and research writing directly connecting to their professional interests created a sort of tunnel vision and limited their perceptions of how research writing could be meaningful. Students like Michael in Chapter III and Katie discussed in Chapter IV highlight this tension with the way their more restrictive perceptions of meaningful research writing put such work into a binary: it's either relevant to them or it's not worth their time. A research writing experience, then, could be agentic and meaningful for students though that meaning is heavily influenced by what they perceive to be relevant research practices to them as they move forward into writing contexts after college. As young professionals in their fields, those perceptions of what "real" research is for their fields was often limited and underdeveloped. So, the possible connections between what they learned from a research writing experience were hindered by their efforts to fit the experience into that limited perspective of what research writing looks like in their fields.

The thread that persists through that conflict is competing visions for how undergraduate research should be designed and taught. While Eodice, Geller, and Lerner's central message is that "Meaningful writing projects are powerful because of the opportunities they provide" (140), this study's findings raises important considerations for how students perceive those opportunities and how the competing visions for what undergraduate research is complicate instructor's efforts to create meaningful undergraduate research opportunities. While many of the students in this study emphasized that they wanted more hands-on mentoring that would translate into valuable experience for their professional lives, those experiences had to align with preconceptions of what a professional researcher in their field looked like or how research experiences outside their discipline might have bearing on it.

Several students even outright criticized having to do research writing outside their major or outside their interests as pedagogically unsound or filler experiences that serve little purpose for them. For example, in Chapter IV, Jay voiced his frustrations about being required to take a bioengineering course that wasn't in his research interests, saying it should have been "an elective." In Chapter V, Cassie dismissed her chemistry research project of collecting water samples by stating that she "didn't care what was in that pond." While certainly these experiences could be written off as moments of students discovering their research writer identity (i.e. I am a paralegal; I'm a bioimaging specialist; I'm a journalist, respectively) and what they didn't want to do, they warrant our attention. If we want research writing to be a meaningful part of an undergraduate's academic career that prepares them for engaging with research after college, then we must reconsider how we design learning and campus environments that promote undergraduate research.

Such re-examinations are not necessarily a new phenomenon. In the mid-2000s, several UR scholars in Rhetoric and Composition, such as Joyce Kinkead, Mitchell Malachowski, Douglas Downs, and Elizabeth Wardle, argued for such re-examinations. For example, Malachowski's 2003 chapter in *Valuing and Supporting Undergraduate Research* calls for a "Research Across the Curriculum movement" in higher education to reframe how faculty approach research that involves undergraduates. Specifically, he uses Astin's longitudinal studies on faculty's perception of students learning and student outcomes which highlights a dichotomy in mindsets: faculty who are "research oriented," or faculty who oriented their work towards their scholarship, and faculty who are "student oriented," faculty who oriented their work towards incorporating or relating to their students. Malachowski notes the noticeable benefits of a student-oriented approach that Astin discerned from his studies:

The extent to which faculty are student-oriented also has a great influence on academic outcomes: bachelor's-degree attainment, scholarship, self-reported growth in writing skills, preparation for graduate school, and overall academic development. It also has a direct positive effect on a student's decision to major in some field of physical science. Indirect positive effects include a commitment to developing a meaningful philosophy of life and self-reported growth in foreign-language skills, leadership abilities, general knowledge, and public-speaking skills (58).

While the studies were geared toward the physical sciences, Malachowski uses Astin's studies to emphasize the importance of involving undergraduates in research work as a means of not only engaging them in the actual research work of their discipline but also helping them construct a meaningful research writer identity through such experiences. Conclusions like this are also seen in the Council for Undergraduate Research's mission statement, particularly as a means of "Increased enrollment in graduate education and provides effective career preparation...[and] promotes an innovation-oriented culture" (Mission - Council on Undergraduate Research). The goal, then, as Malachowski contends, is to develop a research across the curriculum movement through creating a campus culture and environment that sees undergraduates as meaningful researchers and that UR is a part of the university's prestige, demonstrated through faculty compensation and recognition.

However, as he notes and what I reflect upon now examining similar pragmatic questions 17 years after this piece was published, developing such a movement comes with a number of challenges ranging from campus and department cultures that don't value undergraduate research to issues with compensating and supporting faculty's efforts to promote undergraduate research.

For instance, Malachowski notes that while in the hard sciences, research is often pursued as a collaborative practice amongst multiple scholars, “this contrasts with scholarship in the humanities and many social science fields, where research is a more solitary enterprise and empirical results are neither the norm nor part of the goals of the projects” (Malachowski 60). Though some strides have been in such fields, as noted by Michael and Janine’s cases that were discussed in Chapter III, the issue still seems to persist in this study’s data. Challenges seemed to persist even in the hard sciences where students, such as Erica from Chapter V, felt their professors were too busy to provide them with opportunities to become an active participant in research being done on campus or in affiliated research projects. This was mitigated a bit with students who had access to research opportunities that afforded such experiences, such as Jay (Chapter IV) and Kendra (Chapter V) who conducted research projects as part of the McNair Scholars Program.

Though certainly a challenge Malachowski speaks to as well in 2003, in more recent years, such efforts have been complicated by more universities embracing austerity movements towards more fiscal stability and the current pandemic complicating how research is even conducted. The research university used as the research site for this study, for example, recently merged its UR program office, formerly an independent office, with the honors program, effectively reinforcing the idea that such work is for select students rather than all students. While the move was partially done as a part of the university’s efforts to streamline and cut costs across the university’s services, it does demonstrate that UR efforts face fiscal and campus cultural challenges, particularly when expanding support for UR seems less feasible. It also speaks to the equity issues facing UR initiatives, as UR offices being housed in honors programs rather than as an independent office reinforces the idea that undergraduate research is for select

students rather than for all students. With any kind of meaningful UR initiative, one must consider these environmental and equity factors to ensure that such an initiative is resilient and adaptable. Though speaking to WAC program sustainability, Cox, Galin, and Melzer's discussion of these two principles warrant consideration for UR initiatives facing these kind of environmental pressures: "resilience and adaptability are dynamic processes that require constant monitoring and intervention...Without monitoring, intervention, adaption, and possible transformation, the WID program will eventually slip into an undesirable state" (38). In considering any kind of UR effort that is to be resilient, equitable, and adaptable to these kinds of environmental pressures, then, it is vital to consider the roles actors at multiple levels across the university (i.e. faculty, department chairs and committees, UR directors, etc.) play in helping to maintain such monitoring and intervention practices.

Recommendations for Creating Meaningful Undergraduate Research Writing

Environments

To address these roles and the major conclusions and challenges presented in the student data, I propose a three-level approach to integrating meaningful undergraduate research into the academic curriculum and campus culture of a university. It is important to remember that these considerations are not done in a vacuum but rather are ecologically dependent upon one another to create an equitable, integrated, and sustainable UR presence on a college campus. As Cox, Galin, and Melzer note when arguing for the relevance of using systems theory to theorize creating sustainable WAC programs, "...because the parts and processes of systems form a web of connections, rapid changes in one part of a system can have unintended impacts on another part of the system, or can fail due to a lack of consideration of the constraints inherent in all

complex systems” (162). Taking up this argument into UR Program development, I want to emphasize that while these approaches are split up into their different levels, they must be utilized together if change is to happen beyond an individual course. The following subsections handle each level (course, department, and campus) individually and as a collective UR initiative.

Course Level

On a course level, writing instructors can create more meaningful research writing across the curriculum environments by redesigning writing courses to not just make space for UR but to integrate research mentoring and scaffolding for more meaningful UR experiences. While part of that scaffolding entails exposing students to multiple types of research methods and their potential uses, it also entails helping students connect and operationalize the methods they learn in the course with research writing they may encounter in the future. For example, an Introduction to Sociology course might be designed around introducing students to basic research methodological practices valued and used in Sociology, such as designing a research study, collecting and analyzing data sets, and conceiving a potential goal for circulating their results or developing a future project based off the results of the current project. The sociology instructor might use student conferences and smaller writing assignments during the project to act as a research mentor for students, helping them reflect upon their interests with their research questions while also having them consider the applicability of what their projects with their interests for the future, professional or otherwise.

Granted, that puts quite a bit of pressure on the instructor, especially in early courses like First-Year Writing that have a single semester to accomplish these aims along with several other

course objectives. Those earlier courses also face challenges given that they are often taken by a variety of students rather than just students in a single major or college. However, those early learning experiences are vital for helping students to see possible trajectories for developing a meaningful identity as a research writer. One way courses like First-Year Writing might develop meaningful undergraduate research writing experiences could entail using other writing assignments in the course to synergize with the research project. So, if students need to craft an analytical essay along with a research essay, then the analytical essay might also provide students with an opportunity to deconstruct and examine a piece of scholarship relevant to the research question(s) they are pursuing later on in the research essay. Another way those early writing courses might create meaningful UR experiences, despite the time constraints of being a single course with other objectives, might entail theming the course around students exploring the discourse of a particular discipline or discourse community that students want to enter. So, each major assignment aids students to exploring the possibilities of what kind of identity they could create in that discipline. FYC courses typically entail regular conferences and smaller reflective writing assignments, so those efforts could also be tapped into to better blend the research work into the entire work of the course rather than being assigned solely to a specific unit.

Research mentoring might also be further integrated into the actual work on the course rather than something saved for the best of the best students or for capstone and senior thesis projects. As Katkin points when highlighting the problem of undergraduate research often being available to only the best students, “Unless ways are found to scale up these efforts to benefit a wider spectrum, and unless more faculty step forward to participate, they will have only a marginal effect and reinforce the notion that the leadership is not serious and that most of the

activity has indeed been symbolic” (Katkin 36). Part of providing more research mentoring opportunities might entail making such work an integral part of a research writing course’s design. A number of disciplines already do such work through a research methods course, but just as a writing intensive course requires an instructor to engage with students’ development as a writer, so too should an instructor engage with that students’ development as a research writer.

This certainly poses challenges for courses with larger class sizes and for faculty who are already overworked and stretched thin. Much like Malachowski argues for back in 2003, various forms of faculty compensation, such as course releases, are vital in giving faculty more time to focus on mentoring undergraduates in meaningful research projects. Yes, faculty compensation has historically been a challenge, however, if we want faculty to take a more active role as both research writing instructors and mentors, then we must invest in those efforts fully. One way that such efforts can be supported through a more university-wide setting is through UR programs and offices, an approach I expand upon later in this chapter. These UR offices provide faculty with resources, workshops, and other support on how they might better incorporate undergraduate research into their courses and better mentor their research mentees. Much like writing mentoring, research mentoring is a time consuming process, though if we want students to see themselves as fledgling researchers rather than students going through the motions and if we seek to take up the charge of providing more meaningful UR experiences, then a UR office can provide assistance for helping faculty mitigate some of those challenges.

Department Level

On a larger, curricular level, these considerations can be expanded further, specifically in departments working toward better integrating methods and research design not just as a singular

course but as something explored and practiced throughout the student's curriculum. In the case of reconsidering departmental objectives and perceptions for UR, part of that effort might entail reviewing the department curriculum and course objectives to allow for more opportunities for undergraduate research writing and mentoring experiences. For example, an early Introduction to Literary Studies course might entail exposing students to the research and analytical methods used in actual literary scholarship as a means of tying into research practices learned in First-Year Writing. A themed seminar course might have students build upon what they learned from FYW and their intro to literary studies course by designing research projects to be presented at a local or regional conference that welcomes undergraduate research in literary studies. While these courses already exist in a number of English departments, they would require a redesign to put more focus on research mentoring and guiding students towards developing research projects toward circulation, whether that be for publication or presenting at a conference or special event. This way, an English Literature major is continually exposed to and engaging in undergraduate research in the field and beginning to forge an identity as a researcher in said field rather than those efforts being reserved mostly toward the end of the student's time in college. These courses would be quite similar as writing intensive courses in that they would use "writing as a way of knowing in a discipline" (Carter 213). That knowing requires time and multiple opportunities to explore it and to see research writing in their field as a multifaceted rather than one-dimensional practice. Therefore, part of creating meaningful UR experiences at the department level entails redesigning a major's curriculum to provide more instruction time to mentor students in how a scholar or professional writes in their field, making it more the "content" of the course.

Lastly, departments can work toward creating more meaningful research writing environments by also connecting their curriculum toward circulation. For example, an

undergraduate research conference provides a place for students to not only share their work but to also have conversations about their work with the faculty and guests interested in what they are doing. It gives them a way to experience what it is like to present their work at an academic conference without the funding issues that complicate sending undergraduates to larger academic conferences in their discipline. It is also something that they can put on their CV and begin to build a professional portfolio before even going to graduate school or into the workforce. Some universities already have such conferences; however, in cases where that is not the case and developing one is not fiscally viable, department-based events to celebrate and share their undergraduates' research work, such as online or print publications for student work or end-of-the-semester departmental awards, provide a helpful alternative. Several students in this study, such as Michael and Janine from Chapter III, noted how powerful such circulation experiences were since they were not just writing for their instructor but also for a more authentic audience invested in what they had to say. These moments also provide undergraduates with opportunities for connecting with audiences and fellow scholars in their field, potentially providing students with a means of networking and building rapport as a young researcher in their discipline. With these kinds of events as well as expanding research mentoring opportunities, departments must also consider how such faculty participation is acknowledged and rewarded in tenure and promotion cases. Building department-level UR initiatives is a great deal of work and puts a lot of pressure on faculty, whose time is already stretched thin by high course loads, research projects, and other service responsibilities. Therefore, providing incentives for faculty to participate in and supervise UR initiatives and events provides faculty the time to dedicate their efforts to improve undergraduate research in their departments and allows for a department culture of supporting undergraduate research to thrive.

Campus Level

On the campus level, these considerations might be supported through the development or expansion of an undergraduate research office that supports faculty and departments in integrating and developing sustainable undergraduate research opportunities and mentoring practices for their students. While many R1 institutions have an undergraduate research office that provides resources and support for undergraduates pursuing research, I am calling on those offices to be not just student-facing but also faculty-facing, acting as a central hub, to use Cox, Galin, and Melzer's phrase for describing WAC programs, for undergraduate research support on campus. As mentioned earlier, this office would function much like a Writing Program or Center for Teaching and Learning office in developing faculty workshops, promoting student events like undergraduate research conferences, and providing faculty support in handling research mentoring and integrating undergraduate research into their courses. This office would also provide guidance on developing undergraduate research courses. While the specific guidelines and requirements of said courses would be handled in department, this office could assist by providing an across the curriculum approach to help faculty to better connect their disciplinary courses with those in the core curriculum.

While developing a more integrated undergraduate research office costs money and faculty buy-in, such efforts would aid universities in providing faculty with the resources to develop meaningful undergraduate research writing experiences for their students. It would also provide the university with a major selling point of the university as well. As Merkel points out:

A culture of undergraduate research strengthens universities, and institutions reap rewards as they invest in their students. The competition for excellent students is intense, and institutions aim to recruit the best students possible...Students who

take advantage of these opportunities are more satisfied with their undergraduate experiences and are more apt to become happy alumni who want to ‘give back’ to their university through financial gifts and personal involvement (Merkel 43).

What is important to point out here is that such initiatives bring in more students and provide tangible ways of demonstrating the university’s dedication to students’ research futures. This kind of culture takes time to develop and certainly faces challenges, especially now during the global pandemic. However, creating dedicated UR offices on campus further allows for it to provide the support needed to carry out the college/university’s objectives toward making students more capable in interpreting, evaluating, and synthesizing sources of information and preparing them for being active members of the civic and professional world.

The Future for Undergraduate Research Writing

Above all else, if we are to create a meaningful undergraduate research environment across our college, then part of that work entails communication and collaboration across the various departments so that our efforts complement one another rather than create dissonance that works its way down to our students. I call upon all writing instructors and administrators as well as composition scholars to consider the future of undergraduate research as an integral part of their student’s experience, not just in terms of professionalization but also in terms of developing into a more critical consumer of information who is better equipped to participate in the worlds beyond our halls. Not a small task, but one we must strive toward if such efforts are to have any real impact on our students.

While the student data discussed in this dissertation are by no means generalizable to all colleges and universities across the university, their words do provide some valuable lessons for

us to take to heart and consider. Universities have certainly made strides since the 1990s when it comes to promoting undergraduate research, however we must not lose sight of creating meaningful research writing opportunities for undergraduates to discover what kind of research writer they want to become. For some disciplines, that might entail working with broadening students' perceptions of research writing, while for others, that might consist of better showing students what professional research looks like in that field and how it engages with other areas of study. Above all else, if we want students to see the value in doing research writing then we must work toward creating the learning environments that best support those efforts.

Appendices

Appendix A: Qualtrics Survey Questions

Your Experiences with Research Writing

Start of Block: Consent Form

Q1 Thank you for your interest in my study! Completing the survey should take approximately 15 minutes. By participating in this study, you agree to answer the questions as honestly and completely as you can. You also agree to have any of your responses quoted or paraphrased in this dissertation study and future publications. Any responses you provide will be anonymous, so neither the researchers nor other survey respondents will know which response is yours. You will be compensated, providing you complete the survey.

By selecting, "I consent," you agree to the above conditions and consent to participating in the survey portion of the study.

- I consent (1)
- I do not consent (2)

Q2 How old are you?

- 17-22 (1)
- 23-30 (2)
- 31-40 (3)
- 41-50 (4)

- 51-60 (5)
- Over 60 (6)

Q3 To which gender do you identify the most?

- Male (1)
 - Female (2)
 - Transgender Male (4)
 - Transgender Female (5)
 - Gender variant/Non-conforming (6)
 - Not Listed (Please specify) (3)
-

- Prefer Not to Say (7)

Q4 To which ethnicity do you identify? Select those that apply.

- African American (1)
- Asian American (2)
- Latino/a/x (3)
- Native American (4)
- White (5)

- Middle Eastern or Arab American (9)
 - Native Hawaiian or other Pacific islander (7)
 - Not Listed (Please specify) (6)
-

- Prefer Not to Say (8)

Q5 What is your current grade level?

- Junior (4)
- Senior (5)

Q6 What is your major?

Q7 If you have a minor, what is it?

Q8 Please select which college or school your major is housed in at your university.

- College of Liberal Arts (1)
- College of Life Sciences and Agriculture (2)
- College of Engineering and Physical Sciences (3)
- College of Health and Human Services (4)

- Paul College of Business and Economics (5)
- Thompson School of Applied Science (6)
- School of Marine Science and Ocean Engineering (7)
- Carsey School of Public Policy (8)
- Other (Please specify) (9) _____

Q9 Are you currently a part of the Honors Program?

- Yes (1)
- No (2)

Q10 What are three words that best describe what you think of when you think of research?

Q11 Over the course of your college career, what kinds of research writing projects have you done? Please select all that apply.

- Research Reports (1)
- Researched Essays (2)
- Argumentative Research Essays (3)
- Annotated Bibliography (4)
- Literature Review (5)

- Multimodal Research Project (ex: Video, Blog, etc.) (6)
- Research Presentation (Oral and/or Poster) (7)
- Research Proposal (8)
- Other (Please describe) (11) _____

Q12 Out of the various research writing you've done in college, what is an example of a positive research writing experience you've had? What did it entail?

Q13 With regard to that research writing experience you just mentioned, which of the following factors made that experience positive for you? Rank them from 1-6, with 1 being the most significant and 6 being the least significant.

_____ Type of Assignment (1)

_____ Instructor's Role in Project (Ex: Instructor feedback, mentoring, etc.) (2)

_____ Peers' Role in Project (Ex: collaborating on research, peer feedback, etc.) (3)

_____ Your Role in Project (Ex: deciding topic/design of project, conducting your own study, etc.) (6)

_____ Grades/Assessment of Work (4)

_____ Learning how to do research (5)

Q14 Out of the various research writing you've done in college, what is an example of a negative research writing experience you've had? What did it entail?

Q15 With regard to that research writing experience you just mentioned, which of the following factors made that experience negative for you? Rank them from 1-6, with 1 being the most significant and 6 being the least significant.

_____ Type of Assignment (1)

_____ Instructor's Role in Project (Ex: Instructor feedback, mentoring, etc.) (2)

_____ Peers' Role in Project (Ex: collaborating on research, peer feedback, etc.) (3)

_____ Your Role in Project (Ex: deciding topic/design of project, conducting your own study, etc.) (4)

_____ Grades/Assessment of Work (5)

_____ Learning how to do research (6)

Q16 On a scale from 1-10 with 1 being least significant and 10 being most significant, how important are the following factors in making a research writing experience meaningful or motivating for you?

Least Significant			Moderately Significant				Most Significant				
0	1	2	3	4	5	6	7	8	9	10	

Research Mentor (ex: Professor/Instructor, TA, Reference Librarian) ()

Personal control over project (ex: Choose topic/project, conduct study, etc.) ()

Assignment having relevance to future writing work (ex: professional research work, personal research projects) ()

Collaborating with others (peers, faculty) on research project ()

Grades ()

Q17 After graduating, in what instances do you see yourself writing with research? Please select all that apply.

Work/Professional Life (4)

- Personal Life (ex: investigating family ancestry, writing blog posts, etc.) (5)
- Politics (ex: looking up candidates, participating in civic events, etc.) (8)
- Academics (ex: pursuing graduate degrees) (9)
- Other (Please specify) (6) _____
- I won't be using research after school. (7)

Q18 As part of this research project, I am also conducting interviews with 10 selected upperclassmen at your university to further discuss their research writing experiences during their college tenure. If you are selected and participate in the interviews, you will receive a \$15 Amazon gift card as thanks for your participation. If you would be willing to be interviewed, please select the "I would like to participate in an interview" option below. Upon answering the next question, please make sure to provide an email address for me to contact you about setting up the interview. Thank you for your consideration!

- I would like to participate in an interview. (1)
- I do not want to participate in an interview. (2)

Q19 Thank you for completing the survey! If you wish to be entered into the drawing for the \$25 Amazon gift card, please provide a valid email address below. The drawing will occur on May 1st, 2019.

Appendix B: Interview Questions

Research Identity Questions

- How do you go about finding information or answers to questions in school? Outside school?
- If you could, walk me through a particular experience in which you sought out answers to a particular question or concern. Where did you look for information/answers? Who did you speak to? Why?
- On your survey response, you mentioned three words that describe your thoughts on research. Why did you choose those words?
- To you, what does it mean to do research in school? Out of school?
- Describe your research writing process. How do you go about it typically? Did particular courses or experience in college influence how you go about it?
- Would you describe yourself as a researcher? Why or why not?

Meaningful Research Questions

- With regards to the good research writing experience you mentioned in the survey, I would like to talk a little bit more about it. Why was it meaningful you at that time? If it was a part of a course who was the instructor if you feel comfortable mentioning that?
- What about the negative experience you noted?
- For the research project you brought with you today, please explain the idea behind the project. Is this from of the experiences you highlighted on the survey or a different experience? Why is it meaningful and important for you?
- What role do you see research playing in what you do in the future after college, whether professionally or personally?

Appendix C: Recruiting Email for Student Survey Participants

Dear students,

My name is Scott Lasley, and I am a Doctoral Candidate in Rhetoric and Composition here at the University of New Hampshire. This year, under the guidance of Dr. Christina Ortmeier-Hooper, I am conducting a dissertation study around students' research writing experiences during their time in college and meaningful research writing projects they've done.

I invite you to participate in this study through an interview, survey, or both. The interview should take about 75 minutes to complete and for participating in the interview, you will receive a \$15 Amazon gift card. If you decide to participate, you will be asked to share their experiences with research writing in college as well as what research writing experiences have been meaningful for them.

The survey takes about 10-15 minutes to complete and upon completion and providing a viable email address, you will be entered into a drawing for a \$25 Amazon gift card. If you decide to participate, you will be asked to briefly share what kinds of research writing they've done and how the experiences of their previous courses and writing experiences have informed how they've approached research presently. If you would like to participate in the survey, please follow this link: https://unh.az1.qualtrics.com/jfe/form/SV_3Owc85qy9i3TiZL .

Attached to this email, I have provided a copy of the consent form for this study. Please look it over and if you are willing to participate in the interview or the survey, please sign the attached consent form and send it as a reply to this email that you're interested in participating in either (or both) part(s) of the study.

Thank you for your time and consideration of my project. Please feel free to email me at sel2005@wildcats.unh.edu with additional questions concerning my protocol and/or your possible involvement in it. I look forward to hearing from you.

Sincerely,

Scott Lasley

Appendix D: Recruitment Email for Interview Participants

Dear students,

My name is Scott Lasley, and I am a Doctoral Candidate in Rhetoric and Composition here at the University of New Hampshire. This year, under the guidance of Dr. Christina Ortmeier-Hooper, I am conducting a dissertation study around students' research writing experiences during their time in college and meaningful research writing projects they've done.

I invite you to participate in this study through two interviews. The interviews should take about 75 minutes to complete and for participating in the interviews, you will receive a \$15 Amazon gift card. If you decide to participate, you will be asked to share their experiences with research writing in college as well as what research writing experiences have been meaningful for them. I will also ask you to bring a meaningful research writing project you've done since being in college and to talk through the process of researching and writing that project.

If you are willing to participate in the interview, please take some time to first respond to a 20 minute survey on your experiences with research writing. This survey asks some general questions about what kind of research writing you've done in college and how your past experiences have helped you get to where you are now doing research writing. The link to the survey is as follows: https://unh.az1.qualtrics.com/jfe/form/SV_3Owc85qy9i3TiZL .

Attached to this email, I have provided a copy of the consent form for this study. Please look it over and if you are willing to participate in the interview, please sign the attached consent form and send it as a reply to this email that you're interested in participating in this part of the study.

Thank you for your time and consideration of my project. Please feel free to email me at sel2005@wildcats.unh.edu with additional questions concerning my protocol and/or your possible involvement in it. I look forward to hearing from you.

Sincerely,

Scott Lasley

Appendix E: Consent Form for Student Participants

Research Participant Information and Student Consent Form for College Students

Title of the Study: Why Are We Doing This: How Students Find Meaning in Research Writing Across Contexts

Investigators:

Scott Lasley, Doctoral Candidate at University of New Hampshire, 603-862-1311, sel2005@wildcats.unh.edu

Description of the Research:

Along with about 200 other students, I invite you to participate in a research study about students' experiences with research writing in college and what they see as meaningful research writing. I am asking you to participate because of your experience having been in coursework in college for a couple of years now and your unique background and experiences with research writing both here and in other contexts.

The purpose of the research is to understand how you (and other students like you) have developed an identity as a writer who uses research and how you have used prior experiences with research to tackle research writing in contexts that are meaningful you, whether that be for a personal project of yours or something related to your professional aspirations.

As a participant in study, I will be asking you to participate in 20-minute survey and if you choose, a 75-minute interview about your experiences your experiences with research writing during your time here at this university. I am asking your permission to collect data from those surveys and interviews. I may do this by citing from your survey responses, taking notes on what you say during the interviews, and by copying the written and audio-recorded material from those interviews.

What will my participation involve?

If you decide to participate fully in this research, I will copy and cite information from these surveys for use in my research.

If you choose, I would also like to conduct one audio-recorded interview with you during the current semester. This interview will focus on your experiences with doing research writing in

and out of your college classes. It will take place outside your class at a convenient time for you. I expect interviews to last about 75 minutes.

It is up to you whether I collect any information about your work for our research. You may decide to be a part of the research and then change your mind at any time, for any reason.

How will my confidentiality be protected?

If you decide to participate in this research, I may use quotations from the surveys and interviews as part of my dissertation, however, any instance in which names are used will be replaced with pseudonyms. I will use these quotes or excerpts as examples of how the research writing experiences you have had might better inform and educate writing instructors in the disciplines on how to better serve their students in becoming better writers who use research.

I make every effort to keep all the information I collect confidential. The surveys are conducted anonymously through Qualtrics, a secure survey service through the university. For the interviews, I will transcribe any recordings, and change the names and details of any examples that I use in these ways. All of the original recordings or copies will be destroyed when the research is complete. There may, however, be rare instances when I am required to share personally-identifiable information. For example, in the event of a complaint about the study, university administrators or research ethics officers may have to review data. Beyond me, my faculty advisor, Dr. Christina Ortmeier-Hooper will have access to any information shared.

If you decide not to participate in the study, I will not record or make copies of any of your work. Any original audio recordings of you will be destroyed (shredded or erased). You may opt out of the study at any point by emailing me at your convenience.

Are there any risks or benefits?

Participation in this study is anticipated to present minimal risk. I will make every effort to protect your personal information by keeping all the data I collect on password-protected computers. As a thank you for your participation in this study, you will be entered into a drawing for a \$25 Amazon gift card upon completion of the survey. If you participate in the interview, you will receive a \$15 Amazon gift card. If you complete both, you will be entered into both drawings. In instances where I ask for your email address, I am strictly using it for the drawing. You may choose to not be entered into the drawing should you wish. In addition, these results will help to further the national conversation about undergraduate research and how college instructors might better prepare students for working with research writing after they graduate.

Whom should I contact if I have questions?

If you would like, you should contact me using the information at the beginning of this letter to see the questions or materials that I will be using during this research study. I am happy to answer any questions or talk about any concerns you might have about the project.

If you have questions about your rights as a research participant, you may contact Dr. Julie Simpson in UNH Research Integrity Services at 603-862-2003 or julie.simpson@unh.edu to discuss them.

I am very excited about this project, and I hope you will decide to let me to work with you. Please call or write if you have any questions! Your signature indicates that you have read this form, have had the chance to ask questions about your participation in this research, and have chosen to take part.

Your Name (please print): _____

Please check the appropriate lines:

I agree to participate in the interviews:

YES: ____ NO: ____

Your Signature: _____

Date: _____

Appendix F: IRB Approval Letter

University of New Hampshire

Research Integrity Services, Service Building
51 College Road, Durham, NH 03824-3585
Fax: 603-862-3564

11-Dec-2018

Lasley, Scott
English, Hamilton Smith
1 Mill Street, Unit 150
Dover, NH 03820

IRB #: 7062

Study: "Why are we doing this?" How Students Find Meaning in Research Writing Across Contexts

Approval Date: 11-Dec-2018

The Institutional Review Board for the Protection of Human Subjects in Research (IRB) has reviewed and approved the protocol for your study as Exempt as described in Title 45, Code of Federal Regulations (CFR), Part 46, Subsection 101(b). Approval is granted to conduct your study as described in your protocol.

Researchers who conduct studies involving human subjects have responsibilities as outlined in the attached document, *Responsibilities of Directors of Research Studies Involving Human Subjects*. (This document is also available at <http://unh.edu/research/irb-application-resources>.) Please read this document carefully before commencing your work involving human subjects.

Note: IRB approval is separate from UNH Purchasing approval of any proposed methods of paying study participants. Before making any payments to study participants, researchers should consult with their BSC or UNH Purchasing to ensure they are complying with institutional requirements. If such institutional requirements are not consistent with the confidentiality or anonymity assurances in the IRB-approved protocol and consent documents, the researcher may need to request a modification from the IRB.

Upon completion of your study, please complete the enclosed Exempt Study Final Report form and return it to this office along with a report of your findings.

If you have questions or concerns about your study or this approval, please feel free to contact Melissa McGee at 603-862-2005 or melissa.mcgee@unh.edu. Please refer to the IRB # above in all correspondence related to this study. The IRB wishes you success with your research.

For the IRB,



Julie F. Simpson
Director

cc: File
Ortmeier, Christina

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