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Programmatic Perspectives

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Issue Preview

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We're pleased to present the first issue of 2015. The articles in this issue examine the effectiveness of different types of technical writing instruction—from research to internships—on different groups of students—from a general college population to Hispanic or disabled students.

The first article by Natalia Matveeva identifies and examines technical, scientific, or professional communication programs at Hispanic-Serving institutions (HSIs) to explore the characteristics of instruction in such institutions. The information could help administrators and educators to better prepare students for a changing job market. Educators both at at HSIs and in places with a multicultural and multiethnic student body.

Authors Josephine Walwema and Dana Lynn Driscoll explored whether activities to activate prior knowledge would lead to measurable differences in performance. The quasi-experimental pilot study involved three professional writing courses and, although the results showed no measurable difference in the written performance, differences were seen in the student reflections. This points the way to potential methods of meaningful learning.

One traditional, proven method of learning is internships, the topic of Susan M. Katz's article, "Making the Most of Your Internship Program." Katz outlines key factors of a successful internship program, including student selection and host responsibilities, and then discusses features unique to specific programs, emerging areas of concern, and possible areas of future research.

In the guest editorial, Charles H. Sides provides a different look at the same topic of internship as he examines the role of internships (historical

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and educational) and recent developments with internships, especially the successful lawsuits challenging unpaid internships that have caused changes in the internship structure. Sides provides insight into re-thinking the structure of internship programs.

Outside forces have brought change in a different way for North Dakota State University, where economic prosperity has paved the way for rapid growth and a change in focus to a more research-intensive university. In the Curriculum Showcase, authors Miriam Mara, Andrew Mara, and Heather Steinmann detail the development development of a new PhD program that combines English offerings with those in other departments and offers students opportunities to work on international partnerships, teach Upper-Division Classes, and professionalize with internships and field experiences.

Three book reviews round out this edition.

Mariana Grohowski reviews *Rhetorics and Technologies: New Directions in Writing and Communication*, edited by the distinguished technology theorist Stuart A. Selber, a collection uniting ten rhetoric and technology scholars in three critical sections. Grohowski outlines the major components and calls the collection a "guide allowing teacher-scholars, program administrators, and students to keep up with the rapid changes in technology," and deems it worthwhile to readers who want to understand the role of technology in lives today.

Caleb A. James reviews another collection, *Rhetorical AccessAbility: At the Intersection of Technical Communication and Disability Studies*, edited by Lisa Meloncon. This book presents new perspectives on accessibility for technical communicators, from design to language that excludes people with disabilities. James recommends the book, especially in its strategies to promote more inclusive practices.

Finally, Michael Martin reviews Liza Potts' book, *Social Media in Disaster Response: How Experience Architects Can Build for Participation*. In his review, Martin points out the usefulness of the information, which outlines a structure to show what must be done to allow social networks to be used in the most effective way. Potts utilizes case studies and underpins her ideas with theory.

We hope you enjoy the issue, and we look forward to the conversations it may provoke, adding to the ongoing discussions in our field.

Have a good end to the spring semester, everyone.
Tracy and Kirk

Teaching Technical, Scientific, or Professional Communication at Hispanic-Serving Institutions

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Abstract. This article presents the results of the investigation into available technical, scientific, or professional communication programs at Hispanic-serving institutions (HSIs) in the United States. By identifying existing programs and examining their course offerings, the author explores various peculiarities of teaching technical, scientific, or professional communication in such institutions. The knowledge of such programmatic adaptations can be useful to admin-istrators and educators who aim to increase the competitiveness of their programs and better prepare students for the rapidly changing job market. Based on available scholarship dedicated to diversity issues and pedagogical practices, the author also suggests strategies for those who plan to teach technical communication courses at HSIs and institutions with a multicultural and multiethnic student body.

Keywords. diversity; programmatic adaptations; Hispanic-serving institutions; technical, scientific, or professional communication curriculum; pedagogy

Because of the changing demographics in the United States, the makeup of college students, as well as their needs, educational goals, and interests, has been also evolving, forcing technical communication professors to search for new ways to adapt their curricula and teaching methods. The university where the author of the article teaches, the University of Houston-Downtown (UHD), is one of several Hispanic-serving institutions (HSIs) in Texas with a multicultural and multiethnic student population. Many of UHD students are bilingual first-generation future college graduates who see education as a way to improve their social and economic status. Most work at least part-time, and their parents make sacrifices to allow their children to obtain college degrees. Many Hispanic students are bilingual, and some are ESL students who need additional instruction to succeed in college. These challenges require alternative

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teaching approaches to address the needs of these students and motivate them to stay in school. This article explores some of the teaching methods and curricular changes that can increase retention and offer students opportunities to use their cultural and linguistic knowledge and skills.

To date, there has not been a comprehensive study that would explore technical, scientific, and professional communication curricula of different programs at HSIs to identify interesting course offerings and determine any regional differences in their curricula. Such knowledge would help technical communication professors and program administrators better understand whether and how technical communication programs respond to the demands of local communities and industries and what programmatic changes could be implemented based on the successful practices at other schools. This article is the first attempt to understand the specifics of teaching technical communication at a diverse university and explore ways to enrich technical communication programs with new and improved courses and strategies for working with a diverse student population.

In the field of technical communication, the questions of Hispanic/Latino identity, cultural discourse, and communication practices have been explored in a number of articles that have concentrated on the issues of ethnic and racial inequality as they reveal themselves in government publications and practices, peculiarities in rhetorical strategies, and translation and localization strategies. As a great example of an investigation into the history of the United States, migration, and technical communication, Johnson et al. (2008) offered an analysis of advertising pamphlets issued in the 1880s by various bureaus to promote New Mexico and its resources. The information in the examined documents misrepresented the state's history and culture and "construct[ed] New Mexicans, on one hand, as absent, insignificant, simpleminded, and marginal to new Mexico's history and white immigrants, on the other hand, as dominant, resourceful, intelligent, and thus entitled to take ownership of this land" (Johnson et al., 2008, p. 233). The authors concluded that technical communicators should critically evaluate and help uncover manifestations of racism and "whiteness" in technical documentation (Johnson et al., 2008, p. 234).

Similarly, Pimentel and Balzhiser (2012) have examined discriminatory practices and misrepresentation that affect Hispanics in this day and age. The researchers revealed how an updated 2010 U.S. Census form and its flawed racial and ethnic classifications went against the actuality of social practices in which Hispanics perceived themselves not only as an ethnic

group, "but also a nonwhite, racial group" (p. 324). The authors explained that because there was no separate racial category in the 2010 U.S. Census form, Hispanics in most cases marked themselves as "white," which led to inaccuracies in the data collection and reporting. Overall, problems with ethnic and racial categorizations revealed complex political and social challenges surrounding racial and ethnical diversity that required readers to be diligent in how they interpreted the demographic data and historical facts.

Several researchers have explored translation/localization challenges that negatively affect the Hispanic population in the U.S. In their article, Evia and Patriarca (2012) have discussed a pertinent issue that affects many Hispanics workers. There is a lack of clear and effective translated materials for Hispanic construction workers who constitute around 30% of all workers in the construction industry (Evia & Patriarca, 2012, p. 341). Consequently, there is a higher probability of injuries and death among this population compared to other groups. As a solution, in their study the researchers proposed and employed the methodology of participatory design for creating instructional materials. The process included observations, participation in meetings, workshops, activities, and interviews with workers who shared knowledge and provided feedback on the materials. As a result, the researchers created instructions that workers could understand and use.

Germaine-McDaniel's study (2009) also addressed the questions of translation and localization of materials for Spanish speakers. In her article, the researcher offered a meta-analysis of the report by Ogilvy Public Relations Worldwide and the CDC that presented "Hispanic preferences for medical information" (Germaine-McDaniel, 2009, p. 235). Germaine-McDaniel connected the findings in the report to research in our field and offered a set of guidelines for technical communicators. In her next article, Germaine-McDaniel (2010) continued her work and suggested strategies for those who prepared medical documentation for diverse audiences. To ensure the success of the materials and to protect the rights and lives of intended audiences, a technical communicator cannot rely solely on translation but should also employ focus groups and consider cultural dimensions, differences in writing style, and the appropriateness of graphics and content (Germaine-McDaniel, 2010).

Overall, the common theme of these recent articles in technical communication is how to address challenges Hispanics face in regards to their rights, safety, and medical information in the U.S. Similarly, this article explores an important issue that affects many Spanish speakers, spe-

cifically the kind of educational experiences students have access to. The focus of this study is programmatic adaptations and retention strategies that can positively impact educational experiences of Hispanic students. By responding to our students' needs, using their cultural and linguistic knowledge, and connecting them to and maintaining close ties with their local cultural communities, technical communication instructors can better motivate students and help them succeed in their professional lives. To suggest specific programmatic adaptations and techniques for teaching, the author first offers a definition of a hispanic-serving institution and its major characteristics, then describes her research methodology, and discusses the results of the study and its implications.

Hispanic-Serving Institutions (HSIs) in the United States

Various entities define the term "a Hispanic-serving institution" in a slightly different way. As a result, in research literature one will find varying data about the number of such institutions. In 1986, a group of colleges and universities with a large number of Hispanic students created an association called the Hispanic Association of Colleges and Universities (HACU). This organization was very active in promoting legislation to gain federal support (*Hispanic-Serving Institution Definitions*, 1999, p. 1). The main goal of the organization was to improve education at colleges and universities with a large number of Hispanic students by offering access to special programs, local and global resources, and networking opportunities and partnerships.

Simply being a member of HACU did not (and still does not) certify institutions of higher education as HSIs. However, in 1992, the institutions with the large number of Hispanic students received a special designation as Hispanic–serving institutions and were eligible for federal funding (HACU 101, 1999, p. 1). According to Perrakis and Hagedorn (2010), "To qualify as an HSI, a college must be nonprofit, its full-time student equivalent (FTE) count must consist of at least 25% Hispanic students, and at least half of those students must qualify as low income in accordance with federal guidelines" (p. 800). Such institutions "receive federal funding grants under Title V" (p. 800).

Today, HACU is an international organization with more than 400 member institutions around the globe (*HACU 101*, 1999, p. 1). According to HACU (1999), under Title V of the Higher Education Act, HSIs have received $104.3 million for undergraduate programs in 2011 (p. 1). It is important to note that HACU has its own definition of an HSI. To be a member of HACU,

an institution of higher education has to enroll at least 25% full- or part-time Hispanic students (*Hispanic-Serving Institution Definitions*, 1999, p. 1).

The Hispanic/Latino population in the U.S. is growing rapidly, as will the number of Hispanic students enrolled at HSIs (Núñez, Sparks, & Hernández, 2011, p. 19; Martin & Meyer, 2010, p. 42; Pimentel, O., 2013, p. 27). Based on the 2010 Census Briefs, Hispanic and Latino residents constituted 16% of the total U.S. population in 2010, most of them residing in the western and southern states (Ennis, Rios-Vargas, & Albert, 2010, pp. 1-2). The most popular fields of work among Hispanic residents include "natural resources, construction and maintenance occupations," "service occupations," and "production, transportation, and material moving occupations" where Hispanics constitute more than 20% of all civilian labor force (*U.S. Census Bureau*, 2012, pp. 393-396). Although the numbers have been growing steadily over the past decade, in 2010 only 16% of Hispanic civilian labor force 25 years old and over had bachelor's degrees, while 21.7% earned less than a bachelor's degree, such as an associate degree or an equivalent (p. 381).

Even though HSIs represent only 7% of all colleges and universities in the U.S., they enroll 54% of all Hispanic students (Santiago, 2008a; quoted from Gastic & Nieto, 2010, p. 834). Most HSIs are located on the US/Mexico border in such states as California, Texas, New Mexico, Arizona, and Florida (*HACU. Year 2010 Members*, 1999, p. 1). The institutions of higher education in these states were the focus of the author's attention and offered insights into programmatic differences and curricular adaptations at HSIs. By identifying their unique course offerings and programmatic adaptations, researchers and educators in technical communication can find new ideas to implement at their institutions and in classrooms with a diverse student body. The next section of this article describes the author's methodology.

Methodology

The study was conducted in several steps and took about two years to complete. The author first obtained the list of HSIs from the website of HACU, the most comprehensive and accurate resource online. The association listed not only individual colleges and universities, but also systems and districts. The next step was to review 240 course and college catalogs that offered program and course descriptions and to identify undergraduate, graduate, and certificate technical, scientific, or professional communication programs and specializations. The course catalogs were chosen because interviews with program directors were not feasible on such a large scale. Most catalogs were updated recently for the 2012-2013 academic

year and contained accurate descriptions. In a few instances, the catalogs were not found online; in that case, program websites served as the main source of information. In the course catalogs, the author searched for such keywords as "technical writing," "technical communication," "professional writing," "professional communication," and "scientific communication." In addition, the program descriptions and degree offerings of the Department of English, Communication Studies, and similar disciplines were reviewed to verify that the target universities did not have related programs. In a few months, the catalogs were reviewed the second time to ensure the accuracy of the findings.

One of the major problems the author encountered when trying to quantify and establish the actual number of programs and specializations was to decide what to add to and what to exclude from the list of such programs. Some universities listed professional writing as a degree or specialization option, but based on their curricula, offered a traditional English degree, not a technical, scientific, or professional communication program. For example, Lehman College, CUNY, NY, grants a Bachelor of Arts with Professional Writing Specialization, but offers general writing and literature courses, not technical communication. Such programs were excluded from the list of the identified programs.

At the same time, some schools did not have traditional keywords in the names of the degrees, but stated that "in this program, students examin[ed] the theoretical and practical elements of workplace writing," as was the case with the Master of Arts degree in Rhetoric and Writing Studies at the University of Texas at El Paso, TX (MA in Rhetoric, 2013), or with the Master of Arts in Writing degree offered at Nova Southeastern University, FL. The latter school offered a wide array of professional writing courses such as WRIT 5000 Professional and Public Writing, WRIT 5400 Technical Writing, WRIT 5550 Feature Writing, WRIT 5600 Science & Nature Writing, WRIT 5700 Travel Writing, and WRIT 5800 Editing, Layout, and Design.

Overall, because of the uniqueness of technical, scientific, or professional communication programs, their make-up and requirements, the author eventually shifted the focus of the study from simply quantifying the programs to identifying interesting course offerings and justifying the inclusion of this or that program based on its curriculum. Nevertheless, the actual numbers and a list of schools are presented in the Appendix of this article. These numerical results have to be considered and interpreted in the context of certain limitations of the research design. The next section offers a list of peculiarities and trends at HSIs that was compiled upon closer examination of the curricula in these universities.

Technical Communication Programs at HSIs

Based on the analysis, 28 schools offer certificate, undergraduate, and/or graduate degree programs in technical, scientific or professional communication. These schools are located in California (9), Texas (8), New Mexico (5), Florida (3), and Arizona (3). See Appendix for a complete list of schools and their programs. The table below introduces basic numerical data for the examined programs:

Table 1. Certificate, Undergraduate, and Graduate Programs in Technical, Scientific, or Professional Communication at HSIs, 2013

Types of Degrees	Available Degree Programs
Associate	1
Graduate/Undergraduate Certificates	14
Minor	13
BA/BS/BAS	14
MA/MS	10
Ph.D.	2

All schools offer traditional technical, scientific, or professional communication courses that can be found in any other program. Such courses include technical and business reports, rhetoric, argumentation theory, web writing, web design, visual rhetoric, intercultural communication courses, and others. However, in addition to the core, several universities offer unique courses that have formed the following trends at HSIs.

Bilingual Certificate Programs That Make Use of Students' Bilingual Skills

Considering that many Hispanic students are bilingual, several universities decided to offer courses or even certificate programs that would make use of the students' bilingual skills. For example, the University of Texas at El Paso, TX, offers a Bilingual Professional Writing Certificate at the undergraduate and graduate levels that combines professional writing and translation courses. Another university, Texas State University, San Marcos, TX, as one the elective lists ENG 5300 Language Problems in a Multicultural Environment. Similarly, at Northern Arizona University, AZ, the Department of English as one of the electives for graduate students offers ENG 538 Cross-Cultural Aspects of Language Learning. The description for the course states the following: "Studies the role language plays when individuals from different cultures interact, including school, community, family culture, and parental involvement for language minority students" (*Academic Catalog*, Northern Arizona University, 2012).

Such bilingual programs and courses would probably require interdisciplinary collaboration among different departments or specializations and can help student tailor their degrees based on the needs of local communities.

Courses That Help Students Explore Diversity Issues and Their Cultural Heritage

Another interesting peculiarity of the programs at HSIs is the availability of courses that target the issues of diversity and culture in workplace settings. Several universities list such courses as electives, which is significant. For example, Northern Arizona University, AZ, offers a course called ENG 411C Diversity and Culture. At San Diego State University, San Diego, CA, the department lists RWS 510 Rhetoric and Culture with the following description: "Interplay of rhetoric, writing, and culture, including race/ethnicity, gender, class, and other cultural considerations. Role of texts in shaping and shifting community knowledge, identity, norms, and values" (*2012-2013 SDSU General Catalog* , 2012, p. 414).

Similar to the previous examples, the program at California State University, Northridge, CA, offers ENGL 205 Business Communication in its Rhetorical Contexts. One section of the course description reads the following: "Emphasis on communication with a diverse audience and case studies about ethical issues common to the local and global business world" (*University Catalog: 2012-2014*, California State University, Northridge, 2012). The emphasis on race/ethnicity issues and the importance of exploring issues of cultural identity and local communities are notable in these examples.

Courses That Connect Students and Local Businesses through Projects for Specific Clients

Another important trend at HSIs is the availability of service-learning or client-based courses. Such courses expose students to local businesses and potentially local job opportunities and careers. California Polytechnic State University, San Luis Obispo, CA, offers the following course: ENGL 420 Client-Based Technical Communication. Its description reads, "Capstone course for the technical communication program. Students work for one or more commercial client(s) to produce a set of professional print and/or electronic documents" (*2011-2013 Cal Poly Catalog*, 2011, p. 397). One may say that it is just a traditional internship course; however, a similar course exists at New Mexico State University, Main, NM, in addition to a traditional internship course. It is called ENGL 462 Interdisciplinary,

Client-Based Project Practicum: "Hands-on experience in designing projects within interdisciplinary teams for organizational clients" (*Online Undergraduate Catalog 2012-2013*, New Mexico State University, Main, p. 204). Furthermore, the importance of building close ties to local businesses and organizations is well reflected in the two courses offered by New Mexico Institute of Mining and Technology, NM (2011):

> "TC 100, Community Service: Proposing and then reporting in writing on a semester-long community service activity with any nonprofit organization." (p. 125)
>
> "TC 101, Orientation to Technical Communication: Guest speakers introduce students to the myriad activities and career paths of technical communicators." (p. 125)

Both courses aim to develop students' awareness of local issues and offer business and community service opportunities where students can make use of their writing, design, and organization skills.

Overall, the identified trends at HSIs attest to the universities' drive to support students' cultural heritage through either utilizing students' bilingual skills, raising their awareness of and exploring diversity and cultural issues through courses, or building useful local contacts in their communities. These important trends seem to be supported and recommended by scholars who research successful pedagogical practices in universities with a diverse student population. The section that follows offers suggestions on how to enrich technical, scientific, or professional communication courses at HSIs based on the identified trends and the existing scholarship on the topic.

Addressing the Needs of Hispanic Students: Suggestions for Teaching

When discussing various challenges that HSIs face in the 21st century, researchers Alfredo G. de los Santos Jr. and Karina Michelle Cuamea (2010) identified many factors including decreasing state and federal funding, inadequate students' preparedness when they start college (including ESL issues), retention issues as a result of students' unpreparedness for college, decreasing number of available faculty, the lack of diversity among faculty, and rising tuition costs (pp. 98-102). All these problems are complex and interrelated. Considering the difficulties that HSIs and their students are facing, critical skills for employability and strong connections to local communities and businesses could be the answer to sustaining the growth of technical, scientific, or technical com-

munication programs. The analysis of curricula at HSIs and current scholarship on pedagogy have led to the following set of recommendations and strategies that can help technical communication educators and administrators enrich their courses and curricula:

Strategy 1. Prepare to address ESL issues

To increase retention and college success rates of Hispanic students, be prepared to address possible ESL issues in your classes. To give an example, while teaching writing and technical communication at UHD, technical communication professors have to tackle language transfer problems. Requiring multiple revisions of assignments is almost a norm in most courses. Our professors' bilingual background and/or coursework in applied linguistics aid in responding to students' needs. Research in ESL composition and applied linguistics helps inform the faculty's writing instruction. "Reformulation," i.e., helping ESL students reformulate or reconstruct their sentences addressing some of their recurring writing issues, is one of the suggested practices through which students are exposed to the linguistic input that they can gradually internalize (Myers, 2007, p. 5).

Strategy 2. Consider adding a learning module in one of your courses or a separate course on diversity and workplace communication

Some of the successful and recommended teaching practices and pedagogies for HSIs should include helping students

> explore the connections between their personal biographies, group and community contexts, and broader systemic institutions" (Collins 1993). This process helps students clarify their goals for pursuing education, understand their relationships to various communities, and discern power relationships that they may be negotiating in their personal or professional lives. (Nunez, Ramalho, & Cuero, 2010, p. 187)

Several examined schools support such a goal in part by offering courses targeting issues of diversity, cultural identity, and workplace communication. Similar courses might exist in other disciplines, but technical communication programs need to develop and contextualize such courses as an important part of their professional writing degrees. Creating a learning module on the topic would probably be the easiest first step in enriching technical communication curriculum at any university.

Strategy 3. Establish close ties with local nonprofits and business

Another way to involve and motivate students is to establish local ties to businesses and organizations in the local community. Researchers reemphasize the importance of "rewarding community-oriented research and service (Hurtado & Sharkness 2008; Turner et al., 2008)," which many of the examined universities offer as part of their internship courses and client-based projects (Nunez, Ramalho, & Cuero, 2010, p. 187). It is important to note that HACU has a rather successful national internship program that allows students to explore potential employment with corporations, such as Deloitte, Lockheed Martin Corporation, and numerous federal agencies. To give you an example, the university where the author teaches organizes a variety of university-wide events to promote community engagement. UHD hosted the Houston Hispanic Business Summit in September of 2011 that offered workshops and featured speakers from Wells Fargo and the Federal Reserve. Similar events can be used to establish connections and create internship opportunities for technical communication students. As many other departments across the country do, the professional writing program at UHD has had an opportunity to host internship fairs with invited representatives from several key nonprofit organizations, including the Houston Hispanic Forum, and local business owners. Much more can be done in this regard, and similar projects and service learning activities have been planned for the upcoming years.

Strategy 4. Identify and teach the skills for employability

Developing students' critical skills for employability can be addressed by a variety of language and technology courses that would increase students' chances to successfully compete in the job market. For instance, many local businesses in Houston search for bilingual employees with good technology and writing skills. Developing certificate programs utilizing students' existing second-language skills would be another great addition to any program in technical, scientific, or professional communication. Such certificate programs would most likely require interdisciplinary collaborations across several departments in a university, and some examined universities have already established such programs.

Conclusion

In the time of decreasing funding for universities and new challenges faced by our students, technical, scientific, and professional communication programs at HSIs should reassess their resources and curricula. The investigation into existing programs in technical communication and their

curricula has revealed some new ways to respond to the needs of Hispanic students by concentrating on developing students' critical skills for employability and utilizing their cultural background and language skills. There is also a need for developing ties with such organizations as HACU and federal funding programs that can offer students external resources and internship opportunities. Offering new courses on culture, diversity, and workplace communication and establishing partnerships with local nonprofits and business can increase student retention and contribute to students' successes. The list of strategies offered in this article is not exhaustive, but the results suggest some directions for those who search for ways to respond to the needs of diverse students. Further research into successful programs at HSIs, such as bilingual certificate programs, can uncover some administrative mechanisms for establishing interdisciplinary degrees and help faculty develop similar programs in their institutions.

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Appendix: List of Degree Programs Identified as Technical, Professional, or Scientific Communication Programs

Levels	Universities	State	Degrees
Associate	1.Phoenix College	AZ	AAS in Media Arts: Web Design
Certificates	1.Northern Arizona University	AZ	Undergraduate Certificate in Rhetoric and Writing Graduate Certificate in Professional Writing
	2.Pima Community College	AZ	Technical Writing and Communication – Post-degree Certificate for Direct Employment
	3.California State University, Channel Islands	CA	Certificate in Technical Writing
	4.California State University, Long Beach	CA	Certificate in Technical and Professional Communication
	5.California State University, San Bernardino	CA	Certificate in Writing (Professional Writing); Grant Writing Certificate
	6. San Diego State University, San Diego	CA	Certificate in Professional Writing
	7. San Jose State University	CA	Certificate in Professional and Technical Communication
	8.Barry University	FL	Certificate in Professional Writing
	9.St. Thomas University	FL	Professional Writing Certificate
	10.Eastern New Mexico University, Roswell	NM	Grant Writing Certificate of Employability
	11.University of Texas at El Paso	TX	Bilingual Professional Writing Certificate (undergraduate and graduate levels) Online Graduate Certificate in Technical and Professional Writing

BS/BA/BAS	1.California State University, Bakersfield	CA	BA in Communications
	2.California Polytechnic State University, San Luis Obispo	CA	BA in Liberal Arts and Engineering Studies
	3. San Diego State University, San Diego	CA	BA in Rhetoric and Writing Studies
	4.Barry University	FL	BA in Professional Writing
	5. St. Thomas University	FL	BA in Professional Writing
	6.New Mexico Institute of Mining and Technology	NM	BS in Technical Communication
	7.New Mexico State University, Main	NM	BA in English, EMPHASIS: Rhetoric, Digital Media, and Professional Communication
	8. University of New Mexico, Main	NM	BA in English
	9.St. Edward's University	TX	BA in English Writing and Rhetoric SPECIALIZATION 2: Professional Writing
	10. Texas A&M University, Corpus Christi	TX	BAS in Technical Communication
	11. Texas State University, San Marcos	TX	BA in English (Professional Writing Emphasis)
	12.University of Houston, Downtown	TX	BS in Professional Writing
	13.University of Texas at San Antonio	TX	BA in English with a Professional Writing Concentration BA in Communication with a Technical Communication concentration

Minor	1.California State University, Northridge	CA	Minor in Writing and Rhetoric
	2. San Diego State University, San Diego	CA	Rhetoric and Writing Studies Minor
	3. San Jose State University	CA	Minor in Professional and Technical Writing
	4.University of California, Merced	CA	Minor in Writing
	5.Barry University	FL	Minor in Professional Writing
	6.Nova Southeastern University	FL	Writing Minor
	7.Eastern New Mexico University, Main	NM	Minor in Professional/Technical Writing
	8.New Mexico Institute of Mining and Technology	NM	Minor in Technical Communication
	9.New Mexico State University, Main	NM	Minor in Rhetoric and Professional Communication
	10. University of New Mexico, Main	NM	Professional Writing Minor
	11. Texas A&M University, Corpus Christi	TX	Technical and Professional Writing Minor
	12.University of Houston, Downtown	TX	Minor in Professional Writing
	13.University of Texas at El Paso	TX	Minor in Professional Rhetoric and Writing

MA/MS	1.Northern Arizona University	AZ	MA in English (Professional Writing)
	2. San Diego State University, San Diego	CA	MA in Rhetoric and Writing Studies
	3.Nova Southeastern University	FL	MA in Writing
	4.New Mexico State University, Main	NM	MA in English with an emphasis in Rhetoric and Professional Communication
	5.University of New Mexico, Main	NM	MA in Rhetoric and Writing
	6. Texas State University, San Marcos	TX	MA in Technical Communication
	7.University of Houston, Clear Lake	YX	MA in Digital Media Studies
	8.University of Houston, Downtown	TX	MS in Technical Communication
	9.University of Texas at El Paso	TX	MA in Rhetoric and Writing Studies
	10.University of Texas-Pan American	TX	MA in Rhetoric, Composition and Literacy Studies (Emphasis in Professional Writing)
Ph.D.	1.New Mexico State University, Main	NM	PhD in Rhetoric and Professional Communication
	2.University of Texas at El Paso	TX	PhD in Rhetoric and Composition

A R T I C L E

Activating the Uptake of Prior Knowledge Through Metacognitive Awareness

An Exploratory Study of Writing Transfer in Documentation and Source Use in Professional Writing Courses

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Abstract. Research in writing studies and technical communication has indicated that prior knowledge, or what students bring and adapt into new situations, is critical to student learning. Although prior knowledge and writing transfer has been examined more broadly, a gap exists in the examination of students' transfer of documentation, citation, and source use in technical and business communication courses. This study attempts to fill this gap by presenting results of a quasi-experimental pilot study of three professional writing courses. In the control condition, students in one course completed an assignment and reflection; in the treatment condition, students were exposed to various in-class activities and metacognitive reflection to activate prior knowledge before completing the assignment and reflection. Results suggest no statistically significant differences between the groups in terms of written performance; however, students in the experimental condition demonstrated measurable differences in their reflective writing. We conclude that the study had value for students in reflective practice and building metacognitive awareness, but instruction was not sustained enough to produce meaningful change.

Keywords. Transfer of learning, prior knowledge, documentation, professional writing

Transfer of learning, or students' ability to apply and adapt knowledge and skills gained in one context to other contexts, is a growing area of concern and interest for technical and scientific communicators. Recent research has indicated that prior knowledge is critical to student learning in a variety of contexts (Reiff & Bawarshi, 2011; Artemeva & Fox, 2010). Although some studies have provided insight into the importance

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of prior knowledge about genre, they have not examined the importance of other kinds of prior knowledge, such as documentation and source use, which are common problems in college-level writing (Howard, Rodrigue, & Serviss, 2010). Nor has the professional writing course been the site of extensive study about transfer.

To address this gap, we conducted a quasi-experimental pilot study designed to examine whether a set of specific metacognitive in-class activities encouraging students to activate prior knowledge about documentation and source use could lead to more effective writing in a professional writing course. In what follows, we develop a theoretical framework for our project by examining transfer and documentation/source use practices that may aid students in building upon their prior knowledge. We follow with a discussion of our methods and study limitations. We then describe our results, both qualitative and quantitative, and conclude with a discussion of study implications and suggestions for pedagogical practice in achieving prior knowledge.

Literature Review

Transfer of Learning

Research in the transfer of learning suggests that transfer is a complex process involving prior knowledge (Robertson, Taczak, & Yancey, 2012); student dispositions (Driscoll & Wells, 2012); students' interaction and understanding of genre (Reiff & Bawarshi, 2011); metacognition (Gorzelsky et. al., 2015); and many other features (Haskell, 2001). In order for transfer to occur, learners need to (1) recognize similarity between two contexts—a monumental task; (2) identify what knowledge or skills have worked in the past that may be applied to a new opportunistic context; (3) exercise judgment on the applicability of said context using metacognitive awareness; and (4) adapt and apply the concept to the new context as necessary (Bergmann & Zepernick, 2007; Perkins & Salomon, 2012; Haskell, 2001). Our present study emphasizes two of these areas—prior knowledge about documentation and metacognitive awareness.

We define "prior knowledge" as knowledge that students have about writing, strategies they have for approaching written tasks, and their beliefs about their efficacy as writers. Prior knowledge can be generative, that is, it can aid student writers with new writing tasks, or it can be disruptive and prevent student writers from successfully navigating challenging writing tasks (Driscoll & Wells, 2012). Prior knowledge comes from a variety

of different sources such as other college courses, primary and secondary education, workplace experiences, internships, personal writing, and writing in the community. Students may identify prior knowledge explicitly, e.g., "I learned in high school that plagiarism means to pass someone's work off as my own" or students may simply articulate prior knowledge as something they know about writing, such as, "Plagiarism means to pass someone else's work off as my own" (Driscoll, 2011).

Because prior knowledge about documentation strategies and use of sources are, in effect, a subset of genre knowledge, the research on prior genre knowledge is critical to our study. In their 2011 article, Reiff and Bawarshi examined the role of prior knowledge of genre in first-year writing (FYW) and found that students fit into two categories. The first category is a boundary crosser, or students who question high school genre knowledge and "break this knowledge down into useful strategies and repurpose it" (p. 314); the second, a boundary guarder, or students who draw upon genre knowledge wholesale, regardless of the new rhetorical situation. In the realm of professional writing, Artemeva and Fox (2010) directed students to illustrate their understanding of engineering genres and then compared that understanding to written performance. They discovered that although prior knowledge is necessary for successful transfer into engineering genres, other factors may also play a role in written performance. Roberston, Taczak and Yancey (2012) described three principles that can be used to understand how students engage with prior knowledge: 1) "drawing on" upon prior knowledge and using it in nearly identical ways to previous experience; 2) "reworking" prior knowledge as they encounter new challenges and 3) "creating new knowledge and practices" when they fail to address a new task successfully.

All the above repurposing and transfer involves metacognition, that is, students' ability to critically reflect upon and engage with their learning processes—to be able to self-monitor, control, and evaluate their success (Scott & Levy, 2013; Gorzelsky, et. al., 2015). Metacognition is about critical reflection on cognitive processes, while cognition simply refers to one's thinking in order to complete a task. Metacognition shows up often in students' reflective practice, although the depth and specificity of such metacognitive practices vary widely (Gorzelsky, et. al., 2015). Metacognition has been explicitly tied to transfer of learning by a variety of authors (Reiff & Bawarshi, 2011; Wardle, 2007.) Prior knowledge and metacognitive awareness about documentation, then, seem critical for successful writing transfer into professional writing courses.

Documentation practices and citation of sources in Professional Writing Courses

For the purpose of our study, we use the term "documentation" to refer not only to effective citation practices but also to the effective use of sources, including accurate presentation of facts and synthesizing texts to provide readers with a framework for interpreting research. We selected documentation and source use as a focus for activating prior knowledge and studying transfer because it is one area all students at any institution are expected to have received prior instruction.

Documentation and source use are one of the more challenging aspects of learning to write for students of all levels. Results from the Citation Project, which was a study of FYW at 16 institutions, revealed that students have substantial difficulty with citation practices. For example, a full 20% of the 174 articles "misused sources" by either patchwriting or not indicating they were quotations and a full 96% of students used only one or two sentences of a source in their writing (Jamieson & Howard, 2011). Given the context of these findings, there is already cause for concern if students are to transfer their knowledge of documentation and use of sources beyond FYW.

And yet, effective source use and documentation is a basis for constructing knowledge and building proficiency in the discipline of technical and professional writing. Even though the work of technical writing has been characterized as that of transmitting or even translating knowledge of subject matter experts (Slack, Miller, & Doak 1993), additional research (Rude, 2009) has shown that technical writers nevertheless exercise agency in shaping meaning. Through the use of sources and documentation, they help shape the ethos and genres of the field. As Rude (2009) observed, "so much of our expertise [in technical writing] concerns texts that a research project that did not consider texts would be rare" (p.181). So source use and documentation are critical skills for professional writers—although students clearly struggle with these skills.

Research by Howard, Rodrigue, and Serviss (2010) found that students' misuse of sources can be traced back to their limited use of those sources—often at the sentence level. In their research, they isolated the problem to "students not writing from sources; … [but] from sentences selected from sources" (p.187). Such limited use, they found, lends itself to plagiarism, given its disposition to writing closely from select sentences. This mentality might be traced back to students' approach to research as a hunt for sources, rather than as process in invention. It lends credence to Bizup's (2008) call for the need to "cultivate a dual perspective" (p. 73) be-

tween the writers' intrinsic understanding of the subject with the extrinsic elements that makes those texts possible.

Developing a literacy of documentation and citation of sources can enable our students see the role of social construction in articulating knowledge in a professional setting. Further, the practice serves a social function of building ethos as a disciplinary insider. This kind of literacy is especially pertinent when students practice technical writing in the workplace (Darling & Dannels, 2010). There, such affirmations become even stronger as their understanding of discourse communities deepens. For example, they may write as engineers communicating with other engineers, or as IT experts disseminating their ideas to colleagues and the wider public. In each instance, a knowable community demands that the writer engage that community on its own terms with deference to its conventions. It makes that dialogic interaction through sources all the more tangible.

We see prior knowledge about documentation, and the mechanisms through which it is activated, especially important to business and technical writing courses because these complex approaches cannot be developed in one short semester, but must be built upon through successive courses and over time. One would hope, and expect, that students enrolling in upper-division professional writing courses would bring at least some prior knowledge gained in FYW and other disciplinary writing contexts with them so that the opportunity to build knowledge is present, although given the challenges that students face with citations in first-year writing, a more focused approach is required.

Project Methodology

This section provides a description of our research questions, the pedagogical strategies used in our control and experimental classrooms, the study design, our analysis of student writing and student reflective writing, and the study limitations.

Research Questions

Our goal in this study was to explore whether the pedagogical techniques intended to activate students' prior knowledge about documentation and build upon that knowledge (described below) would produce a measurable result in students' written performance and in their reflective writing. This study, therefore, addresses the following research questions:

1. How do students' knowledge and experiences in FYW with use of sources and documentation transfer into technical communication courses?

2. Does employing pedagogical techniques that encourage students to activate prior knowledge lead to better documentation practices in their writing?
3. What do professional writing students' reflections, as a group, reveal about the role of prior knowledge of documentation in professional writing courses?
    a. How do students reflect upon prior knowledge concerning documentation?
    b. How do students discuss using prior knowledge of documentation (and other areas) in their work?
    c. How do students anticipate connections to future writing tasks?

Pedagogy of Activating Prior Knowledge

We now describe the pedagogy underlying our study, which involved three phases:

4. The activation of prior knowledge phase (for the two experimental sections),
5. The assignment phase, and
6. A written reflection phase (for all three sections).

After gaining IRB approval, Josephine, the instructor of all three sections of the course, assigned a "3-Cs" assignment to all three classes. We should note here that the unit and assignment had been refined in previous semesters. It had been designed to convey instruction on documentation and related skills.

Activation of Prior-knowledge (Experimental Condition Only)

Activating prior knowledge helps prepare students for upcoming tasks and can help assist students in the transfer of knowledge. We instituted this phase in our study in the experimental condition (two sections) as a means to explicitly and systematically discuss the concept of documentation and connect students' prior knowledge from FYW into the course. The discussion intended to activate the class' knowledge as a whole centered on what students knew about documentation, when and how they practiced it, and why it was important in academic writing.

To activate students' prior knowledge on documentation, we drew from Graff and Birkenstein (2010) who focus on using sources in writing as

a way of joining conversations. Josephine began by discussing the citation practices, with a view to understand the rhetorical patterns inherent in citation of sources with emphasis on language-specific patterns. Throughout these discussions, and leading to their main assignment, students were prompted to speak to their existing understanding of documentation using metacognitive questioning strategies (asking them to evaluate their current knowledge, where it came from, and how they have applied it), what they learned in their FYW classes and how they thought it might apply to the current task.

Following direct instruction and discussion, the students were each asked to write a reflective essay in which they made self-connections to the practice of documentation and to assess their existing knowledge. We asked them to reflect on the following questions:

- Why do we document sources?
- What are the three main reasons source use and documentation (citing your sources) is important?
- When is a documentation/citation needed?
- What are the types of documentation styles that you know?
- What differences are there in MLA and APA, in-text citation and end text citations?
- What concerns you about citation and documenting sources? Where do you err, what do you need to pay attention to?
- If you were not writing an academic paper, how would you acknowledge use of others' work?

These questions are metacognitive in nature in that they encourage students not only to address the knowledge itself but also to critically evaluate their knowledge: what they know, how they can use it, and what concerns or issues they have. For the control group, there was no activation of prior knowledge of citation and documenting sources. However, this group of students was reminded, in general terms, about the practice of documenting sources and its value in academic conventions.

The Assignment Phase (Both Conditions)

The 3Cs assignment was explicitly designed to model how a proficient user synthesizes a variety of sources in order to present a more comprehensive picture. The assignment is as follows:

> Locate a story on National Public Radio (NPR) that is at least seven minutes long and is not primarily a Q & A. Listen to the story and

> carefully note the subject, its introduction, its reporting, its explanation, its analysis, if any, and the conclusion. If it was technical, note the contextual information evoked, sources used, for what purpose, and how they were attributed. Were those sources described as fully as possible in terms of their ethos (names and designations that qualify the source to speak on the subject)? How did that description affect the legitimacy of the information? Were signal phrases used to differentiate the reporters from their sources? Was there any paraphrasing, summarizing? What about a synthesis of more than one source on the subject, either in agreement or from a varying point of view? Did you detect any bias on the part of the reporter? How so? How did the documentation strategies help you understand the subject better? How was the story concluded?

This assignment models the way experts integrate their texts, tacitly signal usage of sources, and use rhetorical cues that help readers. The goal of the assignment was to convey the intrinsic value of citation and documenting sources to technical communication and to affirm that the practice does not begin and end with academic writing. This knowledge, we hoped, would transfer into workplace writing and be retained beyond this classroom.

To facilitate this assignment, all three classes examined examples of citation practices in business writing and related non-academic settings such as the *New York Times* and *NPR* and how they report technical information. Those examples helped, among other things, analyze types of authority and how the credibility of sources improves writing; the participatory nature of documentation in showing where ideas come from; and how invoking authority benefits the text. These examples made visible the act of documentation rather explicitly in ways we hoped promoted understanding (and thus transfer), once students were able to infer principles underlying documentation. Moreover, throughout this process, we placed little or no emphasis on the number of sources, emphasizing instead the totality of sources as driven by the argument.

The Reflection Phase (Both Conditions)

Students in both conditions were asked to respond in a 2-3 page self-reflection essay after finishing the 3Cs assignment. The reflection assignment was framed as follows[1]:

[1] Please note that these questions were adapted from the Writing Transfer Project's reflective questions (Jones, et. al., under review) and the work of Allen and Driscoll (2014).

Reflection

This piece is a way for you to reflect back on the process you went through while writing the paper and your perception of your final draft. Please answer the questions below, in the order in which they are given.

a) Please describe your writing process for this assignment. This may include prewriting, drafting, revising, editing, peer reviews, the research process and interaction with your instructor, writing center, and/or others.

b) How did you use rhetorical techniques in this assignment?

c) What role did your knowledge of documenting sources play in this assignment?

d) Was there something you found difficult to do in writing this piece? Please describe it and how you dealt with this difficulty.

e) What knowledge and skills did you use from previous courses and assignments in this assignment?

f) What knowledge/skills can you take with you to future writing assignments?

Study Design

We designed a quasi-experimental study that investigated the role of pedagogical interventions in activating prior knowledge of documentation strategies in upper-division, professional writing courses. Participants included students from three classes in the Fall 2012 semester at Oakland University (OU); all taught by the same instructor, Josephine Walwema, and all occurring back to back on the same day.

One section (22 students in total, N=13 students who consented to participate) functioned as a control where the course was taught as it has been in previous semesters, with no special attention paid to activating prior knowledge. Two additional sections (40 students total, n=23 students who consented to participate) functioned as experimental sections that asked students to engage in metacognitive thinking about their prior knowledge through class discussions and a homework assignment. Two students were removed from our sample because they did not complete all assignments; this left us with 12 in the control group and 22 in the experimental group.

Dana Driscoll described the study and gained informed consent from all students after the three phases of the assignment had been completed.

She prefaced this exchange with a brief description of the study and an explanation of informed consent. She kept the consent forms confidential until after the term and after grades had been submitted. At this point, Dana made the list of students who consented known to Josephine; Josephine de-identified all student writing and assigned each student a random number (so that the condition students were in was blind to both researchers) but retained a linking file so the two researchers could later conduct quantitative analysis. From each section, we analyzed the 3Cs assignment and the reflective assignment.

Analysis of Student Writing and Documentation/Source Use

After de-identifying all student work, we met to develop a rubric and coding strategy. We adapted a rubric that had been in use for several years for various departmental assessments; our revisions included adding additional categories to understand the nuance in documentation styles (Appendix A). After making revisions, we read through six student papers (not included in the study) and made refinements.

At this point, we individually read all 34 papers included in the study and scored them using the rubric. After reading, we met and discussed our scores. For scores within 1 point of each other on our 0-4 scale, we averaged our scores. For scores where we were less in agreement (six scores total) we discussed the scores and agreed upon a single score. We calculated descriptive statistics (means) and inferential statistics (an independent samples t-tests). The goal of this part of the analysis was to answer research questions #1 and #2 and to see how students applied their understanding of documentation in this context.

Analysis of Student Reflective Writing

In addition to examining students' academic writing, the authors coded and analyzed all reflective writing, focusing on two areas: students' behaviors (documentation strategies, interaction with sources) and students' beliefs about prior knowledge and metacognitive awareness. To engage in this analysis, we drew upon Smagorinsky's (2008) collaborative coding process, where he suggests that coding can be a dynamic process done in full collaboration (p. 393). We felt this approach was warranted due to the exploratory nature of this study.

To enact Smagornisky's approach, we collaboratively read through all the reflective writing, taking notes and engaging in discussion to develop coding categories. We finished our initial reading, waited a week, then coded all documents together using our coding categories. This approach

lead to 100% inter-coder reliability. We calculated descriptive and inferential statistics (an independent samples t-test comparing number of codes in the two groups).

Prior knowledge was one of the main codes we developed, using the working definition presented earlier in this article. We examined prior knowledge through students' responses to the reflection questions C and F. We noted specific instances of prior knowledge (e.g., "I know you need to cite a reference at the bottom of the paragraph," and, if indicated, where the prior knowledge came from, e.g., "I learned how to document sources in a business format from the memo assignment earlier in the term"). We noted any discussion of prior knowledge of documentation.

In addition to discussions of specific types of prior knowledge, we noted when students provided broader "theories of writing" and "theories of learning" where they articulated their beliefs about writing broadly, writing's place in society, writing's importance in their lives, their theories about how people learn best. These were codes that emerged independently during our collaborative sessions. We saw these theories as a type of abstracted prior knowledge. We noted places where these theories of writing were explicitly connected by students to written practices enacted in the courses. Finally, we drew upon Scott and Levy's (2013) concepts of metacognition, especially that of person (knowledge about oneself and one's abilities) and strategy (what strategies one has available) to help code metacognitive processes.

Study Limitations

We recognize several limitations with this study. First, we did not inquire whether students were transfer students to the university—typically, 40-60% of students enrolled in our upper-division writing courses are transfer students. We have no way of knowing what their first-year writing courses were like (at OU, our second FYW course is a research writing course, which all incoming students are required to pass). This means we had no way of knowing if documentation was emphasized in their first-year writing courses (some community colleges in the area teach first-year writing using a literary approach). Another limitation was that this was Josephine's first attempt in teaching the "activating prior knowledge" experimental approach; subsequent semesters have seen refinements in the approach based on our findings reported here. Finally, we recognize although we have used inferential statistics to calculate our results, and have some results approaching significance, the small N in the study (23 and 13 stu-

dents in two groups) limits the effectiveness of tests designed at testing for generalizability. Still, considering we found results approaching significance in such a small sample is encouraging.

Results

In the section that follows, we present our results organized by research question and research theme.

Does employing pedagogical techniques that encourage students to activate prior knowledge concerning documentation lead to better citation practices?

We found no statistically significant difference between students' written performance in the control classroom with our treatment classrooms (non-significant, p <.407) or in any individual rubric category. Table 1 shows the means of different areas of the rubric for both groups, including all areas of source use and documentation. Although our treatment group scored higher in some areas of our documentation rubric (such as avoiding plagiarism/patchwriting and using source material to support a claim), the control group scored higher in others (such as accuracy of citations or critical analysis of source material.) Our results, therefore, suggest our approach did not lead to better student engagement with sources and documentation.

Table 1: Mean scores of Control and Experimental Groups for Writing Project

Rubric Category	Control	Experimental
Quality and Synthesis of in-text citations	1.83	1.77
Average Accuracy of citations	2.25	1.68
Plagiarism and Patchwriting	0.83	1.41
Quality of Argument	1.75	1.82
Appropriate Use of citation conventions	1.67	1.55
Critical analysis of source material; manages multiple viewpoints	1.92	1.68
Source material used as evidence to support a claim	1.82	2.08
Ethos of Writer	2.92	2.18
Draws upon expert opinion	1.64	2.08
Works cited list	1.5	1.64
Total	1.813	1.789

How do students' knowledge and experiences in FYW with source use and documentation transfer into technical communication courses?

Although we did not see significant differences in students' written performance, we did see differences approaching statistical significance in comparing features of students' reflective writing in the control and treatment groups. Figure 1 displays the percentage of students whose reflections had features we coded. Our experimental group spent more time discussing their prior knowledge than the treatment group ($p<0.06$, approaching significance). Our experimental group also spent more time describing their theories of learning ($p<0.27$, non-significant), theories of writing ($p<0.12$, approaching significance), and worked to connect those theories to practice ($p<0.29$, non-significant). Our control and treatment groups were almost identical in their descriptions of the use of other kinds of prior knowledge in their reflective writing (because both groups were asked a question about prior knowledge and documentation, this is expected). Qualitatively, we found students in the treatment group engaged in more depth and discussion of their prior knowledge.

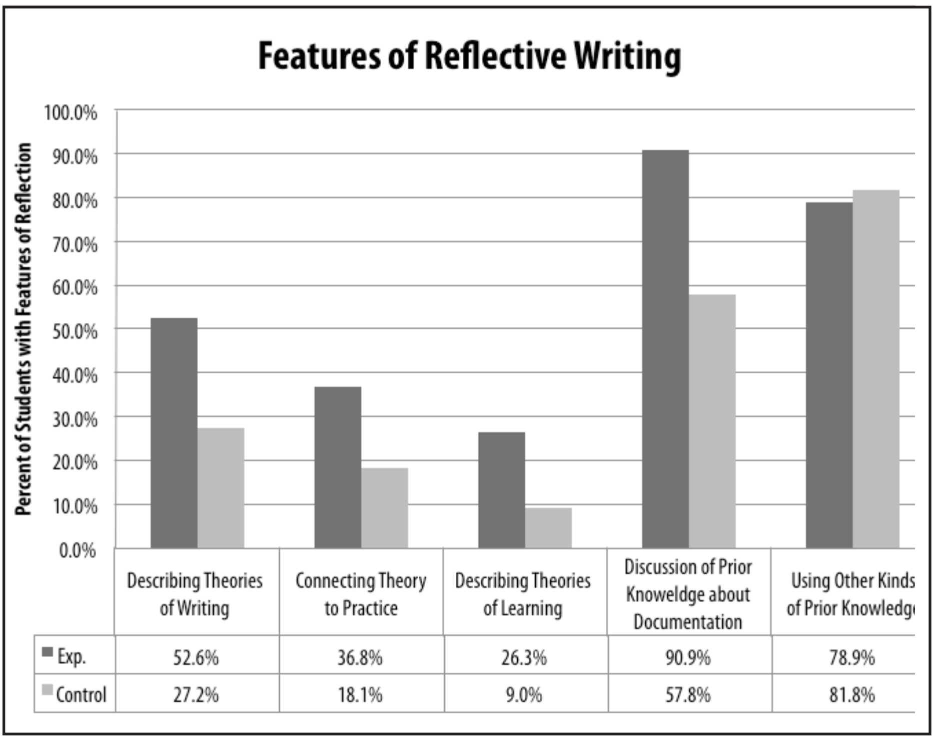

Figure 1: Percentage of students whose reflections had features coded

What do professional writing students' reflections, as a group, reveal about the role of prior knowledge of documentation in professional writing courses? How do students reflect upon prior knowledge concerning documenting sources?

Out of 34 reflections, 23 students described their prior knowledge of documentation, indicating it was relevant to the present task. The entries below are examples of those reflections from the experimental group. They demonstrate metacognitive awareness of self and of one's strategies for integrating prior knowledge.

> I used my prior knowledge from my speech class to help me with this. I feel like a report is somewhat persuasive. You are presenting facts to the audience to show them why something is the way it is. So I took the knowledge I learned from persuasive speaking to add to my report.

> I used knowledge from previous courses such as the writing process and efficient ways to write without straying from topic. Last year in my freshman writing class we learned much about documentation and the MLA and APA format, which I use in variance in this paper. Always using prior knowledge is a great technique that you can build over your college career.

Our next example (below) discusses a specific documentation style, APA, but does not connect that knowledge to practice. The reflection below is also notable for its prescriptive nature interspersed with a sense of know-how in the practice. The student may be "drawing on" or "reworking" prior knowledge "as they encounter new challenges" and aren't yet at the point of adapting for personal use (Robertson, Taczak, & Yancey, 2012).

> When using the APA style, the writer must be able to use direct quotations, the paper must also include a page header. Also a title page, which should always be included with your paper. It is usually optional, but you must have an abstract page. The abstract page is a page of introduction about what you will discuss in the paper, this page should be typed after your title page. When using APA, a lot of students frequently forget to cite their sources. This is one of the most important things to remember when using APA. After doing a lot of research, you must be able to back up your information. Meaning always include where you got if from, who you got it from, and when it was published.

The final segment alludes to the rhetorical approach we hope to foster. The student displays a discursive (if partial) understanding of the role of source integration in grounding a paper in the available literature and recognized authority.

> Documenting your sources properly is very important because it brings validity to your paper.

Other Descriptions of Prior Knowledge

Students also revealed elements of prior knowledge not explicitly framed in the reflection questions. The two examples below are also metacognitive in nature, because they facilitated the students' use of a useful strategy for the present task. These descriptions are encouraging because they demonstrate various kinds of active transfer into the business writing course:

> I used my skills from my Management Informational Systems to design a layout to the cover page that is aesthetically pleasing. It also helped with the formatting of for the rest of the document.

> For this assignment, I used my previous skills in paraphrasing and summarizing. I used skills in researching and note taking while listening to the story.

How do students discuss using prior knowledge of documentation (and other areas) in their work?

Students in our study often provided lengthy unprompted discussions of writing, which we coded as "theories of writing," in their reflective pieces. We defined theories of writing as the patterns that were emerging from students' need to situate their responses in a larger framework of writing theory. From our coding, theories of writing constituted students' broad statements about writing. These statements centered on the canons of rhetoric, specifically, invention and arrangement and how theories of documentation help strengthen the writing process. We found when some students engaged in theorizing about writing, they were much less specific about their documentation practices or specific prior knowledge. Others, however, were able to connect their big theories of writing to specific documentation practice.

A total of seven students elaborately philosophized on these theories of writing by connecting to documentation but not their own metacognitive practices. Here are two such examples:

> The writing process is a step-by-step technique composed of planning where the writer develop focus and gathers ideas. The second

> step is where the writer arranges the ideas into a logical order. Drafting is where the writer incorporates any necessary evidence…
>
> Throughout my writing career, as limited as it may be, the single most important thing I have learned is to understand the audience of the paper. Knowing your audience allows one to write in such a way as to appear relatable and understanding.

These narratives seem to maintain the same tone in their prescriptive approach to writing instruction and written genres. We noted the reflections discuss using prior knowledge of writing strategies in anticipation to connecting to future writing tasks—but the question of how open these students were to writing in new genres was not revealed through these theories of writing nor their reflective practice. The next example presents a more nuanced discussion of documentation:

> There are many forms of writing that you can use. For instance, there is a style called "free Writing"; where you express your ideas freely in your own way. There are styles that some professors prefer to use, such as MLA and APA. These are the two most used in high school and universities. The two styles are uniquely different, MLA is one of the most commonly used in some writing classes. When using MLA style, you use in-text citations and end note/ foot note. MLA style is frequently used for research papers. MLA is more easier to grasp than APA, because of the specific details that APA requires.

This reflection begins with a general observation about writing with no mention of the reflection questions assigned. The response does end with a discussion about documentation with specific mention of MLA and APA; however, it does not apply that knowledge to the task. In this case, pedagogical techniques activating prior knowledge seem to have activated knowledge about writing—but failed to model linking big theories of writing to specific metacognitive understandings of self, task, and strategy.

We also found that students (12 in all) were able to connect their "big theories of writing" to specific practices. Unlike with the preceding reflections, these students articulated moves toward transfer by abstracting critical prior knowledge about documentation and applying it to the present task. In the next example, the student references knowledge of documentation and then metacognitively demonstrates how that self-insight translated into practice:

> My knowledge of documentation assisted me by helping me properly format quotes of facts from the guests. Furthermore, I

> could state the source easily and had an understanding as to why I needed to do such a thing.

The final example demonstrates metacognitive awareness that specifically lends itself to evaluating a task and solving a problem:

> Despite this, one must also remember to use citations and back up their claims. If you make a highly detailed paper, you convince multitudes of people to you stand, but never cited or backed up your claims, then that is bad news. It only takes one person to easily refute you and have their own sources to completely discredit you as a writer.

This entry displays a conscious effort to decode the tenets of documentation and then become instructive about its practice. The student makes a metacognitive effort to articulate an understanding of the concept, the ability to apply it according to convention, as well as its rhetorical intent.

Anticipating Transfer Beyond Course

Because they were specifically prompted in the reflection, nearly all students in the study reported they would use material from the assignment in future contexts. Students in both conditions recognized the role of prior knowledge in the current task and reflected on not just the content learned from this assignment but also the skills acquired to write and design documents like reports and memos. They also indicated these professional ways of writing constitute their past and future writing activities. They saw in writing a means to encode meanings:

> I can definitely utilize two things from this assignment. First, knowing the format and how to write a report will definitely come in handy in a business setting in the future. Second, I spent the last 4 years writing papers to a general audience of "members of the Philosophy discourse. That was as far as my thought about audience went because that was all that was necessary. However, this has definitely changed my idea.
>
> I am enthusiastic that this writing course will further my literacy skills to help me use it in a professional setting in the business world.

Students were also able to articulate the general strategies they might use for future tasks: "I now know a lot about proper business writing" and, "In any paper or discourse, there needs to be a logical flow, meaning there is a main idea expressed in the context of the paper; after that idea, it's supported with information in the content of the paper." This realization,

we think, has led this student to adjust his or her writing approach. It also positions such a student to activate the situational knowledge needed to address a future task.

These particular reflections revealed that students would likely apply this knowledge in future writing tasks both within and beyond the academy. In addition, students in both groups (four in our experimental group and two in our control group) reported on transferring between assignments; students in the study also indicated they learned how to write in the memo format in a previous assignment and used that material in the 3Cs (experimental) assignment.

Discussion

Although we found no statistically significant differences in students' written performance, we did find differences approaching significance in student reflective writing in the two conditions. Students in the treatment condition engaged in more metacognitive discussion about their learning and showed an understanding of writing through reflecting upon their experiences in completing the task. We also saw that students in the treatment condition engaged in substantially more "theories of writing." Seven students in the study were particularly verbose in their theories of writing, suggesting some of the in-class metacognitive activities encouraged them to think more broadly about writing in their lives.

The question of why we didn't find any significant differences in the students' written documentation strategies is a critical one. It could be our sample was too small to find any significant differences (as noted in the limitations). We suspect, however, based on some of the newest research in the field on teaching transfer published after the data collection in our study concluded (Yancey, Robertson, Taczak, 2014), that our metacognitive instruction simply wasn't substantial enough, or sustained enough, to enact meaningful change. In their "Teaching for Transfer" pedagogy, Yancey, Robertson and Taczak (2014) suggest that students need sustained, engaged instruction in key terminology of writing studies; being taught how to reflect through assignments, activities, and readings; and encouraging students to conclude the term with a "theory of writing" piece. In reviewing this work in light of our present findings, we are unconvinced that several in-class activities, one homework assignment, and one reflective piece were enough for meaningful change. The other possibility is that focusing only on students' prior knowledge of documentation is too narrow—we needed to focus more broadly on activating other kinds of genre and rhetorical knowledge along with documentation.

In light of other recent scholarship in the field, we still deem metacognitive instruction in prior knowledge valuable—activating prior knowledge for business writing students is certainly a worthy goal. If anything, findings suggest we did not do enough to activate prior knowledge; we need to activate in broader ways and spend more time instructing students in reflection (Allan & Driscoll, 2014). We also see a need for more sustained support for writing between FYW and upper-division technical and business writing courses.

The specific status of writing instruction and writing in the disciplines support for faculty at our university where there is no formal WAC/WID program may also be one of the reasons for the written performance results. Writing instruction is mandated by the general education curriculum but is not supported in any sustained manner. One of the co-authors is engaged in a longitudinal study of writing at OU; her preliminary findings suggest students in most majors receive little to no instruction in writing and little opportunity to write after leaving FYW, especially in the sophomore year (Driscoll, in preparation). The first opportunity to write after FYW often surfaces in junior level or senior level writing intensive courses (such as the one in this study). This means that students in our study likely left FYW, engaged in little to no writing and then, one to two years later, came into their business writing course. The challenge of transferring and adapting knowledge broadly must be one that is done across many courses and contexts, not in limited and isolated ways.

Our instruction did have some benefit, however, with regards to differences found in reflective writing. Our treatment group engaged in more discussions of their learning and showed an understanding of writing through reflecting on their experience in doing this task. Students used metacognition effectively to describe what they knew and how that knowledge impacted their ability to implement documentation strategies. This element was crucial in that metacognitive reflection helped students to self-regulate as a means to attain their goal as professional writers. This kind of self-policing is freeing for learners, because they begin to own their writing and, as such, develop strategies to actively respect writing conventions. However, it seems we have a lot more to understand about the relationship between reflective writing and student performance, which clearly were not connected in this study.

What occurred with students' theories of writing in the treatment group does suggest an avenue for future study and pedagogy moving forward. Although students in the treatment group provided more theories of writing, only some were able to connect those theories to specific prac-

tices and specific documentation practices. One take-away from this study is we need to prompt students to integrate big theories of writing with specific writing practices and prior knowledge in explicit ways—through modeling, examples, and in-class activity.

One striking feature about student reflections in our treatment group was their development of a theory of writing concerning documentation. Because so much of documentation and use of sources involves engaging in these same connected practices, connecting students' big theories to explicit theories of documentation and its role in technical and business communication could lead to substantial pedagogical benefit.

Results from this study have numerous benefits for technical and scientific programs. This study has reaffirmed that we must introduce concepts of technical and scientific communication incrementally. Starting with documentation gives students opportunities to process the new information by building on what they already know (a form of scaffolding conceptualized by Vygotsky (1978). But it also asks us to envision broadly the activation of prior knowledge, the role of metacognition, and their relationship to written performance.

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Making the Most of Your Internship Program

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Abstract. Creating or maintaining an internship program is a complex task, and the mechanisms used for this work vary greatly from one program to the next. Based on a survey of North Carolina State University's peer institutions, as well as my own experience managing an internship program, this article describes some of the key factors, including the type of students allowed to participate and the expectations and responsibilities of faculty, students, and internship hosts. The article also discusses features unique to specific programs (such as transcript notation and parallel programs), emerging areas of concern (including the problems and opportunities offered by virtual internships, the role of internships for graduate students, and legal issues), and possible areas of future research.

Keywords. internship program management, undergraduate internships, graduate internships, internship program design, government regulation of internships, internship course requirements

Creating or maintaining an internship program is much more complex than most people realize. Having been involved with the internship program in the English Department at North Carolina State University since 1998, and having managed it on my own since 2005, I have a pretty good handle on how things work in my department. However, conversations with faculty from other universities and articles in the technical communication literature have made me well aware that not all programs work the same way.

I decided to conduct research to create a set of best practices for internship programs. In addition to reading widely about internship programs in a number of settings, I have gathered data from individuals who manage internship programs within English (or comparable) departments at universities deemed peer institutions by my school, North Carolina State University. (See Appendix A for a complete list of these in-

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stitutions.) These 16 universities are all four-year, public institutions with a strong technology focus, many of which offer an undergraduate and/or graduate degree or concentration in technical communication.

I conducted a preliminary interview at one university, sent a survey to 14 (see Appendix B for a list of survey questions), and conducted a member check at one other peer institution. I received 12 responses to the survey. Given the strong response, I feel my data provides an excellent qualitative overview of internship programs at schools comparable to my own. I will not attempt to quantify the data given the limited number of subjects in this study.

What this project has shown me is that there is no "best," only a wide variety of methods and strategies for helping students gain workplace experience while they are still in school. This report will provide a look at the results of my inquiries within what I am now considering a pilot study, which is likely to be most relevant to those persons interested in internships within technical communication. In my discussion, I will include information based on my own experience in addition to information from the study, so the data comes from a total of 15 programs.

This report will answer the following questions:

- Which students can participate?
- What are the expectations and responsibilities for faculty coordinating the program?
- What are the expectations and responsibilities for students?
- What are the expectations and responsibilities for participating employers/hosts?[1]

The report will conclude with discussions of features unique to specific programs, emerging areas of concern, and possible areas of future research.

If you don't currently have an internship program in your department, you may gain some suggestions for how to start one. If you already have one, you may get ideas from this article about additional features that will enhance your program.

Before I begin to describe these programs, however, I would like to add one caveat. In a 2003 article in the *Journal of Technical Writing and Communication*, Kirk St. Amant argued for a "stakeholder education approach"

[1] Because much of this article focuses on the responsibilities of all the parties, I have included my programs set of "Rights and Responsibilities" in Appendix C. This is similar to the table of Student and Supervisor Responsibilities that Janice Tovey (2001) included in her article on the internship program at East Carolina University.

to internships that would integrate the academic and nonacademic components. I applaud St. Amant's suggestions and encourage readers to consider the stakeholder approach. However, I did not find that any of the respondents to my study have attempted this type of integration.

Which students can participate?

When the program I coordinate was created, it was restricted to undergraduate English majors, which in my university means students choosing to study literature, linguistics, film, journalism, technical writing, creative writing, or English education.[2] Most (10) of the reports from the survey also restricted participation to departmental majors, although in some cases (2), students working toward a minor within the department were also eligible to participate. In three cases (one of which is mine, the restriction having changed several years ago), all majors within the college are eligible.

In addition to requirements pertaining to degree majors, each program sets specific criteria for students to meet before they can participate. These criteria are listed below, with the number of institutions reporting that criterion in parentheses.

- Complete a prerequisite course or courses (5)
- Completion of a specific number of credit hours (4)
- Be in at least the second year of their degree program (1)
- Be in at least in the third year of their degree program (4)
- Be in the fourth year of their degree program (1) (see also Bay, 2006, for a description of a program specifically designed for graduating seniors)
- Have a specific overall GPA, varying from 1.0 to 2.6 (6)
- Have a specific GPA in the major, varying from 2.0 to 3.0 (5)
- Complete an application form (11)
- Provide at least one faculty recommendation (7)
- Submit a resume (7)
- Submit a cover letter (3)
- Submit writing sample(s) (5)
- As arranged by intern's faculty sponsor (1)

[2] The program at North Carolina State University was originally designed by Judi Gaitens. See her 2000 article in *Business Communication Quarterly* for a description of that program.

While this list looks inconsistent, what is consistent is that while very few programs actually require students to complete an internship,[3] most want students to have some academic preparation before they complete an internship, and most have some type of application process. All of this means that someone (or some group of people) must review applications, admit students, and correspond with those students. Who that someone is within a department or college can vary, as we will see in the next section.

Of the 15 institutions, 12 report no requirement that their majors complete an internship, but a caveat is that this research looked only at English (or comparable) departments. Those requirements would vary in other departments, even within the same institution. The three that did report an internship requirement specified that it was for students majoring in technical writing, technical communication, or business and technical writing.

It should also be noted that most (14 out of 15) departments provide the opportunity for students to do an internship every semester (or quarter), and only one reported internships being available only at specified times (spring semester and summer). More than half of the respondents (10) reported that internships could be completed over the summer.

What are the expectations and responsibilities for faculty coordinating the program?

In most of the universities surveyed, a faculty member from the department is appointed to manage the program, although in at least one case it is managed completely by the career center. The manager of the program may be an administrator (e.g., director of undergraduate programs), a tenured professor, or a non-tenure-track lecturer (full or part time). Almost all program managers teach classes in addition to managing the program. Thirteen of the 15 individuals whose responses are included in this study teach, and many of them teach an internship course.

Of those who teach, about half of us are granted a course release in exchange for the administrative work done for the program. The rest do not receive any type of additional compensation or reduced workload.

So what exactly is it that those of us who take on this position are agreeing to do? In my case, I decided I needed to write up a detailed description of what I do so when I retire the person who follows me would have some guidance and not have to figure it all out on the fly. That report

3 This finding is somewhat different from the result reported by Savage and Seible (2010), who found that 48% of technical communication programs they surveyed required an internship.

ended up being 54 pages long, and I regularly think of something I forgot to include.[4]

Three different roles can be part of coordinating an internship program, but in some institutions these are parceled out to three different people. In my case, they're all combined into one. The three roles I have taken on as internship coordinator are teacher, manager, and publicist.

There is sometimes a fourth role, which could be called something such as Janice Tovey's (2001) "academic supervisor." In this role, the faculty person meets with individual interns on several occasions during the semester to monitor the student's progress. Two of my respondents described this type of role for themselves. In these cases, there is not a regularly scheduled internship class and the teacher, manager, and publicist roles may not apply.

Teacher

Seven of the programs represented in this report require student interns to take an accompanying course, and that course is typically taught by the person who is coordinating the internship program. The course, however, varies in content and format.

About half (4) of the courses involve an actual meeting of all the interns, either once a week or once every other week, usually in a face-to-face classroom setting. In those sessions, typical activities include the sharing of information about the internship experience, visits by alumni or local professionals who talk about their careers, suggestions for the job search, and some written assignments.

Three of the survey respondents reported that all internships are completed as independent studies, with the students meeting weekly, biweekly, or occasionally with either the internship coordinator or a faculty sponsor. Many of those students have written assignments similar to those for group internship courses. In one case, the student interns meet as a group every other week and have individual meetings with the internship coordinator on the alternate weeks.

The written assignments for the internship course include products such as revised resumes; logs, journals, or reports on the internship experience; a research report relevant to the internship experience; and portfolios of work produced for the internship (or, in my case, all relevant work regardless of whether it was produced for the internship, for a class, or for

[4] For the purposes of this article, I'll abbreviate that job description, but if anyone wants the full report, I'm happy to share. Just email me at Susan_Katz@ncsu.edu to request a copy.

a student organization). (See also Bay, 2006; Bourelle, 2012; Sides & Mrvica; and Tovey, 2001 for examples of academic assignments for interns.)

None of the respondents reported using any type of textbook. However, I ask students in my class to read two books: 3*5 Tips for College Students to Succeed in Corporate America* (Sharon Hill, Lulu.com) and *Strengths Finder 2.0* (Tom Rath, Gallup Press).

Manager

Although the individual who runs an internship program really is a manager, he or she is never called that. The titles vary, but they typically take some form of internship advisor, coordinator, or director. In a few instances, the individual who manages the internship program is doing so as part of a larger job, such as Director of Undergraduate Studies. Regardless of the title, internship coordinators do a significant amount of administrative work. (See Sides and Mrvica, 2007, for a very detailed description of all the administrative responsibilities required by an internship program.)

First of all, they are the front line for admitting students to the program. They check to ensure students meet all of the criteria and submit all of the required materials. The only time this does not seem to be part of their workload is in the one situation where students work with one specific sponsoring faculty member as an independent study.

Seven out of 15 of the institutions in this study require students to find internships on their own, but most provide some type of assistance. In many cases, departments maintain lists of internship hosts with whom they have worked in the past and most students have access to university-managed databases of internship opportunities. All 15 respondents reported that students also have access to suggestions from an individual: the internship coordinator, an academic advisor, or a career counselor. In at least one instance, students are required to choose from an established list of internship partners, but most survey subjects reported that students often find positions on their own and seek approval to intern with an organization unfamiliar to the internship coordinator.

Another significant part of the administrative role of all internship coordinators is to evaluate the experience. Almost every institution (13 out of 15) requests an evaluation *of the intern* by the internship host; 8 out of 15 request an evaluation *of the host* by the intern. It is the responsibility of the internship coordinator to make sure that the students are performing appropriately within the organization, but also that the organizations are providing a good experience for the students.

In addition to reviewing the standard mid-term and/or final evaluation, many of us are asked to step in from time to time when problems arise. For

example, students may report they are being given insufficient or inappropriate work. The internship coordinator may have to intervene, either speaking with the host about the type of assignments the intern is being given or explaining to the intern that the assignments are typical of entry-level employees.

Publicist

Strange as it may seem, internship coordinators spend a significant amount of time promoting their programs. There are two aspects to this task: (1) Making sure students know about internship opportunities and (2) making sure there are sufficient, appropriate hosts who can provide a good experience for student interns.

To learn how others publicize the internship program to students, I provided a list of possible strategies, as follows (with the number who report using that strategy in parentheses):

- Advising system (9)
- Career Center (5)
- Flyers/posters (9)
- Class visits (3)
- Electronic displays (3)
- Email (7)
- School newspaper (0)
- Department website (9)
- Program website (6)
- Facebook (4)
- English Department Newsletter (1)
- Blog (1)
- Do not publicize (1)

I use almost all of these methods to publicize my program, and in addition I publicize the program to students by hosting an event each semester that is open to all students in my college. Although I did not think to ask about this on the survey, no one volunteered that they host events in the final "what else should I know about your program" question or in the two in-person interviews.

For the past several years, I have produced an Alumni/Student Networking Open House each fall, where 20-25 alumni from my college who

are currently working in the area come back to campus. The two-hour event allows current students an opportunity to learn from the alumni about relevant courses, career opportunities, and job search strategies. I plan a similar event each spring, but that event features local employers. Unlike a job fair, this event is an opportunity for students to learn about careers and industries, not about specific jobs, from professionals with long-term involvement in those industries. Students are required to attend the event that occurs during the semester in which they take my internship class, but the events are open to all students and publicized throughout the college. Information about the internship program is given out to attendees who are not in the class.

Ten of the program coordinators responded to an open-ended question asking about host-recruitment strategies. In my case, I created a packet of information about the program that I either hand deliver or email to prospective hosts. Over the past two years, I have had so many employers contact me that I have not had to work to develop the list, but I am fortunate to live in a very economically stable area with a great many opportunities for student interns. As an example, in the four weeks prior to the beginning of the fall 2013 academic year, I was contacted by 21 organizations asking for an intern, most of which were organizations I had not worked with previously.

However, the respondents to my survey who actively recruit hosts for interns report a variety of strategies, which may be useful to those who are looking to expand the opportunities for your students.

- Work with the career center to identify target organizations, then call or email specific contacts within those organizations.
- Approach various departments and units on campus to suggest ways that interns could be of assistance.
- Invite employers to advertise internships (or job openings) through a departmental listserv.
- Provide a description of skill sets for specific majors, helping employers distinguish among the attributes of, for example, journalism, communication, and English majors.
- Network at community social or professional meetings.
- Attend career fairs or other events that bring employers together.
- Seek out specific organizations in response to student interest.
- Contact alumni who live and work in the area and encourage

them to host interns. This can often be accomplished through an alumni newsletter if your department is fortunate enough to have one. (I have found that alumni of my own internship program are often eager to host interns themselves once they are in a position to do so.)

- Draft a standard letter that can be sent to local nonprofit organizations, civic groups, and government agencies to promote internships for majors.

As mentioned above, it's important to consider both the students' experience with employers' as well as the employers' assessment of the students' work when maintaining the list of opportunities. I'm fortunate to have more than 300 employers on my list of possible internship hosts, but over the years I have eliminated a few who have not provided a good experience. Questions about maintaining the list of hosts and the reasons for dropping an employer were not included on my survey, but I have dropped hosts for

- Not providing sufficient feedback,
- Assigning only mundane tasks (e.g., answering phones, filing),
- Inadequate communication of assignments and instructions,
- Requiring an excessive time commitment,
- Demanding that the student skip classes to attend organizational events, and
- Inappropriate behavior (fortunately, only once).

In some of these instances, I intervened on behalf of the student and was able to resolve the situation to the extent that the student was able to complete the internship. In three cases, the situation was so bad that I removed the student from the internship during the semester. In those cases, I had a conversation with someone at the organization in a position of authority to explain the situation. I also immediately found the student a new internship (or determined that they had already completed sufficient hours to meet the requirement). I also explained that I would not be permitting my students to intern within that organization in the future. When my sense was that the employer was unlikely to change, and especially if they had had numerous interns from other programs on campus, I also reported the situation to the North Carolina State University Career Development Center and other internship coordinators whose students are likely to be affected.

What are the expectations and responsibilities for students?

While Roger Munger (2006) did an extraordinary job of explaining why students should complete an internship and how they could locate, evaluate, and participate in an internship, my concern is with the more mundane set of requirements that students need to meet once they have secured an internship. This section will describe the students' ability to earn academic credit for internships, the number of hours they are expected to work at the internship, and the type of academic assignments they need to complete.

Every school reported that students are able to earn academic credit for internships, but the number of credits that they can earn and the work that they must do to earn those credits varied considerably, a situation nearly identical to that reported by Sherry Little more than 20 years ago (1993). Because there is so much variation, I will list the differences so that you can compare them with your own system.

- Three respondents reported that students are able to earn three or four credit hours for an internship, which in each case is the equivalent of one academic course.
- Five respondents reported that students are allowed to earn credit for two different internship experiences, so either six or eight credit hours, depending on the standard for an academic course.
- Three respondents reported that the number of credit hours varied depending on the number of hours worked, which had several variations:
    - One credit hour for each 40 (or 45) hours of internship experience, up to a pre-determined maximum (see below).
    - 15 hours of internship experience per week for the semester equals three credit hours
    - A total of 150 hours of internship experience equals three credit hours
- A maximum of 3, 4, 6, 8 or 12 credits toward graduation

Some institutions allowed students to earn credit more than once for a single experience (e.g., six or eight credit hours for an internship completed for two semesters), but others required students to have different internships for each allotment of credit hours. In one instance, the number of credit hours varied depending on whether the internship was a regular course or a capstone course.

The hours that student worked at the internship also varied, from a requirement of a specific number of hours per week (from 4 to 15) to a

specific number of hours per term (40 to 200), which correlated with the number of credits earned.

In the section on the teaching role of internship coordinators, I outlined some of the topics and assignments of those courses, which are required by half of the respondents. In the programs where a course is not required, most of the interns still have academic requirements in the form of an independent study, which can include

- Regular meetings with a faculty sponsor or advisor
- Written assignments throughout the term
- A log of internship activities
- A final report on the experience
- An exit survey

Only three programs reported that students had no academic requirements in addition to the internship experience.

What are the expectations and responsibilities for participating employers/hosts?

Most of the participants reported that they have specific criteria for internship hosts; however, those criteria varied somewhat from program to program. Despite this variation, the primary focus of the criteria seems to be that the host must provide the intern with relevant, entry-level experience and close supervision and must stay in communication with the internship coordinator or faculty advisor. (See Sides and Mrvica, 2007, for a detailed discussion of "The Administrative Responsibilities for Host Sites.")

Some respondents reported that they require employers to comply with federal and state guidelines pertaining to interns, especially for unpaid internships. Others ask hosts to accept legal liability for the interns, although in at least one case all interns are required to purchase inexpensive ($15.00) liability insurance through the university.

Other requirements (reported by one respondent each) include:

- A letter of recommendation for the intern at the end of the term
- An interview with the program director prior to the internship
- A detailed description of the work to be completed
- Specific work assignments (e.g., writing, editing, web maintenance)
- On-site work space

While all 15 programs allow students to complete internships in other geographic regions if they work on site, such as over the summer or winter breaks, only 11 of the 15 programs allow students to complete what I call "virtual internships." That is, students are able to accept internships where

they are not working in the same physical space as the employer. In those instances, the student works much as an employee who teleworks, communicating electronically with a supervisor or co-workers. In my program, I have had students do virtual internships with companies hundreds, or even thousands, of miles away that worked out well for both the student and the employer. I have also had students do virtual internships for small companies or campus entities, where the interns may meet with the supervisor in person once a week, but complete assignments on their own time and wherever they choose to work (e.g., dormitory, apartment, coffee shop, library). Most of those situations have worked very well, although in some instances problems have arisen because of lack of clarity of instructions, insufficient feedback, or unrealistic expectations about availability. To try to ensure that virtual internships are effective, especially since so many of my students now have internships at least in part virtual, I have the students read an unpublished report about how to succeed in a virtual environment and devote one class period early in the semester to a discussion of this topic.[5]

As mentioned previously, 13 of the 15 programs require that employers complete at least one evaluation on the intern. I provide a specific form, as do many of my peers, and ask the employer to go over the evaluation with the student prior to sending a copy to me. I have found that I need to remind some employers about the evaluation several times, and in a few instances I was unable to get the employer to respond with an evaluation.

Unique attributes of internship programs

The survey gave respondents the opportunity to describe any unique features or to provide information not covered by any of the questions. The results were diverse and informative, and each one suggests ways to enhance or improve internship experiences for more students.

Three schools report a feature new to me called transcript notation. What this means is that the student's internship is noted on his or her transcript, not just as a course for credit, but also specifying the location (organization) and duration of the experience.

One respondent reported offering parallel programs: one specifically for English majors and flexible with regard to the type of organization as long as the work is related to writing and editing, and the other open to any major and allowing students to earn credit for internships such as

[5] The report was written as an undergraduate research project by one of my students, Brenna Leath. Anyone wishing a copy can request one by emailing me at SusanKatz@ncsu.edu.

tutoring in the Writing Center, serving as a teaching assistant, or working for a local or state politician.

Another participant reported that their Professional Writing Program offers a summer internship course for any student with an internship that involves writing and communication. The course is online, so students can participate from anywhere.

One respondent reported that information is gleaned from both the mid-term and final student evaluations about the relevance of the curriculum for the work expected of student interns. This information is then shared with instructors in the technical communication program as a way of keeping the program current with the needs of local employers.

A question that I did not ask on the survey, but that came up in conversation during the member-check interview, was the eligibility of graduate students to earn academic credit for internships.[6] During that interview, I learned that internships were encouraged for graduate students in both the MA (English) and the MFA (Creative Writing) program. Graduate students most often completed internships relevant to college teaching (composition, creative writing), public education, K-12 teaching, adult education (primarily English as a Second Language), or literary editing.

In my own program, I added a graduate component several years ago. The graduate course is distinctly different from the undergraduate course in several ways: the course is open only to students in the three graduate programs in my department (MA in English, MFA in Creative Writing, MS in Technical Communication), the focus of the course is the role of writing and writers in nonacademic settings, it is offered spring semesters only, and the academic requirements are significantly more rigorous. While only the MS students are required to complete an internship (they are not required to take the course), the course has proven popular with students from all three programs and has resulted in several students being offered full-time permanent positions immediately after graduation.

Although internships have been part of both undergraduate and graduate curricula for decades, new issues have become relevant to the programs due to changing technologies as well as abuses of the system. In the next section, I will briefly discuss a few of these issues.

Emerging Areas of Concern

In recent years, internships have become more important than ever before, but they also have garnered more attention than in the past. Because of

6 I add questions about graduate student internships in the survey sent subsequent to the pilot study.

this closer scrutiny of internships and discussions of their true value, it is important to try to think about how internships may be changing.

Virtual Internships

Over the past ten years, I have seen the number of virtual internship opportunities increase, but the number of students who opt for a virtual internship is still low. The first virtual internship that I am aware of in my program happened in the fall 2005 semester, with a student who was the campus correspondent for *Sports Illustrated*. It was two years before another student participated in a virtual internship, that one with a locally-produced online magazine managed out of the editor's home. Although by now it is slightly more common for a student to participate in a virtual internship, it is still rare for me to have more than one student choose a virtual internship out of every 15 students who participate in the program.

However, just as more and more organizations are providing opportunities for their employees to telework, it is likely that more and more organizations will incorporate the idea of virtual internships into their programs. It is an unfortunate fact that students who are doing virtual internships may have more difficulty getting detailed instructions and assignments, advice about goals for their products, and feedback about their completed work than students who are seeing their supervisors face to face on a regular basis. In programs where the students meet regularly with faculty—either in a classroom or in individual conferences—it is more likely that virtual internships will be successful, as the internship coordinator or course instructor can help the student find ways to more successfully communicate with the organization or, in the worst-case scenario, intervene on the student's behalf to ensure that the experience has value.

Of greater concern are those students who are completing virtual internships—either for academic credit or not—without any type of faculty support or mentorship. In those situations, it is hard to guarantee that the internship will provide value to the student.

Internships for Graduate Students

In technical communication, graduate students are often encouraged or required to complete an internship. In both the master's program where I did my graduate work (Rensselaer Polytechnic Institute) and the program where I now teach (North Carolina State University), students completing the M.S. in Technical Communication are required to demonstrate relevant work experience, either through an internship or part- or full-time employment. However, in other programs within English studies, this is currently less common.

The survey that I disseminated subsequent to the pilot study will give us a better idea of the prevalence of internships for graduate students, but this is an area that needs to be developed. Just as internships have become important for undergraduates—in a survey conducted by Marketplace and *The Chronicle of Higher Education*, having completed an internship was the number one criteria listed by employers of new college graduates (Scott, 2013)—they will increasingly become important for graduate students whose studies do not lead to a particular profession. As mentioned previously, in 2009 I created a graduate internship course, which has now been offered five times. However, students from the M.A. and M.F.A. program have had more obvious, direct benefits by being introduced to careers that they had not considered and, in several cases, by being offered a job after graduation as a direct result of the internship experience.

Another area for possible expansion of internship programs is for students in PhD programs. Although many faculty still think of PhD programs as preparing students for academic careers, recent articles (e.g., Schillace, 2013; Tuhus-Dubrow, 2013) have emphasized the need for us, and those students, to think about nonacademic career paths as well. Internships may be important for such students to add to their resumes to demonstrate their value to prospective employers.

Recent Legal Developments

When Roger Munger (2006) discussed "legal and safety issues" in his detailed presentation of issues in technical communication internships, the focus was on topics such as confidentiality, sexual harassment, and discrimination. In the past two years, however, we have seen unpaid interns successfully sue their employers, citing unfair business practices and an over-reliance on the work of interns. This is a complicated issue, and I am not a legal scholar, so I will not go into detail about the effect of this on internship programs. However, I do have an opinion about this: Internship programs that have an academic component are less likely to allow students to participate in situations where they will be abused.

There are really two pieces to this problem. First of all, organizations can offer, and individuals can choose to participate, in internships that have no connection to an academic institution. Students gain experience, but not academic credit. As will be explained below, this is not legal unless the organization is a not-for-profit or government entity. When there is no academic oversight, students have no recourse other than the courts to complain about mistreatment.

The second part to this problem is academic institutions that grant academic credit but do not provide any type of supervision or mentoring.

How common this situation is may become more clear when I obtain the results of my larger study of internship opportunities, but I do know that many schools, or departments within schools, allow students to earn academic credit by simply filing some paperwork or, at most, writing a report at the end of the experience. I have anecdotal evidence that this paperwork is rarely reviewed by anyone within the university.

I also have noticed that much of the publicity has been generated by internships within the entertainment industry. This is a popular industry for students, but one that is difficult to enter without experience or specialized credentials. And it's an industry that seems to have been comfortable taking advantage of those students. For many years prior to becoming a professor, I worked in television. Although we rarely had interns (paid or unpaid), the industry was able to hire full-time employees for very low pay simply because so many people wanted to work in television. It was not at all uncommon for news reporters at the stations where I worked in the 1970s and 1980s to hold down a second job to support their desire to be on television.

Government Regulations

The Federal Government, and many state governments, have labor laws that specifically deal with internships. In Appendix D you will find the U.S. Department of Labor Fact Sheet #71: Internship Programs Under The Fair Labor Standards Act. This document clearly outlines the criteria for determining the legality of an unpaid intern.

Problematic among the criteria is item #4, which says that the employer can derive no benefit from the work completed by the intern. If this law were to be enforced, student interns would be relegated to observers only, without the ability to produce anything of use. In that situation, the internship would be nearly worthless: we all realize that for true learning to take place in an internship, actual, useful contributions are essential. Literature has shown us time and again that simulations and observation are insufficient experience.

Further Research

To obtain a more complete picture of the state of internships within English studies more generally, I am following up this pilot study with a survey that will include a more diverse set of colleges and universities, including private and public four-year schools with varying levels of research activity and educational focus. The new project looks at both undergraduate and

graduate programs and asks questions similar to those in the pilot study. A database of contacts at more than 1000 schools offering the English major was produced, and the survey was administered electronically in the spring of 2014. Approximately 27% of the recipients completed the survey, which should provide valid, reliable results.

There are other ways that we can learn more about the value of internship programs and experiences for English majors:

- Although it is difficult to develop a database of English alumni who have completed internships, I hope to make the attempt at some future point. If I am able to create such a list, I would like to conduct a survey to find out if the experience was helpful to them, either in obtaining the first job after college, in providing them with the skills and experience that have helped them succeed within their careers, or in some other way.
- It would be useful to conduct a survey of employers who have hosted interns to learn what they see as beneficial—or problematic—about hosting interns.[7]
- Analysis of student pre- and post-internship surveys could provide insights into how the experience is perceived by the students over the course of the internship.
- Analysis of employer evaluations could also give some insights, although the specificity of those evaluations for individual students would make generalizations difficult. However, patterns may emerge that would demonstrate areas (e.g., judgment about when to seek guidance or sensitivity to the needs of others, both of which are criteria on the evaluation forms I use for my internship class) that could be addressed with students during the internship seminar.

It is my hope that this overview of current programs, emerging issues, and additional research possibilities will provide us with a way to think about the future of internship programs. In my view, it is essential that we find ways to expand programs, involving more students in valuable experiential learning situations.

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[7] The National Association of Colleges and Employers has conducted a nationwide survey of employers who have internship and co-op programs, but the results of that survey are available only through purchase. In addition, the employers would cover a wide variety of disciplines and the relevance to technical communication could be minimal.

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Appendix A: Peer Institutions

- Colorado State University (Fort Collins)
- Georgia Institute of Technology
- Iowa State University
- Michigan State University
- Ohio State University
- Penn State University-Main Campus
- Purdue University-Main Campus
- Rutgers University
- Texas A & M University
- University of Arizona
- University of California-Davis
- University of Florida
- University of Illinois-Urbana/Champaign
- University of Maryland-College Park
- University of Wisconsin-Madison
- Virginia Polytechnic Institute

Appendix B: Survey Questions

Note that some of these questions were open ended and some were multiple choice. For the sake of space, I have not included all the possible multiple-choice responses.

Q1. What is your title?

Q2. Do you teach classes in addition to your work with interns?

Q3. Do you receive a course release or other benefit from working with interns?

Q4. What benefits do you receive for working with interns?

Q5. Do you have responsibilities aside form working with interns?

Q6. If you answered yes to Q5, what are those responsibilities?

Q7. On average, how many students in your department/program participate in an internship each year?

Q8 Approximately how many students are eligible to participate in an internship each year?

Q9 Is your internship program restricted to specific majors?

Q10 Which majors are permitted to do internships?

Q11 Does your department require students to complete an internship?

Q12 How do you publicize your internship program?

Q13 Do students need to meet specific criteria to participate in an internship?

Q14 What criteria must students meet to participate in an internship?

Q15 Are students expected to find internships on their own?

Q16 Does your program provide resources to assist them in finding internships?

Q17 What resources do you provide to assist students in finding internships

Q18 How do you match students with internships?

Q19 Are students able to earn academic credit for internship?

Q20 How many credit hours can they earn?

Q21 Are students earning academic credit for an internship required to take an accompanying course?

Q22 Please explain who teaches the course and describe the general topics and assignment.

Q23 Do students who earn academic credit for the internship have academic requirements in addition to the internship experience?

Q24 Please specify the academic assignments required of students doing internship.

Q25 How much time must students spend working at the internship?

Q26 When are internships available for credit? (Please check all that apply.)

Q27 Do you actively recruit hosts/employers for interns?

Q28 Please describe your recruitment strategies.

Q29 Do you have criteria that hosts/employers must meet to be part of the program? Q30 Please describe the criteria for hosts/employers.

Q31 Do you offer internal internships? That is, does your department or college act as a host for interns?

Q32 How is the internship experience supervised/managed? That is, who is responsible for determining that the student is having a valuable experience worthy of academic credit?

Q33 Are interns evaluated by the host/employer?

Q34 Who is the recipient of the evaluation of the interns by the host/employer?

Q35 Are hosts/employers evaluated by the interns?

Q36 Who is the recipient of the evaluation of the host/employer by the intern?

Q37 Do you use any of the following forms to manage the internship process?

Q38 Does your university allow for "transcript notation" (Special note on the transcript about the place where the student interned, whether the internship was for credit or not)?

Q39 Are students allowed to complete "virtual" internships? That is, can students do internships where all (or most) communication between intern and host is completed electronically and there is little or no face-to-face contact?

Q40 Are students allowed to complete internships in other geographic areas?

Q41 Please describe your mechanism for students who complete non-local internships on site.

Q42 What else can you tell me about your internship program that may be unique or not covered by the previous questions?

Appendix C: North Carolina State University Department on English Internship Program Statement of Rights and Responsibilities

Students, employers, and professors should understand and fulfill their basic obligations so everyone involved has a good experience. In the placement process and on the Internship Agreement form, commitments and responsibilities are described specifically for each student and each mentor/supervisor. In general, though, we agree on the following division of responsibilities.

Student:

- Work 120 hours, minimum, per semester.
- Provide own transportation to and from internship work site.
- Report to the internship site promptly and regularly.
- Complete projects described in internship agreement.
- Attend weekly internship class.
- Complete all course requirements.

Employer & Supervisor/Mentor

- Work 120 hours, minimum, per semester.
- Provide own transportation to and from internship work site.
- Report to the internship site promptly and regularly.
- Complete projects described in internship agreement.
- Attend weekly internship class.
- Complete all course requirements.

Coodinator:

- Work 120 hours, minimum, per semester.
- Provide own transportation to and from internship work site.
- Report to the internship site promptly and regularly.
- Complete projects described in internship agreement.
- Attend weekly internship class.
- Complete all course requirements.

Appendix D: The U.S. Department of Labor Fact Sheet #71: Internship Programs Under The Fair Labor Standards Act

U.S. Department of Labor
Wage and Hour Division

U.S. Wage and Hour Division

(April 2010)

Fact Sheet #71: Internship Programs Under The Fair Labor Standards Act

This fact sheet provides general information to help determine whether interns must be paid the minimum wage and overtime under the Fair Labor Standards Act for the services that they provide to "for-profit" private sector employers.

Background
The Fair Labor Standards Act (FLSA) defines the term "employ" very broadly as including to "suffer or permit to work." Covered and non-exempt individuals who are "suffered or permitted" to work must be compensated under the law for the services they perform for an employer. Internships in the "for-profit" private sector will most often be viewed as employment, unless the test described below relating to trainees is met. Interns in the "for-profit" private sector who qualify as employees rather than trainees typically must be paid at least the minimum wage and overtime compensation for hours worked over forty in a workweek.*

The Test For Unpaid Interns
There are some circumstances under which individuals who participate in "for-profit" private sector internships or training programs may do so without compensation. The Supreme Court has held that the term "suffer or permit to work" cannot be interpreted so as to make a person whose work serves only his or her own interest an employee of another who provides aid or instruction. This may apply to interns who receive training for their own educational benefit if the training meets certain criteria. The determination of whether an internship or training program meets this exclusion depends upon all of the facts and circumstances of each such program.

The following six criteria must be applied when making this determination:

1. The internship, even though it includes actual operation of the facilities of the employer, is similar to training which would be given in an educational environment;
2. The internship experience is for the benefit of the intern;
3. The intern does not displace regular employees, but works under close supervision of existing staff;
4. The employer that provides the training derives no immediate advantage from the activities of the intern; and on occasion its operations may actually be impeded;
5. The intern is not necessarily entitled to a job at the conclusion of the internship; and
6. The employer and the intern understand that the intern is not entitled to wages for the time spent in the internship.

If all of the factors listed above are met, an employment relationship does not exist under the FLSA, and the Act's minimum wage and overtime provisions do not apply to the intern. This exclusion from the definition of employment is necessarily quite narrow because the FLSA's definition of "employ" is very broad. Some of the most commonly discussed factors for "for-profit" private sector internship programs are considered below.

Similar To An Education Environment And The Primary Beneficiary Of The Activity
In general, the more an internship program is structured around a classroom or academic experience as opposed to the employer's actual operations, the more likely the internship will be viewed as an extension of the individual's educational experience (this often occurs where a college or university exercises oversight over the internship program and provides educational credit). The more the internship provides the individual with skills that can be used in multiple employment settings, as opposed to skills particular to one employer's operation, the more likely the intern would be viewed as receiving training. Under these circumstances the intern does not perform the routine work of the business on a regular and recurring basis, and the business is not dependent upon the work of the intern. On the other hand, if the interns are engaged in the operations of the employer or are performing productive work (for example, filing, performing other clerical work, or assisting customers), then the fact that they may be receiving some benefits in the form of a new skill or improved work habits will not exclude them from the FLSA's minimum wage and overtime requirements because the employer benefits from the interns' work.

Displacement And Supervision Issues
If an employer uses interns as substitutes for regular workers or to augment its existing workforce during specific time periods, these interns should be paid at least the minimum wage and overtime compensation for hours worked over forty in a workweek. If the employer would have hired additional employees or required existing staff to work additional hours had the interns not performed the work, then the interns will be viewed as employees and entitled compensation under the FLSA. Conversely, if the employer is providing job shadowing opportunities that allow an intern to learn certain functions under the close and constant supervision of regular employees, but the intern performs no or minimal work, the activity is more likely to be viewed as a bona fide education experience. On the other hand, if the intern receives the same level of supervision as the employer's regular workforce, this would suggest an employment relationship, rather than training.

Job Entitlement
The internship should be of a fixed duration, established prior to the outset of the internship. Further, unpaid internships generally should not be used by the employer as a trial period for individuals seeking employment at the conclusion of the internship period. If an intern is placed with the employer for a trial period with the expectation that he or she will then be hired on a permanent basis, that individual generally would be considered an employee under the FLSA.

Where to Obtain Additional Information
This publication is for general information and is not to be considered in the same light as official statements of position contained in the regulations.

For additional information, visit our Wage and Hour Division Website: http://www.wagehour.dol.gov and/or call our toll-free information and helpline, available 8 a.m. to 5 p.m. in your time zone, 1-866-4USWAGE (1-866-487-9243).

U.S. Department of Labor
Frances Perkins Building
200 Constitution Avenue, NW
Washington, DC 20210

1-866-4-USWAGE
TTY: 1-866-487-9243
Contact Us

* The FLSA makes a special exception under certain circumstances for individuals who volunteer to perform services for a state or local government agency and for individuals who volunteer for humanitarian purposes for private non-profit food banks. WHD also recognizes an exception for individuals who volunteer their time, freely and without anticipation of compensation for religious, charitable, civic, or humanitarian purposes to non-profit organizations. Unpaid internships in the public sector and for non-profit charitable organizations, where the intern volunteers without expectation of compensation, are generally permissible. WHD is reviewing the need for additional guidance on internships in the public and non-profit sectors.

Internships: Past, Present, and Future

Charles H. Sides
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Abstract. Research consistently identifies internships as a critical component of higher education that aims to provide transitions for students between the academic and professional world (Callahan & Benzing, 2004; Taylor, 1988). Consequently, most colleges and universities have internship programs of some sort, with tremendous variety among what is offered from institution to institution. Recent events, particularly the role of the U. S. Department of Labor's oversight of internship programs and successful lawsuits challenging unpaid internships, require both educational institutions and internship providers to re-think the structure of internship programs. The goal of this article is to condense important past works published on internships, as well as to update our understanding of how internships are structured and maintained, based on these relatively recent developments.

Keywords. paid internship, unpaid Internship, internship compensation, U. S. Department of Labor, apprenticeship, professionalism, civic engagement, techne, poesis, praxis

Internships, often referred to historically as *apprenticeships* in Europe, are a form of work-to-learn education. (For simplicity's sake, from this point on, I will use the term "internships" to refer to such educational practices.) They are "supervised, introductory career opportunities provided in partnership between academic institutions and professional organizations" (Sides & Mrvica, 2007) in which the goal is to extend what has been learned in academic coursework and, through careful mentoring, apply it in professional settings. These experiences are not new. In some instances, the existence of such work-to-learn activities is traceable back through centuries of published work. In fact, it is not unreasonable to believe that they are important aspects of culture dating to the dawn of humanity itself as sets of skills are passed on from one generation to the next by persons teaching others through demonstrated and jointly participated-in experiences (Wadley, Hodgskiss, & Grant, 2009; Wadley, et al., 2011).

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One way to think about such activities as precedents for modern internships is to consider past explorations into the distinctions between learning and being. Aristotle was among the earliest to do this (Aristotle). As has been explained in numerous articles published in our discipline over the past few decades (Miller, 1989; Bolter, 1991; Sullivan, 1991; Hawk, 2004; Moeller & McAlister, 2002), Aristotle identified the "state or capacity to make" as techne, and he considered it a true course of reasoning:

> All art, a term which he used to include what we would consider craft as well, is concerned with coming into being; in other words, with contriving to and considering how something may come into being which is capable of either being or not being, and whose origin is in the maker and not in the thing made. (Aristotle)

He differentiates *techne* from *episteme*, or theoretical knowledge. In other words, Aristotle's use of and explanation of *techne* involves the arts and crafts of making things; *episteme* involves the knowledge about things, or what Aristotle would associate with science.

In the *Nichomachean Ethics*, Aristotle envisions *techne* as a type of activity out of which is created a durable good, a product, or a state of affairs. This might include an architect designing and building a house, a potter making a goblet, or a physician restoring a person to health. This type of production, which Aristotle called *poiesis*, can be precisely specified by the maker before he or she engages in the activity. But Aristotle went beyond this concept to explore *praxis*, as well, which he described as

> conduct in a public space with others in which a person…acts in such a way as to realize excellences that he has come to appreciate in his community as constitutive of a worthwhile way of life. (Aristotle)

This concept can be best thought of as a combination of what has historically been called "professionalism" with what many of our universities are now calling "civic engagement." Adding such a notion to the productive activities long associated with internships is a vitally important perception for the design of modern internships because universities are increasingly recognizing their responsibilities to the communities in which they reside and to society as a whole.

Internships, as a form of learning-through-experience, exhibit important aspects of *techne*, *poiesis*, and *praxis*; and that through these experiences, knowledge communities are created and sustained throughout one's professional life. These knowledge communities have long been one of the foundational principles of society. As knowledge industries

become increasingly important to global economies in the 21st century, the concepts Aristotle described centuries ago may again manifest the importance he foresaw for them. Such a manifestation seems particularly promising for *praxis*, given the current focus in higher education on how graduates should relate their education to a lifelong engagement with their communities.

How Long Have Humans Learned This Way?

Perhaps the earliest reference specifically to what we might identify as internships occurs in *Hammurabi's Code* (approximately 1770 BCE), in which the appropriateness of "bringing a boy into the home of a craftsman" is declared as the "natural way to learn a craft" (Sides & Mrvica, 2007, p. 63). Similarly, early writings among Greek, Roman, Chinese, and Vedic communities suggest the employment of internships to prepare youths for entry into various skilled fields was widespread and increasingly formalized among developing societies as early as 600 BCE. One would suspect that the real answer to the question posed in this section is measured in tens of thousands of years back to prehistory; it is difficult to imagine a flint knapper learning his or her trade any other way.

The relationship between history's "learning-by-doing" and Aristotle's exploration of *techne* in the *Nicomachean Ethics* is relatively straightforward. Even though he does not specifically refer to the importance of internships in transmitting the knowledge of doing and making to succeeding generations, his stress on specifying results suggests that the practice of experiential learning was so common in Athenian society that it did not require explanation. Training an apprentice to be a craftsperson (or artist) <u>is</u> *techne*.

Current approaches to internship trace their origins at least to the Middle Ages during which such experiences were controlled by guilds, associations of craftsmen (and in some cases, women) who banded together to promote mutual interests shared by others engaged in their trades. In medieval times, apprentices were engaged for a period of years "while they were initiated into the theory and practice . . . associated with a particular occupation" which could include both manual and professional pursuits (Wadley, Hodgskiss, and Grant, 2009). In the 21st century, the professions of law and medicine continue to exhibit aspects of this approach to professional education through programs that include residencies and other probationary experiences. Following the model of generations, would-be entrants to these professions apply years of learning to their trade under the tutelage and evaluation of more experienced professionals.

When considering the history of internships, particularly as it concerns the practices of craft guilds and apprenticeship in Middle Ages Europe, it is important to remember that society was at this time evolving from the feudal manorial tradition to a burgeoning entrepreneurial, trade-based tradition with the concomitant rise of a middle class. Crafts, trades, and apprenticeships were ways in which serfs and other indentured peoples earned their freedom in the Middle Ages. Later, many of the ancestors of today's Americans paid their way to the New World in similar fashion.

Modern internships evolved from these practices that were common across Europe by providing opportunities for probationary professionals in a wide variety of disciplines to polish their knowledge under the guidance of experts. No longer necessary for securing freedom nor (for the time being) passage to a new world, internships remain a key method for gaining entry into professional fields.

Why Do Internships Succeed?

Internships succeed, in part, because they exemplify recent advances in social theories of learning (Guile & Young, 1988). They do so by exposing (or more likely continuing to expose) interns to group learning environments. Ranging from long-established communications disciplines such as advertising, public relations, technical communication, *et cetera*, to recently developed disciplines such as game design and social media communication, practices are group-based. Professional environments in each of these disciplines are moving away from cubicles to open environments and break-out spaces that encourage collaboration. Earlier thoughts about applying "work-to-learn" pedagogies tended to view them from behaviorist and individualist perspectives. Following such models, educators focused on transmission processes to implant decontextualized knowledge into vocationally specific environments. Such approaches were frequently associated with cognitive science accounts of expertise as the stable individual mastery of well-defined tasks. Examples of this can be found from mid-20th-century approaches to engineering and science education even to grammar-based approaches to teaching composition during the same era. Viewing internships from a social learning perspective appears to be more appropriate to 21st century environments, in which we speak of knowledge communities, lean teams, and flexible workplaces. Such an approach means moving beyond knowledge transmission and into (or perhaps back to) the intern "learning by doing" using a master or expert as role model. It means that there is likely not one university-wide design for internships that will be productive in all of the disciplines that provide

internships as part of their pedagogical practice. In place of the erroneous belief that learning processes are invariant for a wide range of professions, internships should and can be designed for contexts that are specific and knowledge-rich; game design is a particularly good example of this. Collaborative practices, moreover, mediate such approaches to learning.

Knowledge within many, if not most, professions is socially constructed. In advertising, for example, ads are created by the interplay of graphic artists, copywriters, art directors, and clients. However, the contributions of each are not limited to their narrow areas of expertise. In the creative ferment of collaborative practice, graphic artists might just as well come up with a slogan as with a page design; writers contribute visual ideas. Art directors and clients do both. And in the sort of institutions that we should seek as internship providers, interns become part of such knowledge-rich communities of practice. In many instances, they are exposed to varieties of such communities within one organization. The film industry is an excellent example of this; if one waits to watch the credits roll at the end of a movie, it becomes apparent that modern films are created by a vast number of communities bringing to bear their discipline's knowledge and expertise. Much of science and technology (for example, architectural design) functions the same way, with individuals representing such communities as structural design, site planners, hydrology engineers, interior designers, *et cetera*, collaborating to make their contributions to the final design and built environment. In such fields, interns must relate the theoretical knowledge they developed in academic environments to daily workplace practices, through carefully mentored processes, to solve problems they confront there.

> Vygotsky's (1978) "zone of proximal development" provides an excellent foundation for understanding how this works. He defined it asthe distance between the actual development level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more able peers. (Vygotsky, p. 86)

Appropriately designed internships provide learning environments in which students do precisely this. A large Boston-based advertising agency with a long-standing carefully developed internship program is an excellent example. Understanding that graphic design students most likely come from programs that focus on individual design and problem solving, the interns at this agency are placed within design teams and, under careful guidance, collaborate with more experienced experts, contribute to design discussions, and add value to ads.

Cole (1985) broadened Vygotsky's concept, suggesting that culture and cognition create each other within such zones through a dynamic relationship among people and social worlds expressed through language, art, and understanding. For example, a high-end advertising agency and an *avant garde* poster design company both reflect similar disciplinary backgrounds in the education their employees may have received, but they are different cultures. Cognition and awareness focus on different values, and these values are expressed through the designs that emanate from each organization. Cole's views on how these concepts operate within Vygotsky's zones suggest that internships can be seen as "the dynamic interrelationship between social, cultural, technological, and linguistic practices…. [They] create a practice through which individuals and groups can learn over a period of time" (Lave, 1996).

Vygotsky's theory, and extensions of it, position internships in the following way:

> From a socio-cultural perspective, the basis of analysis [of learning] is no longer the properties of the individual, but the processes of socio-cultural activity, involving participation in socially constructed practices. (Rogoff, 1990)

The shift in viewing internships from personal levels of competence to socially constructed learning environments enables us to see them as social institutions broadly applicable to a variety of modern professional contexts. Accordingly, internships become a vehicle for "sociocultural transformation…between newcomers and old-timers in the context of a changing shared practice" (DeNike & Sides, 2014, p. 49).

Adopting this view means understanding internships as a relationship among learning, activity, and sociocultural contexts mutually constitutive with communities of practice, and that expertise within a discipline is not reduced to the mastery of discrete tasks and skills. Knowledge within disciplines becomes a distributed process rather than an attribute of individuals. Zones of proximal development are consequently replete with people having varying degrees of abilities, physical, and cultural tools. For example, in large organizations that host multiple interns, students arrive at the experience with different educations from different institutions with different pedagogical values and different histories. Sharing experiences, such resources are brought to bear, as they have historically always been, to shape human activity; in this case the internship experience. These fundamental concepts do not deny that individuals develop forms of knowledge; rather, they support the collective basis through which individuals develop social identity, learn new forms of social practice, and become

knowledgeable within a discipline. In other words, they support the way individuals become professionals and, consequently, the development of the profession itself (Lave, 1993).

How Are Internships Designed and Managed?

Modern internships can be designed and managed successfully in a myriad of ways, providing that such design and management apply the principles of internship success that have already been identified. For example, internships may be full-time or part-time. They may vary in length from short-term engagements (a few weeks) to long-term engagements (several months). They may require varying levels of academic achievement, as well as exposure to professional expectations. They may occur throughout a student's academic career or serve as the capstone graduation requirement for students in their academic disciplines. Each approach has benefits and challenges.

For example, many organizations, in my own professional experience, report that they prefer full-time internships extending over several months because the increased time working within a given internship context lets students develop a more thorough understanding of organizational operations and exhibit more consistent progress in the development of their professional abilities. Such student understanding and progress are probably enhanced if the internship occurs at the end of a student's academic career, as it does in the internship program I direct, where the experience serves as the capstone graduation requirement for our academic department.

In any approach to internships, some preparation for the experience is called for. This might include attending seminars to educate prospective interns about the experience they are planning. It might include the development of portfolios to support a student's knowledge and abilities. It could include structured interviewing opportunities, in preparation for real interviews during the internship application process. Regardless of the approach to internship design and management, the necessity to prove their value and success has become paramount at institutions of higher education.

By now, it is probably safe to assume that virtually every college and university has some sort of formalized assessment function, such as an Office of Assessment, and this factor has important implications for how internships are structured. Outcomes assessment has become both a watchword and a growth industry as institutions endeavor to prove that they are spending federal, state, and private monies in appropriate ways; it also affects the structure and management of internships. For example,

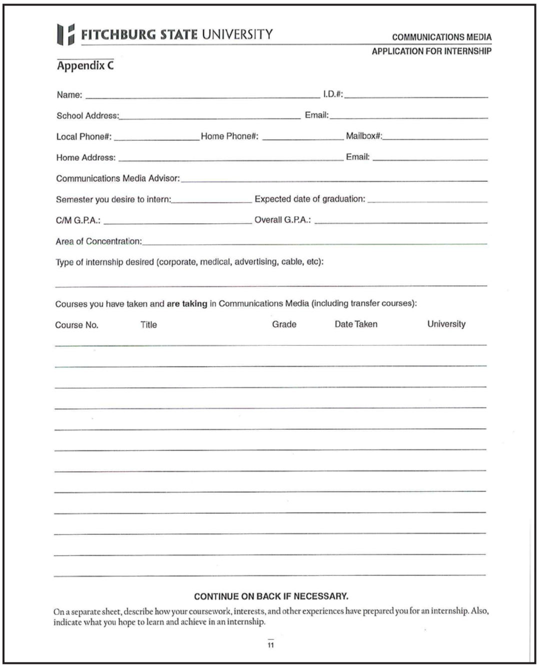
in many academic programs, ours included, internships are the capstone graduation requirement, occurring at the end of a student's academic career. In this design, they serve as a method for reality-testing the student's academic preparation for his or her profession. In other institutions, several internships might be completed throughout the academic career, and serve as checkpoints along the way for determining how appropriately a student is progressing toward a chosen profession.

Both models fit nicely with the increasing tendency to view higher education in utilitarian ways: does it lead to jobs? As a result of such factors, processes that focus on learning-to-learn have become increasingly rare, as supported by the drastic drop-off of enrollment in liberal arts programs, particularly in an era of alarmingly expensive university costs. Learning-to-do pedagogies have consequently become increasingly valued, no doubt seen as a return on investment when university educations can run into the hundreds of thousands of dollars. Such pedagogies also provide the benefit of measurability. Within this context, assessment is the balance upon which such changes in the perceived value of a university education are weighed. If one can use assessment protocols to show that certain pedagogical practices lead to consistently higher access to students' chosen professions, then such protocols reap the benefit of supporting the return on investment for a university education.

Internships are excellent tools for supporting work-to-learn pedagogies. The question is how best to assess them. Perhaps the most obvious approach is to measure job placement upon graduation. The National Association of Colleges and Employers (NACE) in a 2013 study of 9215 college seniors found that 63.1% of students in paid internships received at least one job offer, whereas only 35.2% of students with no internship received a job offer (NACE, 2013). This result mirrors the 2012 NACE study as well. In addition, institutions often supplement job placement statistics with the design and use of quantitative and qualitative instruments to support what is learned during internship preparation and on the internship itself. Consequently, there are probably almost as many ways to assess internship effectiveness as there are institutions doing it. What follows are several forms that have been developed for use in the Communications Media Department's Internship Program at Fitchburg State University (FSU).

FSU's Communication Media Internship Program is a full-time, semester-long experience at the conclusion of students' academic careers. Positioned as the capstone graduation requirement for the department, the internship requires successful completion of a semester-long qualification program immediately preceding the internship. The qualification

program consists of mandatory attendance at a series of seminars, development and defense of a student portfolio and resume, and exit interviews prior to placement. Internship placement is competitive and based upon a student's academic record, faculty recommendations, and performance during the internship qualification program. Students complete a formal application to be admitted to the internship program; in that application they are required to support their academic qualifications for participation (see Figure 1).


FITCHBURG STATE UNIVERSITY

COMMUNICATIONS MEDIA
APPLICATION FOR INTERNSHIP

Appendix C

Name: ______ I.D.#: ______

School Address: ______ Email: ______

Local Phone#: ______ Home Phone#: ______ Mailbox#: ______

Home Address: ______ Email: ______

Communications Media Advisor: ______

Semester you desire to intern: ______ Expected date of graduation: ______

C/M G.P.A.: ______ Overall G.P.A.: ______

Area of Concentration: ______

Type of internship desired (corporate, medical, advertising, cable, etc):

Courses you have taken and **are taking** in Communications Media (including transfer courses):

Course No.	Title	Grade	Date Taken	University

CONTINUE ON BACK IF NECESSARY.

On a separate sheet, describe how your coursework, interests, and other experiences have prepared you for an internship. Also, indicate what you hope to learn and achieve in an internship.

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Figure 1: Internship Application

To satisfy the demands of outcomes assessment over the past decade, we have developed forms for portfolio assessment and presentation. The first form (see Figure 2) was created over a decade ago.

Our experience with this form has revealed several problems.

- First, "Amount of Material," has proven both confusing and irrelevant for the Likert scale, as designed. "Unacceptable," "Needs Improvement," and "Meets Normal Expectations" seem to make sense, but it has become unclear how having more entries than what one would consider normal for a portfolio makes the portfolio better. Such a situation might make it worse, in that readers would find the amount of material unwieldy and overbearing.
- Second problem is that the form was designed as a hard copy document. This worked well in its day, but our university's Office

of Assessment is encouraging the use of electronic data, which can be easily processed by computer routines.

- Third problem has been that faculty using the form, in many cases, simply checked excellent without much thought or consideration. The form became a rite simply to satisfy the administration's demand for outcomes data at the end of students' academic careers.

As a result of the problems listed above and increasing university pressure to produce quantitative data, a new and simpler form was designed in an Excel spreadsheet to take advantage of its functions to average results (see Figure 3).

DEPARTMENT OF COMMUNICATIONS MEDIA
FITCHBURG STATE COLLEGE

Portfolio Defense Evaluation

Instructions: Rate the student's portfolio and presentation using the form below. If your rating for any area is less than "Meets Normal Expectations," please explain your rating in the space provided.

Student: ____________________

Concentration: ______________

Average Score: ______________

	Unacceptable	Needs Improvement	Meets Normal Expectations	Exceeds Normal Expectations	Attains Excellence
	1	2	3	4	5
1. Amount of material					
2. Quality of material					
3. Sequencing of material					
4. Appropriateness of material to student's career objective					
5. Technical and aesthetic design					
6. Execution of portfolio as a personal marketing tool					

Additional Comments:

Evaluator's Name: ____________________ Signature: ____________________

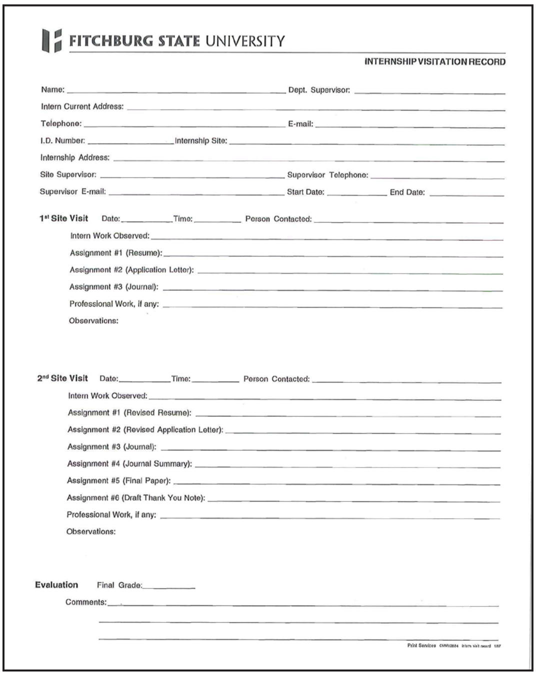
Figure 2: Original Portfolio Assessment Form

PORTFOLIO DEFENSE EVALUATION						
Student						
Concentration						
Evaluator						
Sem/Year						
Rating	UNACCEPTABLE 1	NEEDS IMPROVEMENT 2	ACCEPTABLE 3	EXCEEDS EXPECTATIONS 4	EXCELLENT 5	**Portfolio Average**
Material Quality						
Presentation Qual.						
Sequencing						
Appropriateness						
Usefulness						
Sum						

Figure 3: New Portfolio Assessment Form

This new form (see Figure 3) will be tested during the present academic year, but already we are considering replacing it with a form developed through Adobe's FormsCentral™, because the software offers much more robust possibilities for parsing results.

When FSU students are engaged in their internship semester, full-time, senior faculty perform onsite visits: two visits per semester for students placed within the state and one visit per semester for students placed in other states or abroad, depending upon available supervisory travel funding. At these visits, faculty evaluate a variety of assignments including internship journals, internship analysis reports, task lists, resumes, and application letters. Dating back to the origin of our academic department and its internship program in the late 1970s, the following form was used visits for years to evaluate at the site:



FITCHBURG STATE UNIVERSITY

INTERNSHIP VISITATION RECORD

Name: ______ Dept. Supervisor: ______
Intern Current Address: ______
Telephone: ______ E-mail: ______
I.D. Number: ______ Internship Site: ______
Internship Address: ______
Site Supervisor: ______ Supervisor Telephone: ______
Supervisor E-mail: ______ Start Date: ______ End Date: ______

1st Site Visit Date: ______ Time: ______ Person Contacted: ______
Intern Work Observed: ______
Assignment #1 (Resume): ______
Assignment #2 (Application Letter): ______
Assignment #3 (Journal): ______
Professional Work, if any: ______
Observations:

2nd Site Visit Date: ______ Time: ______ Person Contacted: ______
Intern Work Observed: ______
Assignment #1 (Revised Resume): ______
Assignment #2 (Revised Application Letter): ______
Assignment #3 (Journal): ______
Assignment #4 (Journal Summary): ______
Assignment #5 (Final Paper): ______
Assignment #6 (Draft Thank You Note): ______
Professional Work, if any: ______
Observations:

Evaluation Final Grade: ______
Comments: ______

Figure 4: Original Internship Visitation Form

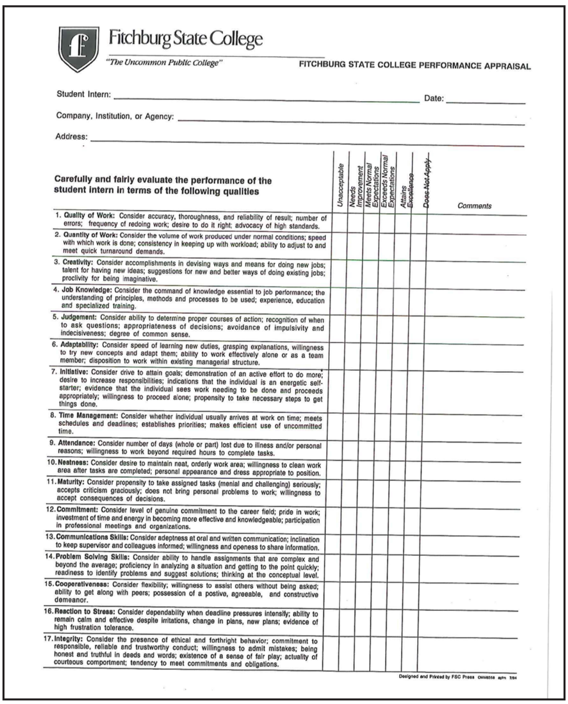
This form was designed primarily for qualitative notes on the part of the faculty member based upon his or her evaluation of student assignments. Unfortunately, the quality of input, using this form, varied widely from faculty member to faculty member because of inconsistencies among faculty in terms of the amount of time spent in site evaluations and the detail of the evaluations themselves. Again, responding to administration demands for quantitative date, the following Excel form (see Figure 5) has been developed and will be tested during the current academic year.

The new form will not, we suspect, eliminate variation among faculty internship evaluators. The hope is utilizing a Likert scale to produce quantifiable evaluations as opposed to strictly qualitative ones will narrow that variation. As was the case with the portfolio assessment form (see Figure 3), we are already exploring methods to use Adobe's FormsCentral™ to develop a more robust quantitative assessment instrument for faculty visits to internship sites.

INTERNSHIP VISITATION EVALUATION						
Student						
Supervisor						
Sem/Year						
Rating	UNACCEPTABLE 1	NEEDS IMPROVEMENT 2	ACCEPTABLE 3	EXCEEDS EXPECTATIONS 4	EXCELLENT 5	**Average**
Resume						
Rev. Resume						
App. Letter						
Rev. App. Letter						
Journal						
Journal Summary						
Final Paper						
Sum						

Figure 5: New Internship Visitation Form

The final form we consistently use in our internship program is an assessment survey completed by the intern's onsite organization supervisor or mentor (see Figure 6).



Fitchburg State College
"The Uncommon Public College"
FITCHBURG STATE COLLEGE PERFORMANCE APPRAISAL

Student Intern: ______________________ Date: __________

Company, Institution, or Agency: ______________________

Address: ______________________

Carefully and fairly evaluate the performance of the student intern in terms of the following qualities	Unacceptable	Needs Improvement	Meets Normal Expectations	Exceeds Normal Expectations	Attains Excellence	Does Not Apply	Comments
1. **Quality of Work:** Consider accuracy, thoroughness, and reliability of result; number of errors; frequency of redoing work; desire to do it right; advocacy of high standards.							
2. **Quantity of Work:** Consider the volume of work produced under normal conditions; speed with which work is done; consistency in keeping up with workload; ability to adjust to and meet quick turnaround demands.							
3. **Creativity:** Consider accomplishments in devising ways and means for doing new jobs; talent for having new ideas; suggestions for new and better ways of doing existing jobs; proclivity for being imaginative.							
4. **Job Knowledge:** Consider the command of knowledge essential to job performance; the understanding of principles, methods and processes to be used; experience, education and specialized training.							
5. **Judgement:** Consider ability to determine proper courses of action; recognition of when to ask questions; appropriateness of decisions; avoidance of impulsivity and indecisiveness; degree of common sense.							
6. **Adaptability:** Consider speed of learning new duties, grasping explanations, willingness to try new concepts and adapt them; ability to work effectively alone or as a team member; disposition to work within existing managerial structure.							
7. **Initiative:** Consider drive to attain goals; demonstration of an active effort to do more; desire to increase responsibilities; indications that the individual is an energetic self-starter; evidence that the individual sees work needing to be done and proceeds appropriately; willingness to proceed alone; propensity to take necessary steps to get things done.							
8. **Time Management:** Consider whether individual usually arrives at work on time; meets schedules and deadlines; establishes priorities; makes efficient use of uncommitted time.							
9. **Attendance:** Consider number of days (whole or part) lost due to illness and/or personal reasons; willingness to work beyond required hours to complete tasks.							
10. **Neatness:** Consider desire to maintain neat, orderly work area; willingness to clean work area after tasks are completed; personal appearance and dress appropriate to position.							
11. **Maturity:** Consider propensity to take assigned tasks (menial and challenging) seriously; accepts criticism graciously; does not bring personal problems to work; willingness to accept consequences of decisions.							
12. **Commitment:** Consider level of genuine commitment to the career field; pride in work; investment of time and energy in becoming more effective and knowledgeable; participation in professional meetings and organizations.							
13. **Communications Skills:** Consider adeptness at oral and written communication; inclination to keep supervisor and colleagues informed; willingness and openess to share information.							
14. **Problem Solving Skills:** Consider ability to handle assignments that are complex and beyond the average; proficiency in analyzing a situation and getting to the point quickly; readiness to identify problems and suggest solutions; thinking at the conceptual level.							
15. **Cooperativeness:** Consider flexibility; willingness to assist others without being asked; ability to get along with peers; possession of a postive, agreeable, and constructive demeanor.							
16. **Reaction to Stress:** Consider dependability when deadline pressures intensify; ability to remain calm and effective despite irritations, change in plans, new plans; evidence of high frustration tolerance.							
17. **Integrity:** Consider the presence of ethical and forthright behavior; commitment to responsible, reliable and trustworthy conduct; willingness to admit mistakes; being honest and truthful in deeds and words; existence of a sense of fair play; actuality of courteous comportment; tendency to meet commitments and obligations.							

Figure 6: Original Supervisor Intern Assessment Form

This original form was developed in the early days of the program as a hard copy instrument. Over the past several years, however, onsite supervisors have increasingly complained the paper form is repetitive and its length is overbearingly time consuming. To make matters worse, a few years back, our university Office of Assessment converted the paper form to an online active survey using one of the common web-based facilities to do this. It took 14 webpages of online form to replicate the one-page paper form. Onsite supervisors and mentors simply refused to use it due to how cumbersome it was. As a result of the problems with the original form and their exacerbation by converting it to a web-based form, we have redesigned and simplified our onsite supervisory intern assessment form, using Excel for its quantitative facilities (see Figure 7).

This new form will also be tested during the present academic year, and we will also analyze if it can be converted by Adobe's FormsCentral™.

Although the internship evaluation and assessment forms described in this overall section might not be appropriate for use at every institution, they are examples of how internship directors and academic departments can respond to the increasing demand for quantitative outcomes data at universities and colleges. As such, they can serve as models others can build upon, modify, or consider when creating similar kinds of materials for internship programs at their own institutions.

Fitchburg State University COMMUNICATIONS MEDIA
INTERNSHIP PERFORMANCE
APPRAISAL

Intern: ______________________________ **Date:** _____________

Internship Organization: ____________________________________

Address: ____

1. Did the intern demonstrate acceptable overall knowledge of his/her discipline to be competitive with potential entry-level job applicants?
Please circle:

YES NO

If NO, what areas of improvement are needed?

2. Did the intern demonstrate acceptable knowledge of software and hardware required to be competitive with potential entry-level job applicants?
Please circle:

YES NO

If NO, please identify specific software programs and/or technologies that the intern, in your opinion, should know.

3. Did the intern demonstrate appropriate initiative to be competitive with potential entry-level job applicants? Please circle:

YES NO

If NO, what areas need improvement?

4. Did the intern demonstrate oral and written communication skills appropriate to your organization and/or profession?
Please circle:

YES NO

If NO, what areas need improvement?

5. Did the intern demonstrate appropriate time management skills?
Please circle:

YES NO

If NO, what areas need improvement?

6. Did the intern demonstrate appropriate ethical integrity?
Please circle:

YES NO

If NO, what areas need improvement?

7. If an opening for an employee at this level in your organization existed, would you consider this intern to be competitive?
Please circle:

YES NO

Thank you for your time and for providing valuable mentoring and experiences for our intern from the Department of Communications Media at Fitchburg State University.

Charles H. Sides, Ph.D. csides@fitchburgstate.edu
Professor and Director of Internships
Department of Communications Media
Fitchburg State University

Figure 7: New Supervisor Intern Assessment Form

What Recent Developments Affect Internship Design and Management?

More recently, two developments have played an important role for internship design and development in the early 21st century. These events are

- The U.S. Department of Labor (DOL) standards and rulings
- Intern lawsuits against their internship site regarding no pay or low pay.

Both have important implications for how internships are structured and administered in the future, and for this reason, it is important for program administrators in the field to understand what these developments are and how they might affect educational activities.

U.S. Department of Labor Standards and Rulings

"Fact Sheet #71: Internship Programs Under the Fair Labor Standards Act" (DOL, April, 2010) establishes the current applicable law for internships. Under the Obama Administration, the Department of Labor has been rigorously applying these statutes; as a result, it is vitally important that university faculty and administrations understand their ramifications.

As stated, the thesis of this fact sheet is "to help determine whether interns must be paid the minimum wage and overtime under the Fair Labor Standards Act for the services they provide to 'for-profit' private sector employers" (DOL, April, 2010). It continues: "Internships in the 'for-profit private sector will most often be viewed as employment" (DOL, April, 2010), and "must be paid at least the minimum wage and overtime compensation for hours worked over 40 in a work week" (DOL, April, 2010). There is a narrow exception to this ruling, but it applies to interns

> who volunteer to perform services for a state or local government agency and for individuals who volunteer…their time, freely and without anticipation of compensation for religious, charitable, civic, or humanitarian purposes to nonprofit organizations. Unpaid internships in the public sector and for nonprofit charitable organizations, where the intern volunteers without expectation of compensation, are generally permissible. (DOL, April, 2010)

Otherwise, in adherence with the Department of Labor's standard, all internships that do not meet this exception should be paid.

As a faculty member, or as a member of university administration, how should one determine whether an internship program meets these stipulations? The Department of Labor provides the following test, in which all six criteria must be met for an intern not to be compensated:

1. The internship, even though it includes actual operation of the facilities of the employer, is similar to training that would be given in an educational environment;
2. The internship experience is for the benefit of the intern;
3. The intern does not displace regular employees, but works under close supervision of existing staff;
4. The employer that provides the training derives no immediate advantage from the activities of the intern; and on occasion its operations may actually be impeded;
5. The intern is not necessarily entitled to a job at the conclusion of the internship; and
6. The employer and the intern understand the intern is not entitled to wages for the time spent in the internship (DOL, April, 2010).

Although these stipulations do create some context for understanding the new law, they also create new kinds of challenges for program administrators and internship coordinators. They may, on the surface, seem particularly restrictive, but the Department of Labor does acknowledge that certain educational benefits may accrue to interns that would permit universities to structure these experiences as unpaid. For example:

> The more an internship program is structured around a classroom or academic experience as opposed to the employer's actual operations, the more likely the internship will be viewed as an extension of the individual's educational experience (this often occurs where a college or university exercises oversight over the internship program and provides educational credit). The more the internship provides the individual with skills that can be used in multiple employment settings, as opposed to skills particular to one employer's operation, the more likely the intern would be viewed as receiving training. Under these circumstances the intern does not perform the routine work of the business on a regular and recurring basis, and the business is not dependent upon the work of the intern. On the other hand, if the interns are engaged in the operations of the employer or are performing productive work (for example, filing, performing other clerical work, or assisting customers), then the fact that they may be receiving some benefits in the form of a new skill or improved work habits will not exclude them from the FLSA's minimum wage and overtime requirements because the employer benefits from the interns' work. (DOL. April, 2010)

The challenge to applying these criteria, however, is that many (most in my experience) internship providers do not consider themselves to be educational institutions but rather professional organizations in which the practicality of the internship experience is value in and of itself.

These are important distinctions because they support the pedagogical benefits of internships as they have been examined and presented in this article. Experiences that initiate interns into the communities of practice of their discipline, that provide them with the opportunity to participate—through carefully controlled mentoring—in the socially constructed knowledge of that discipline, are precisely the type internships most valuable to students and colleges and universities alike. And as is pointed out by the Department of Labor, institutional oversight of such experiences is a critical component.

Beyond this, however, certain other types of internship experiences might yet qualify for unpaid status. These include cases where "if the employer is providing job shadowing opportunities that allow an intern to learn certain functions under the close and constant supervision of regular employees, but the intern performs no or minimal work" (DOL. April, 2010). In such cases, "the activity is more likely to be viewed as a bona fide education experience" (DOL, April, 2010).

One additional issue is covered by Fact Sheet #71 that bears mentioning, especially to students:

> The internship should be of a fixed duration, established prior to the outset of the internship. Further, unpaid internships generally should not be used by the employer as a trial period for individuals seeking employment at the conclusion of the internship period. If an intern is placed with the employer for a trial period with the expectation that he or she will then be hired on a permanent basis, that individual generally would be considered an employee under the FLSA. (DOL, April, 2010)

The challenge to applying these criteria is that many internship providers do use internships as a trial period for potential employees.

Intern Lawsuits

In 2011, two unpaid film production interns from Georgetown University sued Fox Searchlight Pictures over the fact that they had done work that benefited the company (filing, copying, getting coffee, taking out trash, answering phones, etc.) on the *Black Swan* movie set for no compensation. A New York district court judge early in 2013, siding with the students in this case, ruled that Fox Searchlight Pictures should have compensated the

interns because they did work that otherwise would have been required of a paid employee. This successful suit led to others: interns for *W* magazine and for the *New Yorker* sued Conde Nast; an intern for Atlantic Records sued Warner Music Group; eight magazine interns sued the Hearst Corporation. The Conde Nast and Warner Music Group lawsuits were decided in favor of the interns; the Hearst lawsuit was dismissed when the judge in that case denied its class-action status (Spitznagel, 2013).

Later in the year, Fox Searchlight was granted an appeal in the case in federal court, and the matter now awaits trial in the federal Second Circuit, where it may rest for some time before a final decision is made (Patten, 2013). However, this lawsuit and others have become the proverbial "shot across the bow" in media and communication industries. Given the current uncertainty regarding intern compensation, companies are responding in a variety of ways, as will be described in the next section.

What Does the Future Hold for Internship Programs?

Some organizations, responding to stricter applications of U.S. Department of Labor Standards with regard to compensation have begun to pay interns minimum wage for the experience. CBS, NBC-Universal, and other large media organizations, for example, have already made the transition to paid internship programs. ESPN has long had paid interns because it is direct about the fact that the internship program is a training ground for future employees, and thereby meets at least one of the Labor Department requirements for paid internships.

Other organizations, for example Lionsgate Entertainment, have completely re-developed their internship programs to be in clear compliance with Labor Department Standards. They have developed instruction sheets for all their divisions and offices within divisions that specifically describe how internships must be structured to remain unpaid; by and large, this means interns no longer do the sort of menial tasks long associated with internships. Rather, as required by the Labor Department, the focus on their internships is now onsite education within the industry, as an extension of the academic preparation interns received at college or university. Still other organizations, RSA Films and its subsidiaries for example, have completely eliminated their long-standing internship programs based on decisions within the company that it was more cost-effective (and no doubt legally safer) to hire temporary employees who perform the duties that once accrued to interns.

Changes have also occurred at colleges and universities. Allison Cheston, a career coach at New York University, points out: "Most of the

top schools in the country won't accept an internship as academic credit anymore" (Spitznagel, 2013). Currently, this includes all Ivy League schools, but undoubtedly and despite the centuries-long benefits of work-to-learn experiences, other institutions are weighing similar actions out of the fear that if internship hosts can be sued, internship granting institutions might be next.

What Can Faculty and Administrators Do?

In the current age of uncertainty with regard to internship compensation, faculty and administrators at colleges and universities must stay informed of U.S. Labor Department Standards for internship programs, both paid and unpaid, to ensure the institution's internships meet those standards. Faculty and administrators must also closely follow developing case law with regard to internship compensation. The recent lawsuits have been universally focused on media industries, but the decisions in these cases affect all internships in all disciplines.

In addition, if the institution provides international internships (a topic that was far beyond the scope of this article in its complexity), faculty and administrators must take into account that each country in which an internship might be provided has different laws covering the experience. These laws affect right-to-work, compensation, duration of experience, and a myriad of other topics. University International Education Offices are a good place to forge partnerships for international internships, as well as to understand applicable law in countries targeted for internship experiences.

In the end, it is my belief that internship programs will not disappear; they are too firmly embedded in the culture and civilization of humanity. But they will evolve, as they always have, to meet current and developing expectations so that the historical value of work-to-learn pedagogies continues into the foreseeable future.

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North Dakota State's Rhetoric, Writing, and Culture PhD

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Abstract. North Dakota State University's PhD in Rhetoric, Writing, and Culture is an experiment in interdisciplinarity undertaken as our university switches to a more research-intensive mission. NDSU has entered a phase of rapid growth because of a recent string of good fortune due to North Dakota's economic prosperity. That economic growth, coupled with NDSU's entry into Carnegie's highest research classification—Research University/Very High activity (RU/VH)—has enabled the English Department to embark on the path of teaching and training PhD students to find work in regional, national, and international companies and universities. In order to deal with the barriers to success, such as institutional apprehension about the humanities, the English Department decided to create a more interdisciplinary degree that grants credit for reflective and supervised work in internships, field-experiences, and teaching advanced undergraduate classes, and encourages interdisciplinary research and disquisitions. NDSU's PhD program combines English offerings with classes in other Arts, Humanities, and Social Sciences college departments, and offers students the chance to work on international partnerships, to teach Upper-Division Writing Classes, and to professionalize with internships and field experiences. As we have added new faculty and PhD students, the collaborative strategy has allowed our department to serve PhD students without shortchanging undergraduate and MA student populations.

Keywords. technical communication, rhetoric, doctoral program, curriculum, PhD, hybrid

North Dakota State University's PhD in Rhetoric, Writing, and Culture is an experiment in interdisciplinarity undertaken as our university switches to a more research-intensive mission. NDSU was founded

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in 1890 as the North Dakota Agricultural College. Its history as a land-grant agriculture and engineering-focused institution still directs what happens at the humanities-inflected periphery; however, NDSU has entered a phase of rapid growth because of a recent string of good fortune due to North Dakota's economic prosperity. That economic growth, coupled with NDSU's entry into Carnegie's highest research classification—Research University/Very High activity (RU/VH)—has enabled the English Department to embark on the path of teaching and training PhD students to find work in regional, national, and international companies and universities. NDSU is located in Fargo, North Dakota's largest metropolitan area with a metro population of 225,000 people. Fargo straddles the Minnesota border with Moorhead, MN as Fargo-Moorhead, and shares some resources with the two institutions that reside in the metro area, Minnesota State University, Moorhead and Concordia College. During this period of rapid growth between 2000-2014, NDSU's student population has grown from 9,710 students to 14,189 students; from 2008-2014, the Rhetoric, Writing, and Culture PhD program has grown by around four students per year, and currently has twenty students finishing their course of studies. The growth of NDSU's RWC PhD is not one of merely matching a growing population; rather, the story is one of taking advantage of rhetorical loopholes and leveraging faculty expertise to overcome historical precedent.

When the English Department started the journey of building a PhD, future prosperity was not so assured. In order to deal with the barriers to success, such as institutional apprehension about the humanities, the English Department decided to combine resources wherever possible in order to not shortchange the B.A., and M.A. degree programs. With only 13 tenure-line faculty, the English department decided to craft a PhD program by combining English offerings with classes in other Arts, Humanities, and Social Sciences college departments.

North Dakota's university system does not allow duplication of degrees at the graduate level, and the University of North Dakota (UND's) PhD in English provides a literature doctorate. Thus, the non-duplication policy ensured that we would not be able to offer another literature PhD program. There was, however, a loophole that NDSU could use to craft a PhD program. An agreement with the University of North Dakota allowed our department to create a PhD under the name "Practical Writing," which helped us make the case that our PhD does not duplicate the English PhD programs offered at our Grand Forks sister school, UND. This straightforward, if inelegant, name also allowed members of the English department a chance to connect with the Sociology/Anthropology and

Communication departments. The inelegance of the term "practical" creates a discursive space for departments with rhetoric and research classes that might prove valuable for graduate students. A term like practical can even attract collaborators from other departments who self-identify by activity and social practice.

The rhetorical ambiguity provided more than just an opportunity to create a new program with our practical colleagues; North Dakota State University's English Department had already begun to build a core of technical and professional writing expertise. Members of the department—Dale Sullivan, Bruce Maylath, Kevin Brooks, Miriam Mara, and Andrew Mara—comprised an early depth of professional and technical communication research. The collaboration between the English Department, Sociology and Anthropology Department, and Communication started as a way to share expertise and fill out course offerings for graduate programs housed in small departments. At the time our PhD in Practical Writing—a title that was later amended to "Rhetoric, Writing, and Culture"—was initially proposed, we had only 13 tenure track faculty. With two undergraduate majors (English and English Education), an undergraduate writing minor, and M.A. tracks in literature and in composition, it was hard to envision offering a range of courses that would help graduate students complete the state-required 90 credits for a PhD without resorting to imaginative measures. So, rather than look for an entirely in-house range of courses to offer students, the PhD in Rhetoric, Writing, and Culture requires a range of what the NSDU Graduate School calls didactic courses (what other programs might called foundational courses, which we will hereafter refer to them as); the department also offers additional rhetoric courses from inside and outside of the department, as well as English Studies courses, internship credits, and experiential credit. Students are allowed to take courses in English, Communication, or Sociology/Anthropology as the opportunity presents itself. This flexibility and willingness to share graduate students among programs allows each of the graduate programs to keep students progressing through a daunting amount of credits. Students get a running start into the program through the ability to transfer in roughly a third of the credits if they enter with a Master's degree, and they must engage with the required fieldwork for a number of credits, which does make the load manageable.

The challenge of completing credits in a timely manner has allowed for a level of creativity and improvisation among the faculty and graduate students. They have supplemented our courses in the English Department—courses like International Technical Communication, Invention to

Innovation, and Rhetoric of Science—with courses offered outside of the department—courses like Research Methods in Sociology and Theories of Persuasion in Communication. Students also have the opportunity to work on well-known projects like Bruce Maylath's Trans-Atlantic and Pacific Project and nascent projects like NDSU's User-Experience Lab to earn credits. This atmosphere of collaboration and interdisciplinarity has inspired early completers of the PhD to write dissertations that combine subjects like technical writing and education, the rhetoric of science and popular culture, and composition and glitch art.

History

The development of the PhD in Rhetoric, Writing, and Culture is entwined in NDSU's aspirations. In 2000, shortly after President Joseph Chapman had begun to lead NDSU, the department was encouraged to compose a PhD program proposal by a member of the Academic Affairs staff, who was also a faculty member in English. During his tenure at NDSU, President Chapman increased the number of doctoral degrees precipitously. As Kevin Brooks (2002) notes in the article "Developing Doctoral Programs in the Corporate University," "when Joseph Chapman assumed the presidency in 1999, he came with a mission to move NDSU from a quality regional institution to a world-class land-grant university; to change NDSU from a Carnegie Research Doctoral Intensive classification to a Carnegie Research Doctoral Extensive classification" (98). (NDSU now carries a Research University / Very High Activity [RU/VH] designation from the Carnegie Foundation; the classifications changed in 2010) Although many members of the English Department faculty felt like this idea might be fraught with difficulty, five esteemed professors including the one in Academic Affairs decided to embrace the challenge.[1] Because of the department composition at the time, seven literature professors and four writing and linguistics professors, they created a proposal for a doctoral degree similar to their own training, a literature degree. Of course, this attempted proposal looked like the existing literature doctoral program at the University of North Dakota. Such a doctoral degree with a focus on literature, although well-intentioned, could infringe the non-duplication of degrees policy in the North Dakota University System.

When Dale Sullivan was hired in 2003, the early proposal for a doctoral program was already extant, but languishing because the degree was too similar to the University of North Dakota's PhD program. As the new head

[1] The faculty members who wrote the initial proposal were Bob O'Connor, Bill Cosgrove, Tom Matchie, Mark Aune, and R.S. Krishnan.

of the department, Dr. Sullivan was encouraged by the Arts, Humanities, and Social Sciences Dean to revise the proposal. The department head knew that a doctoral degree would be one way to ensure continued approval from then President of the university, Joseph Chapman, who was at the front of making the push for NDSU to become a research-intensive university. Because Sullivan's specialization was Professional and Technical Writing, he moved the program proposal in that direction. Thus, we encountered no resistance from our administration, who encouraged development of the degree. In fact, the original impetus for developing a doctoral program came almost completely from outside the department itself. We did encounter resistance from the State Board of Education, mostly at the behest of the former president of the University of North Dakota. This resistance mostly stemmed from the North Dakota University System stipulation that graduate programs may not replicate existing programs offered at other state institutions. As stated, one doctoral degree in English already existed at the University of North Dakota (UND) in Grand Forks, and the State Board wished to ensure that our degree in no way violated that policy. At the time and currently, the UND doctoral degree focuses on literary studies and creative writing, and they do not offer technical writing foci.

Addressing Political Challenges

Initially, the UND resistance meant that we had to craft the degree slowly, and aim our hires firmly toward technical writing. The conversations for the degree began in earnest prior to 2003, but the searches for Dale Sullivan, Andrew Mara, Miriam Mara, and Bruce Maylath were all conducted as those conversations about a possible degree happened. Three of these faculty hires targeted technical writing specialists, so that a PhD program with a focus in professional and technical communication became the vision. In 2006, when Andrew and Miriam arrived at NDSU, the proposed English Department PhD was, and remained an attraction for prospective hires (we had informally called it our "pickup line"). As an MA granting department, the head of the department knew that the ability to work with PhD students would appeal to scholars who value building knowledge and shaping the field.

After a few years of negotiation, during which we planned the specifics of the degree, the President at UND relented his opposition. We were able to reassure the State Board and our colleagues to the north that the degree was significantly different by referring to the rhetoric, professional and technical communication, and the interdisciplinary aspects of the pro-

gram requirements. In 2008, the State Board of Higher Education approved a PhD in *Practical Writing*. The board agreed to use the name that no other institution desired in order to guarantee difference from the UND's English PhD. UND's PhD degree in literature contains a composition component, but has no trace of technical writing. NDSU's degree, now titled *Rhetoric, Writing and Culture* combines the expertise of literature, linguistics, rhetoric, and composition faculty to fashion an interdisciplinary degree, weighted toward technical communication, but flexible enough for students to craft a specialty that would allow them to be hired as generalists or into positions that include technical communication.

Cross-Disciplinary Core

There are six core credits in pedagogy, intro to profession or composition theory and six research methods credits. One of the things our program does is take advantage of expertise in related departments. Two courses in the foundational section must be taken from the communication department where a few faculty members teach rhetoric. This requirement to build courses from communication into the plan of study broadens our graduate students' understanding of rhetoric and takes advantage of faculty expertise from another department. The research methods courses can also be taken in the Sociology/Anthropology department.

The degree maintains interdisciplinarity in two other ways. Students are encouraged to take courses from Sociology, Women and Gender Studies, or other related areas to fulfill some foundational credits. Additionally, we have built in a mechanism for students to use the program language requirement for expertise in Statistics, Computer Science, or even Music. The doctoral degree in English requires foreign language competence and we provide students with three options. They may fulfill three years of a language, either a language offered at NDSU or they can search further afield if their chosen language is not offered. We provide a second option of seeking foreign language skills through the second year in two modern languages. Finally, the students may gain competence in one language through the second year and supplement their plan of study with one research skill, such as statistics competency, that corresponds to their research interests and goals. In these ways, our degree retains an English Studies base, although encouraging a level of interdisciplinarity, which can strengthen students' abilities and their understanding of contemporary academic conversations. The foreign language requirement has proven both a challenge and a kairotic opportunity. Many students are hesitant to

take on the language requirement directly; however, when students get down to the difficult business of learning a language, there are openings in cultural understanding and overall language proficiency, as well as opportunities to build research skills that can become crucial during the job search, inside and outside of higher education. Moreover, students can immediately start using their language and cultural appreciation to integrate technical translation projects into their writing classes through TAPP (and to conduct research through these international connections).

English Studies

In addition to these proficiencies, all of our doctoral students are expected to show competency in English Studies, including Literature. A section of our program of study, a full 24 out of 90 credits in the program of study, of which 30 credits may come from an MA in English, allows students to attend to the Culture portion of the Rhetoric, Writing, and Culture designation on our doctoral degree. They may take any graduate-level literature courses from the literature specialists on faculty in our department. Although many students who arrive with a Master's degree in literature fulfill those requirements through their transfer credits, others find new ways to enculturate into English department ethos. These courses also prepare them to interact with colleagues as they go on to jobs in blended literature and composition departments.

Regional Technical Communication Training

The triple focus of the RWC graduate program was built into the rationale of the PhD program to serve some of the regional institutions that are increasingly trying to recruit English professors with the terminal degree, an interest in living in the region, and a wide range of skills. Until NDSU's PhD in Rhetoric, Writing, and Culture, the closest place for writing and rhetoric teachers (including technical writing teachers) to get their PhD was the University of Minnesota, over 220 miles to the southeast. North Dakota has 14 public higher education institutions, and many of the graduates from places like the U of M will not do what the Thomas Benton of *The Chronicle of Higher Education* called a "stint in North Dakota." NDSU's PhD program serves local students who want to study here and get a broad-based technical writing degree; also, our PhD alleviates this problem of trying to convince reluctant and uninitiated faculty to move to the sometimes-frigid Great Plains area.

Industry Connections

A second broad need that NDSU's RWC PhD was designed to address was the need for skilled technical and professional writers in the private sector. As one of the most important pieces of our doctoral program, we ask graduate students to engage with the work world to use the skills they have learned and develop them for real-world settings. Integrating academic contexts with corporate and nonprofit concerns supports the departmental effort to respond to real world expectations for graduate students. Our university placement information tells us that approximately fifty percent of our graduates from doctoral and other graduate programs enter non-academic positions when they leave NDSU. These experiential activities in the doctoral curriculum comprise six credits of the degree and students can fulfill them in a number of ways. If they plan for an academic career, they may want to use the teaching mentorship. This type of experiential credit asks students to work with faculty "to read theory and co-teach a 200, 300, or 400 level course." In this way, doctoral students can get teaching and application experience in other settings beyond the First Year Composition and Upper-Division Writing classrooms. Students can also leverage the existing relationships in the Trans-Atlantic Pacific Partnership to focus their NDSU class on an international translation project with another university.

Internships provide another way for students to earn experiential credits. They can arrange an internship with a local company—like Sundog and Microsoft—startups at the research park, with administrators inside the academy, or go further afield to work nationally or globally. We are constantly formalizing relationships with local technology and marketing companies that will provide our PhD students with the chance to make contacts and to connect what they are learning in our classes with pressing needs in work settings, and to apply creative solutions to emergent problems. Finally, many of our doctoral students already have full time employment and thus we provide them with the opportunity to reflect on their professional experience in a portfolio of appropriately theorized written work to earn experiential credits.

Academic Rigor

The degree also requires more traditional components such as comprehensive exams and the dissertation. Like most programs, students work closely with faculty members on a supervisory committee to develop three comprehensive exam areas, and they read and study the texts upon which they agree. Eventually the students are asked to write two traditional four-

hour in-house exams a week apart. The exam structure and coverage is agreed upon by the supervisory committee, and different faculty members prefer different formats. After the two in-house pieces, students are given two weeks to compose a synthesis essay, usually in response to a particular prompt composed by the faculty committee. These synthesis essays usually address all of the reading areas and they can be written to bolster areas of weakness in the traditional exam that precedes it.

The synthesis question may also move the student in the direction of a dissertation topic because the next and final step in the process is to submit a prospectus for the dissertation. These comprehensive exam steps proceed in the described manner to provide scaffolding for doctoral students who are moving into the dissertation phase. National data about PhD programs report that many students flounder after completion of their coursework, and we have created a process that helps students get through the loss of structure that semester-based courses and projects provides for them. Our program requires submission of the prospectus before students may be labeled ABD, adding incentive for writing the prospectus, which may in turn keep them thinking about their project and on track to finish the dissertation.

Visiting Scholars

One way our degree helps professionals and non-traditional students finish in time and gain access to networks with scholars in the field is our summer scholar program. Each summer, we invite a prominent scholar to NDSU who provides an intensive week-long seminar course on their current research or another contemporary topic. Although the graduate students prepare course reading before the week of class and write their projects after the week is finished, the requirement for their actual physical presence is limited to the week. In this way, working professionals and traditional students can fit an entire course into a short time away from work or other responsibilities. These summer scholar courses have included a wide range of noted scholars in their fields, including the following:

- 2009 Ann Ruggles-Gere
- 2010 Malea Powell
- 2011 Rebecca Weaver-Hightower
- 2012 Heather Dubrow
- 2013 Paul Prior
- 2014 Ryan Cordell

In addition, we have invited noteworthy scholars to speak on campus and meet with graduate students in order to learn about the range of research and pedagogical approaches in rhetoric and technical communication. Past guest speakers have included Bill Hart-Davidson, Jordynn Jack, Kirk St. Amant, Jeff Grabill, Michael Halloran, Richard Johnson-Sheehan, and Stacey Pigg. In this way, we provide students with additional networking opportunities as they build intellectual content. Through the summer scholar courses and guest speakers, students in the graduate program have been exposed to a range of interdisciplinary practices, including Neurorhetoric, Indigenous Comparative Rhetoric and Writing, International Technical Translation, Writing Studies Research, and Digital Humanities and Mapping.

Professionalization Strategies

Professionalization in our small, but steadily growing, PhD program emerges in four ways. First, our students enter a culture of productivity; they are expected to both present at scholarly meetings and publish in research venues as soon as they are capable. The front door of our PhD, an introduction to the professions course that students take during their first semester, culminates with a book review assignment requiring that they submit the revised review for publication. Of course, book reviews are not peer-reviewed publications, but they do require students to become familiar with journal processes, and they incentivize creation of professional-level written work. Beyond reviews, our graduate students present original research at scholarly meetings. Graduate students at both the M.A. and PhD level create panels with faculty to present at regional, national, and international conferences. Many of the graduate students publish research articles in recognized journals or chapters in edited collections. To build burgeoning research agendas, students have published a number of co-written articles with faculty. On several occasions, multiple collaborative student-faculty essays are published in the same collection (and often without the knowledge of the other collaborative writing teams). As Kevin Brooks (2002) supposed when the degree was in proposal stages, "Doctoral students would receive close mentoring in a small program and have considerable opportunities for leadership" (102). Because our faculty remains small, especially for a University of NDSU's size, faculty members and students know each other. Since implementing the doctoral program, we have added two faculty members, one who splits her time with Women and Gender Studies, but maintains a tenure home in English and another whose tenure home is with History, Philosophy, and Religious Studies

and spends half of his effort in English. The Provost has also approved our request to add a faculty line to bring a new Writing Program Administrator, which will be a welcome supplement to our existing composition specialists. Our current faculty of fifteen means we necessarily interact often and work closely with graduate students in the program.

Second, PhD students are professionalized through the curriculum and extra-curricular programming, from their first graduate scholarship seminar to their job-seekers brown-bag workshops. The curriculum is designed to get students to imagine their passions in both disciplinary and professional terms. This two-pronged approach gives PhD students a chance to take their studies in a number of different directions. The multi-linear flexibility of NDSU's approach has attracted a number of professionals who are working their way through the program (including an early enrollee, who was formerly in the FBI but currently works for a large corporate entity and several enrollees who are either faculty members or administrators at local universities). In addition, the dual approach has helped students re-situate their education as the academic job market has taken a difficult turn since 2008.

The doctoral students at NDSU usually receive funding through teaching assistantships, which remains a uniform practice for most programs. What differs is their ability to professionalize by teaching in our Upper Division-Writing program, our version of writing across the curriculum. Although most MA and PhD students begin their teaching assistantships by instructing in the first year writing program, teaching our version of composition to predominantly first-year students, doctoral students may expand their repertoire to courses like writing in the design professions, technical writing, business writing, and writing in the health professions. In order to be eligible to teach these courses, they first take an upper division writing pedagogy course from the director of that program, and in that context they shadow an experienced upper-division teacher. Even more professionalization opportunities emerge when doctoral students use their writing classrooms to participate in the Trans-Atlantic and Pacific Project (TAPP) under the direction of its co-founder Bruce Maylath. This program links classes at NDSU to translation courses in Finland, Spain, Kenya, France, China, Portugal, Italy, Denmark, and Belgium. Of course, students in the courses reap the benefits of better understanding the writing and translation process, and the graduate instructors become acquainted with international collaboration protocols and network with academics and professionals from all over the world.

Finally, the requirement to create and execute field experiences as part of the PhD degree proper offers graduate students a chance to shape their

degree towards alt-ac careers, professional non-academic careers, academic careers, or any combination thereof. This opportunity has allowed PhD students a range of professional and pedagogical experiences, from working at local nonprofits and tech startups to teaching classes under the one-to-one tutelage of professors. While writing this article, NDSU is in the process of cementing a standard one-semester field experience with an international software company. The department was able to secure space for a UX laboratory in its new space following a building collapse in 2009, and this foresight has reaped the benefits of additional industry collaboration. Fortunately, North Dakota's economic success generally, and Fargo's success in particular, enables the Rhetoric, Writing, and Culture students a wider range of experiences than one might expect in a city with a metropolitan population of a little under a quarter-million people.

Connection to Other English Degree Programs

The Doctoral program is bolstered by extant undergraduate and Master's level degrees. NDSU's English department offers two baccalaureate degrees in English and English Education as well as two undergraduate minors in literature and writing studies. The MA in English, offered since the late 1950s, avails students of two options, one in literature and one in composition. The coursework offered for the undergraduate degrees, and especially the Master's degree, became the foundation upon which doctoral coursework and structures were built. Existing courses like Composition Theory were supplemented with course additions like International Technical Writing. Further, the recent addition of the writing studies minor enabled faculty who specialize in rhetoric and writing fields to use their expertise across the range of programs in the department.

NDSU's Research Growth

While former President Chapman dreamed of NDSU as a very high research university, his dream became a reality when NDSU became one of a select 108 in that category in 2012. In order to push us toward that goal, Chapman increased the enrollment from 9710 students in 1999 to over 14,000 (14,189) when he left the University in 2009. Although administrators and some faculty tout this successful emergence into the very high research category, the university has had to confront another regional attitude that can keep faculty from marketing their success as researchers or teachers. The Scandinavian worldview of *janteloven* encourages people not to think of themselves as better than anyone else, and in some cases polices those who would think

so. The North Dakota legislature, like so many state legislatures, sees little political value in funding higher education at levels commensurate with economic impact, even when clear successes emerge. Beyond the politicians, faculty and staff long exposed to *janteloven* principles become less willing to hype departmental strengths. The interdisciplinarity of NDSU's PhD degree program allows the department to build program success without as much fanfare, and with the kind of lean staffing and funding that has become the new normal in higher education.

Since the doctoral degree inception in 2008-2009, the English department has graduated three PhD students. All three of the graduates have successfully begun careers in academe with one serving as Professor of Practice leading development of online learning in the College of Arts Humanities and Social Sciences at NDSU. The second graduate earned a tenure track appointment as Director of Writing at Montana Tech University, and the most recent graduate has begun as Assistant Professor of Communication at St. Joseph's University in Philadelphia as of Fall 2014. As our incoming class of three arrives, our doctoral program will include twenty students, one of whom is on leave, and three of whom are already employed full-time outside of NDSU. Although we have also matriculated some students who chose not to complete the program, our placement rate suggests that the program components provide students with tools for entering the academic profession in addition to tools for positions outside higher education. With the advent of our new UX labs, partnerships with local companies like Microsoft and Sundog, and new UX courses in the pipeline, we have high hopes that our continue placement rate will continue and our student workplaces will expand to include more corporations.

Conclusion

North Dakota State University's Rhetoric, Writing and Culture PhD grew out of both a need for technical writing training in the region and the collective and collaborative ambitions of the administration, local faculty, and faculty who came into the department. The willingness to collaborate across knowledge domains, disciplines, industries, and even borders has allowed a small group of 15 faculty to offer a compelling range of experiences out of which Doctoral students can cover 90 credits in a timely way. Additionally, the interdisciplinary necessities have inspired faculty to share and pair programs like TAPP, Women's and Gender Studies, and Upper-Division Writing. PhD students are given access to a broad range of pedagogical, cultural, and professional experiences, and are asked to

reflect upon and innovate from those experiences. By maintaining a collaborative and collegial atmosphere, NDSU's English Department has been able to overcome a lack of resources and faculty, and successfully recruit, train, and ultimately place our RWC PhD students.

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Andrew Mara is an Associate Professor of rhetoric and writing at North Dakota State University, where he teaches courses in invention, writing research, technical writing, and user experience. He runs the Upper-Division Writing program, and is the co-founder of NDState UX. He has published articles in *Technical Communication Quarterly*, I*EEE Transactions on Professional Communication*, *Journal of Business and Technical Communication*, and several essay collections.

Heather Steinmann is ABD in North Dakota State University's PhD in Rhetoric, Writing, and Culture, where she teaches creative writing, writing in the humanities and social sciences, and business and professional writing. Her research interests include kairotic space, the neurorhetorics of creativity, and using literature in the writing classroom. She is assistant WPA and has a forthcoming article in *The Social Science Journal.*

Appendix A: The Program of Study

PhD in Rhetoric, Writing, and Culture, English Department NDSU

The PhD program requires 90 credits beyond the baccalaureate degree and a minimum of 60 graduate credits at NDSU.

Core, 6 Credits

English 760: Graduate Scholarship

English 755: Composition Theory

*English 764 is required of all Teaching Assistants who have not taken a similar class elsewhere.

Research Methods, 6 Credits

Students select, in consultation with their adviser, two of the following:

English 762: Critical Theory

English 756: Composition Research

Communication 708: Advanced Qualitative Methods in Communication

Communication 767: Rhetorical Criticism

History 701: Methods of Historical Research

Sociology 700: Qualitative Methods

Foundational (Didactic) Courses, 33 Credits

A. Didactic Courses: Rhetoric and Writing, 18 credits.

Students select six; two must be from English, and two must be from Communication

English 654: Language Bias

English 655: International Technical Writing English 656: Literacy Studies

English 659: Research and Writing Grants and Proposals

English 752: Writing Invention to Innovation

English 753: Rhetoric and Poetics of New Media

English 754: Rhetoric of Science and Technology

English 758: Topics in Rhetoric and Writing

English 759: History of Writing Instruction

Comm 752: Theory of Argument

Comm 755: Rhetoric of Environmental Sciences

Comm 761: Survey of Rhetorical Theory

Comm 782: Theories of Persuasion

B. Foundational Courses: Electives, 15 credits.

Students may take any graduate-level class not listed elsewhere on their degree schedules, if approved by student's adviser.

Here are some examples:

Sociology 624: Feminist Theory and Discourse
Sociology 723: Social Theory
History 650: Ancient History
Anthropology 680: Anthropological Theory

English Studies, 24 Credits

These Credits are either Prerequisite or co-requisite with the PhD Topics and Studies Courses may be repeated.

English 652: History of English Language English
English 653: Social and Regional Varieties of English
English 671: American Realism
English 672: 20th Century American Writers
English 674: Native American Literature
English 676: Topics in American Literature
English 680: Medieval Literature
English 682: Renaissance Literature
English 683: Topics in British Literature
English 685: 18th Century British Literature
English 686: Romantic Literature
English 770: Studies in American Literature
English 780: Studies in British Literature
English 782: Studies in Irish Literature

Experiential Learning, 6 Credits

English 795: Experiential learning credits may be earned in the following ways:

Teaching Mentorship (0-6 credits), may be taken twice. Students work with faculty to read theory and co-teach 200, 30, or 400 level class.

Internship (0-6 credits), may be taken twice. Students work outside or inside academy in administrative, editing, consulting, or writing roles.

Life-experience Credit (0-3 credits). Students submit a writing or teaching portfolio reflecting professional experience prior to enrolling in the program.

Dissertation, 15 credits

Total: 90 Credits

Appendix B: Course Descriptions

Rhetoric

Rhetorics of Science and Technology

The study and critique of the rhetorics of science and technology, informed by rhetorical theory and by the philosophy of and the social studies of science and technology.

Invention to Innovation

Exploration of the use of rhetorical canon in writing, spanning a period from the Aristotelian concept of invention to the contemporary manifestation of innovation.

Rhetorical Criticism

Survey of critical methods of inquiry that may be applied to oral discourse and frameworks for critically evaluating communication processes and products.

Rhetorics and Poetics of New Media

RPNM explores issues related to the rhetoric and poetics of new media through selected reading, projects that allow students to develop skills and insight through experiential learning.

Topics in Rhetoric and Writing

Intensive study of a theory, theorist, or issue in rhetoric or writing with regard to relevance for critical and production practices in English Studies.

Theory, Methods, and Pedagogy

Composition Theory

Study of contemporary theories of teaching writing with frequent summary/response papers on assigned readings and a research paper on composition theory.

Composition Research

Study of designs and basic statistics for writing research, analysis of current research, and a research project in composition

Composition Studies

Overview of major areas in composition studies (rhetoric and composition, theory and practice, research, and instructional trends)

Critical Theory

Study of contemporary literary theory and criticism.

Classroom Strategies

Introduction to current issues in composition pedagogy, research, and theory, focusing on how they inform teaching practices. Instruction on developing philosophy of and strategies for teaching through short position papers, literacy autobiography, and a sequence of assignments.

History of Writing Instruction

The study of the history of writing instruction from antiquity to the present, with emphasis on relevance to modern writing instruction.

Literacy Studies

Reading, writing, research, and discussion of diverse types of literacy from functional to cultural to technological and their roles in culture and identity formation. Completion of related community projects.

Upper Division Writing: Pedagogy, Practice, and Technology

Theory, practice, and pedagogy for teaching upper-division writing classes. Discussion will include a number of writing studies topics, including Writing across Curriculum (WAC), Writing in the Disciplines (WID), and writing program administration.

Technical Communication

Research and Writing Grants and Proposals

A rhetorical approach to writing academic and business grants, proposals, and related professional documents. Development of a portfolio of professionally designed and edited documents as well as the vocabulary of grants writing and research.

International Technical Communication

Theories and practical applications of approaches to international technical documents, including globalization, localization, and translation preparations and procedures. Extensive use of case studies and cultural models.

UX, User Design, and Usability (course under construction)

Practices, theories, and approaches to experience strategy, architecture,

and usability in documents and other inscription products and deliverables. Emphasis will be on agile processes and project management.

Linguistics

History of the English Language

Development of the English language from its Germanic origins to the modern period.

Social and Regional Varieties of English

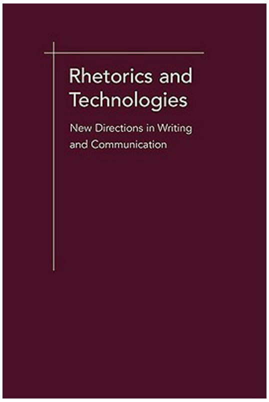
Regional and social variables affecting language uses; attitudinal considerations with emphasis on the educational and sociopolitical ramifications of standardization policies. Focus on American English with reference to British and other English dialects.

Language Bias

Examination of how social asymmetries of race, gender, and ethnicity are reflected and sustained in discourse practices. Use of current critical linguistics theories to examine how gender, racial, and ethnic abilities/disabilities are manifested through language.

Book Review Editor

Joanna Schreiber, *Georgia Southern University*



Rhetorics and Technologies: New Directions in Writing and Communication

Editor
Stuart A. Selber

The University of South Carolina Press
2010. 230 pp.

Reviewed by Mariana Grohowski
Massachusettes Maritime Academy

In 2004 Stuart Selber revealed his trifold *Multiliteracies*,subsequently altering the discourse surrounding how teacher-scholars and learners interact with technology. Indeed, Selber's work acclimated program administrators and professional writing teacher-scholars to the ever-changing milieu of technology theory. Comparably, his 2010 edited collection *Rhetorics and Technologies* follows suit to his single-authored accomplishment; by uniting ten rhetoric and technology scholars in three critical sections, Selber's edited collection is perceived as a contemporary guide for professional writing studies' continued negotiation of 21st century writing environments. Again, not unlike Selber's *Multiliteracies, Rhetoric and Technologies* shares cutting edge scholarship, acquainting readers to critical changes in technology theory and pedagogy.

With the intent to "redraw borders and boundaries" (the title of the section) to current conversations of rhetoric and technology, the authors featured in the first section—Marilyn M. Cooper, Johndan Johnson-Eilola, and Geoffery Sirc—carefully balance research with pedagogy and offer implications for both. Beginning the collection, Cooper nudges teacher-scholars

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to acknowledge the act of writing as "an embodied interaction," which entails "responding to the world," through "practice for developing skills" (pp. 16 – 23). Consequently, Cooper's outline for a writing curriculum of embodied practice will be of particular interest to teacher-researchers and program directors looking for ways to critically engage students' writing in 21st century technological environments because of her attention to the interconnectedness of our writing practices (p. 29). While Cooper's piece focuses on writing, Johnson-Eilola pursues the often-complementary practice of reading; however, Johnson-Eilola pushes the boundaries of what constitutes "reading texts." By illustrating and exemplifying how various environments in which reading takes place influences how and what we read, Johnson-Eilola provides a look at just how reading has changed our behaviors, largely without our awareness or consent. Closing the first section, Geoffery Sirc's "Serial Composition" paints college writing as stagnant, noting how other fields have changed while college writing has stayed the same (p. 57). Sirc, like Cooper and Johnson-Eilola before, invites the professional writing teacher-scholar to modernize her approach to teaching college writing, expressly by looking to the "new elements of Internet-based style," for which form and content [which are always already wedded (See Wysocki & Jaskin, 2004)] mandate contemporary writing conventions (p. 70). The teaching of writing must adjust to new borders and boundaries of writing, given technologies' influence(s). Thus, this first section will help program directions develop more engaging curricula to reach the 21st century students' diversified learning preferences and abilities.

Four chapters in section two present arguments on how technology has influenced our social connections. In a discursive analysis of eco- and techno-rhetorics, Killingsworth echoes Selber's (2004) call for a critical stance toward technological literacy. Not unlike Cooper's earlier chapter and Selber's multiliteracies framework (2004), Anne Frances Wysocki provides a new approach to the teacher-scholar's ontology to 21st century interactions our students and we find ourselves engaging. Specifically, Wysocki claims that multimodal compositions like art and gaming allow us to analyze how "aesthetic possibilities of our texts—digital as well as non-digital" (p. 95), foster varying degrees of bodily connection (e.g., visceral) when one examines a given composition. Both Killingsworth and Wysocki challenge teacher-scholars and program directors towards a critical approach to technology literacy.

Following the critical focus of the section, Paul Heilker and Jason King's analysis of online autism campaigns suggests Krista Ratcliffe's *Rhetorical Lis-*

tening (2005) as the most ethical antidote for conversing in digital environments. Likewise, John M. Carroll posits the activity of "narrating the future" as an ethical rhetorical practice in digital environments. Furthermore, Carroll claims that teacher-scholars and students of professional writing are best positioned to lead the charge of fostering ethical rhetorical practices in digital environments.

Staying alert of the constantly expanding 21st century rhetorical and technological vista is of concern for the three authors in the collection's third and final section. Susan Wells' analysis of 1960s community-publishing endeavors for political activism offers an invitation to look to "once 'new media'" for political purposes; Wells, like the authors in proceeding section, reminds us to weigh the affordances and constraints of technology as we consider methods for fostering social justice practices, teaching, and research in our always political society. Moreover, James E. Porter's chapter focus posits professional writing as possessing a canon and disciplinary awareness to the "economics of rhetoric" that other sub-disciplines should envy. Closing the collection, Debra Journet illustrates how the television show *Lost* resulted in rhetorical collaborations of fans across multiple technological platforms (p. 198). Using Henry Jenkins's (2006) concept of convergence culture, Journet outlines a methodology for understanding how knowledge is created in 21st century technological environments—an issue of high relevance to all teacher-scholars of contemporary rhetoric.

Rhetorics and Technologies provides a thorough, dynamic, and timely guide allowing teacher-scholars, program administrators, and students to keep up with the rapid changes in technology through its ten chapters and three sections. Selber's collection delivers what is promised in its introduction: a depth and breadth to the issues of relevance not only to professional writing teacher-scholars but also to teacher-scholars of computers and composition, new media, and the digital humanities. Indeed, as Selber posits, given the weed-like aptitude of technology, which "infuses each and every area of the discipline," otherwise distant colleagues can connect over the interdisciplinary of attention to rhetoric and technology in duties in administration, pedagogy, and research. The critical nature of this edited collection is evident in the content of each chapter in the collection, making it a worthwhile read for those who seek to understand the various ways technology is changing our professional and personal lives. This timely and contributive collection offers program administrators, teacher-scholars and graduate students greater acclimation to the ever-shifting landscape of our 21st century technological world and its impact on our students' lives as well.

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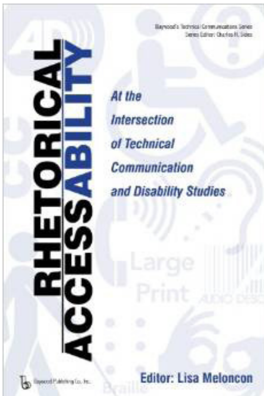

Rhetorical AccessAbility: At the Intersection of Technical Communication and Disability Studies

Editor
Lisa Meloncon

Baywood Publishing
2013. 240 pp.

Reviewed by Caleb A. James
Bowling Green State University

Rhetorical AccessAbility: At the Intersection of Technical Communication and Disability Studies,edited by Lisa Meloncon, promotes disability studies as an important site for scholars and practitioners of technical communication to develop new ways of looking at and improving accessibility. This collection includes eleven original chapters that complement one another to offer new perspectives on accessibility in regard to design and usability, teaching, and language while also focusing on legal, fiscal, and ethical concerns of teachers and technical communicators. With the exception of the third chapter, the chapters are presented in pairs in regard to their general topic, and one chapter often expands or applies concepts found in the other. Ultimately, this collection calls for a higher responsibility of technical communicators to improve accessibility by promoting users with disabilities as an important consideration during processes of design and audience analysis; by warning of problematic language practices that exclude people with disabilities; and by offering valuable teach-

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ing strategies and resources. The value of this collection lies in the variety of backgrounds of the authors, who hold a wide range of positions from teachers to researchers and practitioners of technical communication, and can, therefore, be useful to a variety of technical communicators in different roles. By extension, program administrators would find this book valuable in that it offers insights and important considerations for all technical communicators.

The first three chapters approach accessibility by focusing on design and usability and provide useful suggestions for researchers, practitioners, and teachers. Kimberly Elmore, author of "Embracing Interdependence: Technology Developers, Autistic Users, and Technical Communicators" (Ch. 1), argues for a user-centered design approach in the development stage of assistive technologies because, as she reveals, often users and developers have different goals for the technologies. In addition, she sees the work of mediating between users and developers as ideal for technical communicators because of their knowledge of rhetoric, user-centered design, and user experience research techniques (pp. 18-19). While Elmore's work is promisingly beneficial to autistic users through inclusive practices, it does not explicitly expand disability studies as a discipline. In Chapter Two, "Designing for People who do not Read Easily," Caroline Jarrett, Janice (Ginny) Redish, and Kathryn Summers shift their focus to designing for the much broader group of people who have difficulty reading for any reason. This chapter describes the four research methods the authors used in order to increase their understanding of the challenges and behaviors of people who do not read easily, and it offers guidelines to better serve a wider audience. Lisa Meloncon's chapter, "Toward a Theory of Technological Embodiment" (Ch. 3), offers a theoretical perspective of embodiment and considers ethical imperatives of imagining users as complex bodies, some with limitations. Likely, teachers, students, and practitioners of technical communication will find value here, as Meloncon advocates applying her theory of embodiment to the practice of audience analysis in the field and the classroom. These three chapters have different specific focuses, but each offers ways to improve accessibility by considering users with disabilities during the design process. A common point throughout several chapters in the collection is that designing for users with disabilities improves accessibility for everyone.

Several chapters approach the intersection of technical communication and disability studies through a focus on language, informing or reminding all technical communicators that what we say and how we say it can have a

major effect on accessibility. In Chapter Four, "Supercrips Don't Fly: Technical Communication to Support Ordinary Lives of People with Disabilities," Margaret Gutsell and Kathleen Hulgin discuss the "supercrip" metaphor, which represents people with disabilities as overcoming their "problem," to warn technical communicators to be careful of language that implies negative views of people with disabilities. By reimagining what it means to be inclusive, Gutsell and Hulgin offer a constructionist perspective on how normalcy and disability are created through language and how technical communicators can meet the challenge of reaching a much wider audience. Lora Arduser, author of "The Care and the Feeding of the D-Beast: Metaphors of the Lived Experience of Diabetes" (Ch. 5), extends Gutsell and Hulgin's conversation by analyzing patient-generated metaphors of people with diabetes, demonstrating a way of identifying language used by people with disabilities, which can be used to be more inclusive and develop better materials for specific user groups. Furthering the notion that disability is socially constructed, Sarah Lewthwaite and Henry Swan, authors of "Disability, Web Standards, and the Majority World" (Ch. 8), use a post-colonial lens to show how international web standards are problematic for marginalized cultures. In Chapter 9, "Web Accessibility Statements: Connecting Professional Writing, Corporate Social Responsibility, and Burkean Rhetoric," Antoinette Larkin reviews corporate web accessibility statements to reveal that the language used indicates whether the company is only meeting legal requirements or is truly concerned with accessibility, and she concludes with characteristics of an effective web accessibility statement. By offering a variety of perspectives on language, these four chapters provide technical communicators a way to avoid unintentional exclusionary language and employ language that considers all users.

In addition to providing strategies to improve accessibility through language, several chapters offer valuable teaching strategies and resources to alleviate some of the groundwork for scholars and practitioners who wish to improve accessibility in the classroom and in the workplace. In Chapter Six, "Accessibility and the Web Design Student," Elizabeth Pass discusses a course she teaches, and she expands the definition of disability to "any diminished capability," which can prompt students and designers to consider a variety of circumstances that affect accessibility. While the intent of the expanded definition seems noble and may work in the context of one classroom, it could potentially work counter to its purpose. That is, the accessibility needs of a person with a medically diagnosed disability may be overlooked if designers were to design for people who were simply temporarily fatigued or unwell, both of which would be considered a

disability under the expanded definition (p. 120). Sushil K. Oswal and Beth L. Hewett also offer strategies for online writing instruction in "Accessibility Challenges for Visually Impaired Students and Their Online Writing Instructors" (Ch. 7). Although the authors focus on visually impaired students' needs, their guidelines improve visual access for all students, and they also offer resources for teachers to help meet the needs of students who are visually impaired. In Chapter Ten, "Accessibility as Context: The Legal, Fiscal, and Social Imperative to Deliver Inclusive e-Content," Lisa Pappas offers resources for understanding technical communicators' legal obligations for developing accessible web content, and she discusses the benefits for their employers and educational institutions. In the last chapter of the collection, "Resources" (Ch. 11), Allison Maloney presents an incredible amount of useful resources that can be used as a quick reference for technical communicators looking to produce accessible material. The teaching strategies and resources in these four chapters tie this collection together and are undoubtedly useful for all technical communicators who intend to improve accessibility. In addition, the resources offer a foundation for program curriculum to expand on with assignments that focus on accessibility.

This collection draws from disability studies in order to advance and challenge the field of technical communication, but it is important to note that it is not intended to expand disability studies as a field. Of course, heeding the suggestions in this collection will better serve people with disabilities and advance what disability studies promotes, but technical communication programs are the true beneficiaries of the work housed in this collection. Moreover, when concepts from disability studies are applied in service of technical communication, they provide important considerations for improving design to be more inclusive and accessible. Contributors to this collection play a variety of roles in technical communication, and their perspectives on accessibility provide undeniably useful information and applications for researchers, theorists, practitioners, teachers, and students. These authors lay out a challenge for technical communicators and program administrators to promote more inclusive practices, and they offer strategies for meeting that challenge. While the work is far from over, *Rhetorical AccessAbility: At the Intersection of Technical Communication and Disability Studies* provides technical communicators with a foundation to build more inclusive programmatic and professional practices. People with disabilities will always be part of a diverse group of users, and technical communication programs would be well served to promote that diversity as a site for teaching and learning how to improve accessibility.

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Social Media in Disaster Response: How Experience Architects Can Build for Participation

Author
Liza Potts

Routledge
2014. 143 pp.

Reviewed by Michael Martin
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The increasing significance and the various roles that social networking plays in our daily life is being analyzed from almost every corner and the opinions are as varied as the ever-increasing options that seem to continually appear. However, what makes these options usable and effective in our communication, be they personal or professional, is certainly as open for discussion as the networks or apps themselves. It is that issue that *Social Media in Disaster Response: How Experience Architects Can Build for Participation* considers.

For those who have experience in technical communication, those teaching courses, creating new courses or those administering programs, this text provides something to consider. The author has, through her own extensive research and the input of numerous others, laid out an extremely clear case for focusing on what she calls "experience architecture" (p. 3) and then encouraging all who employ these social networks to revise their understanding from "use to participation" (p. 8). The text would be a great

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addition to a variety of undergraduate courses or graduate seminars. In addition, program administrators who are looking for current and relevant texts to add to new courses or a special topics course will certainly find the Pott's text useful.

What is particularly convincing about her contention is the careful attention given to the need to use our interdisciplinary heritage, which allows us to "move across boundaries" as she calls it (p. 5). In that movement, there is an opportunity to engage all the stakeholders and it is at this nexus one is most able to see the transformation of the basic user into the more knowing participant. The text provides, for the most part, a compelling structure to help both the creator of these tools and the educator in academe understand what he or she must do if the social networks invented are to be used in the most effective or efficient way.

What is particularly helpful for those who might consider the adoption of the text in a class is its applicability for an upper-level undergraduate class as well as for a number of graduate seminars. After making a case for her research, Potts provides insight into the questions she used to guide her research (p.19). These questions provide a wonderful template for anyone trying to get their students to do this work or even as a foundation for faculty hoping to create a class within their own program. Using Latour ([1987] 2003), as well as some others (Callon 1986, Law 1992, Mol & Law, 1994), who further developed the concept of "actor network theory" (ANT), the text provides a theoretical framework that crosses a number of disciplines from rhetoric to communication and sociology to science and technology (p. 25). She posits that "all participants, whether they are human or non-human, have equal agency to affect any given situation" (p. 25). Throughout the remainder of the second chapter, the text provides a carefully developed "map" by which the increasingly complex web of social networks can be understood by the users, but more importantly how to make that usage meaningful.

Through employing a developed sense of ANT and additional detailed mapping, Potts examines the use of social networking in significant natural disasters and then offers a very clear path to make such usage more effective. The case study approach that occupies a majority of the book is a standard genre across a number of disciplines, but here the author looks at three particular cases (Hurricane Katrina, the London Bombings, and the Terrorist Attacks in Mumbai), which offer three different types of tragic events as well as events that happened in three drastically different parts of the world. The important information one is able to glean from the case

studies comes from the prudent way the author uses her extensive research to demonstrate effectively what happened in the aftermath of the events and what worked, or more notably what did not. In all three case studies, the author demonstrates how ANT and mapping of the participants can provide a more transparent picture of what happened as those affected by the disasters attempted to use the networks at their disposal in the moments, days, or even weeks that followed. It seems there are two connecting threads in her conclusions (found at the end of each case chapter). The first is a realization that the simple user (participant) affected by the traumatic event has a lot more to offer than before realized and, too often, the masses are undervalued and marginalized. The second connecting thread returns the reader to the connection between the human user and the non-human technology to which they are tethered. Her response to these shortcomings is quite pointed. She says, "We must architect systems and refine the interfaces that support participants' interactions" (p. 97). This argument has consequence for every individual who has some part of the actor-network. Potts notes that is specifically what is new in her application of ANT. The more diverse the people involved in the examination of the technologies and usages, the more likely we are "to architect . . . the end-to-end experience" needed to manage the digital culture in which we live and communicate (p.3)

Before moving to the final chapter of the text, it is worth noting that although these case studies are impressive in their analysis, and although the author notes that this focus on such extremes are by design (because of the "strength of the signals" as well as "it provided "enough material" (p. 9)), connecting her ANT to a more everyday problem would be helpful for one hoping to employ this in the classroom. Furthermore, although there is certainly a multidisciplinary appeal in this text, perhaps this might have been included as an appendix.

The final chapter of the text offers both "a pathway for future research" (p. 98) as well as some suggestion "about key technologies" (p.98) that might help create a future network that overcomes many of the problems she has illustrated in the case studies. What is significant for any who might be teaching any aspect of this actor-network is the conscientious manner in which she has researched these events and then the rather precise mode she provides for her reader (participant). As educators of technical communication, she calls us from our general focus of the workplace and encourages us to move more fully into the social realm, noting it is a space ripe for additional research (p.98). What Potts does is issue a calling that allows us to embrace our foundational strengths, strengths that have understood the

value of both classic rhetorical theory and the more contemporary visual rhetorical theory. The underpinning of usability testing and its connection to ethical practice permeate what Potts argues and as such it falls squarely in a long history of usable texts the Association of Teachers of Technical Writing (ATTW) has been known to offer. Jo Mackiewicz, the editor for this new series in *Technical and Professional Communication*, notes this text "takes advantage of and supports the breadth and depths of our many interests" (xiv). It is certainly the case that Potts has provided a text that is usable for many of those interests from faculty to participants, from sociologists to technical programmers. The book is carefully organized, impressively researched, and convincingly written and as such sets the bar for the forthcoming books of the series as something that can only excite those of us who will use these texts.

Author information

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