REMEMBERING TO TEACH:
WRITING INSTRUCTION IN DISCIPLINARY CLASSROOMS

By

Leah R. Kirell

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ABSTRACT

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The following dissertation explores how higher education faculty members' memories of learning content and learning to write influence their pedagogical practices and examines how disciplinary and departmental contexts intersect with those pedagogical practices. The research was designed as a nested case study that draws on interview data, document analysis and classroom observation.

Since the majority of higher education faculty members have little formal pedagogical training when they begin their teaching careers, most rely heavily on their memories of learning content and writing skills during their own undergraduate and graduate courses to guide their own teaching. Consequently, those memories prove to be the most salient and persistent metric on which quality teaching is judged. Three of the four teachers in this study reported that they primarily utilized techniques they valued as learners during graduate school to develop and implement lesson plans and writing assignments for their undergraduate students.

Additionally, departmental and disciplinary factors were also instrumental in guiding higher education faculty's development of teaching skills and practices. Faculty, in this study, reported that their perceptions about the relative value of teaching and conducting research influenced their understanding of their jobs. Faculty also reported that, in relation to writing instruction, departmental resources (staff turnover, teacher workloads, class size and tutors) had a significant impact on the amount of time faculty were able to spend working with students to improve writing.

This study's findings suggest that in order to improve student writing in multiple disciplines faculty need greater exposure to pedagogical training and educational research to implement best practices in their classrooms. Further, the data suggests that changes to departmental culture/policies could increase teachers' willingness and ability to continually improve their pedagogical practice.

To my Campbell Boys: Jim, Eli and Isaac

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CHAPTER 1

FAILING WITH STYLE: THE UNENVIABLE REALITY OF TEACHING WRITING

"More often than not," he says, "I find M.B.A. writing samples have a casual tone lacking the professionalism necessary to communicate with sophisticated investors. I have found that many seemingly qualified candidates are unable to write even the simplest of arguments. No matter how strong one's financial model is, if one cannot write a logical, compelling story, then investors are going to look elsewhere. And in my business, that means death." (Alsop, 2006)

In a climate of political and social dissonance, Americans still share at least one consistent belief: our students are poor writers. Laments about the paucity of U.S. students who can think critically and compose grammatically correct, logically organized arguments abound. Thomas Bartlett's (2003) reporting of writing reform efforts at elite universities showed that students, faculty and administrators were displeased with their school's efforts to improve student writing. Unfortunately, as Bartlett explains, reform proved to be complex, ambiguously effective and expensive. On the other side of the educational spectrum, the recently adopted Common Core Standards seek to address the poverty of students' experiences with writing. The new curriculum emphasizes critical thinking via the inclusion of increased amounts of non-fiction texts and analytical and research-based writing. One stated goal of the new efforts is to improve students' ability to "write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences" (www.corestandards.org). Underlying the Common Core's efforts is concern that students are leaving high school unprepared for the kinds of writing required

to be successful in both college and careers. Thus, it seems that no student group is spared the ignominy of poor writing. Whether attending Princeton or a local, public high school, reports about student writing are bleak. At all levels of education—high school, college and graduate/professional school—popular belief holds that schools do a terrible job preparing students to communicate with multiple audiences for varied purposes. High school students are unprepared for college, college students are unprepared for the workforce, even professional school students are often unable to meet the criteria of their more discerning and demanding employers, as reflected in the quote above concerning MBAs.

Newspapers also frequently report on the problem. This, from the September 14, 2012 edition of the "Orange County Register," captures both the substance and style of much of this reporting:

> Nearly three quarters of American students who took the first-ever computer-based national writing exam did not communicate effectively, even when allowed to use spell check, a thesaurus and other word-processing tools, according to a federal report released Friday. Scores from the National Assessment of Educational Progress: 2011 Writing exam show that few students can write successfully in both academic and workplace settings, educators said. (Leal, 2012)

Institutions of higher education have not been deaf or unresponsive to the complaints. A 1996 survey found that "of the nation's more than 12 million undergraduates,
About 2½ million participate in developmental education during any given year" (Boylan, 1999). The numbers from community colleges are more unnerving. According to recent estimates, 60%

of entering community college students, most of whom are recent high school graduates, require remedial or developmental education courses in math, reading and/or writing (Boylan, 1999). Students who are unable to pass entrance exams and begin college-level work are required to take these developmental courses in order to bolster their core academic skills in preparation for credit-bearing college-level courses.

Unfortunately, research has shown that students who are placed into these developmental tracks are less likely to complete a two-year degree than their counterparts who begin post-secondary education "college-ready." According to Thomas Bailey and Sung-Woo Choo of the Community College Research Center, "Less than one quarter of community college students who enroll in developmental education complete a degree or certificate within eight years of enrollment in college" (http://www2.ed.gov/PDFDocs/college-completion/07-developmental-education-in-community-colleges.pdf).

These numbers are particularly concerning when course requirements for a wide swath of AA degrees and job certifications are taken into account. For example, at my own community college, where I teach Developmental Reading and Writing, students who wish to earn a certificate in automotive repair are required to pass a freshmen writing course. Gone are the days when a student can learn a trade from his/her elders and enter into a vocation or technical trade with on the job training and mentoring. Today, successful college-level reading and writing are now pre-requisites not only for traditional college majors, but also for a host of technical and vocational certifications. Students' struggles with language—both reading and writing—therefore, are real barriers to gainful employment. Quantitative data like Bailey and Sung-Woo's

suggests that weak language and communication skills are more debilitating today than in the past and that increasingly large numbers of students are unable to meet the new standards.[1]

These reports suggest a highly dysfunctional educational system; however, inside of that system logical, reasonable and well meaning people are working to serve students and, by extension, their communities. Fisman and Sullivan (2013) explore the seemingly odd and counterproductive habits of the modern American company in their book *The Org*. Their conclusions seem applicable to any exploration of American education:

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[1] An alternative narrative about this trend can be constructed. Some researchers argue that expectations of attending college and employers' beliefs about which skills employers should possess prior to being hired have increased dramatically in the past few decades. However, Alex Reid, English professor at the University of Buffalo, believes that recent employer demands for improved writing and math competencies might be overblown. Nevertheless, he argues, writing well and understanding the varied styles and purposes of public rhetoric should be considered vital for students to learn---not because it will necessarily meet on the job skills requirements, but rather because such knowledge is vital for a healthy democracy (Reid, 2012). Whether students should write more for civic or economic purposes is a matter of on-going debate, but it seems clear that most believe students can do neither. Historically, complaints about poor student writing were common place even at prestigious, elite universities and colleges (Schuster, 2003). Whether students are objectively less able to write effectively today than in the past, however, is not the focus of this research. Instead, I explore how teachers are responding to present-day requirements for improved written communication.

> When economists look at the firm, they don't see the dysfunction—or at least that's not all they see. Rather, they recognize a set of compromises that result from trade-offs among many competing interests and objectives. From these compromises comes the seeming dysfunction of our work lives—the cost side of all those cost-benefit trade-offs. Organizational economics can help explain why the highly imperfect office of today may nonetheless represent the least dysfunctional of all possible worlds; however depressing the idea of "least dysfunctional" may be. (p. 4)

Teaching writing, as I'll show, is also about cost-benefit trade-offs and learning to live with dysfunction—your own, your students' and the institutions.'

A personal example may help to explain how some of those trade-offs work. Each semester I set aside one week to have individual conferences with my developmental writing students. Within the first month of the semester, I require each student to bring a completed draft of his/her current paper to my office. I schedule approximately 20 minutes to spend with each student, reviewing the draft and making suggestions for revisions. Since I teach four sections of developmental writing each semester and I have approximately 23 students in each class, I must meet with 86 students over the course of the week. This means I must budget about 40 hours to have these conferences. I cancel regular class meetings for the week and hire a babysitter so that I can spend longer hours on campus. It is, without a doubt, the most difficult and exhausting week of the semester.

Not only for me, but also for my office assistant, who is frustrated by the constant stream of students in and out of our office suite. She finds the flow of students disruptive to her schedule. She was so distracted by them that she politely asked me to schedule the conferences in a classroom or in the library. After all, I could meet my objectives of helping students to be

better writers, via the individual conferences, equally well somewhere out of her line of sight. She would be correct, if I was holding the conferences primarily for this reason. But I don't hold conferences in my office to help students write. I do it because a great deal of research suggests that students who know how to find their instructor's office, ask for directions and help on campus from people like my office assistant and establish a personal relationship with faculty, are more likely to successfully complete their degree programs (www.achievingthedream.org). My individual student writing conferences, then, are less about good writing pedagogy and more about meeting my students' social needs and increasing their cultural capital—things that are pre-requisites to academic achievement. They are also times to identify barriers to student success—unreliable transportation, unavailable child care, intermittent health care, undiagnosed learning disabilities or financial troubles—and to direct students to the appropriate support staff on campus.

Using this logic, the conferences (irksome though they may be to both me and my office assistant) make good sense. However, the trade-off is more than just a difficult and tiring week. Students do not attend class during this week, which means they do not benefit from direct writing instruction, peer interaction or class discussion during that time. These last have been shown, repeatedly, to be key ingredients to improving actual student writing (Delpit, 2012). Therefore, it could be argued (and I have this argument with myself each semester) that our time would be better spent in class, together learning—through a combination of mini-lectures and small-group work—grammar or organization skills. These skills could then be transferred to student compositions which I could review and return to them without the face-to face conferences. Thus, one conundrum I face is how best to balance pedagogical approaches that maximize the likelihood of retaining students with those that allow me to cover content. Can I

help students learn to interact with faculty and staff without ever leaving our classroom? Can I still teach all the discrete skills students need if I schedule activities outside of the traditional classroom? And if so, how?

Arguably some of the complexity of my decision making about setting instructional priorities could be relieved by my department or institution. For example, my college could lower either the number of students enrolled in each of my sections or the number of sections I teach per semester. Either of these changes would mean that I was responsible for smaller numbers of students which would, in turn, give me more time to work individually with students to improve their writing skills and to smooth their transition into an academic environment. These policies are ones that NCTE has long advocated (http://www.ncte.org/positions/statements/classsizecollege). Unfortunately, while logical, these changes are not easily made.

Recent demands that institutions of higher education facilitate greater numbers of students who successfully complete college, coupled with increasingly large numbers of students seeking college degrees at our open-admission campus, makes it difficult to limit the number of students I work with each semester. If my college were to lower enrollment caps, we might not successfully increase our retention and completion rates. Lowering the numbers of students per section also lowers the numbers of students who are likely to complete. Even with smaller class sizes, students might drop classes to attend to family or work obligations and some of those who do complete the course might not master the content and earn a passing grade. Assigning me only three sections of developmental writing instead of four would also jeopardize those numbers and increase the likelihood that more adjunct faculty would need to be hired to pick up the slack.

But, community colleges and four-year universities are also under pressure to lower the number of classes taught by adjuncts. This push is fueled by public perception that adjuncts are less qualified and receive less institutional support and oversight than full time faculty (June, 2012). While I disagree with the first claim, I believe there is merit to the latter. If true, then adjunct faculty will, through no fault of their own, be less well positioned to teach effectively than those of us who are full-time—this could impact the quality of students' education. Finally, my college, like most community colleges, continues to rely heavily on adjunct faculty for economic purposes. Adjuncts are paid less than full-time faculty, receive no benefits and are easily removed from employment when enrollment numbers decline. Heavy reliance on these adjuncts gives community colleges needed flexibility and financial solvency at a time when public outcries about the cost of higher education are growing louder even as state funding for those colleges declines (Layzell & Caruthers, 2002).

Another possible solution my college could employ—one that would not require more full-time faculty or lower class sizes—would be to assign me a mixture of developmental courses and upper-level English courses. Doing this would mean, theoretically, that I could devote more individual, out of class time to those students who are struggling to make the transition to college, since upper-level students should require less of this kind of attention. However, this solution is also not easily implemented. The guidelines for faculty credentialing would not permit this approach on a wide-scale. In our community college system (one of the largest in the United States), reading and writing developmental faculty are required to have earned only a BA in English or a comparable field, while college-level course instructor's must have at least an MA. Therefore, many of our developmental faculty—both full-time and adjuncts—would not be qualified to teach upper level courses.

A final impediment to changing developmental faculty's workloads is attitudinal. On our campus, there is a perception among faculty that teaching developmental studies is a special kind of work—one that requires a set of skills and dispositions different from teaching upper-level courses. Since developmental students are academically weak and often lacking in the cultural capital they need to enter into academic settings and adopt academic literacy practices, the argument goes, they need teachers who are able to design lessons and interact, individually with students to facilitate their adoption of college norms. Therefore, it is widely believed that while a developmental faculty member in possession of a MA degree can teach both developmental and upper-level courses, the reverse is not always true. Many faculty members, who have an MA but have never taught developmental courses, believe they are unsuited to working with the latter group[2]. They have, at least on my campus, persuaded administrators of the veracity of these claims. It should be noted that upper-level faculty on my campus teach five sections of credit bearing courses each semester. Developmental faculty's four sections per semester is the institution's acknowledgment of the extra time needed to work with developmental education students.

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[2] Sharon Crowley (1998) has argued that similar attitudes are common on four-year university campuses. She explains that at these institutions the instructional divide is drawn between not only developmental education but also freshman composition courses. Adjuncts and full-time instructors teaching these lower-level courses rarely teach upper-level disciplinary courses. Alternately, upper-level and graduate courses in English are taught primarily by faculty with PhDs in English who are rarely required to work with first year students.

I elaborate on the competing demands of teaching writing at my own community college and the institutional norms and demands that impact that work for two reasons. First, I want to highlight that the research that follows is implicitly informed by my own daily work life. Second, I offer it as a foil for the lives of the participants I will be discussing. While teaching writing well is difficult for me for many reasons, it is even more complicated for disciplinary faculty who face a different set of conflicting pressures and goals. While writing faculty must struggle to balance the need for individual instruction with whole class attention to the course content, we do not have to confront the additional complexity of covering disciplinary content. I teach writing (sometimes reading); therefore, all of my class time can be devoted to improving student writing. I have the luxury of a single focus. Disciplinary faculty do not. They are being asked to ensure that their students learn history, biology or engineering in addition to improving students' writing skills. For many faculty members, these two goals are seemingly contradictory.

It is important to point out that for many faculty, balancing the teaching of content with the teaching of writing was not an expected component of their work. The notion that disciplinary faculty should share the onus of teaching students to write is relatively new, and a consequence of wide spread concern that students complete college without knowing how to write well and recent research that suggests that learning to write is best accomplished when all faculty share the burden of that work. I'll discuss this research in greater depth in the next chapter, but I wish to make clear from the start that theories and knowledge about writing instruction are changing as more research is completed. Today's faculty is being asked to adapt their instructional practice to align with that on-going research. They are being asked to do so although they may have little familiarity with research on writing instruction and may have no

personal experience with the integration of writing and disciplinary content from their own days as students.

Just as my community college could make institutional policy changes to assist me with my own teaching of writing, four-year colleges could do the same for their faculty. Nevertheless, those structural changes can be difficult to enact. Institutions of higher education have evolved in response to economic, social and political changes in the American landscape. While seemingly odd, many policies make good sense once they are viewed from a broader perspective. Even as more and better research about how best to teach writing becomes available, institutions are changing in response to external demands—about financing, about teaching, about priorities and purposes. Aligning new research on best practices for writing instruction, amid wider policy shifts, can be complicated. As Fisman and Sullivan (2013) explain, embedded in what appears dysfunctional or strange, may be an intuitive logic that represents real people working inside of complex organizations to do things that are sound, reasonable and responsible. I believe that writing teachers—ones whose primary focus is composition instruction and those who teach writing as part of disciplinary courses—struggle to create pedagogical practices that are congruent with the best interests of their students, while simultaneously fitted to the disparate context in which they work.

Generating and enacting such practices necessitates a kind of tight rope walk. Faculty must respond to the immediate demands of their students' educational and social-emotional needs, prepare those students for later disciplinary content courses via the covering of content, and meet a constellation of other departmental and institutional demands that may seemingly have little relevance to students' academic advancement. Furthermore, faculty must complete a host of tasks—service to the college, departmental administrative work or original research—in

addition to their teaching. There is often little extra time to have lengthy and concrete discussions about how their personal decisions or trade-offs are working. Consequently, some practices are never fully interrogated or analyzed to determine if they are effective. Like my writing conferences, some approaches seem to be meeting one goal (teaching students to write) when, in reality, are meeting an entirely different purpose (helping students navigate the institution). Writing instruction often rests at the intersection of these competing goals.

I have been fortunate in my own career as a writing instructor to work in different levels of public education: high school teacher, freshmen composition teacher at a four year university, community college instructor and Writing Center tutor. In my experience, while the particular pressures on faculty in these different segments may differ, all teachers face similar quandaries about the teaching of writing. They struggle to balance competing goals and to operate in a system that frequently sends mixed messages about priorities and best practices. Few have sufficient time or resources to try to tease out how these mixed signals influence or operate in their daily practice, some do not perceive a need to question the status quo. But most seem to know that the general public believes they have failed to teach their students to write well, and many are plagued my self-doubt.

Their failures are commonly reported in the popular press, hashed over at Saturday youth soccer games, PTA fund-raisers and at their spouses' annual office parties. Tell someone you are a writing teacher and you must steal yourself for one of three common responses: (1) I'd better watch what I say because I don't want to make grammar mistakes; (2) I spent all weekend helping my child finish his book report. Why does he need to read Maya Angelou (or Hemingway, or Shakespeare or Dickens or Frederick Douglass); (3) Why is it that kids today can't write? Can't you all get them to use correct grammar? I've been tempted to walk around

with a drink in one hand and a red pen in the other to stave off these kinds of conversations. Better to meet the stereotyped expectations then attempt to explain the complexities of my work or to point out (because it would be rude) the paradoxical nature of people's comments/complaints.

While I may not always have time for rigorous, reasoned discussions about my work in between student conference, at halftime or cocktail parties, doing research affords me an opportunity to more carefully consider the complexity of my job. The research that follows attempts to explain how instructors—in different disciplines—teach students to write. Specifically it explores what personal experiences with writing teachers bring to their work, how their disciplinary backgrounds inform their pedagogy and, finally, how institutional contexts shape their practice.

The next chapter offers a brief review of the literature that undergirds this study. I discuss three separate, though often overlapping, periods in the evolution of writing instruction in the United States—moving from an emphasis on traditional rhetoric, to Writing Across the Disciplines (WAC) and ending with a discussion of on-going research about Writing in the Disciplines (WID). This review describes how theories and approaches to writing instruction have changed over time, leading to present day beliefs about which pedagogical approaches yield student mastery of composition. Specifically, it illuminates why it is now considered imperative that disciplinary teachers take up the work of teaching writing.

In chapter three, I discuss the methodology for this work: a nested case study including four teacher participants. This work closely examines two science and two international relations instructors' efforts to teach writing in their disciplinary courses. I draw on observation and interview data as well as an examination of course documents. Additionally, I interviewed

departmental administrators and reviewed departmental websites in an effort to capture institutional factors that impact teachers' views about student writing.

Detailed, descriptive case studies of each of the four participants are included in chapter four. I describe how these participants were prepared for their roles as teachers, their past experiences with writing and writing instruction. Narratives taken from my observation of their classroom practices are also included.

In chapter five, I analyze the data. The teachers in my study drew heavily on their own experiences as students to create and enact a writing pedagogy; furthermore, institutional and disciplinary contexts had a role in shaping my participants' understanding of writing instruction. I rely on a combination of research on writing, the sociology of teaching and higher education to describe and explain how my participants' approach to teaching writing is reasonable and suited to their different contexts at their university.

Finally, I explore some possible implications of this study's findings. While this research includes only four participants, my study can serve as a starting point for additional work. More longitudinal studies of writing instruction are needed, and, I argue, some of those studies need to focus on teacher preparation and disposition and should try to illuminate how individual disciplinary departments can foster teachers' on-going commitment to improving writing instruction.

CHAPTER 2

TEACHING WRITING: CHIMERA OR CRAFT?

Writing instructors are simultaneously maligned, ignored, belittled and recruited on American campuses. In comparison to their faculty peers, they are "undervalued, overworked and underpaid" (Crowley, 1998, p. 5). Their work is alternatively seen as inscrutable, futile, boring, time-consuming, ineffectual and vital. Researchers and teachers within the field of composition (which I use here broadly to include those, from a variety of disciplinary backgrounds, whose work focuses primarily on written communication) have argued, alternately and simultaneously, for increased institutional respect and funding, but also for the complete dissolution of the enterprise of Freshman Composition (Miller, 1991). Those outside the field, when they attend to the matter at all, are confused. They wonder what writing teachers are doing, are certain they must be doing little, and desperately want them to do more (Gere, 1991). Students, too, seem either disinterested in the writing courses they take or find them a poor foundation for later courses (Bartlett, 2003). Few involved are sanguine about the current state of affairs.

This sense of dissatisfaction surrounding the teaching of writing is not new (Schuster, 2003), nor is it surprising when the complexity of learning to write well is considered. Frustration about how best to teach writing is understandable when looked at from a broad historical perspective. While language and writing are old, theory and research about best pedagogical practices for composition instruction is relatively new (Russell, 2002). The now nearly ubiquitous requirements for Freshman Composition Courses (FYC) and expanded expectations for writing in advanced college courses tend to mask this historical fact: researchers have only recently systematically studied ways to teach writing. The origins of post-secondary

writing instruction foreshadow many of the tensions that trouble the field today. This history is the intellectual backdrop of this study.

What follows is a brief overview of the teaching of writing in U.S. colleges and universities. I divide the overview into three discrete historical periods:

- Rhetoric and traditional grammar (1840-1960)
- WAC: writing to learn and learning to write (1960-1980)
- WID: epistemology and disciplinary writing conventions (1980-present)

Each period—loosely—aligns with shifts in theoretical, empirical and/or pedagogical orientations about the use and teaching of writing in post-secondary education. The dividing lines between the periods are not precise, as ideas from one period continue to percolate and influence the next. Moreover, my review of each period is uneven. I provide a superficial gloss of the first in order to contextualize the more expansive discussion of the later two. The research study that follows is most aptly situated within the third period; I, therefore, attend most specifically to the research produced during the last 40 years.

Rhetoric and Traditional School Grammar (1840-1960)

During the early decades of this period, institutions of higher education were exclusively male and catered to the needs of the upper classes. University attendance was perceived as necessary training for wealthy men who wished to enter into one of a few prestigious professions: law, medicine, theology or politics. Students attended mostly private institutions that often connected religious belief to daily lessons, were largely staffed by faculty who were themselves generalists, with little or no special training in specific disciplines. Class size was small, as were student to teacher ratios, and instructional time commonly consisted of recitation

or work in small groups or seminars with a faculty mentor. The range of subjects studied was considerably narrower then today and the primary purpose of all study was to pass on to students the collected wisdom of their forefathers so that they, in turn, could use and safeguard that knowledge for the betterment of future generations. Higher education at this time was deliberately secular and elitist (Russell, 2002).

But as the country began to reconstruct itself following the Civil War, so too did institutions of higher learning. A growing mercantile class sought access to colleges and universities and viewed higher education as a means of expanding their opportunities for economic and social gain. Attendance at university became possible and desirable for a whole segment of the population that heretofore had not been present on campuses (Russell, 2002). This pattern of expansion would repeat itself throughout this time period—particularly noticeable after both World Wars—with the arrival of working class students, veterans, and immigrants to campuses (Crowley, 1998). Colleges and universities, of necessity, were required to rethink their primary purpose, the transmission of cultural norms and accepted wisdom to the next generation, in order to accommodate the demands of newly arriving students who were often more interested in using higher education as a means of achieving social mobility and economic opportunities.

Connors (1997) points out that the number of institutions of higher education increased rapidly during this time in response to increased demands for enrollment; women's colleges, technical schools and African American colleges entered the landscape of American higher education. These schools catered to different student demographics and, in turn, had differing goals and purposes for their curriculum. In addition, the structure of higher education in the U.S. changed as the country adopted German models of education and began to develop research

institutions and graduate schools. These schools focused not on traditional humanistic education, but instead sought to become places where new knowledge was produced and applied science was used to improve society. Increasingly specialized fields required increasingly specialized researchers and disciplinary faculty (Russell, 2002).

Until the mid-19th century, language instruction in higher education was primarily the study of rhetoric, with oral presentation the gold standard and written expression merely a preliminary stage used in preparation for public recitation. The purpose of rhetorical study was to prepare the student to become a public speaker/statesman in order to influence peoples' decisions and views about public policy. The study of rhetoric required students to compose and present orally to their classmates speeches on a number of topics of importance to public life. Much memorizing and using of quotations was involved. Elocution was emphasized (Eagleton, 1983).

Students were expected to study rhetoric throughout their university careers, with increasingly complex topics to explore and higher performance standards to achieve. Students and faculty alike spent a great deal of time devoted to the study of rhetoric. This approach to the study of language had a long history and was clearly aligned with the goals and purposes of higher education—at least until the middle of the 19th century. Since the majority of students who attended university came from similar backgrounds and were planning to enter only a small number of professions—most of which relied heavily on public speaking and knowledge of a small set of culturally and aesthetically approved texts—the emphasis on learning these texts and good elocution made sense (Lindemann, 1995).

However, as student demographics changed and the goals of education expanded, the curricular emphasis on rhetoric weakened. After the Civil War and well into the 20th century, higher education needed to retool in order to accommodate students' aspirations. The rise of

market capitalism which, in turn, required many to move to urban centers to find employment coupled with increased access to public elementary and secondary education, meant that larger numbers of Americans were gaining literacy skills (Castle, 1991). While four years of rhetorical study seemed appropriate for future lawyers, clergymen or politicians, debate began about what kind of language/writing instruction was most beneficial for those wishing to pursue careers in business, industry or management.

While there was not yet consensus about what form of writing instruction was considered necessary for a new mercantile glass whose entrepreneurial endeavors would require clear writing that utilized Standard English Grammar, there was general agreement that something was necessary. Early proponents of universal public education, including Horace Mann, argued "that education contributed to greater industrial productivity" (Castle, 1991, p. 29). While Castle concedes that Mann's claims may have been overly optimistic, he explains that both secondary and post-secondary institutions sought to design curricula that would make good on this promise of increased economic prosperity via formal schooling for more than just the elite. Thus, the rise of capitalism necessitated a re-thinking of traditional approaches to writing instruction. Connors (1997) also notes that the presence of women on campus necessitated a move away from public, oral presentation. Since women were traditionally forbidden from speaking in public, schools moved toward writing-centered instruction and focused on teaching rhetorical principles through private writing. Traditional rhetoric became less and less practical and, therefore, less defensible as a core curricular focus. Crowley (1998) explains:

> Until the mid-point of the nineteenth century, American colleges required all students to take four years of instruction in rhetorical theory and to engage in regular supervised practice in oratory and written composition. By the last decades of the century, however,

> the institutional importance of rhetorical education had been so seriously undermined that instruction in rhetoric disappeared altogether from college and university curricula. Since then, the practice of rhetoric in America has not been connected in any systematic way with education in its principles. (p. 33)

While Crowley may overstate things a bit—departments of rhetoric exist on university campuses today and rhetorical theory still influences the study of literature and some composition courses—the centrality of rhetoric to the university curriculum did weaken and in many cases was subsumed within other disciplines. Some scholars argue that rhetorical study still forms the backbone of composition instruction in today's schools and Eagleton (1983) has argued that remnants of rhetorical tradition (the combined emphasis on highbrow culture and "impractical" humanistic goals) have impeded modern English departments' abilities to "market" themselves to a broad array of students. The importance and location of rhetorical instruction in today's curricula is debatable, but traditional rhetoric has certainly lost is central role in students' studies.

In addition to the study of rhetoric, schools during the mid-19th to mid-20th centuries also worked to improve students' command of Standard English. As early as 1874, Harvard instituted an entrance exam designed to measure student mastery of English grammar, mechanics and spelling; students' scores determined their course placement and those who did not do well on the exam were enrolled in remediation classes (Schuster, 2003). Furthermore, it would seem that even when schools and universities were populated by elite students, faculty often bemoaned the need for frequent review of these skills. Instruction generally relied on what we would today call "worksheets" or drills. Students were given exercises to complete in order to master each discrete skill. When a student showed mastery of one skill, he or she moved on to the next,

purportedly more complex one. Schuster (2003) calls this pedagogical approach "traditional school grammar . . . the prevailing grammar from the middle of the nineteenth century to the middle of the twentieth" (p. 15). This approach was used throughout students' school years—from elementary to higher education. The exercises were repeated until students showed mastery. It was assumed, at this time, that students must first master grammar, mechanics and spelling before they could be expected to compose an original piece of writing (Schuster, 2003).

From one perspective, the focus on traditional school grammar, with its emphasis on mastering discrete grammar skills combined with traditional rhetorical study, was effective: the American economy continued to prosper and employers were able to fill open positions, ranging from lawyers to shop owners to factory workers. Berlin (2003) argues that during this time period, "reading and writing practices taught in the English departments responded in appropriate fashion to a curriculum and an economy that remained relatively impervious to alteration" (Berlin, 2003, p. 38). However, churning underneath this outward cohesion was a debate about the underlying purpose of education, English studies and writing instruction specifically. Early advocates for more democratic and liberatory curricula questioned the equity of instructional practices that sought to "clean up" students' writing and, by extension, their cultural aesthetics (Berlin, 2003), while others fought to defend the efficacy of humanistic study—most notably the study of English Literature—from what they perceived to be overly mechanistic and de-humanizing curricula reform efforts (Eagleton, 1983).

Summary

While I have only scratched the surface of the evolution of higher education in the U.S. during this time, important changes in post-secondary education occurred during this period: colleges and universities expanded, more and different kinds of students matriculated, and the

rise of research institutions and graduate schools began. The central location and importance of traditional rhetoric instruction began to wane in the face of these changes, but universities remained committed to providing all students with instruction on Standard English grammar and to ensuring that students were prepared to write for a host of occupational purposes.

During this time, faculty became more highly departmentalized, teaching and working within their own fields and interacting less frequently with students and scholars outside of their home departments (Becher, 1993). Faculty became responsible not only for passing on the knowledge of a field to the next generation of students, but also for producing, sharing and using new knowledge. The primary purpose of education was no longer the extension of traditional humanistic values, but rather on the creation of new knowledge. Universities and their individual departments were also expected to be responsive to the demands of market-capitalism. However, there were also conversations on campus about the importance of liberatory/democratic education that was responsive to students' diverse backgrounds and about which pedagogical practices were most effective. As I'll show, composition instructors would soon attend more directly and explicitly to these latter concerns.

WAC: Writing to Learn and Learning to Write (1960-1990)

The 1960s and 1970s were a socially tumultuous time for the US. The solidification of American economic supremacy and the increased reliance on science to explore and explain the human condition coupled with the homegrown rejection of authoritarian social practices led to wide ranging rejection of previously accepted social norms:

> The result was that during the 1960s and early 1970s a very large number of young people rejected almost completely the ideals and goals of their parents, actively resisted the life styles of their elders, and banded together in attitude—

> and often in active groups—to demonstrate their distrust of such traditional values as progress, education, material success and national pride. (Horton & Edwards, 1974, p. 529)

The effects of these shifts in public attitude were resonant on university campuses, as students who did not "drop out" from society demanded that educational institutions respond to the cacophony of voices seeking social change. The civil rights movement, for example, sparked renewed and focused attention on the equity of public education—demanding that African American students be given the kinds of education that would ensure economic opportunity and political participation. Similarly, the women's movement sought ways to redress limited opportunities for public—political, social and economic—participation for college educated women. Betty Freidan (1963) argued that if women were not permitted their full-participation in the running of social institutions, they would remain homebound and dissatisfied. Still, there was a growing sense that access to education, alone, was insufficient for realization of the American dream. Rather, what was needed, many believed, was a restructuring of both curricula and social norms. While tension between equity and access in educational policy was not new in the U.S. (Gutman, 1987), the 1960s and 1970s were particularly salient decades for public debate about this topic.

English departments found themselves caught in the vortex of this growing social dissonance. As Eagleton (1983) noted, English departments—traditionally characterized by humanistic study with a core mission to inculcate students with a veneration for the past—were not well equipped to respond to demands that the "old ways" be revamped. Furthermore, English departments, via their curricular emphasis on traditional grammar

and rhetoric, were seen, rightly or wrongly, as primary sites for social reproduction (Scholes, 1998). Finally, English departments did not produce "new," scientifically grounded knowledge. Therefore, on-campuses where scientific research was the gold standard, they were losing institutional clout. And, they were also perceived to be unresponsive to students' demands for more personal and less traditional educational content and methods. For English to survive, it needed to rethink its primary mission and pedagogical approaches.

In 1966 American and British teachers of English meet at Dartmouth to discuss the status of their field and outline a new approach to the teaching of language. The conference remains a seminal landmark in the evolution of writing instruction and research. Joseph Harris (1997) describes the Dartmouth Conference:

> The participants at Dartmouth proved in fact unable to agree on much in either theory or practice, but this lack of consensus did not limit their impact on the work of many teachers then and since—for whom Dartmouth has symbolized a kind of Copernican shift from a view of English as something you learn about to a sense of it as something you do. After Dartmouth, that is, you could think of English as not simply a patchwork of literary texts, figures, and periods (The Fairie Queen, Swineburne, the eighteenth century) but as the study of how language in all its forms is put into use—from gossip to tragedies to advertising to the talk and writing of school children. (p. 1)

Dartmouth participants understood that their purpose was to define the nature of a discipline and to describe how best to teach students those skills, procedures and facts that were part of it. Their work took place amid the recurrent debate in American

education about which was more important—students' personal growth and development (as represented by myriad interpretations of Dewey's progressive pedagogical theories) or mastery of disciplinary content (frequently defined by calls to return to basics and traditional education). The conference participants fell into two camps, loosely delineated by national identity:

> One can view the American position at Dartmouth, then, as an attempt to justify the study of English to other university experts, and the British position as trying to place such work in relation to the needs and concerns of students. (Harris, 1997, p.5)

Harris argues that Americans were seeking to legitimate the field of English to their colleagues in the broader university, while the British were more focused on how best to teach both students and teachers. This delineation is too stark, and as the field matured would continue to blur but never completely merge.

Participants agreed on little, but their discussions were widely published and circulated to both secondary and post-secondary instructors. One lasting effect of the Dartmouth conference, for American university faculty and students, was a burgeoning effort to, through research and scholarship, attend to student writing: how it was produced, how it should be taught, to whom it should be taught and to what use it should be put. These questions remain the catalyst for much present day research in the field. After Dartmouth, the teaching of English was no longer simply about student consumption of text, but also about student production of text, and the instructional strategies that might support student learning. Composition began to develop into its own discrete field, separate from its parent discipline: English (Anson, 2010). The new questions driving the development of composition also made explicit the importance of written

composition and fore grounded efforts to understand how students learned to write and how teachers could maximize that learning through pedagogy.

For example, two early researchers in the field, Janet Emig (1971) and Mina Shaughnessy (1976), studied the work of professional and novice writers and found that we could gain knowledge about how students learn to write and how teachers could help them to succeed. Others (Britton, Burgess, Martin, McLeod, & Rosen, 1975) also worked to develop a cohesive theoretical understanding of how students learned to write for a multitude of audiences and purposes and studied how public school classrooms helped or impeded this growth. Early writing research suggested that writing in schools should focus on more than simply mastery of grammar and mechanics; it should also allow students opportunities to write more frequently in a variety of genres.

Building on these early research efforts were the pioneers of what has become known as the Writing Across the Curriculum (WAC) movement. Thaiss and Porter (2010) describe the origins of WAC in the U.S. "as a serendipitous meeting between democratic social forces and a new paradigm of the developmental link between writing and learning, this intellectual ferment occurring in an educational climate ready for curricular experiment" (p. 534). WAC proponents broadened the focus of writing instruction and asserted that writing should be a lifelong endeavor, the benefits of which could accrue to students over and above successful mastery of disciplinary course content (Elbow, 1981). This emphasis on student produced composition and writing to learn was novel. As we've seen, past writing instruction generally focused on mastering Standard English grammar and mechanics and/or mastering rhetorical conventions to reproduce similar persuasive arguments. WAC proponents shifted the focus away from writing as an example of student mastery of grammar or rhetorical exemplars to a focus on student

generated original texts and emphasized that writing could also be a means of learning content (Martin, 1992)

WAC reformists hoped that grassroots efforts to alter teachers' attitudes about the purpose and methods for teaching writing would have a ripple effect throughout all levels of education and lead to a more comprehensive and nuanced understanding of the importance of writing across the curriculum. WAC set out to redefine the purpose of writing instruction, to validate student agency and to establish new pedagogical methods for writing instruction. Furthermore, it set out to make these changes via local professional development efforts. One popular method of bringing about this reform was by hosting writing workshops on campuses. Toby Fulwiler (1986) describes the ingredients of successful writing workshop for fellow college professors:

> (1)Knowledgeable, flexible writing teachers, (2) a core of concerned, flexible teachers from other disciplines, (3) administrative sanction, (4) belief in a process-oriented pedagogy and (5) plans for activities and communication once the workshop ends. (p. 32).

The approach Fulwiler describes was adopted at many colleges and universities. As Thaiss and Porter (2010) report, "aided by federal, state, and foundation grants, the number of WAC programs proliferated into the 1980's" (p. 535). While WAC was never a formal, centralized educational reform movement, Russell (2002) notes that most WAC programs shared similar characteristics:

> Though they were almost always organized by composition instructors from English departments, not by those from other disciplines, they were usually supervised by an interdisciplinary committee. WAC initiatives were (and largely still are) outside the

> regular departmental structures of academia—and therefore subject to the vagaries of personnel, funding and priorities. (p. 38)

He adds that the success and life-expectancy of a particular university WAC program was often dependent upon the charisma of individual program leaders and/or sustained support from administration—either through continued funding and/or rhetorical support for the mission of the WAC program.

Despite the early optimism of WAC programs, the effort has, of late, been described as waning and vulnerable. Martha Townsend's (2008) review of WAC in America depicts a movement struggling to maintain its autonomy and vibrancy. Townsend (2008), drawing on other WAC advocates' work, reports that continued respect and funding for WAC programs is dubious. She nominates a host of reasons for WAC's current tremulous state:

- WAC is a diffuse movement with varied definitions depending on local context
- WAC attends primarily to professional development, not empirically grounded evidence of student growth
- WAC is open ended—justifying its continuation as an on-going professional development program, not as a one-shot reform effort
- WAC's benefits are as difficult to measure as "good teaching or successful learning" (p. 48)

Townsend argues that WAC's vulnerability lies in people's failure to appreciate the underlying purposes of the movement—faculty professional growth and increasing student opportunity to write in multiple contexts—and with a refusal by most people to fully appreciate the deep, structural complexity of teaching writing on current university campuses.

Bok's (2007) analysis of writing instruction on university campuses underscores Townsend's concerns. He argues that teaching writing is a complex endeavor, made more problematic by university structure and inter-departmental politics. Bok notes that composition faculty will often seek to extricate themselves and their work from these systemic difficulties by establishing autonomous writing programs on campus lead by a writing director who oversees writing instruction across campus. This approach ostensibly frees writing instructors from the capricious whims of a particular department. This antidote—while common—rarely has the desired effect. Bok (2007) writes:

> But this arrangement is rarely a panacea; it often merely substitutes one set of unsympathetic authorities (the dean's office) for another (the English department). In either case, most directors have to cope with constant staff turnover, low morale, sudden, unpredictable fluctuations in student numbers, insufficient resources, and an abiding sense of being marginalized by the faculty and administration despite performing functions that are both demanding and essential. (pp. 87-88)

Bok is not specifically discussing the health and future of WAC programs, but his analysis suggests that writing instruction—including, but not exclusively, WAC programs—suffers on university campuses because of long-standing attitudes about the importance and place of composition in the undergraduate curriculum.

Not all researchers hold Townsend's pessimistic view of the eventual outcome of WAC programs—though most would agree with her characterization of the movement's goals and obstacles. Thaiss and Porter (2010) found that WAC continues to have relevance on university campuses, particularly small, liberal arts colleges:

> Whereas many of the programs reported on in 1987 no longer exist, many more schools have built programs in the succeeding years, and another 152 beyond the 568 reporting a WAC presence have plans to begin programs. (p. 563).

Thaiss and Porter also note, however, that in the wake of a poor economy, these programs may not survive. In fact, at the time of this writing, The *WAC Journal* is currently seeking donations from individual readers to fund the publication of its next issue—a first in its 23 year history. It is not possible to determine how vibrant WAC programs will be in the future; although, it seems that the open-ended, decentralized and amorphous nature of the movement might allow it to persevere on campuses in different incarnations. Ken Macrorie's (1985) advice to students about the nature of learning and writing may now apply to WAC's future, "It's a course to run, not a couch to lie on." (p. 9).

Summary

Despite its (relative) waning, WAC did influence university writing instruction. For example, it is no longer considered a radical notion to expect students to write in all disciplinary courses or to expect faculty to teach writing in those courses. WAC efforts also succeeded in popularizing the distinction between process and product. Although debates about the meaning and importance of this distinction continue, the dichotomy (and all its concomitant problems) is now part of the lexicon. While it remains unclear how effectively WAC changed teacher beliefs and practices about writing instruction, it seems fair to say that WAC efforts did change *conversations* about writing on university campuses. The importance of this change should not be overlooked. It marks an important historical shift in post-secondary education: WAC made explicit—in relation to writing—the importance of pedagogical knowledge and skill and offered a means of professional development to foster faculty growth.

WID: Epistemology and Disciplinary Writing Conventions (1980-Present)

As Townsend and Bok both imply, one of the obstacles WAC faced (and continues to confront) was its inability to persuasively assert that its approach to writing instruction and to professional development had lasting, measurable effects on student learning across the curriculum—in multiple contexts over the full years of college matriculation. As early as 1978, Cooper and O'Dell framed a research agenda—more specifically an attitude about research—for composition:

> We will have to raise questions that heretofore have seemed unaskable; we will have to devise new procedures for obtaining answers; and we will have to be patient and allow those new techniques time to yield the answers we seek. Most difficult of all, we must be prepared to accept a provisional understanding of our field with new questions and procedures far outnumbering undisputed facts and proven methods. (p. xvii)

Just as WAC programs blossomed on university campuses throughout the 1980s, so too did the amount and kind of research on composition (Anson, 2010). One avenue of researching composition, in answer to Cooper and O'Dell's prompts, can be placed under the umbrella term Writing in the Disciplines (WID). WID research is most relevant to the study that follows; therefore, I will give a brief explanation of its origins and provide a review, albeit cursory, of extant literature within this sub-section of composition research.

Before reviewing specific examples of WID research, it is important to clarify the distinction between WAC and WID. As WAC made inroads on university campuses, it emphasized writing as a means of learning and self-expression and advocated for a generalized, universal approach to all writing—the process method. Further, it promoted—via faculty writing

workshops—the view that some core writing skills or attitudes were applicable to all instructors and, therefore, to their students. Nevertheless, many composition experts argued that this global, amorphous and generalizable approach to writing instruction was too simplistic and failed to take into account the complexity of writing in different and specific contexts. Anson (1988) explains:

> To understand writing in the academic disciplines thoroughly, then, we must also see what we are observing through the lens of historical development—and that will require more than studying just the writing, or its immediate surrounding context; it will require that we know, in addition, something about *the discipline* itself, as a forum for the production and exchange of knowledge. (p. 26)

Composition scholars interested in better understanding how writing was produced and used inside various disciplines began their own investigations. WID research developed out of this attention to disciplinary and institutional context and their relation to writing instruction. While occasionally discussed under the broader canopy of WAC, WID emphasizes disciplinary-specific epistemologies, writing conventions, institutional or departmental contexts and the intersection of these with writing instruction. WID research is conducted by faculty members from myriad disciplines and applies the varied methodologies of those diverse researchers' fields.

Charles Bazerman's (1988) analysis of the discursive practices in the sciences is perhaps most emblematic of WID's efforts to understand how language functions in and through a particular disciplinary discourse. Drawing on diverse language theories (Vygotsky, Toulmin and Bakhtin), Bazerman deconstructed scientific texts in order to better understand how they reflected the underlying epistemologies of their representative fields. He explains the broad implications of these analyses for writers, and by extension, students and teachers of writing:

> The underlying epistemology, history, and theory of a field cannot be separated from its rhetoric. The rhetorical action is mounted within a conceived world and in pursuit of ultimate as well as immediate goals. The more you understand the fundamental assumptions and aims of the community, the better able you will be to evaluate whether the rhetorical habits you and your colleagues bring to the task are appropriate and effective. (p. 323)

Bazerman's work sought to explain how written texts could be used as fixed points of reference to help elucidate often implicit disciplinary beliefs about knowledge and writing. Texts were tangible artifacts—if incomplete representations—of the intangible disciplinary culture. This approach to text, to culture, and to the intersections of both, assumed that writing was one of many activities that defined a particular discipline.

The implications of these endeavors were that novice entrants to a particular academic discipline would, of necessity, need to understand the epistemology and particular writing conventions of that discipline if they were to successfully integrate themselves into that discipline. They needed not only content knowledge, but also needed to learn how to express that knowledge through approved, disciplinary specific writing conventions.

Unfortunately, other researchers, drawing on Bazerman's conception of rhetorical/epistemological disciplinarity, discovered that many faculty members' own understanding of the discursive conventions in their field was tacit and that they struggled, particularly in relation to the teaching of writing, to make the "ground rules" of their disciplines explicit for students. Judith Langer (1992), for example, discovered:

> In fact, among all the teachers we studied, notions of discipline-specific ways of thinking were mostly implicit. They had a more or less well established vocabulary but not a

> systematic way to think about it, and so their talk about ways of thinking came and went—unnoticed and unmarked. Perhaps because of this, biology teachers, for example, felt no contradiction in relying heavily on objective tests to measure student achievement; though at a more idealized level they stressed "scientific methods" and "ways of thinking" as goals for their courses. (p. 84)

Langer argues that in order for disciplinary teachers to better prepare students to think and write within their subject-areas, teachers must more explicitly understand how discursive conventions work in their fields and be able to explain those conventions to students. Furthermore, she notes, adjustments to pedagogical practices might be needed in order to cohesively teach and assess student mastery of those conventions.

Walvoord and McCarthy's (1990) *Thinking and Writing in College: A Naturalistic Study of Students in Four Disciplines* aligns with Langer's findings. Walvoord and McCarthy tracked student writing for seven years, observing students and teachers in classrooms, analyzing course documents and interviewing participants about their teaching and learning. Walvoord and McCarthy found that students struggled when trying to adjust their writing practices to conform to differing disciplinary expectations. They also discovered that teachers were often unaware of their own underlying, implicit expectations about disciplinary discursive practices and had little pedagogical training or theory on which to build their writing instruction. The disciplinary teachers did not explicate their expectations about what it meant to write in a field, and they did not have a developed sense of either what it meant to learn writing in a discipline or how one goes about teaching it. The researchers described frequent miscommunication and misunderstanding—about what constitutes good writing—between students and teachers in all four disciplines under study.

Sarah North (2005) tracked UK student writing development for three years. Her study focused on how students—half from an arts background and half from a science background—fared in their attempts to produce the required writing in a history course. North found that students with an arts background performed statistically better than their peers with a science background, and she attributes the difference to students' disparate understanding of the complexity of the writing process and to their grasp of the nuances of making an argument. During interviews that followed the writing assignments, the arts students often described writing as time-consuming, iterative and inexact and asserted that making an argument required an understanding of both content and reader expectations. Science students, however, described writing as primarily the reporting of existing, accepted facts and focused more on organizational structure and surface features of writing rather than the ambiguity of the broader arguments they were trying to make. The disaggregated grades suggested that success in history required the ability to navigate ambiguity. Thus, the arts students—whose disciplinary backgrounds shared this epistemology—were better prepared for writing in history. North (2005) explains that her findings "confirm the existence of disciplinary differences which relate to differing conceptions of the nature of knowledge and may be realized in a variety of textual features" (p. 520). North calls for additional research to help pinpoint how epistemology is reflected in writing assignments in different courses:

> The findings of this research call into doubt the view that communication skills can be generalized across different contexts and suggest, instead, the need to disentangle precisely which aspects of writing are generalizable and which are discipline-specific. To negotiate the writing requirements of modularized or cross-disciplinary courses,

students may need above all to have the flexibility to respond appropriately to different situations. (p. 531)

Drawing heavily on composition research (including Bazerman, Fish, Bizzell, and Flower), Madigan, Johnson and Linton (1995), explicate how psychology students begin their socialization into the discipline through their use of APA format. Their work shows that APA style serves as a means of helping students to internalize the, often tacitly understood, epistemological beliefs in psychology and, more broadly, all social sciences. Tracing specific APA conventions—including number and kind of internal citations, footnotes and direct quotations—Madigan and his co-authors show that learning to write in APA style is a powerful means of enculturating novice psychology students. However, they also assert that psychology professors struggle when trying to help students acquire the kinds of thinking required for APA style/social science writing. The nominate two key obstacles: (1) teachers' "own knowledge of APA style is the result of many experiences over many years, and much it is not rule based. A student's phrasing may sound somehow off the mark, but the professor may be hard pressed to articulate a specific rule that might help the student improve" (p. 434); (2) professors believe "that writing is a general skill that can be adequately taught in the freshman composition sequence. This causes psychologists to underestimate the difficulty students may have in moving into a discipline like psychology, which has its own well-developed writing genres" (p. 434). The authors suggest that greater faculty awareness of the complexities of writing, more explicit awareness of discipline-specific discourse conventions and additional pedagogical skill could help improve students' writing development.

While encouraging teachers to develop the skills and knowledge Madigan identifies might be a good first step, it may not be enough to improve student writing. Drawing on

psychological theories of cognition, Kellogg and Whiteford (2009) argue that if students are to master advanced writing, they need more sustained, deliberate practice. Kellogg and Whiteford explain that, much like an athlete or musician, writers must practice their skills frequently for a long time, but that current educational practices—at the secondary or post-secondary level—do not afford students opportunities for such practice. Writing, they explain, necessitates a complex set of inter-related memory, language and thinking skills, but the complexity of the writing process has often been overlooked in instruction. While Kellogg and Whiteford argue that while "appropriate instructional methods for composition courses and model programs for distributing practice throughout the curriculum seem to be now available" (p. 251), most faculty members are unable to commit the time and resources needed to assist students in developing the cognitive skill and memory needed for quality writing. They maintain that faculty hesitancy is most likely attributable to "the grading problem—the excessive time and effort required to evaluate lengthy written compositions to provide students with formative feedback" (p. 251). Kellogg and Whiteford call for additional research that will help in developing more efficient writing assessments, the use of which may predispose more faculty to require sustained, lengthy writing in their courses.

Much of the longitudinal research on student writing development is set within higher education. However, Anne Beaufort (2007) expands the scope of these studies in *College Writing and Beyond: A New Framework for University Writing Instruction.* Beaufort, like Walvoord and McCarthy before her, tracked one student – Tim – as he negotiated college and then moved from academic writing to "real-world" professional writing tasks. Like her predecessors, Beaufort documented a student's struggles to adjust his writing skills and expectations about writing to different disciplinary tasks. She, too, discovered Tim and his

teachers frequently talk "across" one another and that misunderstanding about the complexity or purpose of a written assignment is common. Beaufort's study also illuminates—via interviews and document analysis—how a student's writing evolves over the duration of his college matriculation and captures how Tim's meta-cognitive awareness of his own writing process is both helped or hindered by certain pedagogical practices. Like other scholars, she found that Tim's experiences demonstrate that learning to write in multiple contexts is complicated and necessitates a high level of flexibility, content knowledge and practice.

Beaufort's unique contribution to the research in the field, however, is her portrayal of how a student applies what is learned about writing in an academic setting to his post-graduation employment. In particular, she found that the "norms" for writing in school and writing on the job—even when disciplinary focus is held stable—were very different in Tim's experience:

> The social context of the workplace added some new elements to the mix of factors Tim had to deal with in getting writing tasks accomplished. The press of getting work done, for one, made writing tasks get prioritized. Turning out a well-crafted memo was less important than expeditiously getting information in colleagues' hands. On the other hand, as Tim indicates, technical protocol documents required a long, collaborative process before being signed off by the five or six people representing different interest within the company. (p.139)

The social norms of collaborative writing in school, then, were different from those on the job. Tim had to adjust not only his writing style and process, but also had to learn a different set of inter-personal relations and how to interpret company specific priorities in relation to the quality and kind of writing he was asked to do. Tim's struggle to adjust is reasonable in light of Kellogg

and Whiteford's arguments that writing is a psychologically complex endeavor requiring extensive training and practice over time.

Beaufort's work also demonstrates that completing research on students' ability to transfer writing skill from one context to another is a complex, time consuming endeavor. It took nearly 10 years to collect and analyze the data, as well as write her book, while she was also teaching, supervising other writing teachers and coordinating a writing-across-the curriculum program. As many researchers have noted, teaching writing is extraordinarily time consuming; so too is longitudinal research. The few faculty members with both expertise in teaching writing and in educational research may not have the resources and the stamina to produce work like Beaufort's.

While I have not offered and exhaustive review of all WID research, I believe it to be representative of key findings and research questions/methodologies within the field. This review shows that across WID research there are several key patterns or themes:

- Writing is a complex and time consuming endeavor
- Disciplinary epistemology and writing conventions vary; therefore, students must learn to navigate different writing norms and expectations in different disciplinary classes
- Much of the data suggests that disciplinary teachers hold primarily tacit understandings of their discipline's writing conventions and struggle to make these explicit to their students

Thus far, I have focused on research that addresses how students and teachers navigate writing instruction in disciplinary classrooms. Before I wrap up this section, however, I'd like to discuss additional research that can serve as bookends for WID research—what comes before and after

the disciplinary writing/courses that are the focus of much WID work. Just as it is important to understand the historical context of composition research, it is equally important to briefly broaden the scope of this review. Most students encounter disciplinary writing in college courses after they have completed a first-year composition course (FYC). And, as Madigan, Johnson and Linton (1995) note, many disciplinary faculty believe that students should complete these freshman courses having mastered writing. It is important, therefore, to look at how composition research is taken up in these required, preliminary courses.

A great deal of theory and data about the purposes, pedagogical methods and effectiveness of freshmen writing exists. For purposes of this study, however, I highlight work that explores how and if student learning in FYC—and preliminary developmental writing courses—transfers to later courses because it is this research that is most salient in understanding whether and how FYC requirements facilitate—as most claim to do—student mastery of general writing skills that are applicable to a wide range of writing contexts. Many scholars are concerned that, in this regard, FYC courses cannot meet their purported objectives and that professional integrity requires that the course be dismantled across all post-secondary schools (Crowley, 1998 & Miller, 1991). As I've discussed, longitudinal studies have shown that students do not regularly learn, in FYC courses, universally applicable writing skills that prepare them for writing in the academic disciplines, even though this is ostensibly the purpose of such courses. The research I've highlighted in the previous sections explains this failure: writing is a socially situated endeavor that requires the author to have a complex understanding of disciplinary conventions, writing takes a long-time to master and content knowledge is a pre-requisite to the memory and meta-cognitive development needed to write well in a specific

discipline, and few viable means of assessing—in the short-term—student mastery of writing skill presently exists.

Accepting the limitations of a single semester (or even two semesters) of freshmen writing course, some researchers have looked for ways to maximize the benefits of these courses for students. Callahan and Chumney (2009) studied developmental writing courses (those taken by students deemed not yet ready for FYC) at both a community college and a four year institution. They conclude that the quality of the course—as measured by students' preparedness for FYC after the remediation—had little to do with institutional setting. Instead, they found that when experienced instructors demanded high degrees of achievement and students were well supported by institutional resources—tutors and study groups—remediation was more successful, that is students were more likely to be successful in later disciplinary courses. Furthermore, they found that teachers' whose pedagogy focused on providing students with a framework for making arguments, employing varied rhetorical strategies and engaging in complex thinking were more apt to promote transferable growth than those teachers who focused instead on isolated, discrete writing conventions such as correct grammar or spelling. Callahan and Chumney (2009) maintain that teachers' varied expertise in writing instruction, pedagogical training and attitudes toward students' competencies determined what kind of thinking and writing they demanded of their students. More experienced faculty expected students to be more self-reliant and targeted higher order thinking skills in their assignments; less experienced faculty demanded less of their students and concentrated on rote, concrete skill development—much like the traditional school grammar Schuster (2003) describes.

Elizabeth Wardle's (2007) study of how FYC students made use of their emergent writing skills in later disciplinary courses found that most don't. Wardle attributes the poor rate

of transfer, in part, to the low expectations disciplinary faculty have for student writing. Disciplinary faculty expected little in the way of quantity or quality from student writing. Wardle writes, "students were ordinarily able to complete their work in other classes to their own satisfaction without the lessons and strategies of FYC. They indicated they could and did generalize from their FYC experiences if required to do so by the expectations of the teacher and the engaging and difficult nature of the next writing assignments" (p. 82). However, Wardle found that the majority of disciplinary faculty made few demands on students—either assigning little or no writing in their courses, or assigning writing that only required students to codify course content, not grapple with complex, disciplinary-specific rhetorical conundrums. She concludes that without higher demands from disciplinary faculty, students will not improve their writing, may mistakenly believe that writing is only important in "English," and that without continued practice in writing, students' skills will actually atrophy.

In response to these findings, Wardle and Downs (2007) advocate a restructuring of the content and methods of FYC courses. They urge freshmen composition instructors to develop and implement FYC courses that focus on the research and theory of composition. Doing so, they maintain, would help empower students to apply what they learn about writing and disciplinary conventions in FYC courses to their disciplinary writing assignments. Wardle and Downs (2007) conclude:

> Those of us working in writing studies find ourselves today confronted by the fact that our own research and theory calls our cornerstone course—and the underlying assumptions upon which it is based—into question. Added to this difficulty is the fact that few outside our own discipline know we exist; if they do know we exist, they know

> little or nothing about what we do as writing scholars. Certainly, our own research and theory about the nature of writing has done little to influence public conceptions of writing. (pp. 577-578)

Wardle and Downs call for a substantial overhaul of traditional FYC courses, to better align the work done in these courses not only with extant research on composing and student development, but also to smooth students' transition from "generic" writing courses to disciplinary work. Doing so, they hope will yield long-term improvement in student ability. However, even as WID researchers struggle to improve writing instruction and learning throughout the undergraduate years, research on writing post-graduation suggests that the difficulties do not end with college completion and plague even the most successful students.

Ironically, the very concerns Wardle articulates about the viability of FYC courses—too superficial an approach to student learning, lack of university-wide commitment to student writing development, undervaluation of pedagogy and writing research—appear to be present in graduate/professional programs as well. Roy Mersky's (2007) analysis of writing instruction in law schools sounds remarkable familiar to Wardle and Downs' description of FYC. Mersky explains that there is a lengthy history, within the legal field, of complaints about poor student writing. Law professors complain that their students do not write well and judges and experienced lawyers complain that recent law school graduates do not write well. Despite three years of law school, in which students are asked to write, there is a general sense that writing does not improve.

Mersky (2007) attributes this perennial failure to several factors: (1) limited time and resources, (2) lack of respect for legal writing teachers, (3) lack of consensus about what skills and abilities students should learn in their legal writing course and (4) the pervasive view—of

legal specialist faculty—that teaching writing is a distraction from the more important content of torts, contracts or constitutional law. Mersky adds that "when the law school culture—one immersed in theory—is invaded, some might say, by the introduction of practical skills, the result can be angry faculty and schizoid students—never a happy combination" (p. 399). He concludes his analysis with some optimism for future improvement, however. He reports that the National Conference of Bar Examiners—in response to wide-spread complaints about law school graduates' weak research and writing skills—has plans to include a "stand-alone component of the bar exam" (p. 395) to measure student mastery of these skills. Mersky hopes that this new assessment will require law schools to re-think their approach to writing instruction and to better integrate writing into all law school courses, rather than relegating the teaching of writing to the first semester.

Summary

A review of WID literature can be a depressing journey. Much of the work acknowledges that writing is a time-consuming, complex endeavor and that most faculty lack either the pedagogical or content knowledge needed to help students learn to write. Many disciplinary faculty simply don't believe they have time to engage in this work. Furthermore, there seems to be a persistent trend in the literature that writing instruction—whether in FYC courses of law school—is perceived as less lofty or intellectual an endeavor than the teaching of "disciplinary content." Additionally, the research demonstrates that, in the present educational system, most students do not appear to improve their writing skills during college, or as Mersky shows, even in professional graduate programs. Finally, numerous stakeholders continue to complain about this failure. Despite these findings, however, WID research has successfully demonstrated that a better understanding of disciplinary writing conventions, explicit teacher

instruction about those writing conventions and time to practice are likely to reap benefits for students. Some researchers/teachers have nominated alternative theoretical and pedagogical approaches to the teaching of writing that are supported by extant research. It is still possible that WID research will lead to improved teaching and learning.

The study that follows seeks to explain how four faculty members in two disciplines reflect the current practices that WID research explores. Specifically it asks: how do faculty think about disciplinarity in relation to the writing they assign, how do faculty talk about their own writing development within their areas of expertise, how do institutional norms/culture influence their teaching and how do faculty think about the role of pedagogical research and training in relation to their teaching of writing. In short, if and how has the last 30 or so years of WID research affected teacher practice and writing instruction?

CHAPTER 3

METHODOLOGY

Design

This study seeks to explain (1) how content-area teachers think about writing in introductory disciplinary courses, (2) what experiences and knowledge informs their writing instruction and (3) how institutional context affect teachers' work with student writing. This research was designed as a nested case study taking place at Moore State University, a large land-grant institution. Four instructors from two departments participated in the research; below I discuss how the departments and individual teachers were selected. I listened carefully to teachers' own explanations of their practices and philosophies to better understand college writing instruction from their perspectives.

Sample Selection

Moore State. The choice of Moore State as the site of the study was one of both practicality and familiarity. As a graduate student of Moore State, I was present on campus and somewhat familiar with individual disciplinary departments and writing curriculum reform efforts across the campus. My earlier participation in Moore State's Writing Task Force focused on improving freshman writing instruction, and provided me with a working knowledge of how writing instruction was theoretically designed and implemented across the full four years of university matriculation. An earlier pilot study I conducted allowed me to talk with teachers working with freshman student writing in the arts and humanities, helping me to gain a more comprehensive understanding of how the vertical curriculum for undergraduates was designed to foster writing fluency. Furthermore, Moore State's students, teachers and writing program are

representative of large public university programs around the country, making it more likely that my study's findings would resonate with many college and university instructors.

Moore State University was founded in 1855 as an agricultural college. In 1862, under the Morrill Act, it became the prototype for what would become 69 American land-grant universities, and was the first institution of higher education in the U.S. to teach scientific agriculture. In 1925 it was reconceived as a state college of Agriculture and Applied Science. Today, Moore State offers over 47,000 students 200 programs of study in 17 degree-granting colleges. Its graduate schools of education, nuclear physics and industrial and organizational psychology are among the best in the nation. Still, its agricultural roots are strong and visible on campus.[3]

As students traverse the 5200-acre campus, they are the beneficiaries of their forebears' interest in agriculture and animal husbandry. Numerous gardens, trees and greenhouses line the perimeter of the main campus and decorate the internal landscaping. On a warm summer day, students and their families can purchase ice cream from the Moore State Dairy and stroll through the children's garden, visit the perennial flowerbeds while listening to music recitals or row canoes down the small river that runs through campus. For entertainment during the long and occasionally frigid mid-western winters, Moore State offers a planetarium, art museum and various venues for the performing arts.

Students are generally quick to adjust to the weather. It is not unusual to see many riding skateboards and bicycles on the snow covered paths; those who drive regularly complain about the paucity of available parking spaces. Moore State students can also participate in one of 55

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[3] See http://www.msu.edu/about/thisismsu/facts.html for more information.

sororities or fraternities, intercollegiate sports, philanthropic organizations, discipline-specific clubs, political organizations, media groups and other extracurricular activities.

Moore State is big and busy, unified by a shared past and a commitment to education and research. However, each department on campus has its own ethos, history and pragmatic concerns. For example, budgetary constraints, particularly in the wake of a sluggish economy, affect some departments more than others. Departmental prestige and clout are relative across the university. The applied sciences are more likely to garner external funding and recognition than are traditional, humanities-based departments. Some departments, like education, are more vulnerable to changes in public policy; some units on campus focus exclusively on undergraduate education, while others must attend to undergraduate, graduate and professional preparation. Despite a shared campus and purpose, a student or faculty member's experiences at Moore State are often determined by her home department—where she hangs her hat or tries to park her car.

University departments. Selection of individual departments within Moore State necessitated a careful consideration of how best to understand the effects of disciplinary content on teachers' understanding of writing instruction. Research on this topic often foregrounds composition instruction at the freshman level, and many aspects of writing, learning and teaching in the first year of college have been widely investigated—though consensus about the implications of that research has yet to be reached (Bartholomae, 2000). However, because writing instruction continues long after those freshman writing seminars, I was interested in focusing on how disciplinary instructors—whose primary purpose in their courses was the delivery of disciplinary content—infused writing into their courses. How did teachers build on what they presumed had been done during first year writing courses and think ahead to the kinds

of writing their students would complete in higher level courses? I chose to focus on introductory content courses most often taken by students in their sophomore or junior years. Further, I wanted to investigate writing instruction in courses that reflected a range of epistemological and pedagogical traditions in order to see how those traditions would influence teachers' ideas about writing instruction.

I did not consider conducting this research in either English or Composition courses. I hoped to be surprised by my findings and to analyze the data with an eye toward future implications of the work. I had worked as a high school English teacher, community college adjunct professor of composition and a graduate student teacher of composition at a four-year college. These previous experiences, I believed, would make it difficult for me to observe similar courses with fresh eyes and without preconceived ideas about what I should expect to find.

Historian Joseph Ellis (2000), in explaining his analysis of the Revolutionary Generation writes, "We need a historical perspective that frames the issues with one eye on the precarious contingencies felt at the time, while the other eye looks forward to the more expansive consequences perceived dimly, if at all, by those trapped in the moment. We need, in effect, to be nearsighted and farsighted at the same time" (p. 6-7). I believed that, at this stage of my research career, conducting observations in courses similar to those I had taught might lead not to the balance that Ellis recommends, but rather to a kind of intellectual myopia. To avoid this, I focused this research on two different disciplinary fields: international relations and science. While not representative of the full range of fields available for study at Moore State, these two disciplines offered the advantage of representing different epistemological and pedagogical histories. Science is steeped in a long tradition of empiricism and relies heavily on scientific method to generate and test new knowledge. Alternately, international relations draws on

methodologies from a variety of disciplinary fields (often from the social sciences) and occupies a dynamic position somewhere between the humanities and the "hard sciences." I hoped the differences would help to illuminate the effects of various epistemologies on writing instruction. Furthermore, the institutional contexts in which these subjects were taught at Moore State were interestingly diverse.

***Hamilton College: liberal education at a research one institution*.** Not far from Moore State's Dairy Store is Hamilton College's residential building, which also houses faculty offices, classrooms, dining facilities and a writing center. Hamilton offers a unique educational experience at Moore State: students live together and, with dedicated faculty support, engage in a multi-disciplinary study of the social sciences. Hamilton has its own admissions requirements and criteria and is exclusively dedicated to undergraduate education. Students must first meet Moore State's admissions criteria and then make a separate application to Hamilton. Hamilton students choose to pursue one of four majors: (1) international relations, (2) political theory and constitutional democracy, (3) social relations or (4) comparative culture and politics. The majority of the courses are offered by Hamilton faculty, although some courses (foreign languages, fine arts or physical sciences, for example) are taken on the wider university campus.

Hamilton describes its curriculum as "founded on a model of liberal education and is designed to prepare students for law school, graduate study, decision-making roles in public and private enterprise, and careers in government media, politics, social services, public administration, education, business and industry, and the Foreign Service" (http://jmc.msu.edu/ps/index.asp). Hamilton has a reputation for producing highly qualified students who are accustomed to succeeding in rigorous courses while working with an innovative and highly qualified faculty that is respected for both teaching and scholarship.

Hamilton students receive a great deal of individual attention from faculty throughout their four years of study. Courses are taught by faculty who have PhDs, although occasionally PhD candidates serve as guest lecturers or as support staff and mentors for the undergraduate students. Course sizes are small, ranging "from 8-35 students with most sections averaging about 25 students." Many Hamilton students take advantage of study abroad opportunities and some enroll in dual majors with other departments at Moore State (http://jmc.msu.edu/quickfacts.asp).

Since Hamilton's academic program is unique at Moore State, students are proud of their distinctive status on campus and the college actively cultivates this sense of "specialness." For example, Hamilton students have their own orientation program that includes the joint reading of a shared text that is different from that read by other Moore State freshmen. Hamilton has its own extra-curricular activities, social and academic groups and a series of guest speakers, films and activities dedicated to topics of interest in the social sciences. Hamilton is a metaphorical peninsula on Moore State's campus, largely separate from the main campus, but with structural ties to the rest of the university. A collective identity has been fostered since Hamilton's conception; its unique status on campus and its focus on undergraduate social science education make it a rich source for observation and data collection.

The Center for Integrated Studies in General Science: no application required. The Center for Integrated Studies in General Science (ISS) is one division within the College of Natural Science (NatSci) at Moore State, which "is home to 24 academic departments and programs in biological, mathematical and physical sciences. NatSci has 4,000 undergraduate majors and nearly 1,000 graduate students, and also provides science courses for all undergraduate non-science majors" (http://www.ns.msu.edu/cisgs/CISGSHOMEPAGE/ourprogram.htm).

ISS faculty, with the help of graduate students and undergraduate science majors, bear the responsibility for teaching all non-science majors at Moore State. Students are required to take one lecture course and one lab course. ISS faculty who teach the lecture courses are drawn from a variety of scientific specialties—biology, chemistry, physics—and teaching assistants (TAs) implement the lab sections, which are designed to extend and deepen students' understanding of the science content learned in the lecture courses. The combination of the courses is designed to provide:

> educational opportunities for non-scientists to understand 1) ways scientists investigate and draw conclusions, 2) results of this mode of enquiry, using selected examples, 3) social impact of science in its historical context and 4) the kinds of questions science can and cannot answer. This understanding provides students with a knowledge base for becoming tomorrow's scholars and leaders in service of [the state], the nation and the international community. This knowledge will allow MSU students to address critical problems of the 21st century.
>
> (http://www.ns.msu.edu/cisgs/CISGSHOMEPAGE/ourprogram.htm)

Since faculty members are drawn from a variety of departments within NatSci, their work with ISS is ancillary to the work in their home departments. ISS faculty are scattered across campus, may not work together outside of their shared ISS responsibilities and often do not meet to discuss how they should be teaching non-science majors.

The administration and logistics of the ISS courses is relegated to a single director, one administrative assistant and a bevy of student workers. ISS lab and lecture courses are located in a variety of buildings across campus where space is available and the TAs teaching the lab sections, like the faculty members who teach the lecture courses, are pulled from an array of

science backgrounds within NatSci. Its teachers share a common background in the natural science, but little else. ISS's focus on writing instruction in the labs and its decentralized structure make it an interesting counterpoint to Hamilton College.

Participant Selection

Once I chose to study the teaching of writing at Hamilton College and ISS, I began my search for volunteer participants. Steven Johnson, the ISS director, created a short list of possible participants from his department for me to contact. He also suggested teachers he believed would be the most helpful and who would enjoy opportunities to talk about teaching and learning via the study's interviews. Thomas Handley and Elizabeth Austin agreed to participate in the study.[4] Thomas, who was completing his dissertation, had been instrumental in rewriting the lab curricula. His previous background as a public school and college science instructor—combined with his background in science education—made him an excellent choice for a study focusing on curricula decisions and pedagogical implementation. Thomas' dissertation, in fact, drew heavily on his work with the lab curricula and, since he was the lab coordinator, with his efforts to train and assist lab TAs. Like Thomas, Elizabeth Austin was completing her PhD and beginning her job search. Teaching the ISS labs was her first experience as a classroom instructor. She was anticipating taking on the role of lab coordinator when Thomas stepped down, and my interviews with her overlapped with her move from first time lab instructor to lab coordinator. That neither of these participants was a tenured faculty member, but was still responsible for undergraduate teaching is reflective of a common pattern across American universities. Recent trends in post-secondary education hiring practices show an increase in the number of part-time faculty, many

[4] All names are pseudonyms.

of whom are TAs, doing the undergraduate teaching (http://nces.ed.gov/programs/digest/d09/ch_3.asp). This trend is particularly pronounced in the sciences, where "about three-quarters of doctoral students in science and in engineering received assistantships, and they received larger amounts on average than those in the humanities/social sciences" (Choy and Geis [NCES], 2002, p. vii).

Participants from Hamilton College were also chosen through a nomination and volunteer process. Suzanne Wilson (my dissertation advisor) and Colleen Tremonte (one of Hamilton College's first-year writing instructors) nominated members of the Hamilton faculty for me to invite to participate. In response to my emails outlining my goals, Mark Stanford and David Barksdale agreed to participate. Mark was a guest lecturer at Hamilton. He had completed his PhD and was actively engaged in a national job search; he would eventually be hired by Hamilton College as a full-time faculty member. He was teaching both introductory and higher level international relations courses at Hamilton, while also beginning his career as an active scholar and researcher. David Barksdale brought to the study insights developed over a 30-year career at Hamilton, substantial research and scholarly publications and experience with the administrative policies of both Moore State and Hamilton. He, like Mark, was responsible for teaching both upper and lower level courses at Hamilton.

A more complete description of participants' educational and professional experience will follow. I felt the combination of participants' backgrounds, their varied positions within their home departments and the diversity of their areas of expertise and scholarship promised to yield rich data about how faculty—both novice and experienced—approach the teaching of writing in introductory courses in both the social and hard sciences. Participants, once chosen, signed consent forms approved by Moore State's IRB.

Data Collection

The primary body of data involved semi-structured interviews conducted with participants. Conducting and analyzing these interviews, as I will describe below, drove the data analysis and shaped both my descriptions of the participants' work and my conclusions about their efforts. However, classroom observations and document collection and analysis were also vital for helping me to contextualize and interpret data collected during the interviews. University and departmental web sites provided background information about the policies and curricula for the courses I observed. Below, I more fully explain the collection process for the various forms of data.

Classroom Observations

I conducted three or four classroom observations for each teacher. Students in each class were apprised of my purpose, specifically, that the research focused on teacher behavior rather than students. Students signed IRB-approved consent forms. Teacher participants and I discussed and agreed upon when I would visit their classrooms. When feasible, I chose days when writing instruction was likely to be witnessed: (1) the first day of class, when syllabi were discussed; (2) days when writing assignments were given; and (3) days when graded writing was returned to students. However, I also attended some classes when writing was not the focus of the day's lesson. This helped me to better understand how disciplinary content was delivered in the classroom and enriched my perceptions of the teacher and classroom environment. The classroom observations were designed to aid me in developing a broader and deeper understanding of the participants' efforts (Bernard, 2002).

I maintained the role of observer throughout; I did not interact with either students or the teacher during my visits. I recorded each class session for later transcription, but also took

detailed, descriptive field notes. The field notes focused on the kinds of instruction I witnessed: lecture, discussion, group work, questioning. Additionally, I recorded each kind of instructional practice in order to get a sense of how teachers generally approached their teaching. While I only attended a few class sessions for each course and cannot, therefore, make generalizations about their teaching behaviors, I operated with the belief that spot sampling would allow me to extrapolate from a small number of observations the general tenor of each teacher's practice (Bernard, 2002). The classroom observations also helped me to approach the semi-structured interviews with teachers with a greater appreciation of their approach to teaching and learning.

Interviews

I designed and conducted three to five semi-structured interviews with each teacher-participant and completed one interview with Hamilton's department chair and the ISS director. During these interviews, I tried to keep in mind actor, playwright and researcher Anna Deavre Smith's view that, while I was knowledgeable about parts of the field of writing instruction, my participants were each "smart about things I did not know" (http://www.democracynow.org/2009/11/6/anna).

The interviews were designed to elicit from participants an open and free exchange of information about their personal experiences and insights. To this end, interview questions were open-ended prompts, permitting spontaneous follow up questions that expanded on points or topics I may not have anticipated when designing the interview protocols. The interview questions were created in conjunction with my dissertation advisor who helped me to construct questions that were not "leading," yet still targeted key points about writing and teaching writing that related to my research questions. The questions were further vetted with my dissertation committee. I worked to avoid jargon terms connected to writing or composition and emphasized

questions that helped to elicit information about personal memories of writing and disciplinary-specific writing conventions and instruction.

The interviews were designed to gain information about teachers': (1) biographical data, (2) memories of learning to teach and to write, (3) ideas about how they design and implement their courses, (4) explanations about assessment of student writing and (5) thoughts about the culture of their department. All interviews were recorded with the participants' consent, and I took either handwritten or typed notes throughout. These semi-structured interviews were also opportunities to identify additional documents that would aid in my research.

Document Analysis

Participants provided several documents: course syllabi, class writing assignments, teaching philosophies, vitas, lab manuals and graded student papers. The graded student papers were used in conjunction with an interview, during which the teachers and I discussed their responses to the written work. In addition, I used information available on Moore State University's website and documents on both Hamilton and ISS web pages. These included departmental policy statements, admission and grading policies, tenure and promotion policy statements and general statistics and guidelines about program/course goals and student demographics. I also used information from faculty web pages to augment the biographical data collected during interviews.

Data Analysis

Data analysis was an ongoing part of the research. Data collection and analysis were often done simultaneously—this allowed me to create a mental feedback loop, so that preliminary data analysis informed data collection and data collection informed my analysis methods. For example, I "cooked" my "raw" field notes from classroom observations shortly

after each of my visits; I reviewed and fleshed out each set of interview data before completing the next interview with a participant. This process helped to highlight ways that I could improve my data collection. Reviewing the information from the interviews unearthed areas where follow-up questions were needed for clarification or areas where additional information was needed to discover, when possible, similarity in the four participants' shared information: educational backgrounds, publishing histories or teaching experiences. Additionally, reviewing observation field-notes after each visit and before the subsequent observation helped me to begin to see themes in my notes and to develop and refine these observations. I was able, for example, to add to my observation protocol a recording of the amount of time each participant spent on various sections of a class meeting (introduction, lecture, and review). Having these data enabled me to better describe how teachers used their instructional time.

I wrote numerous memos, both descriptive and analytic, throughout the research and regularly shared these with my advisor. These memos helped me discover and elucidate themes from the participants' responses to interview questions and assisted in my efforts to "make sense" of the possible interpretations and meanings of the data. The memos were also instrumental in helping me to monitor my own subjectivity, and to question my assumptions about the data early on and consistently throughout the project. Writing the memos required that I remain cognizant of my possible biases toward the data and toward writing instruction. But, perhaps counter intuitively, the memos also alleviated some my concerns about that bias. Memo writing became an important tool in monitoring my own understanding of the research process as well as a means of better understanding the data I had collected.

While this approach to data collection and analysis, I believe, improved both the breadth and depth of my data, it also created a methodological quandary: What to do with all the

information (raw notes, cooked notes, documentation and exploratory memos) once data collection was complete? Harry Wolcott (1994) succinctly describes my predicament: "It is not at all uncommon to complete fieldwork, accumulate a mountain of data, and have nothing to show by way of a completed study. So the greater problem for first-time qualitative researcher is not how to get data but how to figure out what to do with the data they get" (p. 9).

Wolcott adds that it is better to have too much information, too many stacks of paper, too many memos about too many questions than not enough. He recommends that researchers think of their work as storytelling: discovering the meaning of data is like resolving a mystery. But Ursula LeGuin (2004) warns, "To see that your life is a story while you're in the middle of living it may be a help to living it well. It's unwise, though, to think you know how it's going to go, or how it's going to end. That's to be known only when it's over" (p. 15). I kept both Wolcott and LeGuin's suggestions about storytelling in mind as I began to cull through the data for important trends and idiosyncrasies in participant responses, and I also tried to remember not to assume I knew the conclusion to this process while in the middle of it.

As I began to look at the data to identify recurring and common themes, I also looked for evidence of interesting differences. I wrote case studies about all four participants—drawing from observations, interview data and collected documents. I also wrote analytic memos about common trends that emerged from the case studies: teacher memories of learning to write, educational backgrounds and teaching experience. I learned the importance of displaying the data in multiple ways, as this helped me to "see" patterns in the data. Charts, lists and diagrams, for example, were a more efficient means of looking across the four participants than the more lengthy textual memos. The combination of these approaches helped me to unravel the data and to formulate a plausible ending to my "mystery."

Limitations of the Study

The study's primary limitation was that I was the researcher. Years of Catholic school training taught me that confession—the explicit expressions of one's failings—should be a private affair, best conducted inside the confessional. Furthermore, simply "owning" the failing was not sufficient to achieve atonement for those sins. That can only be achieved through private self-reflection, penance and willful decision not to repeat the offence. It is unnatural, then, in some respects for me to publicly discuss my personal failings. However, my own subjectivity and, more importantly, my concern about how this subjectivity influenced not only the study design, but also what I concluded about the implications of the data I collected. Because my subjectivity influenced what I think my research means to others, I will explicitly address how I think it operated during the research.

Subjectivity is an inescapable part of all research. Alan Peshkin (1988) writes of subjectivity, "I did not want to happen upon it accidentally as I was writing up the data. I wanted to be aware of it in process, mindful of its enabling and disabling potential while the data were still coming in, not after the fact" (p. 18). I took Peshkin's words to heart and deliberatively made choices about research design and location to avoid this trap. That deliberation was necessary and good, but also insufficient. For example, when interviewing participants about how they graded student papers, several teachers asked me how best they could respond to student writing. What could they do that they were not doing to help students improve? One teacher asked me to tell her tricks to use to grade more papers more quickly. I refused to answer these questions, explaining that my role as researcher was simply to observe, not to instruct or intervene. My participants were disappointed, I felt guilty, but I maintain my refusal was

methodologically warranted. I was after their perspectives about a topic, not to share my own. It felt best to draw a clear line. Still, guilt nags.

I had answers to those questions that I could easily have given, perhaps too easily. Refusing to give them made me feel stingy and mean. But upon further reflection, not answering was good for me. The ready responses I had to those questions were, I discovered, the result of another form of catechism—one I had not recognized for what it was. Catechisms are effective pedagogical tools, good at indoctrinating students because the catechist is given both the questions and the answers. Asking your own questions, considering alternative answers to the questions asked, is not part of the enterprise. Catechisms dictate both questions and answers; they can sometimes be proscriptive. What I needed to confront to improve my research was that much of my theoretical and practical grounding in the teaching of writing was also intellectually proscriptive. A participant asks how to quickly grade papers and I instinctually want to answer that responding to student writing is too important to take short cuts. But this knee-jerk response is both superficial and counterproductive. It preemptively closes off fruitful lines of investigation.

The purpose of this study was to collect information about how content-area teachers use writing in their classes. My assumption, from the outset, was that collecting this information would help to improve undergraduate writing instruction. A different researcher—one not steeped in the belief that writing is vital and the most valuable of mental endeavors—might have asked a different question: is the writing instruction in these courses good enough already? That would have been an interesting study. But it was not one that I would have considered conducting when I began this work, and I am unconvinced, even now, that it is a study I could complete. I doubt I could jettison my core beliefs about writing, teaching and the teaching of

writing long enough and consistently enough to honestly answer that question. The implication, then, is that someone else, very different from me, should be doing that research.

Nonetheless, as a researcher, I was in this study to learn, not to teach. The Catholic Catechism also states:

> Above all, teachers must not imagine that a single kind of soul has been entrusted to them, and that consequently it is lawful to teach and form equally all the faithful in true piety with one and the same method! Through the exchange with others, mutual service and dialogue with his brethren, man develops his potential; he thus responds to his vocation. (http://www.christusrex.org/www1/CDHN/commune.html#COMMUNION)

I needed to apply this principle of faith to my understanding of writing instruction: what worked well in one classroom context with some students was not necessarily universally appropriate; that educators outside of the field of composition or English might best be able to ask pertinent questions about the field. If my own subjectivity limited the kinds of questions I asked at the outset of the work, my concern about that subjectivity helped me to identify what I believe is a gap in the existing research. Peshkin (1988) writes, "subjectivity can be seen as virtuous, for it is the basis of researchers' making a distinctive contribution, one that results from the unique configuration of the personal qualities joined to the data they have collected" (p. 18). My beliefs about writing instruction limited the kinds of questions I asked and influenced how I collected and analyzed my data, but these "gaps" can be filled by others.

There are, of course, other limitations. The instructors were only four of hundreds at Moore State, and their practices and backgrounds cannot be generalized to the entire population. The departments were only two of dozens, and similarly, it cannot be assumed that their policies and cultures are similar to or different from others within this institution or at others. But the aim

of the descriptions I offer here is neither to generalize to all writing instruction nor to offer up silver bullets for how to improve such instruction. Rather, it is intended to share a few insights gained from hard working teachers. In the conclusion of *Death in the Afternoon*, Hemingway (1932) offers this explanation of research and writing:

> The great thing is to last and get your work done and see and hear and learn and understand; and write when there is something that you know; and not before; and not too damned much after. Let those who want to save the world if you can get to it clear and as a whole. Then any part you make will represent the whole if it's made truly. The thing to do is work and learn to make it. No. It is not enough of a book, but still there were a few things to be said. There were a few practical things to be said. (p. 218)

I make no groundbreaking claims in this research, but I did endeavor to say something clearly, succinctly and honestly. At the conclusion of this project, the most important finding is that I have learned to accept that saying "a few practical things" is hard.

CHAPTER 4

DOING GOOD WORK: TEACHING WRITING IN INTRODUCTORY CONTENT AREA COURSES

Each participant in this study was tasked by his or her department to introduce students to the content, methods and purposes of his or her respective field and to prepare students for further, more intensive disciplinary study. Teachers were expected to begin socializing students into their respective fields by imparting foundational content that could be built upon in later courses, and were expected to use writing to further this aim. I chose these participants, in part, because of the institutional expectations regarding student learning associated with their courses.

Through a combination of interviews and classroom observations, I aimed to discern how these teachers thought about the development of their own pedagogy and how their departments influenced their teaching of content and writing. Of course, the process was far more linear and neat in the planning stages than it was during the study. Frequently our conversations were recursive. For example, discussions about how a teacher learned to write in her field often transmuted into comments about how she taught that same content. Occasionally, participants wished to discuss something that occurred during one of my classroom observations, although this was not part of my planned interview protocols. What follows is a description of each participant's thoughts about his/her experiences as student and teacher. I provide biographical data, a brief depiction of each teacher's classroom environment and a short compendium of his or her thoughts about departmental culture. I then turn to a more focused description of how each learned to teach and how he or she taught writing.

Lab Work: Teaching Science and Scientific Writing in the ISS Lab

Thomas Handley. Visiting Thomas' ISS lab was like entering (JK Rowling's character) Hagrid's "Care of Magical Creatures" class. Thomas' class meetings generally included at least one dangerous specimen that he gleefully showed students: sucking fish, stinging toads, hairy spiders. During one class session at the Moore State greenhouse, Thomas required his students to wander through the flora and fauna identifying a number of poisonous plants, and he warned students to avoid the resident insects whose bite could cause itchy rashes. He liked to bring science alive for his students, and his hands-on, enthusiastic approach to course content was engaging, if occasionally frightening.

Thomas generally arrived to class early and spoke with students about travel-abroad programs that offered exiting opportunities to study animal and plant life in its natural habitat, or regaled students with stories of his adventures flying planes, deep sea diving or hiking. Thomas learned to fly so that he could more easily access remote locations where he studies marine life. He encouraged students to stay after class to ask questions, and told students about local nature preserves and parks that provided quality science education.

Thomas clearly enjoyed teaching science, but his job at Moore State as instructor and coordinator for the lab sections was only the most recent in a long career in education. He earned his BA in biology and zoology from Moore State, and later returned to earn a MS in zoology along with a teaching certificate. He then began what is now a nearly 20 year career as a teacher. He has held teaching positions in several different mid-western states and taught a variety of subjects in middle and high schools. In addition to science, Thomas has taught English, American history, vocational and special education courses. He also taught environmental science at a community college for eight years before returning to Moore State to earn his PhD.

He held jobs as a journalist and science researcher and has published newspapers articles and science writing in *Mites Journal* (Michigan Industrial and Technology Education Society) and in the *Proceedings of the Society of Experimental Biology and Medicine*.

During this study, Thomas was finishing his dissertation—which focused on the pedagogy and curriculum development of the lab courses he was hired to design and implement. His area of specialization is aquatic ecology, and many of the study abroad programs he designed and led focused on the plant and animal life surrounding the world's water systems. Thomas returned to school for a PhD, in part, due to a desire to gain a deeper knowledge about water systems, but also to discuss the teaching and learning of science with peers who were knowledgeable about science content and pedagogy. He was beginning a national job search, hoping to secure a position that would allow him to continue his study of science pedagogy. Thomas is currently the Assistant Director for Integrative Studies in General Science at Moore State; he still teaches, develops curriculum, designs and supervises study abroad programs and supervises science TAs.

Unlike his class meetings—which began and ended on time, were highly structured and included a carefully paced variety of whole class and group activities—interviews with Thomas were rambling, loose and lengthy affairs. Just as he was eager to answer student questions about science (whether relevant to his class or not), he was happy to talk about learning and teaching, ISS courses and science in general, but it could be difficult to keep Thomas focused on a single question. He saw, and then explained, connections reaching across time and subjects. For example, when asked to describe his previous job experiences, he described his work as a long-haul truck driver in great detail. Toward the end of his colorful description, he explained that watching the changing geography and wildlife as he traversed the country led to his interest in

science. At the beginning of one interview he shared a newspaper article about national politics, and explained his concern that George W. Bush's approach to "data" and "reality" was hampering his ability to teach students the scientific method, even as current trends made it more vital for them to distinguish between good science and political propaganda. His students he explained, just like the President, didn't know how to "handle facts," and he viewed it as his job to teach students to think scientifically in a national environment that was often hostile to science.

Thomas viewed his work with ISS as imperative to the well being of his students and society at large. Understanding the scientific method and the goals of science were, in his opinion, important for a healthy society—impacting health care, environmental and business concerns. He worried that if the ISS courses failed to provide students with the knowledge they needed to recognize and benefit from scientific discoveries, students would have no chance to gain these skills. He was frustrated by university administrative and budgetary constraints that impeded his ability to offer quality educational experiences for students: high teacher turnover, underprepared graduate assistants, increasing class sizes and full-time faculty who could not reach consensus, even among themselves, about which content was appropriate for the ISS courses. He worried that sound pedagogy did not drive the implementation of the ISS program.

Thomas was clear about what he felt should be the focus of the ISS program. The lab's primary purpose should be to work in tandem with ISS and Integrated Studies in the Arts and Humanities (IAH) courses to help students develop strong and effective study skills, assist in their development as life-long learners and foster in them the skepticism and critical thinking process that is foundational to future coursework and personal development. The science curriculum, he believed, was one component in what should be a university-wide endeavor to

create “thinkers.” Much of Thomas’ time at Moore State had been devoted to creating a lab program that fostered this kind of student growth. He co-authored the lab manual, which deemphasized rote memorization of scientific facts, and encouraged students to solve problems, think critically and compose written scientific reports. He trained and assisted a large number of graduate students who were responsible for teaching the lab sections, and his dissertation research focused on how effective this approach was for Moore State students.

***Learning to teach*.** When I asked Thomas what experiences were most salient in helping him learn to teach, he largely discounted his teacher education courses: “the methods courses never taught me how to plan for a whole year, they only taught me how to do mini-lessons, and the course assignments were too theoretical.” When Thomas began his first teaching job and felt ill-prepared, he turned to his father—a veteran high school English teacher—for advice. His father told him, “a good teacher can teach anything, but if you’re really strong in your content, you’ll do better.” Thomas accepted his father’s dictum and he began to construct a teaching approach that drew widely from his experiences, pedagogical literature and research, professional development and collaboration with peers. Eighteen years of classroom teaching taught him a lot:

> I learned that content is less important than process. Process: critical thinking, learning and reading. I decided that showing students how to learn was more important than the science content. I discovered that students could learn the content if they could read, had study skills, could recognize valid information. These were all more important than the actual science content. They had to learn to be life-long learners.

Thomas explained that when teaching science, or other disciplinary content, he was primarily interested in teaching students to think critically and to draw on many possible solutions to a problem. The foreword to the manual Thomas used with his students explains:

> Each laboratory exercise will move you closer to the course goal of having you participating in problem-based learning (PBL). The reason this course is designed to use PBL is that in life you are normally presented with a problem, question, or situation and asked to determine the best course of action to follow. To solve this type of problem requires a very different set of skills than is often presented in more traditional laboratory exercises, where you would follow a recipe to arrive at a predetermined conclusion. While traditional laboratory exercises have their place in education, they teach a different set of skills. (vii)

Thomas explained that, for him, the most important aspect of the lab assignments was to help students develop skills that would permit them to solve problems in their daily lives. These problems would require knowledge of both science content (facts, formulas and theories) and methods (observation, experimentation, data collection and analysis). His hope was that students would leave the course with a better understanding of how scientific knowledge was accrued, tested, altered, and that they would be able to apply this understanding in other courses and outside of school. Thomas believed his approach to teaching was shaped by experience with a variety of students in myriad settings and disciplines. He tried to highlight the importance of critical thinking and personal responsibility to all of his students, regardless of their skill level or the course content.

Learning to write. Thomas credited his high school teachers for helping him learn to write. These teachers helped him attend to audience and purpose in writing, a skill that he felt

was reinforced because he was asked to write in a variety of contexts. For example, his English teachers encouraged him to create prose that was less dry and "more fun to read," but his journalism classes required writing that was "clear about providing information" and complied with limitations on space and word count. The juxtaposition of these different expectations taught Thomas that good writing necessitates attending to context, purpose and multiple, sometimes competing, norms about language and argumentation.

After he graduated from college and began to work as a science researcher, he learned that science journals required his writing to be "very dry" and to "include and correctly place his hypothesis, evidence and conclusions." He saw science writing as different from much of the other writing he did. The many letters of recommendation he completed each year were different in form and content then the work he produced for his peers. In the recommendations, Thomas focused on a student's personality traits or ethics and could "deviate from the facts and give more information," an approach that would be unacceptable for publishing in a science journal.

Writing collaboratively and for peer review—which he did during graduate school—helped Thomas improve his writing. Equally influential in his writing development was the production of the ISS lab manual and course materials. These were written with another PhD student in consultation with a variety of stakeholders at Moore State—science faculty, ISS TAs and students. Thomas said the lengthy process of producing these materials reinforced the importance of understanding the audience and purpose of a particular piece of writing. During the composing process, Thomas gave drafts of the lab materials to students and asked for feedback. This feedback forced him to think carefully about what content needed to be included in the manual and how best to organize the information in order to maximize student learning. Attending to these points improved his writing. Additionally, watching TAs utilize the lab

materials served as another form of feedback for his writing. He realized that another revision of the lab manual was needed in order to assist the TAs. The manual, he explained, needed to be a learning tool for students, but also an instructional support for the novice teachers in charge of the majority of the ISS labs. He was planning to revise the manual so that it simultaneously met the different needs of students and teachers.

***Teaching writing*.** I did not see Thomas explicitly teach writing during my classroom observations, and our discussions about pedagogy frequently focused on his views of how writing instruction should be handled across the ISS program, instead of on his own practice. I frequently watched Thomas consult with students after class about assignments that had been graded or were being completed, and I observed many students stop by his office to review their written work and lab assignments. Thomas did a lot of his writing instruction in these individual conferences with students and he encouraged other TAs to be available for similar student support. According to Thomas, this one-on-one support was the mainstay of his writing instruction.

When asked to describe how he taught writing, Thomas also described how he taught science and how he hoped the labs and the TAs who taught them would cover both science and writing. For Thomas, the two were interconnected and needed to develop in concert: "Doing multiple iterations of a paper is like doing science—which means you do something over and over." One of his primary concerns about the existing lab curriculum was that students did not have enough time to complete multiple revisions of a single paper and that they were not given enough feedback about their writing, particularly in the early phases of projects. Generally, Thomas felt that his students, "don't have experience writing technical papers; they are not used to supporting their arguments." Most of his writing instruction focused on helping students

"make connections and create a logical flow throughout the argument."

Thomas also noted that some students needed additional instruction in basic grammar, mechanics and format or citation styles. He encouraged students to seek help from the university writing center tutors for these specific weaknesses. However, he was concerned by what he heard from students about their work with these tutors. For example, Thomas sent a student to the writing center to get help with properly citing sources. The student returned with errors corrected, but this quick fix did more harm than good for the student, Thomas thought. He worried that when writing center tutors corrected errors they prevented students from internalizing the connections between citation and the scientific process. The paper was corrected, but the students did not learn the underlying principles of scientific research, and their understanding of science content was not strengthened. Based on these observations, Thomas felt that the lab curriculum and TA training needed to be revisited in order to maximize students' writing growth.

Thomas felt that he had been unable to explain to most of the TAs he supervised that they must attend to student writing through each phase of written work and that the feedback they gave must be timely and specific. While he tried to impress upon the TAs that students need plenty of time to complete the multiple iterations of writing lab assignments, Thomas felt that he failed to communicate these ideas:

> I've found that disseminating to the TAs, who then disseminate to students, that something is lost in each translation. . . . A lot of it has to do with the experience level of the TA, not their backgrounds. It appears to be about their experience with classrooms and dealing with students—to be about how they provide information to students and how they follow up with students.

He was increasingly convinced that the TAs not only struggled to respond to student writing, but that they were unable to complete the undergraduate writing assignments themselves. He attributed the TAs' weak writing skills to a general trend in science education at Moore State. Junior and senior level science students reported that they did little or no writing in their core science classes. Additionally, class sizes were increasing, the department was becoming more reliant upon TAs to teach larger numbers of students and there was a push among full-time faculty to increase the breadth of coverage of science content in the ISS courses.

These institutional trends worried Thomas; he believed that the ISS TAs needed more training and that the lab students needed more time to work through their writing assignments. Thus, the things Thomas most wanted to improve—TA training and student writing—were likely to be marginalized as the curriculum changed to meet new departmental demands. He hoped to mitigate some of these problems by rewriting the lab materials to more fully imbed the writing in the labs. He wanted to "slow down" the lab process and "back up and design the labs to be certain students have the skills and information they need" to benefit from the writing, " and he hoped to "add a short assignment that could be graded easily and with more feedback, and then slowly provide less guidance with each paper and raise expectations."

Thomas' comments about his writing instruction did not directly address work with students in his own classes. Rather, they centered on broader curricular goals as he tried to articulate the competing demands of the ISS program and how those affected writing instruction in the lab sections. Thomas' primary focus was on establishing an "ideal" curriculum with well trained teachers to implement that curriculum. While, he was, at times, pragmatic about what could reasonably be achieved in one semester, he continued to look for ways to maximize student exposure to science writing and content. His descriptions of his own practice slipped and

slid between what he did, what he wished he could do and what he would like others to do.

Elizabeth Austin. Nine students were enrolled in Elizabeth's Friday afternoon lab section. Six arrived on time, three were habitually late. Elizabeth generally accommodated this tardiness by starting class late, or ending class early so that she could review the materials with the late arrivals. This accommodation was in keeping with her personality. She was both gracious and gregarious at all times. After class meetings, I saw her help fellow teachers rearrange classroom furniture and set-up lab experiments. During our interviews, Elizabeth invited me to her book club and dancing class. She enjoyed people and liked to discover her students' interests and hobbies, which were often topics of conversation during lab meetings.

Elizabeth's area of science expertise is Igneous Petrology (the study of magma formation). She holds both a BS in zoology and a MS in geology. She began her geology PhD program at Moore State after working for ten years as a researcher in the Department of Physiology at a large mid-western university. During this study, she was nearing the completion of her program, finalizing her first paper for publication and drafting her dissertation. When I first met Elizabeth, she was teaching the lab course for the first time and preparing to take over the role of lab coordinator the following semester. Our interviews overlapped these two semesters so she and I were able to discuss her adjustment to her new job.

Unlike my meetings with Thomas, interviews with Elizabeth were straightforward affairs. She listened to and responded directly and succinctly to interview questions. At the end of our sessions she frequently asked me how she could do a better job teaching the labs or supervising the TAs. Her office reflected an organized and meticulous personality. Papers were neatly stacked, calendars on the wall were marked with important dates and she quickly found

information for the various folks who popped in and out needing her assistance. Her office space and management approach were a marked contrast to her classroom demeanor.

During class meetings Elizabeth was relaxed and talkative. She shared humorous emails with her class, commiserated with them when Moore State lost an important athletic event and told stories about her own writing and research. But her lessons rarely began on time (even if all students were present), ended well before the scheduled session and her directions for class and homework activities were occasionally vague. When students asked her for clarification, she deferred to the lab manual, telling students to get additional guidance about the assignments from the book. She allowed students to leave class before their work was completed if they promised her they would email the finished assignment. She told me that she "likes her students," and she trusted them to work hard and do well.

The semester I observed Elizabeth was her first semester teaching the lab and her first time as the primary instructor for any course. Her previous classroom experience was as a TA during her MA program. This position required her to work with small groups of students, all of whom attended the same large lecture course, to review course material and provide additional instruction and support when needed. She also graded the students' exams, which were primarily multiple-choice. Elizabeth told me that teaching the ISS lab was the first time she was responsible for presenting course content to an entire class, structuring assignments and grading written work. As lab coordinator, she was also learning to delegate tasks, to better organize her time and to respond to the large numbers of emails she received from students and TAs about course content, discipline or administrative regulations. She liked to teach, as she enjoyed sharing her own love of science with students. But the supervision of fellow TAs was difficult

for her. She felt she wasted a great deal of time tracking down absent TAs, sorting through accusations of plagiarism or designing slide presentations for TAs with weak content knowledge.

Like Thomas—who expressed similar frustrations with the lab coordinator role—Elizabeth worried that ISS students were not always well served by many of the TAs who were themselves unprepared to teach. She also expressed regret that she did not have more time to devote to her undergraduate students: "I should take more interest in the undergrads, but I don't have time. I help them get through my course, but that's all I have time for." She was confident that the approach to the material outlined in the manual, if followed by individual instructors, met ISS goals and objectives. Like Thomas, Elizabeth believed the primary purpose of the ISS courses was to foster in students an ability to think critically about science and apply that knowledge to their daily lives. "I'd be tickled," she stated, "if students could read things and start thinking, not believe everything they read or see. I want them to think for themselves." Elizabeth enjoyed teaching science because she viewed it as an opportunity to "talk about what you love," but she was frustrated by students "who don't want to learn" and by the various administrative obstacles to effectively working with those students: poor TA preparation and professionalism, student apathy and time constraints.

***Learning to teach*.** When I asked Elizabeth to tell me how she learned to teach, she explained: "I never had an education course. I learned from observing my teachers. I remember thinking, 'I like the way this guy teaches,' or 'I would never do that.' I learned from observing these teachers and I learned from my students." Elizabeth identified a former chemistry teacher as being particularly influential in shaping her ideas about what good teaching looks like: "She was really structured and really careful and neat and orderly. She was interesting and she loved it and you could tell she put time into it." Elizabeth tried to emulate this model of teaching,

spending a great deal of time planning her lessons and creating presentations to use in her class and to share with other TAs. The rewards for this work were worth the expenditure of time because she liked teaching and "talking about subjects that interest me and when students are interested." She liked to see her students engaged with the science content and hoped that her students "are learning it and that I am not just talking to a captive audience. It is rewarding when students respond."

While Elizabeth relied on memories of her own former teachers and on student responsiveness to her teaching, she also explained that teaching the ISS labs required her to do some reading about specific pedagogical theories and approaches. Teaching the lab and using the lab materials required that she familiarize herself with the principles and practices of Problem Based Learning (PBL).[5] To prepare for teaching the labs, she read the course materials and some research about PBL, which helped her to better appreciate the importance of pushing students to think critically about science content and methodologies. She was pleased with this approach to teaching the labs and was confident that it was working because "the students seem to like it," and post-assessment data of student learning indicated that most were meeting the lab's defined learning outcomes.

Elizabeth realized that she would need to develop more skills and greater knowledge

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[5] Problem Based Learning is a pedagogical approach predicated on the belief that student mastery of content is enhanced when they are given opportunities to solve discipline-based problems in more realistic environments. Knowledge is gained, for example, through completing observations or experiments. PBL is not necessarily a replacement of more traditional pedagogical approaches, like lectures, but rather a means of extension and reinforcement.

about teaching once she took on a supervisory role. While she did not plan to alter the fundamental content or pedagogical approach of the labs, she did think that she would need to develop ways to help other TAs with their teaching. Like Thomas, Elizabeth believed that many TAs were not well qualified. They lacked science content knowledge, experience with teaching content and managing classrooms. Elizabeth planned to create and share more detailed slide presentations about the science content covered in the labs, and hoped that having these as an instructional tool would mitigate some of the TAs' struggles with teaching. She also encouraged the TAs to rely heavily on the lab manuals to guide and pace their instruction, a practice she found helpful in her own teaching.

Learning to write. Elizabeth recalled which teachers and teaching practices she favored as a student, but her memories of learning to write were vague. Writing, she said, was "something you just pick up." She remembered being assigned writing in high school, and generally doing well on those assignments, but she did not write in most of her undergraduate courses. Her most vivid recollection of writing in college was in a technical writing course and, she noted, "I sucked at it." Writing in science classes was rare in both her undergraduate and graduate level science courses. During her Master's program, Elizabeth learned to write one-page critiques of scientific articles, but her first "big paper" was her Master's thesis. Elizabeth enjoyed reading poetry and fiction, as well as science journals. I asked her how she thinks writing in her discipline was different from the kinds of non-fiction she read or the technical writing she learned in college:

> That's something I never thought about, that there was a difference. I don't know that I learned differently. I am aware of there being a difference between communication

between people in my field and those that aren't. I didn't just learn, but I am aware of the difference.

Elizabeth did not think that "good writing" was particularly valued in the sciences. In her field, for example, authors "publish addendums all of the time to clarify bad writing in the original publication." Correct data and solid methodology seem more important than clear writing. She believed that corrections to vague expressions could be attended to or corrected, but were of secondary importance to the quality of the data.

While others in her field might disagree with Elizabeth's interpretation, she thought about her own writing in these terms as she finished her dissertation and submitted an article for publication. She did not enjoy writing and admitted that she procrastinated. However, once she began the writing process, it went quickly. She began and finished a journal article in one week. She preferred to outline extensively and then set aside large blocks of time to complete the writing. Balancing her teaching load with her writing schedule was tough for her.

***Teaching writing*.** Since teaching the ISS labs was her inaugural foray into teaching, Elizabeth relied almost exclusively on the lab materials to pace and focus her writing instruction. She found the lab manual indispensible when responding to student work:

> I guess I never thought about what I wanted to see [in student writing]. I know what I am supposed to look for, but I didn't list out the things they should do before I graded it. This is the first time I've graded a written assignment. Using the rubric was very nice. Without it, I think it would have been terrible and almost impossible to grade them all the same. A paper that's really bad, you just want to flunk.

When asked to specify what makes a good or bad paper, Elizabeth said, “bad grammar throughout would turn me off,” and she wanted the students to have clear points like those listed in the manual’s assignment sheets.

During my classroom observations, I regularly saw Elizabeth remind her students to attend to the writing assignments, directions and rubrics in the lab manual, and tell them that her assessment of their work would be based on the criteria outlined in the rubrics. She checked in with students as they completed each portion of the multi-step writing process. She walked around the classroom, speaking individually with students about their hypotheses, made suggestions for rephrasing, and asked questions to help the students determine which facts were most likely to support their claims. She encouraged students to email her their preliminary writing so that she could offer feedback and help them move through the various stages of the assignments.

Elizabeth felt that this regular feedback not only helped her students, but also allowed her to keep tabs on how each was progressing. Students’ final grades for writing assignments, for example, did not surprise her. Since she worked with each throughout the writing process, she “knew which students would do well and which wouldn’t.” She also provided marginal and end notes on student work, but tended to include “general kinds of comments” on the weaker papers, while stronger papers received more “nit-picky” and specific suggestions for improvement. She was happy with her approach to writing instruction because she saw that most students were improving and learning the content and skills they needed. However, she worried that her present practice would not be practical in the future. Her lab section had only nine students, and she realized with a larger class she would not be able to offer each student frequent, individual

attention. She also worried about how to help the TAs manage the workload that comes with larger classes.

Hamilton College: Teaching Social Science Content and Writing

Mark Stanford. Mark's office was at the end of long corridor of faculty offices that were in various stages of being packed up. Cassandra Hall, which held faculty offices, dorms and classroom facilities, was slated for renovation, so faculty and staff were preparing for temporary displacement during the architectural upgrade. Mark's office resembled those I passed on my way to meet him—filing cabinets were partially opened with papers peeking out; books lined the walls and large swaths of floor. The office furniture was mismatched, aging and occasionally unstable under the weight of piles of student papers and academic journals. Mark's cluttered space, however, was not caused by a looming move, but by his tenuous position within the college. While he would eventually accept a tenure-track position at Hamilton, during our interviews he was actively engaged in a national job search. Hamilton was not yet his home and he resisted settling in too much. A guest lecturer, Mark was responsible for teaching courses across the four-year curriculum at Hamilton; it was the first time he had been asked to design, implement and assess an entire course's content. Prior to his arrival at Hamilton, Mark worked as a TA during his PhD program. This position required that he grade exams and lead small group tutorials. In addition to his work as a TA, Mark also volunteered for the Information Agency and Voice of America in Washington, DC, where he wrote press releases about public policy initiatives. His research interests included international treaties, foreign policy and international law and security. At the time of this study, he was co-writing a paper about trade agreements and revising his teaching philosophy in anticipation of job interviews.

Mark was an eager and affable participant, frequently remarking about how pleased he was to work at Hamilton. He viewed the college as unique among university social science departments and felt he had greatly benefited from working with faculty who were well respected in their fields and who regarded undergraduate teaching as important and worthy of careful, conscientious thought. He hoped to become a permanent member of the college, but he also explained that the changes occurring within Hamilton were not just to the physical plant. Expectations about faculty work were, like office-space allocation, in flux. While Hamilton was committed to undergraduate education and remained focused on excellence in teaching, expectations for scholarship were increasing. Mark knew that gaining tenure at Hamilton would require that he demonstrate both pedagogical acumen and publishing skills. Like most junior faculty beginning their careers, he was learning to do both simultaneously.

Of the two chores, teaching was his favorite. He enjoyed his time with students, giving them many opportunities to meet with him. At the end every class, he reminded students of his posted office hours and encouraged them to make appointments to discuss coursework or extra-curricular activities. Like Thomas, Mark brought to class examples of present-day social science developments for students to discuss and encouraged his students to take advantage of study abroad programs. Contrary to the temporary chaos of his office, Mark's classroom demeanor was highly structured and organized. His classes started on time and occasionally ran long, as he responded to student questions. Most of his course time was devoted to lecture and he relied heavily on slides to pace his class. Students were encouraged to ask questions. Mark meticulously prepared his lectures, routinely reading numerous newspapers so that he was "prepared for questions." Since he viewed his students as engaged and smart, he wanted to be

certain to know the answers to their questions and not appear misinformed. Devoting lots of time to lecture preparation helped Mark feel confident in the classroom.

He was less sure of his writing abilities, however. For Mark, writing was a difficult, time consuming and frustrating affair, but Mark felt he was learning some tricks: utilizing research manuals, devoting several hours each day to writing, seeking assistance from peer readers and writing with a co-author. One thing he most appreciated about working at Hamilton was close-knit faculty community, which he believed would help him learn to balance the differing demands on his professional time.

Mark was assigned a senior faculty mentor who assisted him when necessary. The small and insular nature of Hamilton also helped. As he explained, working at Hamilton meant accepting that "everyone" knows what you are doing in your classes and in your scholarship. For example, Mark explained that a fellow faculty member once stopped by his office to discuss an exam Mark had given. His students publicly discussed the exam; therefore, his colleague felt it was appropriate and helpful to share with him thoughts about Mark's teaching. His faculty mentor was also helping Mark to interpret the college's stated and unstated expectations regarding the kinds of published scholarship needed for tenure. As the emphasis on publication increased, the college was becoming more specific and detailed about which journals and academic presses were deemed prestigious enough to merit tenure or pay increases.

Exactly how the college would begin to weigh and assess good teaching, good scholarship, college service and the combination of these was yet to be determined. But Mark felt that the open-door policy among faculty—in regard to both teaching and writing—was a great asset to him:

> If you don't understand that this place is very open and people knock on doors and know what's going on with you and what you are doing—if you can't accept and embrace that you won't do well here. You have to share, even with the white form process.[6] You have to be open to discuss what you do and share the documents. People won't make you teach like them, but you do have to show that you care about it and think about it.

Knowing that all of his scholarly writing and teaching materials (syllabi, lecture notes, assignments and exams) were frequently seen by others motivated him to produce excellent work at all times.

Learning to teach. Like Elizabeth, Mark drew heavily from his memories of learning political science content to inform his teaching. He based his own pedagogical practice on what he saw: "I knew what worked in undergraduate, what I liked or my friends did or did not like." He tried to replicate teaching practices that he found useful as a student and avoided those that did not help him master the material or that he found dull.

While memories were his primary source of inspiration, Mark also learned about teaching while serving as a TA in graduate school. Tasked with tutoring small groups of students and running simulations, Mark learned classroom management skills, lesson planning and pacing. During the week-long training program for TAs, Mark was given information about how best to

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[6]The white paper is one of the documents faculty members submit as part of the annual review process. In it, a faculty member describes his/her professional work (including teaching and research) and details how he/she has grown professionally and contributed to the college.

handle problems related to grading, students' legal rights and responsibilities, matters of sexual harassment, plagiarism and diversity. Furthermore, since the small group sections he ran were subsets of larger lecture courses, Mark was able to watch several different faculty members lecturing about political science. Mark explained that observing these lectures gave him multiple examples to draw from when creating his own. A lot of his teaching had been "trial and error"; he learned to keep revising his methods and approaches until he was happy with the results.

Working at Hamilton had been instrumental in helping him learn to teach. Since Hamilton valued undergraduate education, Mark was surrounded by colleagues who he viewed as actively working to teach effectively and who were willing to share their expertise. Mark explained that it was "intellectually huge to have all of these people together, and there are a ton of professional development opportunities." He pointed to the college's willingness to support faculty "financially to go to conferences and with travel money to go abroad," and the numerous brown bag lunches and informal conversations within the college that focused on teaching. He explained that faculty members are "encouraged to share and learn from one another and sit in on other classes," although he did not report having visitors in his class or ever observing a colleague's class.

Mark believed this kind of attention to undergraduate teaching, from both faculty and administrators, was rare in social science programs. For example, professors at Hamilton were given support for attending conferences on teaching, something he thinks "would be frowned upon in other IR (international relations) departments—faculty don't write on pedagogy in those." Mark felt his own teaching had improved because of this supportive environment:

> How do you support teaching except by doing? What could you provide to improve teaching? Lilly encourages people to talk about teaching.[7] On the whole, the ethos of support for teaching is better here than other places on campus, and I don't think that taking time off (course release) or reading pedagogy would make you a better teacher.

Mark seemed to overstate Hamilton's focus on teaching a bit. After all, social science and international relations professors do conduct research about teaching in the field, and it is difficult to see the connection between attending conferences and supporting teaching when those conferences are not about pedagogy. Nevertheless, Mark believed that he worked in an environment that respected and encouraged quality instruction, and he was committed to providing his own students a quality education.

Learning to write. His confidence wavered when our conversation turned to how he learned to write. Mark did not feel he was a good writer and saw it is the most difficult part of his work:

> Taking the time to do the thinking. I am not the greatest writer. It's all in here (he points to his head), but it takes a long time to write. I've learned some techniques, like starting the next paragraph, don't end writing, always have something else to write so you don't lose the momentum.

These are tricks that he had learned since he began working at Hamilton; ideas he had gleaned from writing manuals, fellow writers and trial and error.

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[7] Moore State offers a competitive fellowship for early career teachers interested in improving their instruction; the winners are called "Lilly Fellows" and they sponsor a number of workshops over the year for the entire university.

Like Elizabeth, Mark did not remember writing much during his undergraduate education, and his graduate school writing was comprised primarily of short, position papers. Not until his PhD was Mark asked to attend to writing in a serious and consistent way. He credited his dissertation advisor with helping him master the norms of writing in his discipline:

> I trained as a political scientist, so I write like a political scientist. I write and think like any other social scientist. My style is the same as most social scientists. Since political science is a hybrid discipline, it borrows a lot from history and borrows new things from economics. I took as much time taking methodology courses as I did IR courses. The writing is very much about the social scientific enterprise, thus we write things like a pseudo lab report—hypothesis, data, analysis, but there is a humanistic side to it—where you value communication. The prose is meant to communicate a point. There is huge variation in the discipline.

For Mark, writing in his discipline necessitated the employment of research methodologies from a wide range of fields. It also required careful attention to the structure of the argument—the clear statement of a thesis, with empirical and/or qualitative data to support it. Good writing, he believed, should make reasonable claims that are well supported by evidence. Tone, diction and syntax must also be precise, but Mark had a sense that there was a wide range of acceptable approaches to these aspects of writing and that varying degrees of formality were permissible within the field. Mark felt that learning to write was an on-going process and that practice and support from more experienced writers would help him improve. Mark believed that co-authoring papers and sharing early drafts of his writing (an activity he disliked because it made him nervous) would help him to improve his writing.

***Teaching writing*.** Perhaps because both teaching and writing well were foremost in Mark's mind, I observed him teaching writing more often and more directly than any other participant. On one cool fall afternoon, Mark was returning drafts to his class. He had met with many students about these papers in individual conferences, a practice he enjoyed and regularly reminded students to take advantage of. As he handed back the drafts, students quietly reviewed Mark's comments. Mark addressed the whole class about the papers' general strengths and weaknesses: "You have ideas here, but they are fuzzy. Those of you who wrote longer [papers]—put the topic earlier. It isn't a mystery. You have to put the topic in the first page. After the first paragraph, I want to know exactly what the paper is." He suggested ways to rewrite the introductory paragraphs in order to improve the focus. He shared with them his own struggles with similar writing, "This happens to me all of the time—I have to rewrite the thing." He added that he learned how to rewrite and revise when completing his dissertation.

A similar exchange occurred later in the semester, when students were preparing for another writing assignment. Mark reminded them again to concentrate on making opening paragraphs clear and direct. He wanted clear and concise language, and he reminded students to create an outline to guide their writing. He made it personal:

> When I write, I have a hard time starting, seeing the end result. So I really work on the outline. Get to the point where each point of the outline is a paragraph in the paper. Then, when I am writing I just follow the outline. A good outline will help you see the parts of the story, what research is needed, what do I need to do to convince the reader?

Mark provided marginal and end notes on students' drafts, which pointed out strengths and weaknesses and offered suggestions on how to improve. Like Thomas and Elizabeth, Mark relied on individual conferences with students to target their writing development.

In addition to this direct and explicit instruction about writing, I also observed Mark draw students' attention to the rhetorical moves made by authors the class read. Mark stopped his lectures about content to briefly discuss how an author handled evidence, made an argument or concluded a piece and explained why the author was successful, encouraging them to make similar authorial choices in their own papers. When I observed Mark explain writing to his class, he was cogent and supportive, but also clear about his expectations and those areas students needed to address to strengthen their writing.

During our interviews, however, his optimism and certainty wavered. "I don't know why they aren't improving, doing better, still making the same mistakes." One afternoon he looked at a stack of ungraded papers and wondered, "Maybe I should be tougher when grading?" Mark was a bit flummoxed about how best to help his students improve their writing, explaining that their writing was generally "technically OK," their grammar, spelling, syntax and organization fine, but that they frequently forgot proper citations and needed to be more diligent editors. Teaching both introductory and upper level courses, Mark noticed a troubling trend. He worried that students' were not mastering writing skills in the lower-level courses and then building on those as they progressed. Students he taught as freshmen or sophomores, and who appeared to have written solid papers, arrived in his upper level courses demonstrating the same weaknesses Mark believed he had addressed in their earlier work together. This backsliding was frustrating to him; he did not know how to reverse the trend. Conferencing with students and responding to papers consumed a great deal of his time with—apparently—little payoff since he did not see students transferring skills gained in one course to later writing assignments.

David Barksdale. David Barksdale's office was across the hall from Mark's. David was also preparing for temporary displacement, but packing his materials promised to be a far more

difficult task. If Mark was representative of the new wave of faculty who would shape Hamilton's future, David was the old guard, a venerable Mr. Chips with a laptop and an L.L. Bean backpack. As Mark struggled to learn to balance the competing demands of teaching and publishing, David's capacity to multi-task had become routine. During our interviews he simultaneously attended to my questions, answered emails and sorted through a stack of administrative paperwork that needed attention. This ability, he explained, was the result of his 30-year career at Hamilton College. David arrived at Hamilton immediately after finishing his PhD at Columbia University. With the exception of a few years of service with military intelligence, his entire working-life had been in academia. A self-proclaimed "workaholic," David claimed to have no hobbies and rarely read anything that did not relate to his field. When asked how he separated his home life from work, he explained that all of his scholarly writing was done at his home office, never on campus. He conceded, though, that he had promised his wife not to work on Thanksgiving Day.

His commitment to teaching and scholarship, while time-consuming, had clearly led to his success in both areas. Since he began work at Hamilton, David had received numerous awards. The first of these was in 1978, three years after he joined the faculty. In the following decades he was also awarded a Michigan Teaching Excellence Award (1990), elected by the alumni club to receive a Quality in Undergraduate Teaching Award (1997), and received Moore State's Distinguished Faculty Award (2001). His published scholarship included singly and co-authored texts, book chapters and journal articles in the *Journal of International Law and Practice*, *International Politics* and *International Education Forum*.

David's lengthy career also gave him an historical perspective on his college. While he, like Mark, commented on some of Hamilton eccentricities, the veteran's interpretation was less

glowing and more pragmatic. For example, when describing Hamilton students and culture, David questioned the benefit of the school's insularity:

> Hamilton has probably too much of its own culture; some would say it is a cult. There is an arrogance among the students. Transfer students find it hard to fit in. The closeness begins with orientation—they work together at local soup kitchens. Also during Welcome Week, they read a book, it is "their book," and they break into groups and talk about the book. They are told to call themselves Hamilton College majors and this affects their view of themselves as different. They look down on having to take the Integrated Arts and Humanities classes. They think they are better than that. But it works to help them feel part of a small college in a large university.

David worried that exclusivity gave his students an overblown sense of their own achievement. Still, David enjoyed his work with students; he had learned a lot from them over the years, teaching a wide array of courses and serving on a variety of committees.

Learning to teach. David's own career had been successful, although he did not know to what that success should be attributed. When asked to describe his teaching, he said, "I am how I am." David added that he began his career "only with my intuition and having observed other teachers." Unfortunately, since he had not planned on a teaching career, "I didn't even observe carefully." During the early years of his teaching, David recalled "winging it," and trying to replicate those teaching practices that he felt were effective when he was a graduate student. He tried hard "not to be boring" during his lectures—his primary mode of instruction. When he received negative feedback from students about his approach, he tried to change his style and looked to fellow Hamilton faculty members for examples of different teaching techniques. He

focused on asking "interesting questions and how new answers to questions can captivate an audience." He watched others give lectures and tried to emulate their techniques.

Co-teaching courses was helpful in his professional development because he was able to work closely with other faculty while planning and teaching a course. Student feedback and evaluations also helped him. Most of his teaching had been in isolation from other instructors (despite Hamilton's rhetoric), and it took 20 years before another faculty member observed his teaching. During the later portion of his career, David took advantage of several professional development opportunities: he co-taught courses with fellow Hamilton faculty and with a graduate student in educational administration, he participated in the college's brown-bag seminars about teaching and wrote articles about social science pedagogy. All of these experiences helped him to hone his teaching skills.

Despite his lengthy experience and professional development, David still taught much as he did when he began—relying heavily on lecture and spending a great deal of time with students in small groups or one-on-one conferences in his office. Spending time with individual students was the most enjoyable aspect of David's work, and it consumed a large percentage of his time. The time he thought was well spent because "I've learned a lot from these 18 year olds."

Learning to write. David's published scholarship was vast, well respected and varied. His research interests included human rights, international law, environmentalism and social science pedagogy. He wrote quickly, completing his last book in less than a year. Research and publication had not been especially difficult for David; however, he could only recall one or two graduate school professors who tacitly prepared him for this work. He recalled one avuncular professor in his PhD program who required David to think carefully about his use of citations

and how best to incorporate sources into his own work. David's dissertation advisor also helped him to attend to language and argument, and spent time with David—and other students—individually throughout the writing of a piece. David recalled that language—how it worked, why it was important—was valued in his graduate program and standards for good writing were high. With few exceptions, however, "no one talked explicitly about language" in his PhD program. David believed, instead, that students were expected to absorb the norms and expectations about good writing through osmosis.

After he began his work at Hamilton, David's professional activities continued to help him improve his writing. He read widely in his field, and this reading exposed him to a variety of styles and approaches to language. He held British publications and authors in high esteem and tried to emulate these writing styles. Serving on editorial boards for journals, writing letters of recommendation, co-authoring papers and teaching students to write had all, in his estimation, improved his own composition skills.

Teaching writing. Perhaps contrarily, in light of his numerous teaching awards and scholarly publications, David did not feel he was particularly well suited to teach writing. He did not view his own writing as exceptionally "felicitous." He thought that in order to teach writing, a person must also be a gifted writer. He seemed to be making a distinction between competent writing that offers a clear argument, solid use of evidence and a valuable contribution to the field, and writing that does all of these things, but is also aesthetically pleasing. Writing that does both is "felicitous." David believed that writers who can do both are best suited to teach writing to students

Despite his claims not to be qualified, David did teach writing in this course. His courses, across all four years of the undergraduate program, required students to write. David assigned

and assessed student writing and spent a great deal of time, like all of the other study participants, working individually with students to help them master composition skills in the discipline being studied. David saw most of his Hamilton students as capable writers and he credited the writing faculty and the freshmen seminars with developing their skills. Like Mark, David viewed Hamilton students' writing as being technically solid, and focused his attention on pushing students to use the active voice and avoid passive language that hides agency. He encouraged students to use clear and concise language, avoiding clutter and jargon, and to correct their own errors. David explained that he would occasionally, after having graded a set of student papers, provide a mini-writing lesson for his whole class on a writing topic or skill: the correct use of contractions, pronouns or possessives, for example. He also tried to impress upon student writers the importance of authentic voice, honestly and clarity in writing.

I did not observe David directly or indirectly address any of these language topics during my class visits, but this was not surprising since he explained that the majority of his writing instruction took place in his office with individual students. Students regularly came to him for assistance with preliminary outlines and drafts, and he gave them feedback and suggestions during these conferences. Like Mark, David routinely encouraged students to avail themselves of his extensive office hours. When grading student writing, David provided marginal notes and end notes on each paper. He estimated that he spent 20-30 minutes grading a student paper and generally wrote one-fifth of a page of end notes on each. His approach to a stack of ungraded papers included reading about six papers to get a general sense of how students did with the assignment and how he would need to respond to their work. He found this approach effective and he rejected the use of rubrics in his courses. He explained that he understood that many writing experts advocated the use of rubrics with students, but David thought that rubrics were

"pedagogically unsound." He worried that a rubric that outlined explicitly what should be included in a paper or detailed the organization of a paper would unduly restrict both students and teachers—making the writing too formulaic. He added that rubrics prevented teachers from responding well to the individual papers and made it harder to respond to a particularly good paper that might "surprise him."

While David hoped to be surprised by good student writing and rejected the codification of those traits via a rubric, he explained that his expectations for student work were generally consistent. Good papers were, "well organized, have a clear thesis and a solid conclusion that is not a summary with nothing new on the last page." David, like Mark, believed the most effective way to help students master these skills was through individual attention during the writing process and through specific responses on the final, graded piece.

Summary

Each participant told a similar story, with some variation. Each taught writing, as mandated by their department's curriculum, as part of the course objectives and linked content mastery to writing development. Save for Thomas, no one was formally prepared to teach; no one – including Thomas,--reported feeling prepared to teach writing. Each discussed a general sink-or-swim experience, whether in learning to teach, learning to write, or learning to teach writing. In the next chapter, I explore the origins of these similarities and describe some of the possible consequences of participants' approaches to the teaching of writing. I also discuss how departmental culture mediates individual teachers' work with students and writing.

CHAPTER 5

A TEACHING LIFE: DEVELOPING, ENACTING AND PERFECTING PEDAGOGICAL SKILL

The kinds of teaching described in chapter 4 are reasonable. My participants, working within a complex, dynamic institution, cope with the ambiguous and contradictory demands of their work in sensible ways. In fact, research on teacher socialization shows that these participants' approaches to teaching were not only reasonable, but predictable and, in part, inevitable. Drawing on this research, I will outline a conceptual framework that helps to explain the logic behind my participants' practices. Then, using this framework, I will analyze their pedagogical practices and how those practices are influenced by the institutional contexts in which they work. Before I address the specifics of my participants' work, I'll first sketch out the typical teacher's career path. This sketch serves as a backdrop to better explain the unique circumstances in which my participants work.

The Socialization of (Higher Education) Faculty

Choosing to Teach: Who Wants To and Why

To understand why teachers do what they do, it is important to first grapple with an underlying question: why do people choose to teach in the first place? In his seminal work *School Teacher*, Dan Lortie (1975) nominates several common "attractors" to the teaching profession: working with young people, serving communities, furthering interests identified in school, earning a respectable and secure living and benefiting from flexible work schedules. While Lortie's research was conducted in K-12 schools, his findings seem applicable to higher education. Elizabeth, for example, explained that she chose teaching because she enjoys watching students get excited about science and because she values the opportunity to conduct

research on rocks. Thomas, too, was most animated about his work when he described the trips he takes with students to explore marine life and fly planes—the intersection of working with students and pursuing his own personal interests. Both David and Mark also explained that they enjoyed learning from students. It would seem that, like Lortie's K-12 teachers, college faculty can value the same "attractors."[8] People enter teaching because they have enjoyed school themselves, value the opportunity to share with students their own enthusiasm and appreciate the chance to pursue their own academic interests.

The broad appeal of these attractors, combined with the long-range, frequent display of the profession to large numbers of students, means that recruiting new teachers has, historically, not been difficult. As Lortie (1975) explained, each generation of students has ample opportunity to observe (albeit from a narrow perspective) the work teachers do. They have many years to consider whether teaching is an appealing and obtainable career aspiration. If teaching appeals to someone, it is not difficult to enter the profession. K-12 teachers, unlike doctors or lawyers, for example, do not have to confront a highly structured, rigorous selection process. In 1975, most people could enter the profession with a college degree and some minimal teacher preparation courses.[9] Lortie's (1975) participants noted that ease of entry into the profession and

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[8] Obviously, professors enter the profession for other reasons as well, including the desire to conduct research.

[9] It is worth noting that even the weak socialization processes Lortie described for his K-12 teachers would, by today's standards, seem rigorous. Recent efforts to weaken or remove all

the ability to temporarily exit and re-enter the work place with little loss of career status or financial stability were attributes that drew them to the profession.

While higher education faculty have the same opportunities to observe teachers at work as do their K-12 counterparts (although for four years instead of 12) and both share similar affective reasons for selecting the career, standards for entry into higher education are more stringent. To become a university faculty member, people must first be granted admission to graduate school, complete an advanced degree and demonstrate that they can produce original, independent research. In order to meet these requirements, secure a tenure-track position and then earn tenure, higher education faculty must commit themselves to a more difficult, longer and less flexible socialization process and career path than their K-12 counterparts. Despite these differing degrees of rigor and selectivity, K-12 and higher education faculty share several important characteristics that have implications for their work.

Most importantly, all teachers (regardless of instructional level or discipline) can choose teaching as a career based purely on the "subjective warrant." Since there are few formal obstacles to entering the profession, if a person has an interest in teaching and can imagine herself as a teacher, she can become a teacher. Lortie (1975) explains:

> The preferential responses are logically circular: wanting to teach becomes justification for doing so. Interpersonal qualities even though not possessed by everyone, suggest a plastic rather than a resistant warrant—one which an individual can shape to suit his purposes. (p. 40)

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certification requirements for public school teachers have eroded the few barriers to entry to the profession that Lortie took for granted.

The ubiquity of the subjective warrant, combined with eased entry into the profession has ensured a steady stream of new recruits to the profession. However, the consequence of this has been a profession that is generally conservative and self-replicating (Lortie, 1975). After all, most people choose to teach because after years of watching their own teachers, they've decided it looks like a good job. Most do not enter the profession to fundamentally alter existing educational practices. This inherently conservative bias prevails because people can choose to teach for highly idiosyncratic reasons that are rarely interrogated or altered. This last is, in large part, attributable to the weak socialization process teachers receive upon entering the profession.

Beginning to Teach: The Enculturation of Novice Teachers

Once a person has chosen to enter a field, she begins the process of learning the norms of the profession. Often, newcomers are asked to jettison their personal beliefs/habits to conform to those that are valued in their chosen profession. Socialization processes frequently take place over time in stages, with the novice being asked to increase his/her participation (with peers and individually) in many different facets of the chosen occupation; newcomers are deemed successful at their endeavors by experts in the field (Lave and Wenger, 1991). Socialization processes vary from field to field, but teachers' socialization is generally short and weak; therefore, teachers are able to maintain many of the same beliefs they held when they first entered the field:

> The comparative impact of initial socialization makes considerable difference in the overall life of an occupation. Where such socialization is potent, the predispositions of newcomers becomes less important through time; the selves of participants tend to merge with the values and norms built into the occupation. The opposite holds where

> socialization experiences are weak; in that case, the attitudes, values and orientation people bring with them continue to influence the conduct of work. (Lortie, 1975, p. 56)

A weak socialization process helps to illuminate why teaching remains a conservative occupation. Further, it explains why teachers are able to describe and enact their work in highly personal, subjective ways. There is little in their training to require teachers to question or alter their entering notions of what it means to be a teacher.

It is important to note that graduate students and junior faculty, like Thomas, Mark and Elizabeth, are simultaneously undergoing several socialization processes: becoming a professor at a particular institution, becoming a teacher, and becoming a member of a disciplinary scholarly community of research. These processes can be more or less transparent, more or less valued, and more or less similar across institutions. Socialization for teaching is generally short and weak, particularly in higher education. It is not unusual for graduate students to be thrown into the classroom with little formal preparation (Golde & Dore, 2001). Mark, for example, explained that he attended only a short professional development session that addressed classroom management, sexual harassment and record keeping requirements before teaching his first class as a graduate student. Elizabeth, too, had little formal training for her roles as instructor/supervisor. David, unlike the rest of my participants, was hired for his position at Hamilton before he had even taught as a graduate student. This weak socialization process means that "socialization into teaching is largely self-socialization: one's personal predispositions are not only relevant but, in fact, stand at the core of becoming a teacher" (Lortie, 1975, p. 79).

Thus, the subjective warrant that teachers used to select their occupation remains in place. Therefore, teachers remain highly conservative, replicating those practices that they

observed and enjoyed while they were students. Lortie (1975) dubbed this phenomenon "the apprenticeship of observation," and, as I'll show later, it was Mark, David and Elizabeth's primary means of generating pedagogical practices. Questioning the efficacy of those practices or changing them to better accommodate a particular teaching context is rare.

This rapid, loose preparation for teaching contrasts sharply with the training graduate students receive as they work to become researchers. Graduate schools (especially highly competitive ones) provide doctoral students with a much more staged and formal socialization process for conducting research. Graduate students frequently work closely with faculty members, apprenticing on research projects. They then move to conducting their own original work while still under the supervision of more experienced mentor. Finally, they complete their own independent work. Thus, while graduate students are trained to become researchers, they are often left to construct a teaching persona independently and in the absence of a shared technical culture or clear understanding of what good teaching entails. Some scholars have argued that this oversight is, in fact, reflective of a broader institutional trend to value research over teaching (Austin, 2002). The gap between graduate students' training for their two roles—teacher and researcher—does not go unnoticed; students interpret the gap as an implicit message about the differing importance of the two:

> Students received a clear message that research, and the learning that occurred as a result of engaging in research, was more important than the learning that occurred in the role of teacher or teaching assistant. (Baker & Lattuca, 2010, p. 816)

Elizabeth and Thomas both remarked that many of the ISS instructors shared this view. Teacher turnover was high in ISS because many of the qualified graduate students opted to leave

the classroom to take on research assistantships. They did so because they believed those positions were more beneficial to their careers than teaching.

Teaching, then, is a career that is relatively easy to choose, with few formal, strict entry requirements. Even in the professoriate, where formal entry is much harder, once one becomes a professor, there are few formal hurdles or obstacles that new professor-teachers encounter. Teachers receive little formal, rigorous training for their work—with graduate students typically being asked to assume the role of teacher even more quickly and with less support and preparation than their K-12 counterparts. Consequently, teachers learn to accept that teaching is a personal affair—not one grounded in practice, growing expertise and shared standards. For these reasons, teachers often rely heavily on their own experiences as students to guide their work, they replicate practices they found beneficial when they were students. Teachers rarely choose to fundamentally alter their practices or questions the standards and ethos of the profession. None of these things are necessarily problematic. But since teaching is complex, uncertain work, teachers must learn to cope with that complexity in isolation and with little support from experts.

I Am/Becoming: Adopting a Teaching Identity

Once in the classroom, teachers often find that the work is more difficult than they anticipated. Being behind the desk is more complex than watching others teach. Teachers find that students are not all inherently motivated to master course content, that creating and delivering lesson plans can be complicated and that identifying effective practices requires more than gut instinct. Since novice teachers have had little preparation for that work, they are forced to make things up as they go and they often report feeling frustrated and confused, "Teachers

seem lonely; they fight battles alone with their conscience and, it seems, frequently lose" (Lortie, 1975, p. 159).

To cope with this complexity, teachers often try to highlight those times when they are successful. Lortie (1975) describes teachers' efforts to hold on to the positive aspects of their work as "banking psychic rewards" (p. 106). Teachers—both K-12 and higher education—point to those times when an individual student or class seems highly engaged and responsive to their practice. They hold tight to letters or messages sent years later from a student who appreciated their efforts. They gain a sense of efficacy when students return to report that they have been successful in later years of school or in their professions. Teachers can assume partial responsibility for their former students' successes and attribute those successes to their own classroom practice. Of course, this claim is tenuous; it cannot be easily proved. Nevertheless, teachers rely on these kinds of ego boosts to bolster their confidence and commitment to teaching. In their absence, teaching would seem incredibly difficult, even futile. Mark and David, for example, both repeatedly drew attention to their own students' successes—academic honors, graduate school admissions or employment post graduation—as evidence of the quality of Hamilton's program. Neither man seemed to question the validity of this causal claim. Instead, they believed that the work they did was good and valued because the school's students were generally successful. In this, they seem typical of most teachers. Still, these success stories are often not enough to ensure that teachers are confident in the quality of their work, and many teachers seek out other means of coping with the ambiguity of their professional roles.

One way of dealing with the difficulties of teaching is talking with others. While teachers spend the majority of their work life alone in classrooms with students, they do have opportunities to talk with colleagues about their practice, and many do. However, Lortie noted

that these teacher-to-teacher conversations followed a common pattern. Teachers tend to only seek guidance from colleagues who they believed were sympathetic and shared similar personal and professional interests. Furthermore, many teachers tended to only utilize the guidance of fellow teachers if the suggestions already meshed well with their own ideas about teaching:

> From the perspective on the group as a whole, the norms we have described encourage both individualism and sharing of technical knowledge. Freedom to select one's level of association permits a teacher to maximize psychic rewards; depending upon personality differences, one can be a loner or work closely with others. Norms which stress sharing and equality foster mutual communication without requiring conformity; individual teachers can pool their knowledge resources; this is not, of course, systemic, formal codification of knowledge but rather exchange of useful "tricks of the trade." (Lortie, 1975, p. 195)

The difficulties with this approach seem clear. Teachers enter the profession already believing they know what "good teaching" looks like. Their professional training does not require that they fundamentally alter or question that belief, nor does it supply (in the opinion of teacher education students) a rigorous, empirically solid alternative to this idiosyncratic approach. But teaching is still hard, still full of uncertainties. Teachers, therefore, seek out help from sympathetic peers. But even a peer's advice is deemed "good" based on the very ideas teachers began their careers holding. A practice is "good" only if it works for a teacher in his/her classroom and –because teachers view teaching as an offshoot of their personalities—a practice will only work if it already "fits" with the teacher's preconceived notions of "good teaching." There is a frustrating Catch 22, with the tail wagging the dog.

If the frustration becomes overwhelming, teachers will, occasionally, cope with the psychological dissonance by disengaging from the difficult emotional and intellectual work of teaching. As noted earlier, one of the key attractors to the field was teacher's ability to take time away from the classroom. In K-12 education, this is a particularly viable course. Teachers can literally step away from the work for a year or two and then re-enter the profession with minimal economic sacrifice; they can pursue a secondary career or stay at home to raise children for a while and return to teaching without seriously jeopardizing their career path (Lortie, 1975).

While higher education faculty cannot remove themselves from teaching altogether and still pursue tenure, there are ways to minimize or abdicate their roles as teachers. In fact, some researchers suggest that disengaging from teaching is a pragmatic choice for higher education faculty. Just as graduate students receive greater support and prestige for their work as novice researchers, tenure-track faculty are likely to have both higher wages and accrue additional institutional prestige for completing independent research—not for high quality teaching:

> Institutional and professional incentives move faculty to concentrate on research in order to maximize their own and their intuition's prestige and to support their intuition's push to provide increasing amounts of teaching through the employment of non-tenure track lecturers and instructors (Melguizo and Strober, 2007, p.36).

Since there are economic and psychological rewards for producing research, but fewer for teaching, it makes sense that many professors would opt to focus their attention on the former and distance themselves from the latter. It is important to note, however, that this approach is not simply a rationalization on faculty's part, wishful thinking per se. Rather, institutional trends across higher education make it clear—explicitly and implicitly—that faculty are better off, in the long run, if they concentrate on their roles as producers of new knowledge.

James S. Fairweather (2005), for example, reached this conclusion after analyzing data from the National Survey of Postsecondary Faculty (NSOPF). Fairweather compared faculty salary data from the NSPOF surveys in 1998-1999 and 1992-1993. Regardless of institutional type or disciplinary department, faculty who published more, earned more; those who taught more, earned less. He concludes, "in any case, the evidence strongly suggests that without intentional institutional intervention to counteract market forces, we should not expect teaching to emerge as a positive factor in pay on a national level any time soon" (p. 419). From this perspective, then, it makes sense that teachers would distance themselves, when possible, from the complexity of teaching: it is smarter and more satisfying to write another book or mow the neighbor's yard.

Thus, some unintended consequences of teachers' relatively eased entry into teaching and their weak socialization into the profession is that many must struggle with the ambiguity of the work in isolation and with little sense of personal autonomy. Since many reject the notion of learning to teach in a staged, formal manner, they continue to rely on their initial instincts and gut feelings about the work—even when these do not yield success for themselves or their students. Furthermore, higher education faculty may feel, justifiably, that focusing on research rather than teaching is a more pragmatic approach to their career; this choice can mask their frustrations with teaching dilemmas and limit their opportunities to engage with colleagues about matters of pedagogy. When teachers make such choices they may inadvertently model for newcomers a cycle of behavior that precludes a full interrogation of the complexities of teaching. As Baker and Lattuca (2010) point out, "although successful participation in the practices of a community can be a catalyst for ontological change, identity change is not inevitable" (p. 822). Philosopher Roland Faber's (2011) description of identity development seems to apply to

teachers. He writes, " Human societies, then, which do not allow for a performative deconstruction of their modes of inheritance (of instinct and reflex) will create conforming (subjected) subjects as their expression" (p. 21). David's explanation of his teaching is similar, though more succinct: "I am who I am." Teachers bring to their work strongly held notions about the intersection of their personality with job requirements. When little in their socialization processes requires that they question those assumptions, teachers persist in their beliefs and practices—even when faced with classroom realities that belie those beliefs.

Understanding teachers' typical career path and the socialization practices they experienced throughout the early stages of their careers can help contextualize the specific pedagogical choices my participants made. Elizabeth and Mark each followed fairly typical steps toward a career in higher education: completing graduate degrees, working as graduate teaching and research assistants and publishing their own research. David's avenue to Hamilton was a bit more direct: after completing his military service, he entered and completed graduate school and immediately accepted a tenure-track position at Hamilton. He is the only participant to have had no prior teaching experience before he was hired. Thomas, on the other hand, had a lengthy career in teaching and had earned a BA degree in secondary education. I now turn to an examination of the four participants through this lens of socialization.

The Socialization of Mark, Elizabeth, David, and Thomas

Teaching Content: The First Apprenticeship of Observation

Mark, David, and Elizabeth reported basing their content instruction on effective practices they recalled from when they were students. Elizabeth stated, "I learned from observing my teachers. I remember thinking, I like the way this guy teaches, or I would never do that. I learned from observing these teachers." Mark echoed her sentiments: "I knew what

worked in undergraduate, what I liked or my friends did or did not like." Both Mark and Elizabeth hoped to teach in ways they enjoyed as students. They equated their personal enjoyment of a particular practice with effective teaching that was universally applicable. While Mark also considered friends' opinions, his phrasing suggested that he shared their views about which teachers and practices were best. Furthermore, he does not qualify his statements. Rather, his comments sound definitive: "I knew what worked." While less definitive, David also relied on prior experience as a student to form his teaching persona and pedagogical practice. David explained that he began his career with "only my intuition and having observed other teachers." He, like Elizabeth and Mark, tried "not to be boring," believing that student interest and engagement are tied to effective instruction.

In the absence of any formal pedagogical training or systematic mentoring into the teaching profession, it is reasonable that these teachers relied on what Lortie (1975) has described as an "apprenticeship of observation." Lortie asserts that one factor leading to conservatism (the multi-generational replication of pedagogical practices) in education is each new generation of teachers' heavy reliance on memory to develop pedagogy. Even as Lortie explains this trend, he warns that this highly idiosyncratic approach can be problematic:

> Students are undoubtedly impressed by some teacher actions and not by others, but one would not expect them to view the differences in a pedagogical, explanatory way. What students learn about teaching, then is intuitive and imitative rather than explicit and analytical; it is based on individual personalities rather than pedagogical principles. (p. 62)

David's comment, "I am how I am," to describe his teaching is a reflection of Lortie's notion that teachers' view their practice in inherently personal ways. While David

acknowledged that attending faculty talks about pedagogy and co-teaching with others had, in part, shaped his teaching, he believed that his pedagogy was deeply rooted in core, immutable personality traits. Mark, too, seemed to believe that teaching style or ability is a matter of personal preference, observation and practice, refuting the view that pedagogical skill can be learned via systematic study. When asked how Hamilton could better support his development as a teacher he asked, "How do you support teaching except by doing?" and added, "I don't think that taking time off (course releases) or reading pedagogy would make you a better teacher." Since he reported "knowing what worked" even before he became a teacher, he rejected the idea that further study or systematic collaboration with peers could improve his practice. Mark, David and Elizabeth all believed that one's own past experience as a student was sufficient means of pedagogical training.

Since these teachers fondly remembered lectures, they relied on them to teach undergraduates. While I did observe small and whole group activities and discussion in both Thomas and Elizabeth's labs, they each generally began their classes with a lecture to address science content. Mark and David's classes were primarily lectures, with minimal breaks for student questions or for teacher-directed inquires designed to check students' understanding. When describing teachers they wished to emulate, Elizabeth, Mark, and David mentioned those whose lectures were enjoyable or well organized. Elizabeth hoped to model a favored chemistry teacher's lecture style because "she was really structured and really careful and neat and orderly. She was interesting and she loved it and you could tell she put time into it." Mark believed his work as a TA during graduate school was excellent preparation for his present position because he was able to observe many faculty members lecture to undergraduate students. He was then

able to select from these various models, a la carte, those styles he most enjoyed. David, too, hoped to re-enact engaging and interesting lectures like those he enjoyed as a student.

The predominance of whole-class, lecture-based instruction I observed appears to be, in part, a reflection of the belief that what worked for the teachers when they were undergraduates was appropriate for their own students. It should be noted, however, that the use of lecture-based instruction in undergraduate education is and has been a common practice. Given the historical reliance on lectures, it is not surprising that my participants observed lots of their own teachers rely on lectures. However, as Lortie found and my participants' comments reinforce, it is possible that the teachers my participants are emulating were themselves reproducing a pedagogical practice that was grounded in intuition and imitation rather than empirically-grounded knowledge about best teaching practice.

My participants did not seem to question the viability of this teaching practice. Believing that lectures were appropriate and suitable means of undergraduate instruction, my participants worked hard to design and deliver lectures that were engaging. Elizabeth revised her lecture materials, while Mark read widely in his field in order to include new information about international relations that might be overlooked in his course materials. David explained that he would assign students readings that he had not read himself because doing so kept his lectures "fresh." Each participant seemed confident in his or her approach to the teaching of content.

These teachers' extensive use of lectures is one consequence of the apprenticeship of observation, which consists of at least two strands: reliance on what one has seen other teachers do and an assumption that teaching is largely determined by personality and personal preferences. As Lortie argues:

> The criteria used for screening reminds one of artistic, rather than scientific conceptions of work; practices which suit the person of the teacher become candidates for admission to his kit of regular behaviors and are then tried out. The personal nature of such selections is even more manifest when teachers justify their practices on the basis of their individual experiences as students. What worked on me, they say, despite its possible uniqueness, will work on others. (p. 78)

It makes sense, then, that these teachers, having benefited from lectures when they were students, would use lectures with their own undergraduates. Whether most students do, in fact, learn well via this technique was not a question I investigated. Rather, I asked participants to explain their thinking about teaching. They believed that their approach was logical and efficient, and they reported that their ideas were drawn from personal experiences as students and teaching assistants. Since they perceived commonality between their own undergraduate experiences and those of their students, they saw no need to consider other methods.

Thomas' approach to teaching was different from the other three participants. He drew from a wide range of pedagogical theories to construct his lessons and he relied on the input of other teachers—inside and outside his own content area—to improve his practice. While Thomas did question the usefulness of many of his formal teacher preparation courses, he did not universally discount teacher training, pedagogical research or on-going professional development. Rather, he viewed these all as necessary ingredients for quality teaching. He reported regularly reading a variety of scholarly/research articles about teaching, regularly participating in—over the course of his career—seminars and training programs to improve his teaching and attending teaching conferences. Furthermore, he reported consulting with veteran teachers, who he respected, to solve his own teaching struggles. Thomas believed that one of the

benefits of returning to graduate school was the opportunity to talk with those whose content knowledge was strong and to use that increased knowledge to create a pedagogical practice that was more effective for students.

Teaching Writing: The Second Apprenticeship of Observation

The participants' confidence began to wane, however, when they described their efforts to teach writing. David, despite a successful publishing record, claimed he was not an "efficacious" writer; he believed that teachers of writing must be more than able and competent writers themselves and viewed himself as lacking the skills needed to teach others to write. Mark expressed frustration with what he perceived to be students' backsliding in their writing skills, and Elizabeth worried that when her classes size grew, she would not be able to devote the individual time needed to help students with their writing. Thomas wished he could co-teach the labs with an Integrated Arts and Humanities instructor who could help with teaching writing, and he was concerned that his TAs were not qualified to help students write and that there was not enough time in the undergraduate science curriculum devoted to writing instruction. He was unsure of the best way to remedy these problems.

All participants shared a generalized concern about the effectiveness of their writing instruction and they all approached the teaching of writing similarly: they assigned writing tasks, required students to submit drafts or preliminary writing that my participants then reviewed in individual conferences, and the final paper received a grade with marginal and end notes designed to help students improve. Teachers encouraged students to consult with them throughout the writing process, and they were all eager to meet with students as often as necessary. Writing instruction was a largely individualized and private endeavor, with the occasional whole-class mini-lecture on a grammar topic or an explanation of the assignment.

Thus, all four participants employed writing pedagogies that loosely reflected the process-approach to writing advocated by WAC proponents. The verisimilitude in the participants' approach to writing instruction, despite differences in levels of teaching experience and disciplinary background, however, did not come from formal knowledge of WAC, but rather can be explained by their reliance on replicating instructional practices they remember. Just as they replicated lecture-based instruction for "covering" content material, these teachers offered students writing instruction that reflected their own most recent and salient experiences with learning to write. There is an important distinction, however, between these teachers' memories of learning content and learning to write.

Not one of my participants described the pedagogical methods associated with teaching writing as enjoyable or engaging, and they drew not on their undergraduate instructors for inspiration, but rather from graduate school and professional experiences to guide their work with student compositions. Elizabeth recalled an undergraduate technical writing course, but her most resonant memory of that experience was that she "sucked at it." She was not required to write any "big papers" until her Master's thesis and had only recently, as she completed her dissertation and an article for publication, received sustained feedback on her writing. Her dissertation advisor was her guide.

Thomas remembered learning to write in high school, which made him anomalous in this small group. He believed that having to write in journalism, English and science courses helped him attend to matters of audience and purpose. But, he added, writing the lab manual, writing for publication and completing his dissertation had been instrumental in improving his writing. Neither Mark nor David drew on memories of writing in secondary or undergraduate courses. Instead, they nominated graduate professors, specifically dissertation advisors, as being most

influential in pushing them to improve their writing. While David did not express concern about his own writing, Elizabeth, Thomas and Mark all reported that writing was hard. For Mark, it was the most difficult part of his job. Elizabeth tended to procrastinate, avoiding writing for as long as possible.

These concerns and shared approaches to the teaching of writing seem reasonable. For Thomas, Mark and Elizabeth, writing was a new endeavor with high stakes. Mark knew that the quality of his writing would determine his success at Hamilton. David's comments confirmed this. Elizabeth and Thomas were just about to finish their PhDs and were beginning to learn to write for academic publications. Based on their own reports, it was not until late in their graduate studies that either received direct and sustained guidance in writing.

Little of the language that the teachers used when describing that guidance was particularly concrete. Unlike their models for teaching content, which these teachers' described in specific and positive ways, they described their memories of learning to write in passive and vague terms. David said that expectations for good writing at Columbia were high, but never directly discussed. Instead, good writing was something one acquired through osmosis. Elizabeth made a similar remark when asked to describe how she learned to write in her field and how the writing is different from that in other disciplines, "I am aware of there being a difference between communication between people in my field and those that aren't. I didn't just learn, but I am aware of the difference." Mark was more explicit when describing the characteristics of writing in the social sciences. Furthermore, he had developed, over time, some tricks to help him stay focused on his own writing. But he generally thought of learning to write in the same way he described learning to teach: as something you just do and practice until you get better. They are both "sink and swim" experiences.

Not one of these teachers remembered learning to write in their fields during their undergraduate courses. Their lack of exposure to writing in college is not surprising. Extant research (Walvoord & McCarthy, 1991 and Beaufort, 2007) has documented the paucity of undergraduate writing instruction in disciplinary courses and called into question student ability to transfer and apply what is learned from one domain to another. That my participants' tacit memories of learning to write are primarily pulled from their graduate and post-graduate—rather than undergraduate—experiences, therefore, seems predictable. So too is their response to the problem of now having to teach writing: in the absence of any other models and with no pedagogical training or professional development in undergraduate writing instruction, all of them replicated the practices of their graduate advisors, even though they were teaching undergraduates.

As Lortie explains, relying only on observation to develop teaching skills is problematic. Doing so for the teaching of writing in these contexts seems particularly thorny. Graduate writing instruction is predicated on the belief that students have already mastered disciplinary content and need to be socialized into a field in order to become producers of new scholarship and research. Undergraduates have neither mastered the content nor begun that socialization. Thus, there is an important difference between the kinds of students my participants were addressing and those of the graduate advisors they were emulating.

The implications of this distinction are made more profound because it is unlikely that these teachers will "see" additional models of writing instruction in the future. Since they treated, and reported that their peers treated, the teaching of writing as a private and individual activity, occurring one-on-one in faculty offices, they could not observe how colleagues handled either whole class writing instruction or individual student writing conferences. It is unlikely that these

teachers regularly observed their peers in classrooms (David said he had worked at Hamilton for nearly 20 years before anyone watched him teach); it is also unlikely that they observed one another working with students during conferences. No one reported reading any literature on the teaching of writing, or seeking advice from experts in the field. Mark and David are both comforted because they had writing faculty at Hamilton, though neither reported ever consulting with them about their own teaching. Furthermore, studies of university faculty preparation (Golde & Dore 2001) have shown that graduate programs do not meaningfully attend to pedagogical training. Novice faculty do not learn to teach during graduate school, and once they become faculty members, they are unevenly, if at all, exposed to research and professional development opportunities that target undergraduate instruction in general, or undergraduate writing instruction in particular. Finally, these teachers' beliefs that good teaching is simply a matter of will power and personal desire, implies that, even if professional development opportunities were available to them, they may not engage with the pedagogical theories in meaningful ways, as their underlying beliefs do not align with what might be taught.

The purpose of this study was not to assess the quality of the participants' teaching, and the data do not allow for claims about the effectiveness of their writing instruction. However, it is clear that observations of former teachers animated the participants' pedagogy in relation to both content and writing, and that there existed a disparity between the models they used for teaching writing and the courses and students I observed them teach. Furthermore, since three of the four had no formal pedagogical training (Mark went so far as to reject the idea that such study would be helpful), it is unlikely that they will receive additional exposure to alternative teaching methods.

Thus, they will most likely persist in their present practices. This persistence is not necessarily bad; perhaps enough of their students learn to write well enough. For example, there is no shortage of PhD students in either field, and Mark and David expressed pride in the number of Hamilton students who are admitted to graduate or professional programs. However, all of the teachers claimed that their approach to teaching writing was time consuming. Elizabeth specifically stated that she would not be able to "keep up with the work" if she had larger courses, and Mark was concerned about how to manage his time in order to meet both his teaching and research obligations. Thomas' intention to revamp the lab curriculum, to "slow down" the writing instruction and include shorter pieces was a nod to the time consuming demands of responding to student work and his general concerns that the TAs are not qualified to teach science writing.

In addition to time constraints, the four teachers also worried that students were not retaining the skills and habits they associated with good writing, and all reported struggling to discover ways to better teach writing. Mark complained that his students repeatedly made the same mistakes semester after semester; David agreed. Both attributed this phenomenon to student carelessness or laziness. Mark tried to determine the best way to solve this perceived problem, considering harsher grading or earlier intervention. Elizabeth had a general sense of what student writing should "look like," but relied heavily on the rubrics in the lab manual to assess her students' work. When students needed additional guidance, she simply encouraged them to reread the instructions or to get help from the writing center tutors. As she explained, this was her first semester dealing with student writing, and she had limited ideas about how to do this work. Her initial response to "bad" papers -- those with many grammar and mechanics errors -- was similar to Mark's: "You just want to flunk them," she explained. Thomas wished

he had regular access to writing faculty who could help him. Both Thomas and Elizabeth wished that the TAs were better prepared to work with students and that upper-level science courses covered more writing instruction. This, they argued would minimize the pressure they felt to "get it right" with students in the one-semester lab courses.

Summary

All of these teachers, to some extent, relied on their observations of their own teachers and their own personal experiences to guide their pedagogical practice. They did this both when they taught content and when they taught writing. However, while the teachers generally felt confident about their teaching of content, they expressed reservations about the effectiveness and practicality of their writing instruction. Despite their concerns that their present approach to the teaching of writing was time-consuming and only marginally successful, my participants did not suggest that they would fundamentally alter their approach to writing instruction. They were willing to accept help from "English or writing experts," through either co-teaching or by sending students to writing experts outside of class time. They were all prepared to muddle through, making the best of the situation and "tweaking" writing assignments or grading criteria. They all wished students would be less lazy or careless when writing. These teachers' approach to teaching—both content and writing—is not unusual, nor is their attitude about making the best of what they perceive to be an immutable situation.

Despite the similarities in their approach to teaching—both content and writing—my participants work in very different institutional contexts. These different contexts, in conjunction with their own prior experiences as students, inform their understanding of students, teaching and learning. Therefore, while all of the participants are instructors at Moore State, their daily

work lives are very different. These institutional differences also shaped the writing instruction that students received.

Institutional Influence

Teaching in ISS: Make It Fast, Cheap and Good

As noted earlier, ISS has the unenviable task of providing introductory science education to increasingly large numbers of undergraduate students who do not intend to be science majors. Staffing the ISS courses, therefore, is a Sisyphean challenge—one that Dr. Johnson believed resulted from two on-going trends: (1) the growing number of undergraduate students required to complete the ISS courses and labs and (2) a shrinking supply of graduate science students interested in teaching. These difficulties were exacerbated by university-wide budget cuts; ISS was regularly asked to do more with less. To fulfill its institutional mission, ISS accepted less experienced instructors and lowered expectations for supervisory staff. Elizabeth, for example, had little teaching experience when she became teacher of record for her ISS lab section. She had taught only one class (with a total of nine students) when she was promoted to director of the lab sections. Dr. Johnson was concerned that Elizabeth was being asked to assume responsibilities she was not prepared to handle. However, in the absence of more qualified and experienced instructors, she was the most viable candidate for the position. In turn, Elizabeth was worried that increasing numbers of ISS instructors were also under-qualified for their positions.

Since the qualified pool of graduate students interested in teaching the ISS labs was small, and the numbers of sections that needed to be offered was increasing, ISS resorted to allowing some undergraduate science majors to teach the lab sections. Elizabeth worried that these undergraduates (and to some extent, the graduate students as well) were not familiar

enough with their content, let alone pedagogical practice, to effectively implement the ISS curriculum. Thomas, too, remarked that many of the ISS instructors were struggling in their roles. He attributed this to a combination of poor or little professional pedagogical training and limited mastery of content knowledge. Thomas worried that, since many of the ISS instructors were still in the early stages of their graduate science programs, they did not yet have sufficient mastery of the disciplinary content and could not, therefore, successfully explain the science to their students.

Furthermore, as both Thomas and Elizabeth noted, the writing portions of the lab curriculum were particularly problematic for many of the instructors. Many of the ISS teachers had not been asked to write a lot in their own disciplinary courses and therefore did not know how to write the kinds of papers they were assigning to students. Elizabeth noted that she had not been asked to write any "big papers" until the end of her PhD program. While Thomas had more experience writing—for science journals and newspapers—he too lamented that his experience was atypical. He believed that the majority of graduate science students had limited exposure to writing during their undergraduate years and that their graduate programs did not systematically and cumulatively develop student writing ability. Therefore, many of the ISS instructors did not have experience writing themselves and lacked a sense of efficacy when it came to teaching others to write. This difficulty was exacerbated because many of the ISS instructors were teaching content outside their own area of scientific expertise and being asked to teach in ways that might have been different from their own experiences.

Elizabeth's and Thomas' concerns are in keeping with research on undergraduate writing, particularly in the sciences. Duch, Groh and Allen (2001) have noted that undergraduate science education has undergone scrutiny and change in the last 10 years, primarily in response

to concerns that Americans are falling behind their international counterparts in producing high quality graduates prepared to enter Science, Technology, Engineering and Mathematics (STEM) careers. New and focused attention to undergraduates' conceptual understanding, critical thinking and communication skills (both verbal and written) have been part of these national efforts to enhance science education. For example, Olsen and Labov (2012) describe national efforts to better align K-12 STEM curricula with undergraduate education to ensure that students are well positioned to enter and succeed in occupations that require advanced understanding of complex math and science concepts. They also point out that changes in educational policy, educational funding and pedagogical practices will be needed to meet this goal. However, preparing science faculty to adjust to the new approaches to science education has been complicated. As Duch, Groh and Allen (2001) explain, "With few exceptions, college and university faculty embark upon the business of teaching with very little instruction or training in pedagogy: we simply teach as we were taught" (p. 4). This approach, they argue, has made it more difficult for faculty to adjust to the new pedagogical practices (PBL, for example) that recent research in science education is promoting. ISS faculty, then, seem to be representative of STEM faculty across the U.S. who are struggling to alter undergraduate science education. ISS at Moore State may be one example of national changes that are requiring higher education faculty to jettison their own notions of what it means to teach content.

Both Thomas and Elizabeth sought to minimize the gap between instructor knowledge and experience and the ISS curricular requirements by providing the ISS instructors with teaching materials—lab manuals, lesson plans, lecture slides, tests, writing assignments and rubrics. Much of Thomas' work in the ISS department had been on the re-writing of the lab manual. Elizabeth discovered that much of her time as supervisor was spent creating detailed

lecture notes to share with the ISS instructors, and she repeatedly remarked that, without the writing assignments and grading rubrics provided in the teaching manual, neither she nor her fellow instructors would be able to help students complete the writing assignments. Elizabeth's in-class discussions about the writing assignments often comprised little direct guidance to students. Rather, she referred students to the materials in the manual or to the university's Writing Center. While Thomas' approach to the writing assignments was fuller—including pre-writing activities, conferences with students and direct instruction on the connections between class work and the composing of the papers—he, too, wished for more support for his teaching of writing. Ideally, he mused, he'd have an "English" teacher with him in class to help students improve their grammar, mechanics and organization, while he focused on teaching students science content.

Thomas and Elizabeth were each frustrated by the state of affairs in ISS. While both were convinced that the purpose of ISS—exposing all undergraduates to the role of science in the modern world—was important and compelling work, they were less convinced that Moore State administration and policy supported that conviction. Budget-cuts and a heavy reliance on temporary and transient graduate instructors made it difficult to deliver the high quality curriculum each envisioned. ISS staffing difficulties were not ones that could be addressed and solved; rather they were endemic, on-going realities. It was difficult to recruit qualified instructors, but even harder to keep those instructors. Many doctoral students at Moore State did not perceive teaching the ISS courses as valuable experiences, and they sought out the more prestigious research assistantships instead. They did so for practical reasons. Conducting research, observing more experienced scientists at work in the lab and publishing the results of those experiences was more valuable for the graduate students' long-term career plans. Teaching

undergraduates was viewed as hindering the growth of more important skills—research—or, at best, something one did out of necessity. Therefore, while a graduate student might agree to teach for a semester or two, most were actively seeking research positions and hoped to leave the classroom quickly. Therefore, Thomas and Elizabeth often felt that their efforts to improve instructors' pedagogical practice were for naught, since many quickly left the classroom. ISS staffing was a revolving door.

Even when an instructor showed promise and interest, keeping him/her in the classroom was a challenge. As Dr. Johnson explained, there was a great deal of external pressure for the graduate students to leave the classroom and move toward research. This pressure is in keeping with both the disciplinary context (science, after all, is about the deliberative and systematic accumulation of new knowledge), but it also made sense given Moore State's institutional mission. As a Research 1 university, it was tasked, by the state, to train novice researchers to contribute to the field. Full-time faculty—regardless of disciplinary expertise—were also required to produce and publish new research and they were expected to train the next generation of researchers. While there was a commitment to undergraduate education, both at the institutional and departmental level, that commitment was –according to insiders -- at odds with an emphasis on research.

Thomas noted this conundrum as he discussed his own career plans. He was initially hired to sort out the ISS curriculum and redesign the lab manual, a position for which he was considered highly qualified because of this extensive teaching background. His dissertation research was focused on the teaching the ISS courses and the pedagogical skills required for quality undergraduate science education. Dr. Johnson noted that Thomas' efforts had been widely viewed as successful and ISS had benefitted from his efforts. Thomas was eventually

hired full-time at Moore State to supervise ISS TAs and continue his work with study abroad programs. Thomas expressed frustration that many senior faculty members had encouraged him to reshift his efforts away from the study of pedagogy and toward more objective, scientific research. As Thomas began his job search, he knew that his choice of dissertation topic would narrow his job offers. He did not want to give up on his interest in teaching; therefore, he talked about applying to smaller universities, liberal arts colleges or community colleges—places he thought his expertise in teaching would be more valued. He noted, however, that some of his advisors perceived these choices as indicative of low ambition or poor alternatives. It seems reasonable that other graduate students were receiving similar suggestions. Elizabeth, too, noted that she could not spend as much time on teaching as she would like because she had to complete her own research and write articles for publication. My participants, therefore, seem to have felt torn between two equally important strands of their work—teaching and research.

While external pressures could arguably be attributed to the frequent turn-over in ISS staffing, life inside the classrooms could also have been an important factor. The novice instructors that composed the bulk of the ISS lab instructors might have been surprised by the types of students they encountered in their classes. The students' attitudes toward both science and writing often diverged from those of the instructors'. While the ISS teachers were pursuing increasingly specialized knowledge in a particular science, ISS students had done the opposite. ISS was designed to provide an introductory review of the sciences for those students who had formally declared that they would not be pursuing a degree in the sciences. Hence, ISS students did not view themselves as particularly committed to the study of science. They were not necessarily inherently motivated to master the content in anticipation of later, more complex scientific study. Many students, according to Thomas and Elizabeth, viewed the ISS sequence as

little more than an institutional hurdle to be crossed in order to complete their undergraduate degrees. In this way, the ISS class was similar to students' first year composition (FYC) courses. Students viewed ISS as a one or two semester requirement that seemed disconnected from their academic focus and goals. While students may have wanted to do well in these courses and many put forth effort to learn the content, ISS did not, for most, represent a cornerstone of their future studies.

To further complicate the ISS instructors work, students were not required, through any formal Moore State policy, to take the ISS course at a specific and logical time in their undergraduate careers. As Thomas pointed out, while all students were required to take FYC courses, there was no technical requirement that they take the ISS course—which was supposed to be writing intensive—in proximate relation to that FYC courses. Therefore, while students may have completed the writing course during their freshman year, students could postpone taking the ISS courses for many semesters. Students' writing development was uneven, at best, in the intervening semesters. Elizabeth and Thomas both noted that they and their fellow ISS instructors were often dismayed at students' poor writing abilities—which they described in broad terms: (1) poor command of Standard American Edited English, (2) sloppy or lazy revision and editing techniques, (3) inability to organize logical papers or (4) struggles to formulate a hypothesis. Thomas believed that either students were not receiving the kind of writing instruction they needed in the FYC courses or, alternatively, students did so little writing in their other courses that their writing skills did not develop or had atrophied. ISS, therefore, was being asked not only to introduce students to the role of science and scientific thinking to a group of students who were not inherently interested in the discipline, but they were also being asked to simultaneously improve students' writing.

Elizabeth bemoaned the amount of time she had to spend on the mundane tasks of teaching and supervising teachers: reports of plagiarism, classroom management failures, attendance problems (both students and instructors) and unclear grading criteria. These problems might be attributable, in part, to the inexperience of the instructors, but also to the relatively weak preparation students had for the course and their own lack of interest in the course content. While Dr. Johnson noted that one of the ISS missions was to recruit more undergraduates to the study of science, there were programmatic obstacles to accomplishing this goal. Low faculty interest, weak student motivation and high teacher turnover made it difficult to accomplish this mission.

ISS, therefore, was not necessarily a place where teachers—full-time faculty or TAs—could bank many of the psychic rewards Lortie viewed as essential to maintaining motivation and enthusiasm for teaching. While both Thomas and Elizabeth noted times when student engagement reaffirmed their commitment to teaching, these times were rare and short-lived. Since ISS faculty only worked with students for one semester, they often did not have an opportunity to witness students' long-term growth. Furthermore, even if they were successful in encouraging students to rethink their interest in science as a field of study, they were unlikely to see those students in later science courses. In short, ISS teachers were being asked to teach students who had declared little interest in science, were simply "passing through" the department, and who had little preparation either in science or writing. It is little wonder that most ISS teachers would be unprepared for this challenge and would quickly move on to research assistant positions. The classrooms did not provide the kind of emotional and intellectual satisfaction that is necessary for a sustained commitment to high quality teaching.

Teaching in Hamilton: In for the Long Haul

David and Mark, on the other hand, worked in a vastly different environment. In contrast to ISS, Hamilton has little difficulty recruiting highly qualified instructors. With few exceptions, Hamilton hires only full-time, tenure track faculty. The college does not regularly use adjunct or temporary faculty. Occasionally, as in Mark's case, visiting lecturers, who have completed their graduate degrees, are hired for temporary positions. However, those lecturers, like Mark, often intend to apply for a permanent position with the college. Consequently, Hamilton faculty have all completed their graduate programs, and many have published their own research when they are hired. As Mark explained, Hamilton's reputation was excellent and securing a teaching position in the college was prestigious. He believed that Hamilton's commitment to undergraduate education was singularly remarkable among U.S. International Relations programs. Therefore, Hamilton had the luxury of recruiting highly qualified faculty who excelled, in theory, at both teaching and research.

David noted that standards for recruitment at Hamilton had become more rigorous during his tenure. Because the college was beginning to shift its expectations that faculty be outstanding researchers and outstanding teachers, prior teaching experience and demonstration of scholarly ability were now both prerequisites to becoming a Hamilton faculty member. Therefore, unlike ISS instructors, who are novice teachers and researchers who plan to seek full-time employment outside of Moore state, Hamilton boasts a stable, accomplished full-time faculty group, the majority of whom are tenure stream faculty.

This well-prepared and committed faculty also have the luxury of working with similarly committed students. Hamilton students have declared, by virtue of their application and acceptance to Hamilton, a desire to focus their studies on social science, anticipate more rigorous

coursework than their peers in other Moore State programs and actively seek out opportunities to further their education outside of the classroom via Hamilton's study abroad and internship programs. The students also benefit from a close-knit community of fellow scholars with similar academic interests. As David explained, both faculty and students appreciate the elite status Hamilton has not only on Moore State's campus, but nationally. There is a palpable feeling of "specialness" in the halls of Hamilton, some of which, David argued, might be overly zealous. Nevertheless, both students and faculty at Hamilton seemed to enjoy their status on campus and bring enthusiasm to their work.

Consequently, faculty reported less reticence from students to engage in course content than did their ISS counterparts. Both Mark and David also noted that one benefit of teaching at Hamilton was their opportunity to work with the same students semester after semester and to watch these students' academic and personal growth. Students, too, seemed to value the close and repeated contact they had with faculty members. I overheard students discussing their experiences with faculty or sharing with peers stories about faculty members they had heard from Hamilton alumni. There was a shared sense of purpose and history at Hamilton that was not present in ISS.

The "specialness" of Hamilton was regularly referenced by both my participants and the Hamilton students I met. Exactly how, or if, this shared sense of community facilitated Hamilton student success, as the students and teachers asserted, is difficult to determine. Nevertheless, some empirical research (Kinzie & Kuh, 2004)) has determined that institutional culture can be a contributing factor in high achieving undergraduate programs. Using data collected by the Project Deep (Documenting Effective Educational Practice), a longitudinal study of twenty higher education institutions, Kinzie and Kuh (2004) looked for common denominators that

successful campus—regardless of size and student demographics—shared. The authors are careful to caution that rough measures of school contexts, like Carnegie classification, do not fully capture or explain the nuances. While the researchers note that students' entering academic preparation, economic background and family history with higher education remain the most reliable predictors of a students' success at college, data analysis showed that some campus attributes were consistently present on campuses with high student success rates:

> They articulate core operating values and principles, select new colleagues who share these values and principles, and consistently enact them in making decisions. They model collaboration through their actions and their words. Those who have the most contact with students—faculty members and student affairs professionals—generally work well together, in large part because they enjoy mutual respect based on competence and an affinity for the institution's mission and culture. (p. 8)

Mark and David certainly believed that Hamilton had such a shared culture, that faculty and students worked together to promote that culture and that doing so was an important contributing factor in Hamilton's success. Their view of Hamilton as successful was rooted, in part, in Hamilton's campus-wide reputation as a college that emphasized teaching quality. The long-standing tradition of Hamilton faculty being known for teaching excellence fueled faculty commitment to and enthusiasm for their teaching. As both Mark and David asserted, quality undergraduate instruction was considered a vital and permanent part of a successful career at Hamilton. Teaching well held psychic reward. Mark and David each provided examples of former students who had "made good." The men attributed students' success, in part, to the high quality of the instruction they received as students. Student success, in turn, kept faculty engaged in their pedagogical work. Nevertheless, despite the relative prestige and success of

Hamilton faculty and students, both Mark and David reported concerns about their ability to teach writing.

Unlike ISS faculty, however, Hamilton faculty had a variety of discipline-specific resources to aid them in their work. They had support from writing experts within the college and they benefitted from a curriculum that scaffolded students' writing development over many years. Hamilton's first year writing sequence, for example, was designed to introduce students to both the vocabulary and theory of social science, while attending to students' need to acquire academic literacy and discourse skills that would be needed to successfully complete the writing assignments in later courses. Hamilton staffs these introductory courses with faculty who have a background in writing instruction and who deliberately seek to integrate the learning of content with composition instruction. Hamilton also assists students by offering a writing center exclusive to Hamilton. Students can get assistance on their writing assignments from more experienced peers who have themselves been socialized to understand the intersection of composition and disciplinary content. In this way, Hamilton fulfills Bazerman's (1988) call for an integration of content with rhetoric: "The more you understand the fundamental assumptions and aims of the community, the better able you will be to evaluate whether the rhetorical habits you and your colleagues bring to the task are appropriate and effective" (p. 323). Hamilton embeds writing proficiency into the fabric of the school culture through writing programs, awards and curriculum. Students also benefit from observing a faculty group who are themselves actively publishing scholarship in their fields. Writing well for students -- like teaching well for faculty -- is part of the ethos of the college.

This ethos is an important, though sometimes intangible, factor in improving student writing. While both Mark and David complained that students were occasionally lazy with their

writing or did not show smooth, linear progression in their writing from semester to semester, neither man seemed overly vexed that these students were "poor" writers. They each seemed to believe that, by the end of their undergraduate careers, the majority of the students would be well equipped to enter graduate or professional schools and to be contributing members of society. This belief was well supported by the college's history of producing successful graduates. Therefore, while Mark and David expressed some reservations about their teaching, it was not a debilitating worry and they were bolstered by the readily available expertise of the writing staff and the knowledge that all Hamilton students would have numerous and repeated opportunities to learn to write well.

Summary and Discussion

While my participants had varying degrees of teaching and research experience, the pedagogies they used to teach writing were very similar. My participants described the teaching of writing as challenging and occasionally frustrating; furthermore, their discussions of their trials with writing instruction illuminated that they all shared similar concerns: student backsliding, laziness, time constraints, struggles to balance the teaching of content with explicit writing instruction and a generalized lack of specific knowledge about the work. Despite these commonalities, the most salient difference between the participants seems to be the contexts in which they work. It seems plausible to speculate that teaching and learning to write at Hamilton is likely to be more productive than doing so in ISS—this is not only, if at all, because of the quality or motivation of either students or teachers, but is rather likely to be, at least in part, the consequence of institutional factors operating outside of, but around, individual classrooms.

Research on writing instruction, while relatively new and not yet definitive, suggests that learning to write is a long-term, complex affair, the success of which is determined by a host of

intersecting variables. Callahan and Chumney (2009) explained that "the confluence of curriculum, pedagogy and level of resources afforded to students by the institution" were the best predictors of demonstrable improvement in student writing. Kellogg and Whiteford (2009) and Beaufort (2007) both described the importance of sustained practice and repeated exposure to a variety of writing tasks to improve writing, and Wardle (2007) was argued that students' writing improves only if they are held accountable—over the course of their college careers and in many different contexts—for producing high quality compositions. All of these researchers argue that learning to write well only happens if students are repeatedly given opportunities to write often, in many different disciplines, and are held accountable, over time, for high quality work.

Hamilton's exclusivity, structured curriculum and shared commitment to rigor, therefore, all help to facilitate students' acquisition of writing skills. It is impossible to separate an individual from his/her context. People work in disparate contexts and those contexts shape and inform the individual, but is seems likely that Hamilton's institutional norms are better suited to teaching students to write than those in ISS. This is true despite the quality of individual teacher or student performance in isolated courses.

I don't mean to imply that ISS students are doomed to be poor writers. They are required to write in a variety of other disciplinary courses. However, the frequency and rigor of the writing expectations in those courses is far more difficult to ensure or monitor. Given the size of Moore State's campus and the disparate demands and priorities of various departments, tracking student writing development is much more complex. As Walvoord and McCarthy (1990) and Beaufort (2007) have documented the typical American undergraduate receives uneven and sporadic writing instruction and widely varied implicit messages about what constitutes good writing. Madigan, Johnson and Linton (1995) attribute this to a lack of awareness, among

faculty from many disciplines, about the psychological and cognitive difficulties embedded in learning academic discourse. Therefore, it seems important to remember that while attending to the quality of individual teacher instruction is one important means of helping students learn to write well, it is equally important to study the broader institutional factors that are part and parcel of undergraduate education and to determine if those factors are facilitating focused, longitudinal student growth.

CHAPTER 6

CRAFT AS CULTURE: DEVELOPING METHODS AND ATTITUDES TO ENHANCE WRITING INSTRUCTION

This study was designed to show how teachers met their obligation to teach writing within their disciplinary classes. What personal experiences with both teaching and writing did they bring to bear on their current pedagogy? Did their departmental and institutional context influence their teaching? I undertook this work in response to long standing and widespread perceptions that American undergraduates complete their degrees without the writing skills they need to successfully compete in today's job market. I theorized that a more full understanding of how teachers think about and enact writing pedagogy would be useful in determining how undergraduate writing instruction might be improved. My data shows that these participants relied most heavily on memories from their own time as students to construct a pedagogy and teaching persona. With the exception of Thomas, who also utilized educational research and input from peers and students, these participants reported that memory was the most significant variable in determining the methods they used as teachers. Mark, Elizabeth and David all described teachers they believed were expert at their work and each sought to replicate those teachers' practices in their own classrooms. Additionally, the participants reported that, in relation to the teaching of disciplinary content, this form of replication was yielding satisfactory results, at least in their minds. The teachers were confident that students were learning disciplinary content and believed that students were learning because their pedagogical approaches were well suited to student needs. Elizabeth, Mark and David relied most heavily on lectures to deliver content. They did so because they each recalled learning well from lectures during their own undergraduate and graduate school days. Thomas, on the other hand, opted for

a greater reliance on PBL techniques, small and whole group projects, during his classes. He did so, he explained, because he was persuaded by educational research that documented student success when these methods were correctly used in science classrooms. Therefore, each of the participants was comfortable with his/her teaching styles and students' mastery of disciplinary content.

However, the participants did not report equal confidence in relation to writing instruction. While David was not overly concerned about the results of his writing instruction—he seemed sanguine about Hamilton students' gradual improvement in writing over the four years of undergraduate education—Elizabeth, Thomas and Mark all reported worrying about student growth in this area. Elizabeth was vexed by students' sloppy editing and their struggles to formulate a clear, supported thesis. Mark, too, was annoyed by what he perceived as backsliding in student writing development, and he worried that they were not making strides to improve their command of Standard English or to develop increasingly sophisticated rhetorical skills. Thomas noted that his students entered with little understanding of disciplinary conventions; he did not believe that writing in the lab courses would be sufficient to help students gain these skills. Furthermore, he worried that most of the lab instructors were ill-equipped to teach science writing.

The divergence in the opinions of my participants' confidence in teaching content and their concerns about teaching writing—seems to be attributable to the paucity of their own memories about learning to write. Again, with the exception of Thomas, none of these teachers had clear, viable recollections of being taught how to write. Rather, they reported that learning to write, for them, was accomplished primarily through trial and error and being steeped in a disciplinary culture over many years. In short, they learned to write through osmosis and were,

therefore, unclear about how to construct explicit teaching practices appropriate to their students' developmental stages and mastery of content knowledge, an ability that Langer (1992), North (2005) and Beaufort (2007) all determined was an essential ingredient to successful writing instruction. Since the participants did not recall learning to write until late in their own graduate careers, they could not draw from their memories of undergraduate courses to replicate practices that would help them improve students' writing.

This disconnect left Elizabeth and Mark feeling un-tethered. David, after nearly thirty years of teaching, was less distraught. He felt that the high quality of Hamilton's faculty—both disciplinary and writing instructors—meant that Hamilton students would eventually master writing. He believed that his students would learn to write much as he did, through practice and being steeped in a school culture that valued writing and provided numerous opportunities for the practice of rhetorical skills within the confines of specific disciplinary content. Thomas, while more adept at describing alternative instructional techniques that could foster student writing growth, was concerned that even with good instruction, students in ISS would not have enough opportunity to practice their writing and would, therefore, not master the underlying critical thinking and communication skills that he believed were hallmarks of a good undergraduate education.

Thomas' and David's attitudes toward school environment both seem reasonable given their different disciplinary contexts. Both ISS and Hamilton had developed curricula, professional development and support structures to aid students in learning to write in these different contexts. Hamilton required students to complete two writing courses during their freshman year. These courses were taught by faculty who were knowledgeable about both writing instruction generally and social science specifically. Therefore, Hamilton students

received focused instruction about the rhetorical strategies and epistemologies that operate in the social sciences. They learned to read, discuss and write about social science from faculty whose professional expertise was helping students to better understand and produce writing suited to a particular disciplinary domain. Furthermore, Hamilton provided students with a writing center staffed with faculty and peers who were also focused on improving students' mastery of disciplinary conventions. Hamilton students were committed to the study of political science and were expected to write in each of the courses they took at Hamilton. Thus, David's view that most Hamilton students would eventually learn to write well seems reasonable.

Hamilton did have a curriculum and culture that supported writing growth, one that implicitly acknowledged that students would improve gradually, if they were given enough support and time for practice. Hamilton's departmental structure and vertical curriculum, then, reflected Kellogg and Whiteford's (2009) findings that student writing improved most demonstrably when they were asked to write routinely throughout their undergraduate years. Furthermore, Hamilton's first year writing courses—taught by social scientists—enabled the students to begin developing a deeper epistemological understanding of their chosen field through carefully crafted writing assignments and with the aid of instructors who, themselves, had a full appreciation of how that epistemology operated in and through discursive conventions. As Madigan, Johnson and Linton (1995) found, similar opportunities are rare for most undergraduate students, though research has determined that they foster both better student writing and stronger critical thinking skills.

David's optimism about his students' eventual growth may stem from years of experience, a sort of resigned pragmatism bolstered by consistently high achieving students. As David pointed out, Hamilton graduates routinely attend graduate programs, law school, or secure

jobs in their chosen profession. If the proof is in the pudding, then Hamilton students, as a whole, are learning the skills they need to accomplish their self-identified goals and meet Hamilton's stated mission. This study did not follow-up on Hamilton students' success rates in those professions or graduate schools, but David and his colleagues can credibly argue that Hamilton succeeds in preparing their undergraduate students for a variety of post-graduation studies/jobs. David's years of experience permit him to take a long-term view of his work and to place his individual teaching within the context of the entire Hamilton curricula.

Mark, on the other hand, was new to the college and was primarily focused on his own work with students. While he understood that he alone was not responsible for "fixing" students writing once and for all, he also felt obligated to ensure that students learned some writing skills while in his class. When students did not progress as smoothly and rapidly as he thought they should, or he saw evidence of "backsliding," he worried that his own approach to writing instruction was not as effective as it should be. Like David, Mark acknowledged the vital work the writing faculty did in preparing students for the demands of his courses. He knew that his students would be required to write in other courses and they could avail themselves of writing tutors, but he was still concerned about how to improve his own writing instruction. He had little on which to base his efforts to improve, however. He, like David and Elizabeth, could not draw from his own memories of learning to write in undergraduate school because he had none. Since he did not believe that pedagogical research could improve his practice, he was forced to "tweak" assignments as he went along and hoped he would hit upon an approach that was more viable.

Elizabeth's worries about her own teaching of writing were similar to Mark's. She did not have many positive memories of learning to write during her undergraduate years, and her

memories of writing in graduate school were recent and limited to the writing of a MA thesis, PhD dissertation or articles for publication. She did not remember having to write papers similar to those she was assigning to her students. Furthermore, Elizabeth had limited experience teaching science. She was working with only nine students and relied heavily on the lab manual, assignments and rubrics to guide her course. When she felt students were not learning as well as they should—either in her class or those taught by other ISS instructors—her response was to improve the lecture materials. She did not articulate alternative methods for the teaching of writing, instead stating that students would need to rely on the lab manual instructions, seek help from the writing center or come to her for a writing conference. Elizabeth was worried that neither she nor her fellow ISS instructors would be able to successfully meet the course objectives, stating time constraints, poor teacher preparation and low student motivation as the primary sources for student struggles.

Thomas shared Elizabeth's worries about student success in the ISS courses. While he was less concerned about his own approach, he did believe that the structure of the ISS department (and to a wider extent the broader Moore State curriculum) was not well suited to fostering the kinds of literacy practices he believed undergraduates needed. Thomas believed that the ISS courses were pedagogically sound, based on teaching practices and theories that had been well researched and proven to be effective. Nevertheless, he believed that the sequencing of the courses was problematic. Students could choose to take the ISS courses at any time in their undergraduate years, but Thomas believed that students would benefit more from the ISS lab if it was taken in conjunction with or shortly after the FYC class. Thomas also complained that Moore State did not offer students the necessary support needed to learn to write. For example, he wanted a writing center staffed with tutors who were better versed in the specific

disciplinary conventions that the lab's writing assignments targeted. Thomas explained that ideally he'd like to embed a writing instructor in each lab section.

He was also concerned that the quality of the ISS teachers was poor. He felt that Moore State and the ISS department were not recruiting highly qualified teachers. Most ISS instructors, Thomas felt, did not have the necessary content knowledge and classroom experience to implement the course well. His views about teacher quality were similar to both Elizabeth's and Dr. Johnson's. Improving the teaching materials provided to these ISS instructors was the primary means of supporting these novice instructors. The lab manual was a means of "teacher-proofing" the ISS courses. Finally, Thomas argued that ISS' struggles to find and keep qualified teachers was a consequence of Moore State's loose commitment to undergraduate science education for non-science majors, reduced funding for all undergraduate education and increasing student enrollment.

Thomas, like David, was pragmatic about these realities and his ability to alter them. Since many of the problems he confronted with his teaching stemmed from departmental policy and broader public policy shifts, he was not certain he could affect much change through his own teaching of individual courses and students. Nevertheless, he sought to improve what was within his purview and to support other ISS teachers in coping with the present state of affairs. Dr. Johnson acknowledged that Thomas' concerns seemed valid, but he was not confident that any structural changes would be forthcoming. ISS was understaffed, under-resourced, overburdened, and they were making the best out of a difficult situation.

Room for Improvement: Professional Development and Curricular Adjustment

My findings suggest three possible routes to improved writing instruction in undergraduate, disciplinary courses:

- Enhanced teacher professional development
- Curriculum alignment
- Adjustment to departmental culture

Professional Development

Professional development is frequently offered as a solution to a variety of educational woes, but I believe my participants' shared approach to pedagogical development suggests that a specific kind of training is required to improve writing instruction: a professional development program that overrides the dispositions of teachers to rely on their apprenticeship of observation is needed. While these participants had varying degrees of teaching experience, only Thomas utilized pedagogical research and the input of more experienced teachers to direct his practice. As my review of the extant research literature on undergraduate writing showed, students need time and practice, explicit instruction about discursive practices and consistently high standards for writing if their skills are to improve. Nevertheless, Elizabeth, David and Mark relied, almost exclusively, on their memories of learning to write in their own disciplines during graduate school. They did this even though those memories were vague and of little relevance to their current teaching contexts.

A professional development program that helps faculty better understand how student writing skills develop over time and provide teachers with explicit means of assisting students through these stages would be beneficial, but teacher-training must first address the commonality of replication of practice based on memory. Since it is well documented that most undergraduates do not learn to write well—have not historically been perceived as writing well—is necessary to try something new. Repeating past practices is not sufficient. As the literature on the sociology of teaching suggests, however, encouraging teachers to jettison their

incoming perceptions of teaching will be difficult. Professional development will not be successful if it simply offers new tips and techniques for teachers to try out in their courses. Even professional development that reviews best practices in a field is unlikely to produce systemic change if teachers, as Lortie suggests, will only utilize these practices if they already fit into their perceptions of themselves as teachers. Teachers need to confront the possibility that what worked for them is not necessarily the most effective method for teaching today's students—perhaps it never was.

Professional development that encourages teachers to deconstruct their notions of what it means to teach and to question their ideas about the role of educational research in continually improving practice over a lengthy career might be a better approach than one-off, brown bags on a particular teaching technique. Teachers need more opportunities to discuss, in depth, the complexity and ambiguity of teaching and time to regularly work with fellow teachers to come to terms with this ambiguity. Student writing might improve, for example, if professional development first allowed for the interrogation of David's underlying epistemological view, "I am who I am," or Mark's belief that the best way to learn to teach is "by doing."

These questions are complex, and sorting through them would be time consuming, so faculty (and their departments/institutions) will need to commit considerable time and resources to these kinds of professional development opportunities. Learning to teach well must be viewed as an on-going process, one that may necessitate a fundamental rethinking of what it means to be a teacher and the role research can play in improving practice. Thomas and Elizabeth both hoped their students would become life-long learners who could think critically and independently. Mark and David both believed that Hamilton students should be critical thinkers capable of contributing to society's improvement and advancement. Institutions of higher

education need to foster similar growth in their teachers. Professional development, then, needs to be systematically designed to support faculty through each stage of their careers—beginning by unpacking the entering assumptions that faculty have.

Curriculum Alignment

Once faculty are ready to discuss teaching in less idiosyncratic terms, they need opportunities to discuss how their work in individual courses impacts the overall student undergraduate experience. Of my four participants, only Thomas was able to articulate how teaching—both content and writing—should be scaffolded across the entire undergraduate curriculum. Mark, David and Elizabeth focused on working with students in their own classes with little tacit, concrete knowledge of what students knew—in relation to writing—when they entered their courses, or what would be expected of them in later courses.

Mark and David, unlike the ISS instructors, had the benefit of working with students over more than one semester and were able to "see" student growth or regression. Even so, neither Mark nor David discussed how they tailored instruction in their introductory classes to better prepare students for requirements in upper-level courses. They were not particularly precise about what constituted good writing in their own courses. David eschewed rubrics as too formulaic and instead chose to read six or seven papers on a particular assignment before he determined what skills/content those papers should contain. Mark had some broad notions about quality writing—thesis, supporting details, interesting conclusions—but he, too, generally responded to papers individually. He did not have a clear plan in mind for how one assignment would build on the next or which particular writing skill(s) should be the focus of each assignment. Mark and David assumed, perhaps reasonably, that the combination of quality instruction from the writing teachers combined with requirements for students to write in every

class would yield student mastery by the end of the undergraduate curriculum. They did not, however, articulate how their own instructional practices fit into the broader sequence. Their efforts to improve their own practice were concentrated on individual students in individual courses.

Elizabeth explained that she just didn't have time to worry about how her students would fare after they completed her class. Instead, she concentrated on getting the students through the labs and hoped for the best. She felt badly about this cavalier attitude, but she did not believe she had time to concern herself with questions of scope and sequence. While Thomas did worry about this, he believed that most of the ISS instructors operated like Elizabeth. Since ISS faculty were largely transient, they were not focused on the entire undergraduate curriculum. Rather, they concentrated on meeting the objectives of a single course and trusted that their supervisors/department chairs had designed a lab course that prepared students for the next class.

My participants were not remiss in their teaching; they each worked conscientiously to help students in their class. However, they had difficulty explaining how that work fit into their students' four years of study. While Thomas understood that the labs would be more successful if Moore State dictated some parameters about when the course should be taken and provided students with more resources for writing, he did not have deep knowledge about what discursive conventions students studied in other courses or how the writing assignments in ISS could best "fit" into the overall curriculum.

Elizabeth's and Thomas' belief that other faculty on Moore State's campus were attending to scope and sequence was correct. Curriculum alignment committees are common at most institutions of higher education. As a graduate student at Moore State I served on just such a committee tasked with aligning the undergraduate writing curriculum, and as part of my work

as a community college (CC) instructor, I regularly work with secondary education teachers to align high school graduation expectations with those of college faculty. In both cases, the curriculum alignment committees produced and disseminated reports ostensibly designed to smooth student transitions and maximize the transference of writing skill from one discipline or educational level to the next. The data from this study suggests, however, that the usefulness of these reports is largely dependent upon faculty—campus wide—reading, understanding and then implementing the committee's suggestions. The teachers in this study do not seem well positioned to do this, albeit for varied reasons.

Mark and David rejected the premise of such work—that faculty, working in concert and with the benefit of well researched information about student learning could markedly improve student performance. While each of these men acknowledged the outstanding work of Hamilton's writing faculty, neither viewed that work as inextricably bound to their own. Rather they viewed these writing classes as preludes to their courses. Each said they would be unable to expect the same degree of rigor—both reading and writing—from their students had they not completed the writing programs, but neither could articulate exactly how they would pick up and build on the content of the first year writing classes. In fact, David's concerns about how Hamilton should better handle transfer students, those missing the first year writing courses, highlights his view that those courses were separate from his own disciplinary classes. He advocated for a separate writing class for transfer students. He did not, for example, suggest that those students could be "remediated" during disciplinary courses. In David's view alignment meant that students completed the first year courses and were therefore deemed prepared for subsequent disciplinary studies. He was not prepared to assist students who had not had that

preliminary preparation, in part, because he could not fully articulate how those writing courses were designed and implemented.

Mark rejected the notion of educational research as a means of professional growth, and while he often discussed, with pride, Hamilton's close-knit faculty and its open door policy, he did not report observing other teachers or having others observe him. He, like David, was grateful for Hamilton's writing faculty, but he could not explain exactly what was covered in those first year classes or how he would build upon them. When he was confronted with evidence that his students were not progressing, what he termed "backsliding" in the upper-level courses, he attributed this to poor student effort and believed that the solution was stricter grading. Neither Mark nor David, when asked, were articulate about how students were expected to develop their writing skills from one year to the next, or what specific skills/dispositions they should be focusing on in their own disciplinary courses. Even if they had been in possession of a curriculum alignment report that described these things, it is possible each man would ignore or reject the guidelines if they did not support their already entrenched views of teaching as private, personal endeavors—much as David rejected rubrics as a pedagogical fad and Mark rejected pedagogical research as a means of improving his practice.

Elizabeth's ability to utilize a curriculum alignment report was hampered by her own time constraints. As she said, she just didn't have time to worry about the broader undergraduate curriculum. She was focused only on getting students through the lab. As a temporary, part-time employee she was not required to attend to the entirety of the undergraduate science curriculum. However, her lack of knowledge meant that she could not adjust or adapt her lessons to prepare students for later courses. Instead she, like the majority of the ISS instructors she supervised, trusted that the lab manual was sufficient guidance for her teaching and for

student success. As a novice teacher, Elizabeth concentrated on classroom management and covering content, not broader questions about undergraduate education or pedagogical research.

Thomas was the most articulate of all the participants about the importance of curriculum alignment. He believed that the ISS labs should fit into the sequence of students' courses in a way that allowed students to build on what they had learned in other courses and prepare them for even more rigorous reading and writing in later courses. He was not, however, hopeful that the labs accomplished this goal. He attributed this failing to a combination of factors: poorly prepared teachers, a lack of consensus among science faculty about the content/purposes of the labs and decreasing financial resources for ISS. Thus, while Thomas might represent faculty members who are no longer dependent on only the apprenticeship of observation to structure their teaching and who rely on research to guide their practice and who have come to accept that an organized undergraduate curriculum is needed to bolster student success, his knowledge of institutional dynamics made him question the viability of achieving the ideal.

Adjustment to Departmental Culture

Both Hamilton and ISS had infused their respective curriculums with course objectives, assignments and materials to help students master disciplinary writing. Hamilton prepared students, via the Freshmen writing seminars and Writing Consultancy, to meet increasingly rigorous writing tasks. The program's small size and student to teacher ratio allowed faculty to work individually with students in each class and across the four years of undergraduate study. Hamilton faculty members, who are themselves active researchers and scholars, were well positioned to discuss and model their own writing process and to talk with students about the nuances of writing in political science.

ISS, relying primarily on transient graduate students, adopted a different approach to ensure that undergraduates had opportunities to write in science classes. The lab manual included activities and assignments designed to incrementally increase students' ability to handle the rhetorical challenges of science writing. The manual's detailed assignments and rubrics served as a concrete guide for those instructors who had little experience with teaching or with writing. The lab coordinators were present to offer additional guidance and support to novice lab instructors. ISS sought to bolster its instructors' efforts through program wide policies and teaching materials.

Unfortunately, as I described, neither the Hamilton nor the ISS' approach ensured that all instructors were confident about their methods of teaching writing. Universal success, however, seems an unlikely outcome for any department, and my study was too small to determine the degree to which the individual program's approaches worked for the majority of faculty. It does, however, suggest that programmatic context must be considered when developing and implementing writing outcomes along both the vertical and horizontal curriculum.

Writing in the Disciplines (WID) research highlights the importance of designing writing instruction that is sensitive to departmental and disciplinary differences. A single, generalizable approach to writing instruction is not likely to yield student growth, nor will it assist faculty who must teach writing inside of their disciplinary courses. Rather what this study demonstrated was that faculty's understanding and appreciation of their discipline's discursive conventions, their ability to explicitly explain those conventions to students and their willingness to interrogate and alter their pedagogical approaches all must be present to foster student growth.

Reflections: Taking English Out of Writing Instruction

The majority of my professional life has been spent teaching writing in classes labeled as English courses: English Language Arts to high school students, English 101 to college freshmen, Developmental English to community college students, Secondary English Education to teacher education students. Sometimes a middle or high school student who lives on my street will pop in the back door, plop down at my kitchen table and ask for help on a writing assignment—they are sent by parents who know I am an "English" teacher and who, therefore, believe I can help their child finish a report, even when the report is for a history class or a science project. I still love my work after all these years. Student writing can still make me laugh, surprise me with its insight or inspire me with its idealism. It can still make me cry, either from poignant observations about societal injustice or its complete and utter abdication of Standard English rules—sometimes both of these simultaneously. What I've determined after grading countless papers, holding never-ending conferences and talking, sometimes obsessively, with colleagues is that teaching writing is so hard, so difficult to explain and so time consuming that we—students, parents and teachers alike—would do well to continually take stock of the reasons we insist on the endeavor at all.

Two people asked me different questions recently, both highlighting this confusion about the purpose and place of writing. The first, a neighbor, mother of three children and high school computer science teacher, wanted me to explain why her 11th grade son was being asked to write a character analysis of Charles Dickens' character Pip. I didn't know and told her to ask her son's teacher. She thought I should know since I am an "English person." The second question came from a college administrator. He wanted to know why "English people" insisted on making our students learn MLA format. The requirement seemed excessively nit-picky to him,

since most of the students in FYC courses aren't going to be English majors anyway. I conceded his point and suggested that maybe the disciplinary teachers should teach the formats appropriate to their disciplines in their own classes. "They," (I don't know if he meant teachers, students, or both) "don't have time for that," he answered.

As much as I love my work, questions like these, on occasion, make me so tired I just want to throw up my hands, lock the office or kitchen door and hide behind a good book—after all that's what people seem to expect from "English people." Alternately, I would like to shout that teaching writing and teaching English are not synonymous—as more and more students and teachers are coming to appreciate. While the value and importance of writing well is generally accepted, the value of studying "English" is increasingly hard to explain. After all, Eagleton argues that "English people" bet that society would value its origins and epistemological foundations—the preservation and continuation of a particular cultural aesthetic and the skills and abilities that rhetorical study could foster: statesmanship, public debate of policy and an informed citizenry. Arguably, English bet wrong. Despite, seemingly, consensus that good writing is a necessary ingredient for academic and professional success, support wanes when the writing smacks too much of "English." My neighbor doesn't see how understanding Pip will help her son get into college; the college administrator can't see how MLA could help a student get a job. They both conflate my English background with my work as a writing teacher; they are holding me accountable for what they perceive as weaknesses in both.

They are not wholly wrong. As a faculty member whose content-area background is English and whose primary teaching responsibility is writing instruction, I'm on the hook for both, rightly or wrongly. My English background, though, gives me access to pithy quotes to help people express their complaints about my work:

You taught me language, and my profit on't

Is, I know how to curse. The red plague rid you

For learning me your language! 1,2,517 (Shakespeare, 1979)

I don't think I'm out to colonize my students, as Prospero did to Caliban, but I appreciate how others may misinterpret academic writing assignments as just such an effort. I chose not to conduct this research in FYC courses because I worried that I would have too many assumptions about how best to teach those classes to be objective and analytical about the data. I think I was right to avoid this, particularly because I was surprised by how many persistent assumptions those outside of English had about the relationship between English and the teaching of writing. FYC courses are often referred to as English courses and my participants often referenced their own lack of "English" content knowledge as obstacles to their own writing instruction. Thomas wanted "English" teachers in his class to help him with grammar/mechanics instruction and David equated flowery, overly loquacious syntax with writing in "English." He contrasted this style with the more clear, organized and concise writing valued in social sciences. Elizabeth believed that science writing, unlike "English" writing, was not overly concerned with style.

De-coupling stereotypes about English from writing instruction seems like a good start to improving writing. First, writing will no longer be perceived as part and parcel of a discipline whose value has waned as more and more students seek credentials to trade in for well-paid jobs; English is not viewed as a pragmatic course of study. Writing must be more overtly tied to success in all academic disciplines which, in turn, can be tied to opportunities for economic prosperity for all students. English teachers can't make this argument, not because we lack the rhetorical skill, but because our motives are perceived as suspect by those outside our discipline. Second, spreading the onus of writing instruction across all disciplines and across all four years

of undergraduate study will increase student opportunities to practice writing for multiple purposes in multiple contexts—opportunities which writing research suggests are vital to long-term writing growth. Third, and perhaps most importantly, weakening the connections between English and writing instruction will foreground the need for all faculty to attend to how discursive conventions work in their disciplines and begin to devise ways to teach students how to understand and reproduce those conventions in their own writing. This last argument will, perhaps, allow all faculty—English and non-English alike—to focus on pedagogical theory and research to devise best practices for writing instruction in each discipline.

Some of this de-coupling is already happening. WID researchers from a variety of disciplines are exploring ways to improve undergraduate writing instruction. The number and kind of undergraduate writing majors is increasing, and many are no longer tied to the traditional study of English. Giberson and Moriarty (2010) observe that undergraduate majors and graduate programs in technical/professional writing are garnering more student and employer interest. Many of these majors/programs are not tied to the study of "English," but rather focus on how language works for myriad audiences and purposes.

Simultaneously, programs devoted to preparing faculty to teach in higher education are developing. These post-graduate certificate programs are a means for prospective faculty members to distinguish themselves in the job market or for newly hired junior faculty to fill in the gaps between their disciplinary content knowledge and their pedagogical backgrounds. According to The University Wisconsin at Milwaukee's graduate school website:

> Prospective teachers venturing into today's higher education environment would benefit from an understanding of teaching and learning theory, research, and effective practice. Successful instructors require many tools to teach, as well as the wisdom to know when

> and how to apply those tools. This wisdom comes from a critical, reflective understanding of the research and theory behind teaching and learning. (http://www.graduateschool.uwm.edu/students/prospective/areas-of-study/certificates/teaching-learning-higher-education)

Focused attention on the value of pedagogical research and theory, through these types of certification programs, may help to weaken faculty reliance on the apprenticeship of observation; thereby, predisposing faculty to attend to on-going research on writing pedagogy. As they do so, they will, in turn, be better positioned not only to teach writing but also to contribute to content and pedagogical knowledge in their fields.

REFERENCES

REFERENCES

Alsop, R. J. (2006). M.B.A. Recruiters' No. 1 Pet Peeve: Poor Writing and Speaking Skills. Retrieved from http://online.wsj.com/article/SB113743910589047733-search.html

Anson, C. M. (1988). Multidimensional model of writing in the academic disciplines. In D. A. Jolliffe (Ed.), *Writing in Academic Disciplines*, pp. 1-34. Norwood, NJ: Ablex.

Anson, C. M. (2010, September). A field at sixty-something. *CCC, 62*(1), 216-228.

Austin, A. E. (2002). Preparing the next generation of faculty: Graduate school as socialization to the academic career. *Journal of Higher Education, 73.1*, 92-122.

Baker, V. L., & Lattuca, L. R. (2010, November 7). Developmental networks and learning: Toward an interdisciplinary perspective on identity development during doctoral study. *Studies in Higher Education, 35*, 807-827.

Bartholomae, D. (2000). Composition, 1900-2000. *PMLA, 115*(7), 1950-1954.

Bartlett, T. (2003, January 3). Why Johnny can't write, even though he went to Princeton. *The Chronicle of Higher Education, 49*(17), A39.

Bazerman, C. (1988). *Shaping written knowledge: Rhetoric of the human sciences*. Retrieved from http://wac.colostate.edu

Beaufort, A. (2007). *College writing and beyond: A new framework for university writing instruction*. Logan, UT: Utah State University Press.

Becher, T. (1989). *Academic tribes and territories: Intellectual enquiry and the cultures of disciplines*. Bristol, Pennsylvania: The Society for Research into Higher Education & Open University Press.

Berlin, J. A. (2003). *Rhetorics, poetics, and cultures: Refiguring college English Studies*. West Lafayette, IN: Parlor Press.

Bernard, R. H. (2002). *Research methods in Anthropology: Qualitative and quantitative approaches* (3 ed.). New York, NY: Altamira Press.

Bok, D. (2007). *Our underachieving colleges: A Candid look at how much students learn and why they should be learning more*. Retrieved from www.amazon.com

Boylan, H. R. (1999). Developmental Education: Demographics, outcomes, activities. Retrieved from http://ncde.appstate.edu/sites/ncde.appstate.edu/files/Developmental%20Education%20Demographics%20Outcomes%20and%20Activities.pdf

Britton, J., Burgess, T., Martin, N., McLeod, A., & Rosen, H. (1975). *The development of writing abilities (11-18*). London, United Kingdom: Macmillan.

Bullock, R., & Trimbur, J. (Eds.). (1991). *The politics of writing instruction: Postsecondary*. Portsmouth, NH: Boynton/Cook Publishers.

Callahan, M. K., & Chumney, D. (2009, November 7, 2009). "Write like college": How remedial writing courses at a community college and a research university position "at-risk" students in the field of higher education. *Teachers College Record, 111*, 1619-1664. http://dx.doi.org/15303

Castle, C. F. (1991). *Literacy in the United States*. New Haven, MA: Yale University Press.

CIGGS website. (n.d.). http://www/ns.msu.edu/cigs/CIGSHOMEPAGE/ourprogram.htm

Connors, R. J. (1997). *Composition-Rhetoric: Backgrounds, theory, and pedagogy*. Pittsburgh, PA: University of Pittsburgh Press.

Cooper, C. R., & Odell, L. (Eds.). (1978). *Research on composing: Points of departure*. Urbana, IL: NCTE.

Crowley, S. (1998). *Composition in the university: Historical and polemical essays*. Pittsburgh, PA: University of Pittsburgh Press.

Delpit, L. (2012). *Multiplication is for white people: Raising expectations for other people's children*. New York: The New Press.

Duch, B. J., Groh, S. E., & Allen, D. E. (Eds.). (2001). *The power of problem-based learning: A Practical "how to" for teaching undergraduate courses in any discipline*. Sterling, VA: Stylus.

Eagleton, T. (1983). *Literary Theory: An introduction*. Minneapolis, MN: The University of Minnesota Press.

Elbow, P. (1981). *Writing with power: Techniques for mastering the writing process*. New York, NY: Oxford University Press.

Ellis, J. (2000). *Founding brothers: The revolutionary generation*. New York, NY: Vintage Books.

Emig, J. (1971). *The Composing process of twelfth graders* (NCTE-13). Urbana, IL: NCTE.

Faber, R., & Stephenson, A. M. (Eds.). (2011). *Secrets of becoming: Negotiating Whitehead, Deleuze, and Butler*. Fordham: Fordham University Press.

Fairweather, J. S. (2005). Beyond the rhetoric: Trends in the relative value of teaching and research in faculty salaries. *The Journal of Higher Education, 76.4*, 401-422.

Friedan, B. (1963). *The feminist mystique*. New York, NY: W.W.Norton.

Fulwiler, T. (1986). The argument for writing across the curriculum. In A. Young, & T. Fulwiler (Eds.), *Writing across the disciplines: research into practice* (pp. 21-32). Upper Montclair, NJ: Boynton/Cook.

Gere, A. R. (1991). Public opinion and teaching writing. In R. Bullock, & J. Trimbur (Eds.), *The politics of writing instruction: Postsecondary* (pp. 263-276). Portsmouth, NH: Boynton/Cook.

Giberson, G. A., & Moriarty, T. A. (Eds.). (2010). *What we are becoming: developments in undergraduate writing majors*. Logan, UT: Utah State University Press.

Golde, C. M., & Dore, T. M. (2001). At cross purposes: What the experiences of today's doctoral students reveal about doctoral education. *ERIC Clearinghouse*, 63.

Gutman, A. (1987). *Democratic Education*. Princeton, NJ: Princeton University Press.

Harris, J. (1997). *A teaching subject: Composition since 1966*. Upper Saddle River, NJ: Prentice Hall.

Hemingway, E. (1932). *Death in the afternoon*. New York: Scribner.

Horton, R. W., & Edwards, H. W. (1974). *Backgrounds of American literary thought* (3 ed.). Englewood Cliffs, NJ: Prentice-Hall.

James Madison website. (n.d.). http://jmc.msu.edu/ps/index.asp

Joliffe, D. A. (Ed.). (1988). Toward a multidimensional model of writing in the academic disciplines. *Advances in writing research* (pp. 1-34). Norwood, NJ: Ablex.

June, A. W. (2012). Adjuncts build strength in numbers. Retrieved from http://chronicle.com/article/Adjuncts-Build-Strength-in/135520/

Kellogg, R. T., & Whiteford, A. P. (2009). Training advanced writing skills: The case for deliberate practice. *Educational Psychologist, 44.4*, 250-266.

Kinzie, J., & Kuh, G. D. (2004). Going deep: Learning from campuses that share responsibility for student success. *About Campus*, 2-8.

Langer, J. A. (1992). Speaking of knowing: Conceptions of understanding in academic disciplines. In A. Herrington, & C. Moran (Eds.), *Writing, teaching and learning in the disciplines* (pp. 69-85). New York, NY: MLA.

Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge: Cambridge University Press.

Layzell, D. T., & Caruthers, J. K. (2002). Higher education costs: Concepts, measurement, issues, data sources and uses. Retrieved from http://www.scup.org/asset/56769/SCUP-Portfolio-Budget-Resource.pdf#page=39

Le Guin, U. K. (2004). *The Gifts*. New York, NY: Harcourt.

Leal, F. (2012). U.S. students lack writing skills. Retrieved from http://www.ocregister.com/articles/students-371409-writing-graders.html

Lindemann, E. (1995). A *Rhetoric for writing teachers* (3 ed.). New York, NY: Oxford University Press.

Lortie, D. C. (1975). *Schoolteacher: A sociological study.* Chicago: University of Chicago Press.

Macrorie, K. (1985). *Telling writing* (4 ed.). Portsmouth, NH: Boynton/Cook.

Madigan, R., Johnson, S., & Linton, P. (1995, June). The Language of Psychology: APA style as epistemology. *American Psychologist, 50*(6), 428-436.

Martin, N. (1992). Language across the curriculum: Where it began and what it promises. In A. Herrington, & C. Moran (Eds.), *Writing, teaching and learning in the disciplines* (pp. 6-21). New York, NY: The Modern Language Association of America.

Melguizo, T., & Strober, M. H. (2007). Faculty salaries and the maximization of prestige. *Research in Higher Education, 48.6*, 633-668.

Mersky, R. (2006). Legal research versus legal writing within the law school curriculum. *Law Libr. J., 99*, 395.

Michigan State University website. (n.d.). www.msu.edu

Miller, S. (1991). *Textual carnivals: The politics of composition*. Carbondale, IL: Sothern Illinois University Press.

North, S. (2005, October). Different values, different skills? A comparison of essay writing by students from arts and science backgrounds. *Studies in Higher Education, 30*(5), 517-533.

Olson, S., & Labov, J. B. (2012). *Community colleges in the evolving STEM education landscape: Summary of a summit*. Washington, DC: The National Academies Press.

Peshkin, A. (1988). In search of subjectivity—one's own. *Educational Researcher, 27*(9), 17-21.

Reid, A. (2012). Who needs to write? Retrieved from http://www.alex-reid.net/2012/08/who-needs-to-write.html

Russell, D. R. (2002). *Writing in the academic disciplines: A curricular history* (2 ed.). Carbondale, IL: Southern Illinois University Press.

Scholes, R. (1998). *The rise and fall of English*. New Haven, CT: Yale University Press.

Schuster, E. H. (2003). *Breaking the rules: Liberating writers through innovative grammar instruction*. Portsmouth, NH: Heinemann.

Shaughnessy, M. (1976). Diving in: An introduction to basic writing. *College Composition and Communication*, *27*, 234-239.

Smith, A. D. (2009). *Democracy Now interview with Smith/Goodman/Interviewer: Amy Goodman*. [website]. Available from Pacifica Radio: KPFT.

Sullivan, T., & Fisman, R. (2013). *The Org: The underlying logic of the office*. New York: Hachette Book Group.

Susan P. Choy and Sonya Geis. (2002). *Profiles of students in selected degree programs and their use of assistantships* (166). Washington, DC: U.S. Government Printing Office.

Thaiss, C., & Porter, T. (2010, February). The state of WAC/WID in 2010: Methods and results of the U.S. survey of the international WAC/WID mapping project. *CCC*, *61*(3), 534-566.

Townsend, M. (2008, August). WAC program vulnerability and what to do about it: An update and brief bibliographic essay. *The WAC Journal*, *19*, 45-61.

Walvoord, B. E., & McCarthy, L. P. (1990). *Thinking and writing in college: A naturalistic study of students in four disciplines*. Urbana, IL: NCTE.

Wardle, E. (2007). Understanding "transfer" from FYC: Preliminary results from a longitudinal study. *WPA: Writing Program Administrator*, *31*, 65-85.

Wardle, E., & Downs, D. (2007). Teaching about writing, righting misconceptions: (Re)envisioning first year composition as "introduction to Writing Studies". *College Composition and Communication*, *58.4*, 552-584.

Wolcott, H. F. (1994). *Transforming qualitative data: Description, analysis and interpretation*. Thousand Oaks, CA: Sage Publications.