

CLASSROOM RESEARCH WORKING PAPER SERIES

Volume 2

Featuring projects by the 2012-2013 Graduate
Research and Teaching Fellows and Teagle Fellows:

Diana Garvin (Romance Studies)

Adem Birson (Music)

Inga Grub (Anthropology)

Luisa Rosas (Romance Studies)

Jared Hale (Genetics, Genomics and Development)

Carolyn Fisher (Biochemistry, Molecular and Cell Biology)

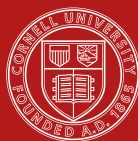
Joel Anderson (Medieval Studies)

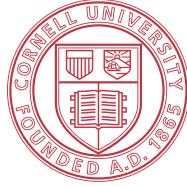
Adhaar Noor Desai (English Language and Literature)

CENTER FOR TEACHING EXCELLENCE
Sponsored by the Teagle Foundation



Editors: Kimberly Williams, Ph.D., and Runjini Raman





CLASSROOM RESEARCH WORKING PAPER SERIES

Volume 2

2012–2013 Graduate Research and Teaching/Teagle Fellow Contributors

Diana Garvin (Romance Studies)

Adem Birson (Music)

Inga Gruß (Anthropology)

Luisa Rosas (Romance Studies)

Jared Hale (Genetics, Genomics and Development)

Carolyn Fisher (Biochemistry, Molecular and Cell Biology)

Joel Anderson (Medieval Studies)

Adhaar Noor Desai (English Language and Literature)

Editors: Kimberly Williams, Ph.D., and Runjini Raman

Cover Design: Allison Kitchner

Cover Photo: Jason Koski, University Photography

Cornell University

CENTER FOR TEACHING EXCELLENCE

Sponsored by the Teagle Foundation

First published: 2014
Ithaca, NY

CONTENTS

SECTION I: NEW PEDAGOGIES

- Communicative Blog Writing for Student Engagement and Cultural Fluency..... 4
Diana Garvin
- Teaching Eighteenth-Century Musicianship through Composition: Creating an Engaging Classroom Environment Using Active Learning.....17
Adem Merter Birson

SECTION II: STUDENTS EXAMINE PRIVILEGE AND LACK

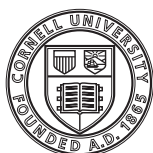
- Teaching Positionality and Reflexivity:
A Teaching as Research Project..... 23
Inga Gruß
- Exploring the Theatre of the Oppressed at the Ivy League.....32
Luisa Fernanda Rosas

SECTION III: STUDENT CHOICE IN PEDAGOGY

- Optional Problem-Solving Sessions in Genetics: All or Nothing?..... 34
Jared Hale
- Investigating the Differential Learning Experiences for Students in an Auto-tutorial and a Lecture-based Biochemistry Course.....41
Carolyn Fisher

SECTION IV: STUDENTS AND TEXT

- Teaching Medieval Books in a Digital Age.....59
Joel Anderson
- “I See It As A Crime Scene”: Taking Close Reading Outside the Literature Classroom66
Adhaar Noor Desai



CENTER FOR TEACHING EXCELLENCE
420 Computing and Communications Center
cornellcte@cornell.edu
www.cte.cornell.edu
607-255-3990

SECTION I: NEW PEDAGOGIES

Communicative Blog Writing for Student Engagement and Cultural Fluency

Diana Garvin

Graduate Research and Teaching Fellow and Teagle Fellow 2012-2013

"[Blog writing] gave me the chance to write about something I was invested in [and] just practice [what] I'd be looking up in Italy."

"I liked reading everybody else's [blog posts] ... I learned a little bit from everybody's."

"The assignments made me do it, but then I got into it and discovered it."

"I was actually learning, not writing to prove that I can."

— Student comments from focus group interview on their experiences writing Italian blogs

In the past year, many scholars of the humanities (e.g., Baron, Cobb, Collins, Fitzpatrick) have addressed the shifting definition of what it means to read in the digital age. Pointing specifically to Twitter and Facebook, and more generally to personal archives and the GUI (graphic user interface), these scholars reveal "a notion of reading that structurally privileges locating information over deciphering and analyzing more-complex text" (Baron, 2013, p. 200). But writing—reading's stalwart companion—is largely eclipsed in these discussions. How does writing change when we move online? And how do we situate new technologies and their attendant forms of writing

within the larger context of what it means to teach students how to communicate through the written word?

What does it mean to write communicatively?

My research seeks to characterize students' evolving conceptions of blog writing as a form of communicative writing. In doing so, it further attempts to determine the primary learning benefits for this form of writing. Through a combination of online survey questions, focus group interviews, and blog content and language analysis, I examine the match between blog writing with measurable outcomes in student engagement, cultural, linguistic, and technological fluency. In other words, my project seeks to explain how blog writing fits within the traditional frame of communicative second-language skills such as listening and speaking, and to point to the unique affordances that blog writing provides.

In the spirit of Garrett's landmark 1991 article on the role of technology in the classroom, my study asks, "How does writing an Italian blog differ from writing an Italian essay, and can these differences positively enhance learning outcomes?" My assumption is that, unlike traditional essays destined for the teacher's eyes alone, student Italian blogs provide the means for students to project

their voices across the Internet. Based on my own experience as both a student and a teacher, I suspect that moving student writing into the public realm enhances the authenticity and assumed importance of the activity, which in turn promotes engagement. Blog writing that takes the Italian Internet as its subject promotes cultural and technological literacy as well. Further, the interactive format of blogs means that students must consider how register, vocabulary, and tone will affect the conversation. Blogs render subtle aspects of language highly salient. By practicing a public form of writing that is inherently communicative, students gain linguistic fluency.

Many recent studies of this sort employ quantitative assessments to determine whether or not Computer Aided Language Learning (CALL) increases student engagement or one of the three aforementioned fluencies (Kim 2008; Sun 2010). By contrast, I employed a qualitative, case-study method in this project because my small class size (nine students) provided the means to examine the nature of student perspectives on second language blog writing in depth. While this project's conclusions may not be generalizable, they will offer a thorough account of this blog writing project, triangulated from three different sources of evidence over the course of a 15-week spring semester. Questionnaires, observations, and analysis of student work provide for data triangulation. By "investigating its efficacy in local and carefully specific contexts," this study contributes a detailed portrayal of how blog writing enhances second language learning (Garrett 1991). To contextualize the four key themes emerging from the research, blog writing in pedagogic content, student engagement, variegated fluencies, and communicative technologies, we must consider landmark and emerging scholarship in these discrete arenas.

CONTEXTUALIZING BLOG WRITING AND TRADITIONAL WRITING FORMS

Communicative Language Teaching (CLT) emphasizes authentic interaction in the target language as the primary means of promoting student language development. In practice, teachers often focus on listening and speaking to the exclusion of reading and writing, as they are often deemed to be less conversational than verbal and aural activi-

ties. Blog writing thus serves as a natural addition to the CLT model because it involves authentic communication in written form.

Some studies explore the role of blog writing with reference to traditional writing forms such as essays and journals. Kathleen Fitzpatrick situates blog writing within the classic language pedagogy of reading, writing, listening, and speaking. Her warning, that blogs, like other technologies before them, will not always be cutting-edge, points to the importance of teaching blog writing as one form of communicative writing rather than a goal unto itself. This implicitly speaks to Nina Garrett's landmark statement, "The use of the computer does not constitute a method" (Garrett 1991). Because Garrett advocates the use of small research steps to investigate the efficacy of technology in "local and carefully specified contexts," such as this qualitative case study of nine students' blog writing.

INCREASING ENGAGEMENT WITH AUTONOMY AND COMMUNITY

Many articles treat student engagement as a positive attribute that increases learning, but few attempt to define what engagement consists of. Exceptionally, R.J. Blake, R. Carini, and T.M. Paulus undertake the challenge of identifying behavioral attributes that exemplify engagement. They further discuss how CALL can be used to increase engagement. I hope to make a contribution to this arena by asking the students to articulate the specific actions and attitudes they associate with engagement and blog writing. In particular, I have designed my study's questions to probe the question of how blog writing enhances student interest in the activity by giving them autonomy in their choice of subject material and ownership of individual blogs, and fostering community by having them follow this theme through related sites over the course of the semester.

In the larger context of harnessing Communicative Technologies for Second Language Learning, Kim addresses the benefits and costs of synchronous and asynchronous online systems, which encompasses questions of both ease of execution and engagement. A clear advantage of a synchronous e-education system, such as Blackboard or

a class blog, lies in its ease of use for the teacher. Students perceive this design as being constructed “for the teacher,” rather than for their learning interests. In my project, I elected not to use such a central hub site, because individual student blogs promote a sense of ownership, and are more student-centered. Students must sense that these blogs allow them to communicate with each other, to become experts in a cultural phenomenon, and to project their voices into the Internet.

Blake draws attention to the fact that how technology is presented affects students’ enthusiasm and skill retention. Clear instructions and learning goals will help CALL projects succeed. He gives the specific example of making the pedagogic benefits for the students explicit, which I have emulated in my study. Blake’s stress on the importance of learner autonomy and community to student interest constitutes a key vector of engagement. Conversely, Carini *et al.* define engagement as the amount of time willingly spent on a school project, rather than student-reported enthusiasm for the work. And while they note engagement’s surprisingly weak correlation with performance, they do not clarify the type of skill demonstration in question. Paulus, Horvitz, and Shi highlight students’ emotional reactions to characters as proof of engagement. They contend that credible narratives and assumed personal relevance positively correlate with increased engagement. Reflection and application constitute extended forms of engagement for these researchers. Simply put, this study’s definition of engaged learners seems to equate to the image of stereotypically “good” students. They identify learning goals and develop strategies to meet them.

Comparing these four studies, we see centrality of student choice and voice. Perceived authenticity of the writing experience provides more meaningful motivation for communicative expression than pure “fun” can achieve in isolation. I incorporated these ideas in the assignment design for the blog project by creating space in the homework schedule for students to explore the technology, and to select one theme to follow through research on Italian blogs, podcasts, wikis, and Facebook groups. They become “experts” in an area of Italian culture that is personally relevant to them, which in turn aids in learning retention. E-tutoring,

another key idea in Blake’s article, takes place by commenting and responding on one another’s blog entries. Carini *et al.*’s article also reaffirmed the validity of student self-reports, lending salience to my inclusion of Qualtrics online surveys and interview questions in the study design.

IMPROVING CULTURAL FLUENCY AND TECH LITERACY

My study simultaneously examines how blog writing can improve students’ linguistic, cultural, and technological literacy, and to determine which of these it is most suited to target. Much research has focused on improving students’ linguistic fluency, so I focus primarily on the latter two. By asking students to research Italian culture on Italian blogs, wikis, podcasts, Youtube videos, and Facebook groups; write reflective blog entries; and then comment on one another’s findings, students learn about Italian culture explicitly by reporting Italian Internet content. They also learn to make implicit facets of language and culture explicit by answering guiding questions about how Italian language changes in these various Internet realms. This provides a form of tech literacy beyond learning how to use Wordpress. Students actually discover how Italian “acts differently” online than on a Roman street.

To explore the specific benefits provided by CALL technology, many researchers either use Garrett’s work as a model, or take up her questions as hypotheses. In this vein, Egbert, Huff, McNeil, Preuss, & Sellen provide focusing questions and discussion of technology’s role in second language learning rather than a methodological study. They do, however, point to the utility of blogs as reflective tools, drawing attention to their function as online journals. Using blogs for reflection and cultural learning sparked the idea to have students pick one theme to follow through four Internet realms. The central lesson this article highlights is the importance of including the teacher’s voice in CALL studies.

By contrast, Levy takes up Garrett’s call for a modular approach, but does so in the form of a literature review organized around discrete language skills, such as writing, reading, culture, etc. The section on culture informs my project by arguing

for the importance of cultural fluency as a component of language learning. My study focuses narrowly in three ways: the blog project teaches Italian communicative writing, technological literacy, and Internet culture. Technological literacy is a term frequently deployed and rarely explained. Zawilinski provides a case study for how the “new literacies of the Internet” look in practice. Her argument that blogs support higher order thinking (HOT) provides justification for including blog reading in literacy programs. As my project examines blog writing, similar contentions could be made for the promotion of communicative writing.

By encouraging students to respond not only to the content of what they read and hear, but also the way in which that content is presented—be it via page design, register, or tone—offers key cultural insights. Similarly, Sun’s qualitative analysis of the type and frequency of error in second language blog writing suggests that this type of activity improves student fluency in the target language over time. These findings bolster the argument that increased exposure and production not only improve student motivation, but encourages learners to learn autonomously as well.

CASE STUDY

I am both the Teacher and the Researcher for the class in question, “ITAL2090: Italian Intermediate Composition and Conversation I.” While the Romance Studies department determines our primary learning objectives and course content insofar as the textbook, *Imagina*, is provided, I am free to design additional assignments that meet those goals. Because many professors in the department have stressed the importance of teaching effective writing—that is, writing that accurately communicates what the author intends, I added this blog project as a supplementary activity. Further, this class emphasizes communication as a learning objective, and points to writing as a means to achieve that end, as articulated in the online course description, which says, “The goal of this course is development of all language skills at an intermediate level, with an emphasis on accurate, idiomatic, and culturally appropriate communication in Italian.” Through “readings and other material related to common Italian cultural practices and daily life, guided compositions and

other written assignments, directed conversation on topics relevant to understanding modern Italy, grammar review, and a variety of vocabulary-building tasks,” the course helps students to improve their language abilities.

I provided a week for students to explore WordPress technology or another blogging platform of their choice, set up their blog with an Italian interface, and select a theme to follow through text in Italian blogs (Post 1), video in Italian YouTube (Post 2), audio in Italian podcasts (Post 3), and Tweets in Italian Twitter (Post 4). Students were further permitted to investigate Italian Facebook groups in lieu of Post 3, and Italian Wikis in lieu of Post 4. To help students select their theme, I asked them to consider what aspect of Italian culture they wanted to be an expert in by the end of the semester. Choices ranged from “Seria 1 Soccer” to “Urban Art” and “Material Culture” to “Hip Hop” to “Sustainable Foodways” to “Film.” Over the course of the semester, students wrote four blog posts in Italian of 200 words each, read and responded to four classmates’ posts in 100 words, and then closed the conversational loop with a further response to comments on their own blogs in 100 words. In total, each student wrote 12 communicative posts and responses. I designed a rubric (Appendix 1) to grade them on content (originality, personal input) structure (organization, clarity), connection (thoughtful integration of authentic Italian materials found online, consideration of reader’s viewpoint), and language (informed risk-taking with new grammar and vocabulary forms) with both quantitative and qualitative measures. Based loosely off of our department rubric for essay assignments, these modifications to the standard grading criteria characterize and encourage communicative writing in terms of attention to appropriate audience, register, image and audio selection, and incorporation.

Both iterative and reflective, my chosen methods address my dual goals of articulating and measuring the benefits of blog-writing in a student-centered second language classroom. This case study relied on three different forms of data—surveys, focus groups, and student blog assignments. Because my research closely followed nine students’ evolving conceptions of Italian blog writing over the course of a semester, these three different

angles provided the narrative analysis and in-depth descriptions that characterize the case study format.

The entire class, consisting of nine undergraduates, participated in every stage of the Spring 2013 research study. There were two freshmen, three sophomores, and four seniors, ranging in age from 18 to 22. Three women and six men participated. One student identified as Black, another as Latino, while the rest characterized themselves as either White or Caucasian. All spoke English as their first language, and four spoke Italian as their second. The others spoke another Romance language, alternatively Spanish or French, as their second. Three students majored in Economics, two in English, one in Psychology, one was undecided. Additionally, two chose to double-major: in Biology and Theatre and in Plant Science, Viticulture, and Enology respectively. So, the class demographics showed a trend for students who were finishing up their time at the college. Predominant classifications for race and language were not particularly diverse, tending toward White and English. Students' varied fields of scholarship ultimately provided a broad array of academic perspectives in the classroom, and writing styles as well. Therefore, it was all the more surprising that these students, ensconced in very different theoretic traditions, largely agreed on the importance of communicative writing, and the potential of blogs to fulfill that role in their classroom.

CONCEPTIONS OF COMMUNICATIVE WRITING AND ITS USE

Using a 37-item Qualtrics questionnaire (Appendix 2) combining Likert scale and open-response questions, students completed an identical survey before and after completing the assigned blog project, in the second week of January 2013 and in the last week of March respectively. The questions asked students to compare and contrast their interest in writing for themselves versus for others, online writing versus traditional writing, and what it means to write "communicatively." A paired-samples T-test using the class means for each question investigated the stasis or shift of conceptions of communicative writing. To analyze the qualitative data that open-response questions provide, I used thematic coding to catalogue the

terms students use to characterize this type of writing and its benefit to them.

DEFINING ENGAGEMENT

After having completed the first two of four total blog assignments on February 17, 2013, the students participated in a focus group designed to engage in formative assessment so that I could learn more about their developing conceptions of communicative writing. The semi-structured 20-minute teacher-led interview (Appendix 3) consisted of general prompts akin to the open-response questions of the Qualtrics survey. The teacher facilitated this discussion and took notes, chiefly on voice, tone, emphasis, and facial characteristics. An iPhone recorded student responses to promote accuracy of direct student quotations. These responses helped me to define what communicativity, engagement, autonomy, and authenticity mean when applied to Italian blog writing. Student words and behaviors signaled how they were making sense of this project at the semester's mid-point and allowed us to re-chart our course as needed.

LINKING AND LOCATING AUTONOMY AND AUTHENTICITY

Themes of autonomy, authenticity, and community (to a lesser extent) emerged from focus group analysis of communicative writing. Examining 108 student blog communications, I analyzed how these motifs emerged in specific writing choices. Blog content demonstrated that students' cultural, linguistic, and technological skill development was largely indivisible, appearing variously as an awareness of register, audience, and interactivity. Although one could potentially also analyze this data for student engagement, false positives of apparent student interest in blog-writing could easily arise here from politeness: students respond to one another's blogs, so indications of personal interest in each others' writing may simply be good manners. Analysis of the nature of student writing in blogs with specific attention to communicative features impossible in traditional papers (links, incorporation of authentic audio and video content, navigation) suggests the specific capacities of online writing to serve a communicative function.

DEFINING ENGAGEMENT FOR COMMUNICATIVE WRITING: AUTONOMOUS CHOICE AND AUTHENTIC VOICE

When describing the elements of the blog project that captured their interest and led to additional exploration of the Italian Internet, students repeatedly cited the fact that this form of writing allowed them to autonomously engage with authentic materials. In the focus group, students linked these concepts eleven times, making this fusion the most frequently cited theme of “what [students] liked about the blog project.” Students used more first-person statements when speaking about autonomy than any other theme. In the context of autonomy, students spoke of authenticity in terms of their theme and content choices and writing voice, rather than the materials in isolation.

Specifically, making decisions of theme and content for the blog writing independently of the teacher rendered the project more personally meaningful for students, as attested by statements such as “I picked [Italian hip hop] case [sic] I wanted to learn more about it,” and “[Blog writing] gave me the chance to write about something I was invested in [and] just practice [what] I’d be looking up in Italy.” As this last comment shows, the Internet research and blog writing mimic what students would “naturally” do in their spare time.

The Qualtrics surveys showed strong, sustained student interest writing for the self rather than for a class assignment (40% of students enjoyed this, 30% strongly enjoyed it, and 30% were neutral), particularly if that writing was creative—students mentioned writing journals, music reviews, short stories, fiction, prose, plays, and poetry in their spare time. Students stated that blogs primarily served their author rather than the audience, and characterized them as an “outlet” or “mode of expression” for the writer. Because 44% of students agreed that blogs helped them to reflect on their ideas, and an additional 44% of students strongly agreed, blogs serve as an authentic means for students to “solidify and organize” their ideas. Students further said that personal writing allowed them to contextualize new ways of thinking “more deeply” with previous ideas “as a whole.” Writing

solidified thought for the students, allowing them to “go back over [their] thoughts later, when [they] might have otherwise forgotten.”

The large role played by self-motivation appears to be inherent in student conceptions of the blog medium, as both Qualtrics surveys revealed: six out of nine students characterized public, online blog writing as a reflective activity for the self. Many compared blog writing to journaling or keeping a diary, albeit an interactive one. Students perceive blog writing as more similar to journaling than essay writing, the latter being perceived as artificially “formal” (as seven out of nine students characterized it). Questions of relative formality played out in the writing experience itself – the majority of students reported writing their blog entries late at night, splayed out on couches, beds, and the dormitory floor. Unlike an in-class essay, a student noted that the blog writing provided “the opportunity to work at your own pace.” Many students integrated reading and writing seamlessly, reading a bit, then writing a bit, and repeating the process.

With no prompting, students often inherently contrasted their blog writing experience with their essay writing experience. One student wrote, “This was more about what I found than writing for the sake of writing” and another wrote, “I was actually learning, not writing to prove that I can.” In an explicit comparison to blog writing done for another class, a student noted, “This one I liked better, cause [sic] you got to chose [sic] [the material] you wanted [to write about].” Writing in this way both reflected and affected the students’ perceptions of blog writing as an authentic medium for self-expression. This last statement points to the importance of structuring the project to take advantage of the blog’s capacity to support communicative writing by having students a) conduct background research online b) learn Italian computer vocabulary by using Italian website commands c) incorporate audio and video elements and d) create space and time to read and comment on one another’s work. If a blog project is simply a traditional essay moved online, then students may view this as a blatant bid to keep up with the times rather than an opportunity to engage with real Italian materials on their own terms.

GAINING NEW LITERACIES: AUTHENTIC CULTURE, LANGUAGE, AND TECHNOLOGY

As noted, the blog project culminated in what the students perceived as an authentic writing experience. But preceding this, students also did research in an authentic way—by watching, listening, and reading Italian materials on the Internet. While students both enjoyed the realness of these materials (for example, one student said, “I like that we had access to Italian online culture [like] Podcasts and stuff”), they were occasionally frustrated by their inability to find information on certain topics (one student noted, “I thought there would be more material easily available”). Students were particularly likely to note a lack of material in their blog posts as a conversational opener with other students, perhaps because this perceived inability led to the desire to connect with other classmates for reassurance. Emotional expressions (“I’m confused because...” and “This is surprising to me...”) predominated, particularly in the 100-word responses. Students also involved their classmates with other communicative writing types, such as asking questions of opinion and personal background, attempting to “teach” their material to a classmate in lesson format, or invoking common ground of American culture.

CULTURAL LITERACY

This last type of personal connection characterizing communicative writing provided means for students to compare and contrast Italian and American Internet culture and then theorize the significance for international connections. Along these lines, one student noted that Juventus, the popular Italian soccer team, appeared under English Podcast listings as well, which showed the global popularity not only of soccer, but Italy’s Serie A in particular. Another noted that Italians actively participated in the global phenomenon of environmentalism.

One commonality among those following film and music themes lay in students’ surprise at the pervasiveness of American content in Italian-language blogs. As one exasperated student posted, “Italian podcasts only talk about American movies! They even have words like ‘spoilerino!’”¹ A stu-

¹ “Spoilerino” is an Italianization of the English term

dent writing about hip hop wrote that he had to search dozens of techno and house sites before finding any mention of his chosen genre. In the focus group, students often attributed a lack of material to their own inability to conduct a suitable keyword search. They did not realize that they had actually identified true trends in Italian culture: indeed, American film is more popular in contemporary Italy than Italian film, and blogs, likely to be written by self-consciously modern authors, exemplify this tendency. Similarly, techno and house predominate the fashionable clubs, and hip hop does not occupy a central role in Italian music culture as it does in the United States. As such, the teacher’s role in the blog assignment should not merely be that of a grader who surveys these written conversations without comment. Teachers can help students inscribe their findings within larger cultural trends by closing the feedback loop in class with a group discussion. Often, student frustrations actually signal an increase in cultural literacy.

LINGUISTIC LITERACY

Students also found it difficult to understand non-standard language forms such as slang, dialect, and Italian “Internetisms,” and to articulate their reactions in similarly authentic language. In their blog postings, students demonstrated awareness of the type of language used, noting for example that “The comments for this Youtube video are short and positive though. Everyone thinks that he was really cute and that this song was beautiful.”² Students solicited and received help from one another when encountering new language as well (“If anyone knows what *preserale andantino* means, please let me know!”; “I didn’t know what the word *sfumatura* mean [sic] before having read you [sic] post!”). These postings coupled with focus group comments show that students noted new linguistic forms available to them because of the blog project’s authenticity. Even when they did not know all the terms used, students noted that they could still extract interpersonal meaning from exclamations and capitalization (“The language they used [...]

“spoiler.”

² All translations of students’ Italian blog posts are the researcher’s own.

I knew they were excited...”) More important still, many began to incorporate their findings into their later postings (“Involuntarily, a lot of the language I found was very formal so I mimicked that” ; “When you go to those Italian sites, [it helps to] know how all those buttons work, like *clicare* and stuff”). By setting up their blogs in Italian, students became acquainted with domain-specific vocabulary important for daily life in Italy. They learned the specific terms needed to use at least four different online platforms not through translation, but by taking actions with real results. When they *clicare*, the page really turns.

TECHNOLOGICAL LITERACY

For the majority of the class, this was their first time writing a blog, and they were doing so in a foreign language. Similarly, many learned to use Twitter and Podcasts as a result of this project. While the primary goal of the assignment was not necessarily to teach tech literacy, the fact remains that, when we move writing online, traditional conceptions of literacy take on pluralistic forms involving culture and technology as well. Indeed, a key aspect of increasing technological literacy lies in teaching students how to write with increased attention, as the Internet projects their voices on a far wider stage. Although students lacked the vocabulary to articulate this viewpoint, many returned to descriptions of authentic voice and its effect. They felt that when writing online, their voices mattered more, and this fact made them more engaged. It also motivated them to immerse themselves in the technology as a means to achieve the goal of authentic communication.

CONNECTING WRITERS AND READERS

Student engagement in communicative writing began at a high level and stayed that way over the course of the semester’s work, as evidenced by Figure 1. The x-axis represents the number/ item on the survey (see appendix) and the y-axis represents the student-reported score on a Likert scale (and in the case of Question 18, on a 10-point scale).

While this finding may initially seem to indicate that the blog project did not significantly shift student conceptions of what it means to write, or the relative importance of that act, the fact remains

Fig. 1: Pre- and Post-Survey Means

Figure 1A. Survey questions using a Likert scale

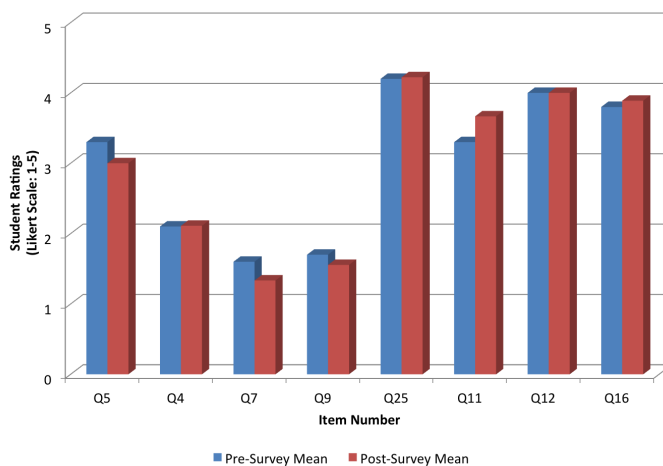
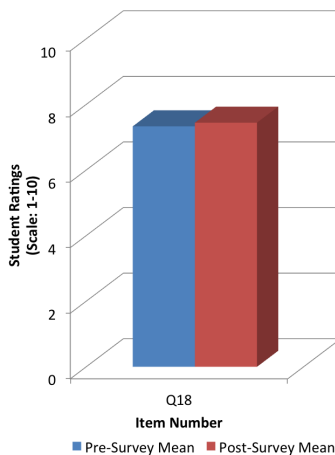


Figure 1B. Survey questions using a 10-point scale



that there was very little progress to be made: from the outset, the majority of the class strongly agreed that blog writing added value to their learning experience, and they were eager to get started. Given that half of the class was composed of second-semester seniors, continued enthusiasm visible in the post-survey constitutes pedagogic victory in and of itself. One might expect declining engagement due to the heavy workload this project entailed, but students remained convinced of the project’s worth for their developing writing skills.

Their steadfast engagement in the assignment may have been due to the communicative nature of the blog writing, as students viewed writing in general as an ideal means to connect with others, as shown in Figure 2.

Fig. 2: Student reactions to “Writing connects me with others.” (Post survey)

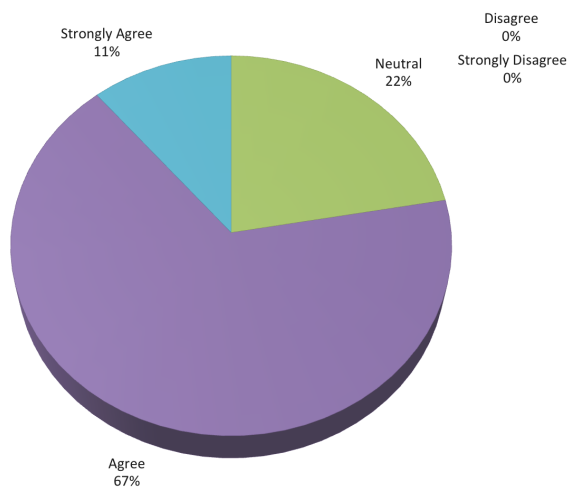
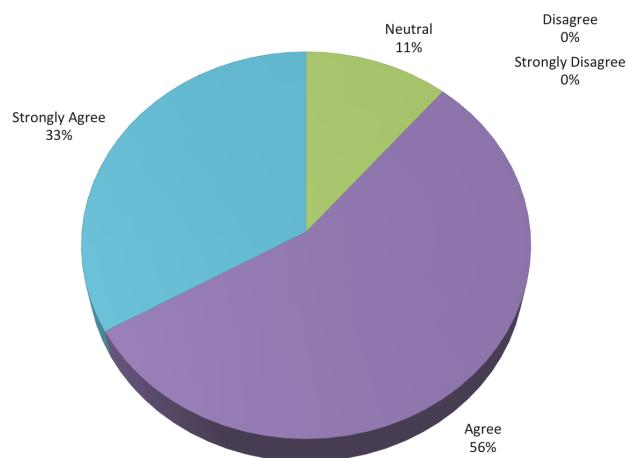


Fig. 3: Student reactions to “I consider the audience when making grammar, vocabulary, and register choices in my online writing.” (Post survey)



They further characterized writing as “a form of communication.” Students described blog writing’s utility to the audience as a means to “share,” “inform,” and “connect,” making it a natural venue for communicative writing. One student wrote of the communicative exchange, “Often I can convey my thoughts more accurately through writing than conversation, as I have the time to find the concise wording and think through what I need to say. This helps to avoid miscommunication.” Another pointed to the after effects of writing as a form of connection, but with the self, when they wrote, “It allows for me to express my emotions and let them into my life, making me feel more connected to them.”

Such attention to the reader results in increased focus on the writing itself. Students further reported careful consideration of audience in their online writing, as shown in Figure 3.

This suggests that student interest in the reader not only increases their emotional connection in the communicative exchanging of ideas, but it also engages them in the act of writing itself. Because communicative writing involves an audience, it effectively ups the stakes of the written word, and provides the writer with a heightened sense of their writing’s importance. Sensing this, students take greater care to communicate effectively.

CONCLUDING THOUGHTS

So, to reiterate this study’s guiding questions: How does writing change when we move to an online format? And how do we contextualize blog writing within the broad array of writing styles we already teach? In approaching the issue of technology, we must consider both questions when studying teaching as research and then developing our best practices. Addressing the former question guards against fossilizing the definition of writing and rendering it old-fashioned, while confronting the latter assures that we do not lose sight of traditional modes of writing that still have something to teach. An additive approach to writing that allows one to select among choices, rather than a Darwinist model that advocates survival of the “best” way to write, increases the likelihood that our current definition of writing will not become obsolete when current technologies evolve, as they inevitably do with ever increasing celerity.

Here we arrive at a key feature of online writing: users publish to the Internet knowing that the world may read it. The inherent publicness of crafting text online thus heightens the importance of effective communication. To effectively convey a message to one’s audience, the writer must target every element of writing, from content and struc-

ture to register and vocabulary, to this goal. Such attention to writing's recipient is not new – the epistolary novels, broadsheets, and circulars of years attest to the longevity of communicative writing and its formidable narrative thrall. But we do not write broadsheets. We write articles and essays, blog posts, and status updates. Integrating these two forms of writing need not involve a carrot and stick organization. Communicative writing provides a framework to hone the effectiveness of one's writing regardless of its placement in a print or online forum. We separate and dichotomize writing in this way at our peril.

WORKS CITED

- Baron, Naomi S. (January 2013). Redefining Reading: The Impact of Digital Communication Media. *Publications of the Modern Language Association of America*, 128, 1, 193-200.
- Blake, R. J. (December 01, 2009). The Use of Technology for Second Language Distance Learning. *Modern Language Journal*, 93, 822-835.
- Carini, R. M., Kuh, G. D., & Klein, S. P. (February 01, 2006). Student Engagement and Student Learning: Testing the Linkages. *Research in Higher Education*, 47, 1, 1-32.
- Cobb, Michael. (January 2013). A Little Like Reading: Preference, Facebook, and Overwhelmed Interpretations. *Publications of the Modern Language Association of America*, 128, 1, 201-206.
- Collins, Jim. (January 2013). Reading, in a Digital Archive of One's Own. *Publications of the Modern Language Association of America*, 128, 1, 207-212.
- Fitzpatrick, Kathleen. (2012). Reading (and Writing) Online, Rather Than on the Decline Profession: 2012. New York: *Modern Language Association of America*, 41-52.
- Garrett, N. (June 06, 1991). Technology in the Service of Language Learning: Trends and Issues. *Modern Language Journal*, 75, 1, 74-101.
- Levy, M. (December 01, 2009). Technologies in Use for Second Language Learning. *Modern Language Journal*, 93, 769-782.
- Kim, H. N. (January 01, 2008). The phenomenon of blogs and theoretical model of blog use in educational contexts. *Computers & Education*, 51, 3, 1342-1352.
- Paulus, T. M., Horvitz, B., & Shi, M. (August 01, 2006). 'Isn't It Just like Our Situation?' Engagement and Learning in an Online Story-Based Environment. *Educational Technology Research and Development*, 54, 4, 355-385.
- Schmidt, J. (October 01, 2008). Podcasting as a Learning Tool: German Language and Culture Every Day. *Die Unterrichtspraxis / Teaching German*, 41, 2, 186-194.
- Sun, Y.-C. (August 01, 2010). Extensive Writing in Foreign-Language Classrooms: A Blogging Approach. *Innovations in Education and Teaching International*, 47, 3, 327-339.
- Zawilinski, L. (May 01, 2009). HOT Blogging: A Framework for Blogging to Promote Higher Order Thinking. *Reading Teacher*, 62, 8, 650-661.

APPENDIX 1: BLOG POST RUBRIC

Articolo n. _____ - Nome: _____

ITAL 2090 – SPRING 2013

GRADING CRITERIA FOR INDIVIDUAL BLOG POSTS

Content	Clear, comprehensible message. Information is thought and detailed. Consistent personal input and opinion. Original.	Comprehensible message. All appropriate information is conveyed. There are personal input and some originality. The ideas and/or information are relevant to the task.	Generally comprehensible message; most basic information is conveyed but remains simple. Limited personal input or opinion. The ideas and/or information are most of the times relevant to the task.	Message is often incomprehensible. There may be frequent omissions and/or repetition in the information. Hardly any personal input or opinion. The ideas and/or information are irrelevant to the task.
Structure	Organized around a central point/argument/story with concise, even striking, formulations, in a clear, easy to read style. The format brings new perspectives to the task.	Organized, well-edited, and thoughtfully composed. The structure is generally logical and the text is organized. The format corresponds to the task.	The structure is simple and there is some organization. The format generally or partially corresponds to the task.	The structure and organization is incoherent. The format does not correspond to the task.
Connection	Frequently draws course material into connection with issues of the day by integrating references to Italian blogs, websites, articles, etc. Register and tone entice audience to continue reading.	Often establishes connections to Internet and other Italian sources of contemporary culture, news, and politics. Register and tone target a specific audience and inform the reader.	Establishes few connections to other Italian blogs, websites, articles, etc. Tone and register are inconsistent, meaning that the intended audience unclear to the reader.	Establishes no connections to other Italian blogs, websites, articles, etc. Inappropriate or highly inconsistent tone and register confuse the audience and in extreme cases alienate readers.
Language	Both simple and more complex grammatical structures are used accurately. The use and choice of vocabulary and idiom are varied and generally accurate. The register is appropriate and the student demonstrates an ability to manipulate the language. Spelling does not impede intelligibility.	The use of simple grammatical structures is correct. Some varied structures have been used but some errors remain. The use and choice of vocabulary and idiom are generally accurate. Spelling rarely impedes intelligibility.	The use of simple grammatical structures is at times correct and at times incorrect. The use of varied structures has not been attempted. The vocabulary and idiom are simple with some error in choice or usage. At times spelling impedes intelligibility.	There are many errors in the use of simple grammatical structures. Almost all sentences contain mistakes. The vocabulary and idiom are mostly inadequate. Spelling impedes intelligibility.

100 ----- 96

95 ----- 89

88 ----- 80

79 ----- 70

Articolo n. _____ - Nome: _____

ITAL 2090 – SPRING 2013

Commenti dell'insegnante:

APPENDIX 2: QUALTRICS SURVEY QUESTIONS

BLOG BACKGROUND

1. What is a blog? (Open Response)
2. What purpose does writing a blog serve? (Open Response)
3. How does writing a short essay differ from writing a blog post? (Open Response)
4. I have had previous experience with blogs. (Likert Scale)
5. I read blogs in my spare time. (Likert Scale)
6. Why do/don't you read blogs? (Open Response)
7. I have commented on a blog in the past. (Yes/No)
8. What prompted you to comment? (Open Response)
9. I have written or currently write a personal blog. (Yes/No)
10. What prompted you to write a blog? (Open Response)

WRITING BACKGROUND

11. I enjoy writing for school (class papers). (Likert Scale)
12. I enjoy writing for myself (journal, private blog). (Likert Scale)
13. What do you write and why? (Open Response)
14. I enjoy writing for public audiences (school paper, social media, public blogs) (Likert Scale)
15. What do you write and why? (Open Response)
16. Writing connects me with others. (Likert Scale)
17. How? (Open Response)
18. Writing helps me to reflect on ideas. (Likert Scale)
19. How? (Open Response)
20. What do you do with your school papers after

you've turned them in? (Publish them? Discuss them with friends? Put them in a drawer and forget about them? Recycle them?) (Open Response)

ONLINE WRITING

21. Online writing connects me with others. (Likert Scale)
22. How? (Open Response)
23. Online writing helps me to reflect on ideas. (Likert Scale)
24. How? (Open Response)
25. I consider the audience in making grammar, vocabulary, and register choices in my online writing. (Likert Scale)
26. Why does the audience for online writing matter? (Open Response)

DEMOGRAPHICS

27. I am female / male.
28. My mother tongue language is _____.
29. My second language is _____.
30. My third language is _____.
31. I would describe my race as _____.
32. I am a freshman / sophomore / junior / senior.
33. I am _____ years old.
34. My discipline of study (ex. Musicology) at Cornell is _____.

APPENDIX 3: FOCUS GROUP INTERVIEW QUESTIONS (RESEARCHER'S SCRIPT)

1. What did you enjoy about the blog writing project?
2. What did you not enjoy about the blog writing project?
3. What surprised you about the blog writing project?
4. Would you be interested in continuing to write in your blog in upper levels of Italian classes?
5. Did you ever find yourself writing "extra stuff" on the net in Italian during blog research?
6. Did you ever read "extra stuff" on the net in Italian during blog research?
7. Where did you write most of your blog entries?
8. When did you write most of your blog entries?
9. Do you think that blog writing improved your writing abilities (style, structure) in general?
10. Do you think that blog writing improved your Italian language abilities (grammar, register, vocabulary) in general?
11. Anything to add?

Teaching Eighteenth-Century Musicianship through Composition: Creating an Engaging Classroom Environment Using Active Learning

Adem Merter Birson

Graduate Research and Teaching Fellow and Teagle Fellow 2012-2013

INTRODUCTION

The field of music pedagogy seems to be experiencing a trend in which active learning strategies are being employed to improve student engagement with material in music history, theory, and appreciation courses. Active learning is a mode of comprehension that is achieved through the performance of a particular task, and has been described in the scholarship of teaching and learning as a way of experiencing deeper learning than the textbook model would provide. One such way of experiencing active learning that has been popular in the music classroom is performance of repertoire. For example, Sandra Sedman Yang recently published a study in which she incorporated performance into her lessons on the development of the Renaissance Italian madrigal, the hypothesis being that through demonstrating challenges in performing Gesualdo over his immediate predecessors, students would be able to appreciate the virtuosity of his compositions.¹ Matthew Brittner-Stull, in his recent *Anthology for Analysis and Performance for Use in the Music Theory Classroom*, emphasizes the relationship between

performance and analysis as a way of engaging students with theoretical issues in a meaningful way.² Recent articles on music theory pedagogy have stressed the importance of teaching music theory through stylistically appropriate composition assignments. Michael Callahan has proposed ideas in curriculum design for the instruction of Baroque counterpoint through “structured improvisation” using figured bass realization,³ and Mark Sallmen has advocated for the use of composition as a way of enhancing student understanding of and appreciation for twentieth century serial music.⁴ Teachers of eighteenth-century galant music have also been active in this regard, beginning with Stefan Eckert’s model for the composition of

¹ Sandra Sedman Yang, “Singing Gesualdo: Rules of Engagement in the Music History Classroom,” *Journal of Music History Pedagogy* 3/1 (2012): 39-55.

² Matthew Brittner-Stull, *Anthology for Analysis and Performance for Use in the Music Theory Classroom* (New York and Oxford: Oxford University Press, 2014).

³ Michael Callahan, “Teaching Baroque Counterpoint Through Improvisation: An Introductory Curriculum in Stylistic Fluency,” *Journal of Music Theory Pedagogy* 26 (2012): 61-99.

⁴ Mark Sallmen, “Sound Experiments: The Use of Four-Voice Writing in the Study of Twentieth-Century Music,” *Journal of Music Theory Pedagogy* (): 81-116.

a keyboard minuet in the style of Mozart.⁵ Sylvia Parker came up with an assignment in which her students spent one semester composing a movement in sonata form for piano.⁶ Finally, Peter Silberman diagnosed lack of understanding proper keyboard texture for the left hand as a problem in his students' keyboard sonatas, and designed a composition assignment which emphasized stylistically appropriate left-hand gestures found in the compositions of eighteenth-century composers like Haydn and Mozart.⁷

Whether in the music history, theory, or appreciation classroom, it seems that there is a growing trend toward developing new and exciting strategies for active learning that include performances, group projects, improvisation, and composition. These assignments are all intended as learning opportunities, and therefore are not necessarily judged by the standards of excellence we would expect from specialists in performance or composition. The general consensus in these studies seems to be that current students engage with the material more if they are given some kind of responsibility over its production. Each of these assignments seems to have generated excitement about the course and fostered an engaging learning environment. Furthermore, these kinds of active learning projects underscore the complex nature of learning music, which in necessity has always included, but has not been limited to, aspects of performance, theory, composition, and history.

Focusing on the studies that deal specifically with aspects of eighteenth-century music theory composition assignments, one notices certain similarities. Stefan Eckert chose to use Joseph Riepel's *Anfangsgründe zur musicalischen Setzkunst (Fundamentals of Musical Composition)*, specifically the section dealing with minuets, in combination with Mozart's childhood minuets to

⁵ Stefan Eckert, "So You Want to Write a Minuet?" *Music Theory Online* (June 2005)

⁶ Sylvia Parker, "Understanding Sonata Form Through Composition," *Journal of Music Theory Pedagogy* (2006): 119-137.

⁷ Peter Silberman, "Teaching Classic Era Style Through Keyboard Accompaniment," *Journal of Music Theory Pedagogy* 26 (2012): 141-188.

structure the semester-long assignment to write a minuet in the *galant* style. He had his students develop an understanding of the formal components of a minuet by initially having them focus one at a time on a minuet's constituent parts, such as cadence, structure, harmonic progression, continuation pattern (the music directly after the double bar, where Riepel prescribes the use of a "Monte," "Fonte," or "Ponte"), then progressively allowing students to compose for themselves larger sections of a minuet until they are composing the whole thing from scratch as a final group project. In this approach, we have the elements of building a composition in stages, a focus on one particular type of composition, and a rich interplay of theoretical concepts that are compatible with active learning models.

Sylvia Parker similarly has students build a composition from the ground up. She cites Arnold Schoenberg, from his *Fundamentals of Musical Composition*, in which he says:

No beginner is capable of envisaging a composition in its entirety; hence he must proceed gradually, from the simpler to the more complex. Simplified practice forms, which do not always correspond to the art forms, help a student acquire the sense of form and a knowledge of the essentials of construction. It will be useful to start by building musical blocks and connecting them intelligently.⁸

Inspired by this and other more contemporary textbooks with similar advice, Parker designed a semester-long piano sonata project that begins with the selection of principal and secondary themes from a sight singing text, providing them with accompaniments in "classical piano style," composing transitions for both the exposition and the recapitulation, and then composing a development section. The development section itself consisted of four stipulations: a) labeling of thematic material from the exposition being "developed," b) beginning in the key in which the exposition ended, c) modulating to at least three different keys, and d) ending the development

⁸ Arnold Schoenberg, *Fundamentals of Musical Composition* (Great Britain: by the Estate of Gertrude Schoenberg, 1967), 1.

with a prolonged dominant harmony.⁹ It is not specified from where she drew this specific model for a sonata form, nor how she devised her strategy for the development section. Peter Silberman devised an assignment that is, for all intents and purposes, identical to that of Parker, except that he prefaced the assignment with analysis of Mozart piano sonatas for their strategic use of various left-hand textures, and ensuring that the students incorporated them in their creative work.

As we can see from the above studies, each composition assignment focuses on a single composition project culminating in a piece corresponding to a particular form commonly found in the eighteenth century, either minuet or sonata. Each of them builds student work from, to borrow Schoenberg's words, the "simplest building blocks." Silberman's study stands out from those of Eckert and Parker in that he insisted on the additional parameter of stylistic keyboard accompaniment texture in the left hand. My composition assignment, to be discussed in further detail below, is inspired by these studies, however with different emphases. For one, I did not limit my students to a single composition or form over the course of the semester, but rather focused on the building blocks themselves. I provided the students with a structured progression from simple phrases to then construct larger forms, like antecedent/consequent periods, binary dance forms, theme and variations, and rondo. I deliberately avoided sonata for this because that type of composition is more sophisticated in terms of its phrasing than the simple period structures I was having my students compose. This particular approach to form was primarily informed by my experience as teaching assistant to James Webster, and for this I depended on unpublished teaching materials pertaining to tonality, phrase rhythm, and form.¹⁰

Second, I did not insist on keyboard compositions. Although most of the student work over the course of the semester happened to be for keyboard, a few of them began composing for piano and violin, piano and voice, and small chamber

⁹ Parker, 124.

¹⁰ James Webster, *Elements of Tonality* (Unpublished MS: 2011), and "Form" handout.

groups of winds and strings. I made this decision in order not to limit the creativity of my non-pianists, who tended to write more fluently for their primary instruments.

Finally, an aspect of tonal theory that was not explicitly mentioned in any of the above composition assignments is voice leading, for which I depended on a combination of materials from Webster and Robert Gjerdingen's voice-leading schemata from *Music in the Galant Style*.¹¹ To a lesser degree I focused on Wye Allanbrook's analysis of the social register of dance meters in order to help the students give character to their compositions.¹²

METHODS

I was the instructor for a musicianship course in conjunction with second-semester theory students at Cornell University in the Spring of 2013. The course was unique in that there were a total of five students enrolled in two sections. Two of the students were music majors, and the remaining three were music minors. None of them claimed piano to be their primary instrument, though experience varied from less than one year to nine years total. Based on the fact that none of them claimed much proficiency at the keyboard, and that I wanted the course to have a significant creative component, I devised a syllabus oriented around developing keyboard skills that included performance of pieces from the eighteenth-century repertoire, realizing harmony at the keyboard using figured bass, in-class improvisation, and ten weekly composition assignments to be completed for homework. Toward the middle of the semester, however, it became apparent that the students were engaging most with the composition assignments, since this was the area in which those with both more and less keyboard facility could best express themselves.

¹¹ Robert Gjerdingen, *Music in the Galant Style* (Oxford: Oxford University Press, 2007).

¹² Wye J. Allanbrook, *Rhythmic Gesture in Mozart: Le nozze di Figaro and Don Giovanni* (Chicago: University of Chicago Press, 1983).

THE COMPOSITION ASSIGNMENTS:

- *Composition assignment #1:* Compose a four-measure phrase, two measures of which are an opening gesture (Meyer, Romanesca, Arpeggio as in the Haydn minuet, or a step-wise scale pattern using the rule of the octave) and two of which feature a cadence (compound, simple, doppia, or even one tacked on the end of a Prinner). You can choose the key and meter, but to give some suggestions for guidance, I would stick to the keys of the major scales you are currently playing for section and choose between 3/4 and 4/4 meters.
- *Composition assignment #2:* Same as #1, except you should choose a different key and meter from last time.
- *Composition assignment #3:* Compose an antecedent/consequent period using the same principles as last time: two phrases of 4 measures each, half of which is an opening schema, the other half of which is a cadence.
- *Composition assignment #4:* Use your antecedent/consequent period as the original theme on which you will compose two variations. The first is a melodic variation, while the second is a rhythmic/textural variation. Remember to maintain your original voice-leading throughout.
- *Composition assignment #5:* 8-measure anti-period (I'll leave the rest up to you in terms of selection of key, meter, voice-leading schemata, and phrases/cadence types).
- *Composition assignment #6:* Compose a binary dance form with the following elements:
 - a. The first half should be an anti-period of 8 measures. I will give you complete freedom in terms of which opening gesture and cadence to use in the first phrase, but I would like the second phrase to have a "Cudworth" cadence.
 - b. The second half should utilize a 4-measure "Ponte" in order to prepare for the return of the tonic.
 - c. The final phrase in the tonic should be the second phrase of the first half, transposed so that you wind up cadencing in the tonic by the end of the piece.
- *Composition assignment #7:* Compose a complete binary form of 16 measures. Think dramatically and select an appropriate dance meter and mood. Then select phrase types and voice leading structures, keeping in mind when you are expanding your tonic and when you are leading to a cadence. After you have done so, embellish it with the appropriate dance rhythms and expressive gestures, scalar passages, arpeggiations, turn figures, etc.
- *Composition assignment #8:* Revisit your variation assignment and compose three more variations. One of the three variations should be a slow, aria-like melody over a basic accompaniment, and another should be in the minor mode. The last one should be a restatement of the main theme, with extra embellishments.
- *Composition assignment #9:* Realize that "An Elise" is in a form known as the Rondo. This means that you have a main theme and period that opens and closes in the tonic key, followed by "episodes": periods that are in keys outside the tonic and use different themes altogether. The Rondo is a form that returns to the main theme after each episode. Your task is to compose a main Rondo theme, then the first episode. You may use whatever instrumentation, key, meter, character, voice-leading schemata, and cadences you like. If you choose a major key, your first episode should be in the dominant; if your tonic is minor, your episode should be in the relative major.
- *Composition assignment #10:* Compose one more episode for your rondo, this one in a different key from your main theme and your first episode. If your tonic is major, your first episode was in V, and your second episode should be in the minor: II or VI. If your tonic is

minor, your first episode was in III, and your second episode should be in IV.

The logic behind the assignments was to give students the ability to compose small-scale compositions, like minuets, theme and variations, and rondo, starting from the smallest unit, the four-measure phrase, and working out from there. The four-measure phrase introduced to students the topics of initial tonic expansion using opening voice-leading schemata from Gjerdingen, followed by an authentic cadence to the tonic. To ensure that the students were comfortable with these crucial fundamentals, I assigned them the same thing for a second consecutive week. The next step was to build out from a single phrase into an eight-measure period. For this, I asked them to compose an antecedent/ consequent period. This allowed them to use the same opening gambit for their tonic expansion, but introduced them to the concept of the half cadence. Closing out this particular unit was the theme and variations assignment, which was designed to demonstrate to them the possibility of variety while at the same time remaining true to an original voice leading construction. Prior to this assignment, we analyzed Mozart's variations on "Willem von Nassau," K. 25 in class.

The next group of assignments was designed to lead them to forms that incorporated modulation. Assignment 5 was to compose an eight-measure "anti-period," a period in which the second phrase cadences either on V or in the key of V (III in minor). For this type of period, the students had to use a voice leading in the second phrase that led them to a cadence in a key outside the tonic. This then led to the next composition assignments, nos. 6-7, in which they were expected to compose simple binary forms of two periods. They began their piece with an anti-period, followed by a four-measure "Ponte," or bridge on a dominant pedal, after which the second phrase from the first half was repeated in altered form in order to conclude in the original tonic of the piece. This kind of composition required a lesson in what to do after the first anti-period, that is to begin the second half of the binary form with a "Ponte," "Fonte," or "Monte," from Riepel through Gjerdingen.

After these two binary form compositions, I had them return to their original theme and variations for assignment 8, composing three more variations in order to give them a more fully-formed composition of a theme plus five variations. I specifically called for one of the variations to be in the minor mode, as was customary in the *galant* style. The final two composition assignments were to construct a single rondo movement with a theme and two episodes. These assignments represented the culmination of the composition aspect of the course design, as they were now writing a multi-period movement that featured large scale modulations to two keys outside of the original tonic. It should be stated at this point that the students were simultaneously being asked to improvise at the keyboard and realize figured bass in class, as well as prepare study pieces by Haydn, Mozart, and Beethoven outside of class in order to help facilitate their compositional fluency, but also as part of a larger endeavor to develop musicianship at the keyboard. The composition exercises were therefore part of a larger definition of musicianship that cannot reduce simply to the execution of a single assignment, but rather is multi-faceted and features many equally significant, interdependent skills. Furthermore, each phrasal component of each composition incorporated smooth outer voice-leading guided by the Gjerdingen and Webster texts in conjunction with analysis of compositions by the classical masters.

DATA

Example 1 presents Student A's assignment 6, the first of the two binary form compositions of the semester. There are, at first glance, some decisions that reflect the inexperience of the composer. The key of D-flat major is a bit unorthodox in this style, and she has chosen a 4/4 meter with a march rhythm. The shape of the motive she has selected, with its rhythmic profile of a quarter note followed by a dotted eighth/sixteenth note seems to suggest 2/4, as does the cadential arrival on what is currently the second half of the measure. However, there are some outstanding qualities as well. The opening schema, what Gjerdingen calls a "Do-Re-Mi," presents us with a successfully harmonized and embellished expansion of tonic

harmony, followed by a clear basic step motion leading to a cadence, using what Gjerdingen calls a “Prinner.” The modulation to the dominant at the second phrase of the opening period is also expertly achieved, with a convincing voice leading and harmonic progression establishing A-flat major by mm. 7-8.

Another odd but ultimately successful possibility is that she clearly misread the instructions for the assignment and inadvertently composed a two-part form in which the second half is longer than the first. I decided to let this go uncorrected, however, since it technically does not represent a musical mistake at all, but rather one of inattention to instructions. After the first repeat, she moves into a prolongation of the dominant harmony, what Gjerdingen calls a “Ponte” after Riepel, which has the effect of reverting the A-flat major harmony to its original tonal function as dominant. I especially enjoyed the attempt in mm. 11-12 to incorporate an arpeggio in the bass culminating in the use of the main rhythmic motive just before the double return to the opening theme and tonic. The second half of m. 11 does not work harmonically, as she harmonized a tonic arpeggiation in the melody with a dominant seventh arpeggiation in the bass. However, the pairing of the ascending bass arpeggio with the subsequent descending soprano arpeggio offered a motivic continuity that I appreciated.

CONCLUSION

The previous analysis represents my assessment of Student A’s composition assignment. In spite of small details, like the key, meter, and harmonic misstep in m. 11, the piece is ultimately successful. More importantly, in composing this piece, she has demonstrated competence in musicianship. She has satisfactorily revealed that she understands a host of theoretical concepts, including, but not limited to, phrase, period, cadence, modulation, melody, motive, and voice-leading by executing these concepts in composition, as opposed to perhaps defining them in prose on an exam or completing an abstract exercise limited to perhaps only one or two of the above terms.

These composition assignments, much like the similar projects described earlier, were hugely

Example 1. Student A, Assignment 6

Composition Assignment #6

Copyright © 2013

successful with the students. They all cited the composition assignments as being their favorite part of the course at mid-semester evaluations, and the evidence of that is in the amount of work and care they put into making them. I noticed students coming to class frustrated if they were not satisfied with their composition, or if a particular passage just wasn’t sounding right to them and they could not pinpoint the problem. The assignments gave the course an exciting dimension in which students could demonstrate to me and to themselves that they had internalized and comprehended the theoretical concepts being learned in the course. This is the definition of active learning, and I think it provides a classic example of the potential effectiveness of the methodology, not only for comprehension of material, but for student engagement.

SECTION II: STUDENTS EXAMINE PRIVILEGE AND LACK

Teaching Positionality and Reflexivity: A Teaching as Research Project

Inga Groß

Graduate Research and Teaching Fellow and Teagle Fellow 2012-2013

Abstract

This article reflects upon teaching undergraduate students the meaning and implications of positionality and reflexivity during an introductory, writing-intensive anthropology course. I evaluated the students' understanding of these concepts as part of a teaching as research project. This article has three goals. First of all, it aims to establish the relevance of positionality and reflexivity in teaching based on existing studies. Furthermore, it provides examples of select teaching methods and discusses their effectiveness. Finally, I reflect on the implications of teaching as research as a tool to evaluate one's teaching.

INTRODUCTION

Anthropology as an academic discipline aims to challenge taken-for-granted beliefs about the social worlds we perceive to be true. It does this by engaging with the diversity of cultural practices all around the world. Contrasting our cultural truths and assumptions with the truths and assumptions of people in other parts of the world reveals the limited generalizability of our own beliefs. Anthropology as intervention in the classroom aims to lead students through the process in which they come to see their beliefs as learned and grounded in specific cultural logics. As an instructor, guiding students through this process of recognition can be challenging. It involves engagement with students' passive or active resistance to ideas that they *want* to consider universal truths. Ultimately, if successful, this process opens the possibility for critical engagement with hegemonic discourses that at first often appears impenetrable.

In this article, I describe and analyze teaching methods that I employed in an undergraduate classroom to stimulate students' engagement with positionality and reflexivity. I evaluated the

teachings methods I employed as part of a teaching as research project organized by the Center for Teaching Excellence at the university where I taught the course. *Teaching as research* is a term that, in a U.S. context, has increasingly been employed to describe the process of systematically designing, collecting, and analyzing data about the achievement of one's learning goals in tertiary education. This process of collecting data to evaluate the effectiveness of one's teaching strategies is not new. Its categorization, as a distinct subfield in education, however, is comparatively recent. Teaching as research is also known as the Scholarship of Teaching and Learning (SOTL) (Bishop-Clark and Dietz-Uhler 2012; Huber and Morreale 2002).

I argue here that teaching as research can be a meaningful way of practicing self-reflexivity as an instructor. The institutionalization of teaching as research, however, lends itself to bureaucratic practices of establishing normative measures of performance, monitoring and implementing these that are in line with neoliberal reforms of

higher education. Anthropology as a discipline often teaches against constructions of norms and narrowly formulated understandings of usefulness and success. Putting the outcomes of one's research in the service of institutionalized practices of teaching as research is likely to undermine the content of what many anthropologists actively teach against in classroom settings.

The examples discussed in this article were all employed during a Freshman Writing Seminar for undergraduate students that I taught at a large, private research university in the U.S. At this institution, most undergraduate students are required to pass two freshman writing seminars that introduce them to academic writing styles in the disciplines. The focus of the seminar was to introduce first-year students to writing in anthropology by providing them with introductory disciplinary content knowledge that they were able to explore in six successive graded writing assignments. I designed the syllabus and taught the seminar during two consecutive semesters. After teaching the course for one semester, I revised the syllabus, adding and removing topics and readings based on the evaluations of students. All examples discussed in this article were applied and evaluated when teaching the course for the second time.

The course content provided students with an introduction to discourses about representation, power, and culture. Rather than focusing on few specific topics, I discussed a broad range of issues such as colonialism, class politics, gender and knowledge production, museum studies, religion, and politics in order to demonstrate the relevance of representation and power to a broad range of fields. A common thread throughout the semester that tied the various topics together was the emphasis on the position authors and audiences hold in constructing, analyzing, and understanding (academic) arguments.

THE RELEVANCE OF POSITIONALITY AND REFLEXIVITY IN TEACHING (ANTHROPOLOGY)

There is broad agreement in pedagogy-focused (anthropological) publications on the importance of articulating positionality: the positionality of students, teachers, and learning environments

repeatedly emerge as central constructs in teaching. While some of these readings focus on the role of teachers, and others focus on the behavior of students and lastly provide practical advice for classroom engagement, all of these readings emphasize the importance of challenging students to recognize that their position in the world ultimately shapes their perspectives and belief systems.

The positionality of instructors in creating moments of rupture among students in classroom settings is discussed by several authors (Okely 2012). Brown, Cervero & Johnson-Bailey (2000) argue that the positionality of the teacher is crucial in understanding classroom interactions and practices. They interviewed seven women of color about their experiences as teachers and found that their backgrounds did not only affect the curriculum the teachers produced, but moreover affected classroom interaction with students. Students challenged teachers repeatedly because of the perceived difference between teachers and students.

Gillespie, Ashbaugh, and DeFiore (2002) experienced tensions in classroom settings when exposing their students to ideas about white privilege and power. All three female scholars faced resistance from their students to productively engage with notions of white privilege. The instructors initially experienced their own positionality as an advantage in bonding with the students, given that the majority of students were Caucasian just like the instructors. During in-depth discussions of white privilege, however, some students experienced a sense of betrayal by these women whom they had perceived as similar. The authors' primary goal of the article was to reflect on their own experiences, but they do offer brief suggestions, including role play and community service, as teaching strategies that challenges students to address these contentious issues.

Tisdell (2001) offers a slightly different understanding of positionality that mainly refers to the race, gender, and class backgrounds of individuals. She argues that higher education needs to work toward creating a more just and equal society. For achieving these goals, it is necessary to raise awareness among students about their positionality in classrooms, but furthermore it needs to be

recognized that knowledge produced and articulated at universities are grounded in positionality of those in positions of power. Henceforth, knowledge that is produced by white males has become the norm, is considered rational, and is privileged over alternative forms of knowledge.

In a comprehensive review of the literature on white privilege, Manglitz (2003) argues that teachers have the responsibility to formulate and offer to their students a sense of whiteness that is not founded in oppression and perpetuation of white privilege. Only if instructors can offer an alternative view of whiteness based on available advice in relevant literature will students be able to effectively engage with discourses on white privilege.

In a similar vein, Djohari (2011) argues for the importance of offering students a way forward after becoming familiar with critical discourses on their own positionality. Her experiences come from teaching a critical introduction to developmental studies as an anthropologist to development majors. Many students experienced moments of crisis when recognizing their involvement in perpetuating structures of power and inequality. Djohari states that students either responded by denying the value of anthropology or were incapable of formulating a way forward after having become familiar with the critical literature. Djohari suggests that by providing practical applications for the critical knowledge shared in her class, students in the following semester were able to better appreciate the value and contribution of anthropology to their chosen profession and to reconcile their own positionality in these systems of power and privilege.

Okely (2012) argues that recognizing that each of us speaks/acts/thinks from a specific location in the world necessarily involves unlearning. Unlearning happens when people encounter situations that cannot be explained or understood with the knowledge that they so far consider to be true about the world. Her account of unlearning universal truths/learning positionality is mostly based in autobiographical vignettes that illustrate how, in her personal life, moments of rupture occurred that turned her life upside-down and, with a lasting impact, changed the way she understood the world. She used her own biographical snippets in

classrooms to demonstrate unlearning, but also tried to create situations in class that have the same results. Her article, however, emphasizes the powerful moments outside the classroom in which people are faced with unlearning habitual behavior and ways of thinking. She considers teaching in order to recognize one's own positionality crucial to teaching anthropology.

Challenging privilege in classrooms is at the core of Packs' article (2011). Pack, who teaches in a college that is dominated by white, wealthy students, suggests a teaching method that introduces questions and race into homogenous classrooms. He has developed a game based on the TV show *Grey's Anatomy*. During this classroom activity, students are asked to enact different characters from *Grey's Anatomy*, and in their adopted characters, explore the politics of political correctness. As backdrop to the game, Pack shares with the students that one of the actors lost his job on the set due to racial slurs. Students then explore the possibilities of insulting each other in their roles as characters and explore the limits of what is deemed politically correct. It challenges students to think about the ways racial slurs are acceptable or unacceptable based on the positionality of the individual.

Niehaus (2005) developed an exercise that challenged students to interrogate white privilege in everyday life. After many students in her class denied the existence of white privilege she devised an out-of-the-classroom exercise. Students were asked to visit a store and to look for products that were produced with a black audience in mind (books, fashion journals, tights, band-aids). Realizing that many of these products were exclusively produced for a white audience or much more expensive for people of color, students came to accept that they live in a country that is designed around the normative population: white, middle class people. This exercise did not only stimulate in-class discussions about skin color and white privilege, but also the role of capitalism in neglecting specific populations.

Naftaly (2001) devised what he terms a "cultural identity bundle," three related classroom activities that are meant to help students recognize how their cultural backgrounds have shaped who they

are. Although Naftaly doesn't use the word positionality, he uses the term cultural identity in a way comparative to Okely's (2012) use of the term positionality. The first activity is to introduce a distinction between complex and primitive societies and to emphasize social stratification and consumerism in complex societies. Then, he shows a film called *The Hunter*, which shows young men engaging in the hunt and slaughter of a giraffe. He uses the disgust the students experience when watching the documentary to point to the invisibility of the production processes of commodities in complex societies, and specifically talks about cow farming and beef production. The last step is for the students to write a cultural autobiography that details factors that have shaped the way they see the world. Through interviews with two other people, they detail how their own experiences are similar/different to two other people. Naftaly writes that some students are hesitant to recognize that there were specific events that shaped who they are, while others are able to at least recognize the role consumerism and class stratification has played in their upbringing.

ENGAGING WITH POSITIONALITY AND ENCOURAGING REFLEXIVITY: EXAMPLES FROM THE CLASSROOM

Enabling students to recognize the assumptions that inform their opinions and beliefs and to develop tools that allow them to rebuild alternative means to understand the world is a long-term process that may not be achieved during one semester at an academic institution in a single seminar. Overarching goals that I had formulated for the course included developing the students' ability to grasp the importance of positionality, ideology, and power in researching, writing, and reading about cultures.

The seminar was limited to 16 students of which 11 were females and 5 males. Although students are encouraged to take writing seminars during their first year of study, for a variety of reasons, some students decide to take the seminars during later years. Of the students in my course, 13 were freshman, one student was a sophomore, and two students were seniors. All students were majoring

in fields other than anthropology and no student had taken any other anthropology courses prior to this course. The seminar met twice a week for 70 minutes.

In general, students were required to read at least one academic article in preparation for class discussions. Articles were drawn from a variety of fields and mostly came from peer-reviewed journals. Students were encouraged to send in two discussion questions before each class session, and received credits for doing so. Discussion questions could focus on a broad range of issues: passages that they wanted to clarify, passages they found interesting or confusing, or any other points they wanted to discuss about the articles. Most class periods were closely focused on understanding and evaluating the arguments the respective authors presented in their works. Students were required to participate actively since class discussions relied on their input and willingness to exchange and discuss their ideas.

I provided short lectures only at the very beginning of the semester to provide basic background knowledge about anthropology as an academic discipline. I opened and ended the semester by critically engaging with the history of anthropology, in particular its role and compliance in colonialism and shaping popular beliefs about hierarchies of civilizations. My rationale in doing so was to illustrate that there is no contradiction in taking on a certain identity (in this case, my identity as an anthropologist), promoting it (by teaching anthropological subject matter) and critically engaging with this identity. The overall goal was to illustrate that membership of/to a particular group does not preclude critique of the same group. In contrast, membership in a group calls for critical engagement with the foundations of the groups' identity.

By framing the course in this way, I hoped that it would be easier for students to seriously consider points of critiques that were advanced in readings for the course. The majority of readings for the course were based on ethnographic research in the U.S. and many articles suggested ideas that were outside of most of the student's frames of reference (for example, see Haraway 1988, Howell and Shyrock 2003, Jensen 2010, McIntosh 1997). I

had chosen these texts because it was more likely that the students would be familiar with the cultural assumptions that many of the texts aimed to deconstruct. While some readings drew on empirical examples from other parts of the world, the main goal of the course was not to familiarize students with ideas and concepts that people in other parts of the world hold. The goal was rather to defamiliarize the students with their own perspectives and beliefs (Miner 1956).

As mentioned above, the self-critical frame of the course was meant to explicitly position myself in criticism exchange in the course. I am not a U.S. citizen and grew up elsewhere. I speak English with a clearly audible accent that nevertheless is difficult for most people to pinpoint geographically. It was important to me not to exclude myself from the critical discourses that I wanted to introduce the students to. I often referenced examples from my home country that illustrated similar dynamics that were highlighted and criticized in respective readings. These examples helped to illustrate points that were communicated in readings. At the same time, I implicated myself in having enjoyed certain privileges that were precluded to other populations. Skin color was a recurring issue in many readings and I positioned myself repeatedly as white (as were the majority of the students). I have no doubts though that my accent, mannerisms, and humor made it difficult for many students to perceive me as similar to them, or the other teachers they had.

Students had to write six graded out of class assignments (each between 1400 – 1800 words long). The assignments built on each other and increasingly asked students to work more independently; assignment one was a critical analysis of an article (recognizing and assessing an argument), assignment four was based on ethnographic research (turning observations into an argument), and assignment six asked students to choose their own source materials for analysis (choosing source material and formulating an argument).

For the purposes here, I discuss one graded writing assignment and the preceding in-class activities in detail. In evaluating the effectiveness of

the activities, I mainly relied on written responses by the students in graded and ungraded assignments. Furthermore, I draw on class discussions and individual conversations that I had with the students.

The third assignment asked students to write a (fictional) letter to the director of the campaign “Kony 2012.” Kony 2012 was a 30-minute video directed by the organization Invisible Children. In 2012, the video had drawn a lot of attention. According to the count on its YouTube site, it had been viewed more than 97 million times!¹ While the video was successful in reaching out to many (young) adults who had no prior interest in or knowledge about the conflict described in the video, it was met with harsh criticism from many concerned citizens.² All students in class had heard about the video, but few had watched it. A number of students had attended high schools that had been visited by campaigners working on behalf of Invisible Children who had raised funds for the organization in their schools. The video is a call for action to come together and ensure that the warlord Kony will be captured. According to the video, Kony runs an army with child soldiers in the border areas of northern Uganda. The video, however, provides little information and appeals on emotional grounds for people to come together. It suggests that by merely coming together Kony will be imprisoned and brought to justice. The assignment was written for students like this: “Please write a letter to Invisible Children that analyzes and reveals the underlying assumptions of the video. You can use the letter as a way to make suggestions for changes or just for sharing your opinion about the video with the producers. The main goal is to demonstrate your ability to critically engage with materials that closely reflect mainstream developmental/humanitarian ideologies.”

In preparation for this assignment we had spent two class periods discussing developmental politics and humanitarian campaigns. For the first discussion, students had to read an article by Artu-

¹ <http://www.youtube.com/watch?v=Y4MnpzG5Sqc>

² See for example “The soft bigotry of Kony 2012” in the *Atlantic* or “Kony 2012: a humanitarian illusion” on Al Jazeera.

ro Escobar (1992). In the article, Escobar illustrates that discourses around development are a form of domination that herald a normative trajectory for economic development against which everybody else is measured. It furthermore suggests that the term “third world” has created a common imagery that is rooted less in commonalities, but much rather is the result of a hegemonic discourse. Students struggled to understand the idea that their understanding of the term “third world” is informed by homogenous portrayals rather than realities that create the third world. In order to illustrate this point, I had asked all students to print out a campaign photo from a humanitarian campaign that they would come across when doing an internet search. After discussing the article, we collected the photos on the board, and I asked students to tell me what they saw. Most of the photos showed famished women with children. When students recognized these commonalities, irrespective of the content of the campaign, they realized that their imagination is informed by a specific portrayal that they rarely question and have been inundated with during their lifetime.

I then showed them a remake of the song “We Are the World” that was re-issued after the earthquake in Haiti in 2005.³ The song shows celebrities who were singing in the original version, and others who are currently famous, singing together in a studio while images of devastated houses and helpless people are shown. In response to my question of what students thought about the video, many students criticized that the famous people in the video had come together in a studio rather than flying to Haiti and helping there hands-on. Their answers showed that they thought that I expected them to be critical of the video. Their responses, however, indicated that they didn’t recognize the objectification of people in the video.

I then showed them a second video that was a parody of the “We are the World” fundraisers.⁴ In the video, a fictional organization “Radi-Aid” collects radiators in an undefined African country in order to send them to Norway to help people who are suffering from the harsh winters there. The lyrics are playful and evoke developmental dis-

³ <http://www.youtube.com/watch?v=Glny4jSciVI>

⁴ <http://www.youtube.com/watch?v=oJLqyxm96k>

courses (“The tables have turned; now it’s Africa for Norway”). The video was produced by a group of Norwegian students with financial support from the Norwegian Agency for Development Co-operation. It had been released before Christmas 2012 to draw critical attention and raise awareness about the many problems involved in fundraising activities that claim to benefit indistinct African people. The students were stunned by the video, and I was the only person in the room who laughed at it. Some students seemed ashamed and one student shared that she had changed her mind about the “We Are the People” video. She stated that the two videos were produced very similarly and that the contrast had shown her how much Africans were objectified in the first video. She was able to realize this after watching the objectification of Norwegians in the second video.

For the next class period students read articles by James Ferguson (1994) and Sonia Tascon (2012). I started class with another spoof video that I played without any comment.⁵ During class time, however, students engaged in a role playing in which they took on the roles of different parties who needed to come to an agreement regarding a school that was meant to be built in a rural village. The students could choose to be members of a team of villagers, philanthropists, NGOs (national and international), the government, or developmental experts. The different parties had opposing interests written into their scripts and did not know about the conflicting interests of others. The script was written such that a meeting took place, and by the end of the meeting, a time plan for the construction of the school was meant to be agreed upon. Initially the students were hesitant to perform their roles and my suggestion that they should all introduce each other at the beginning of the meeting was met by them introducing themselves with their real names, rather than the characters they had been assigned. However, during the discussion the students became increasingly enthusiastic, and when I ended the discussion (the class time was up) they objected and said that they were so close to a solution that they wanted to finish. While observing the role play I was unsure whether the students benefited from it in a way that I had anticipated. The compromise

⁵ <http://www.youtube.com/watch?v=cWIAgPJdHdA>

they reached was unrealistic (they operated on the premise of limitless resources, which was against the rules laid out in the script) and made me believe that their lack of experience made it impossible to mimic real life complexities.

After class, I asked all students to respond to these questions: What additional information would you have needed to enact the role better? What did you find difficult about the role play? Do you feel that the role play has given you insight into development work? Why? Why not? Responses indicated that most students would have preferred receiving the scripts before coming to class and not only at the beginning of class time. Many indicated that the lack of structure for the discussion had made it challenging. Nearly all students indicated that they felt that they had gotten insights into developmental work. One student responded that

Playing the role of a villager gave me an insight into how some people must feel when others want their country to develop. In a way, it felt like an intrusion; in another, it felt as if we were being used, since we didn't know the exact motive of some parties, but could assume that they had motives other than 'wanting to helping us prosper.' In addition, it helped me see how all these parties would try to convince and probably take advantage of people who would not question their motives. Overall, I think the role play was a very good idea. It was different and fun, but at the same time very insightful.

The following class, we finally watched the Kony 2012 video together during class time. Students had five minutes to write down points that they thought note-worthy and then had additional time to discuss these with their neighbor. Then they shared their thoughts during class discussion. The students mentioned the critical points about the video, saying, "It seemed cult-like"; "It provided no information about the political situation"; "It called for foreign military intervention, centered on us (Americans) rather than the Ugandans, made us feel like we can save the world." Based on these exercises and discussions, the students had to write their graded essays.

The essays indicated that all students were able to pinpoint and critique similar dynamics in the video:

The campaign video Kony 2012 was successful in using many different methods such as the incorporation of Gavin and specific images of the Ugandan people to engage and gain my support for the cause. However, these tactics can also produce the undesired result in which I dominate the Ugandan people with my opinion and my thoughts and view them as a lesser group who is [sic] reliant on my aid."

At the same time, students continued to promote the idea of developmental work and humanitarian interventions and were not able to think outside this dominant paradigm:

I wish not to criticize your message regarding Kony, but rather help you realize the powerful influence you have over your audience, and inspire you to further explore the complexity of the issue at hand. There is no easy way to dismantle Kony's army of Invisible children, but awareness is a first step in the right direction.

DISCUSSION

The examples discussed above provide a glimpse into the activities that I undertook to encourage students to engage with their own positionality and to encourage self-reflexivity. Based on the evidence from student writings and observations from class discussion, students seemed better able to understand the importance of positionality in writing and reading about developmental politics. They seemed to appreciate the use of 'real life' and contemporary examples as these helped them to make connections to settings outside the classroom.

While I considered the activities mentioned previously successful, I would like to add that I believe that the following is related to the topic as well: students did not have any personal investment in humanitarian work and therefore more easily embraced the critique. Other topics, such as white or class privilege were met with stronger resistance. Teaching as research provided useful insights throughout the semester into the effectiveness of teaching methodologies.

The ascent of teaching as research can partly be ascribed to a larger number of instructors following the calls of an early pioneer of teaching as research (Boyer 1996). Boyer (1996) had advocated that instructors should base the assessment of their teaching and subsequent student learning in rigorous empirical data collected through research—similar to the disciplinary research and writing we engage in as scholars. Teaching as research brings together academics from diverse disciplinary backgrounds, all of whom recognize the importance of teaching as intervention, assessing one's teaching, and developing more effective teaching techniques. Large, established research universities or universities hoping to ascend to the status of publicly-recognized research institutions, however, too often place little value on teaching. Time that could be invested into improving one's teaching is time lost on conducting research. A change in institutional attitudes toward evaluating one's teaching has been caused by an unexpected friend of SOTL: neoliberal reforms of higher education.

Over the last twenty years, neoliberal reforms have found their way into institutions of higher education. They have come to determine agendas for teaching and research and in addition have amplified the importance of large administrative structures in higher education that monitor and restructure in the name of effectiveness and accountability (Berglund 2005, Newman 2011, Strathern 2000). Universities have increasingly engaged in quantifying their services to satisfy requirements for continued reception of public funding or accreditation. While I believe in the importance of assessing my own teaching and creatively seeking ways to improve my performance as a teacher, I need to recognize that I inadvertently contribute to the proliferation of logics of neoliberalism in higher education. Even if my stated goal is to hold myself accountable for my professional performance in contributing to teaching students different ways of thinking about the world, my assessment can be used for creating more disciplined neoliberal subjects. Hierarchies of performance among colleagues, departments, and universities are constructed based on research that assesses the effectiveness of teaching strategies (Shore & Wright 1999).

Practicing teaching as research as an individual instructor can be a meaningful way to hold oneself accountable for goals that one hopes to achieve during a semester. Practicing teaching as research in an institutionalized framework, however, might serve purposes that anthropology often teaches against.

REFERENCES

- Berglund, Eeva (2005). Exhausting Academia: In Defence of Anthropology, in Search of Time. *Journal of the World Anthropology Network* 1(2): 25-35.
- Bishop-Clark and Dietz-Uhler (2012). *Engaging in the Scholarship of Teaching and Learning: A Guide to the Process, and How to Develop a Project from Start to Finish*. Sterling: Stylus Publishing.
- Brown, Angela H., Ronald M. Cervero, and Juanita Jonsob-Bailey (2000). Making the Invisible Visible: Race, Gender, and Teaching in Adult Education. *Adult Education Quarterly* 50: 274-288.
- Djohari, Natalie (2011). 'Breaking Other People's Toys': Reflections on Teaching Critical Anthropology in Development Studies. *Teaching Anthropology* 1(1): 21-29.
- Gillespie, Diane, Leslie Ashbaugh, and JoAnn DeFiore (2002). White Women Teaching White Women about White Privilege, Race Cognizance and Social Action: Toward Pedagogical Pragmatics. *Race Ethnicity and Education* 5(3): 237-253.
- Huber, Mary Taylor and Sherwyn Morreale (Eds). (2002). *Disciplinary Styles in the Scholarship of Teaching and Learning: Exploring Common Ground*. Washington: Carnegie Foundation for the Advancement of Teaching.
- Manglitz, Elaine (2003). Challenging White Privilege in Adult Education: A Critical Review of the Literature. *Adult Education Quarterly* 53(2): 119-134.
- Naftaly, Philip (2001). Lost in America: Teaching Cultural Identity to Members of the Majority. *Teaching Anthropology: SAAC Notes* 8(1): 11-13.
- Newman, Jonathan (2011). Reflection in the Classroom: Learning to Market Education. *Teaching Anthropology* 1(2): 44-55.
- Niehuis, Sylvia (2005). Helping White Students Explore White Privilege Outside the Classroom. *North American Journal of Psychology* 7(3): 481-492.
- Okely, Judith (2012). Confronting Positionality. *Teaching Anthropology* 2(1): 36-43.
- Pack, Sam (2011). Political Correctness Unplugged: Exploring the Ethnics of Representation in the Classroom. *Teaching Anthropology* 1(2): 98-103.
- Shore, Chris and Susan Wright (1999). Audit Culture and Anthropology: Neo-liberalism in British Higher Education. *Journal Roy. Anthrop. Institute* 5: 557-575.
- Strathern, Marilyn (2000). *Audit Cultures: Anthropological Studies in Accountability, Ethics and the Academy*. London: Routledge.

Exploring the Theatre of the Oppressed at the Ivy League

Luisa Fernanda Rosas

Graduate Research and Teaching Fellow and Teagle Fellow 2012-2013

As recipient of a Graduate Research and Teaching Fellowship at Cornell, I studied theatre and methodologies of teaching. Through my research, I came across the work of Augusto Boal, a Brazilian dramatist, theorist, author, and inventor of the Theatre of the Oppressed. Boal's Theatre, made popular in Brazil during the 1970s, is unique because it aims for the presentation of a play as it concurrently stages its analysis. The Joker system, a system in which the Joker or neutral facilitator is both commentator and guide in the unfolding drama, functions on two levels: first, allowing theatre to develop as "fable" and, secondly, allows it to function as a lecture. The plays that are performed are written by a team of actors and are inspired by the real challenges they face in their daily lives. The Theatre of the Oppressed thus becomes a courtroom, in which judgments are passed and the spect-actor's (active spectator participants) intervention can alter the outcome of any given scenario.¹

Interested in identifying ways in which theatre might be better adapted to a humanities or social science classroom, I decided to explore Boal's Theatre of the Oppressed (TO), and see if it would

facilitate student discussion on issues of privilege, class, and race. Inspired by the possibilities of this work, I registered for a Joker training session in New York City. After a 20-hour workshop, I would be certified to facilitate the Forum Theatre developed by Boal. When I arrived I was surprised by the diversity of participants. Several teachers and students of theatre were present as were members of the homeless TO troupe that frequently performed in the city. To talk about oppression in this group took on a new dimension, knowing the personal histories of many of the participants. The Joker who facilitated our workshop led the group in several trust building activities, and then we began the work of building a play, first by each sharing a story of personal oppression and then by writing a collective play which would make individual stories unrecognizable but which would have traces of all of our shared experiences. After the performance, we gathered one last time and asked final questions. I asked if it were possible to take this theatre to the Ivy League. The response was a resounding no. Boal's vision for this theatre was that it be made by and for the people, not as a pedagogical tool, and certainly not in a space of privilege. After talking to several colleagues, they admitted to having used these techniques in their classrooms, that they were effective and students

¹ Boal, Augusto. 1979. *Theatre of the Oppressed*. New York: Urizen Books

responded well to them. As we spoke, I felt that we were dealing with the clandestine transportation of knowledge. I left New York enriched by the experiences of the TO workshop, convinced that I would use this in a classroom, in spite of opposition, and aware that I would be met by a set of different challenges in my attempts to honor Boal's vision in spaces of privilege.

My project through the Center for Teaching Excellence at Cornell was simple. Because I was on a fellowship that permitted me to write my dissertation but offered a respite from teaching, I had no classroom of my own and was unable to apply Boal's theatre techniques with my students. Working alongside my colleague in the Anthropology department, Inga Gruß, I guest-lectured in her First Year Writing Seminar and helped structure a Forum play in 70 minutes. Her class, entitled Culture, Representation, and Power, dealt with promoting self-reflexivity in the classroom and making students aware of their own positionality in knowing and understanding the world. Boal's objectives seemed deeply compatible given the focus of the class.

Students were given questions before and after the theatre workshop and through their responses it was to be assessed if they had become more empathetic readers. After some initial theatre exercises they were divided into small groups and given the task of writing a play based on their shared experiences, a play in which the protagonist was met by an insurmountable obstacle. Once the scenario was developed they would proceed to stage the play for the group. After the play was performed and the scene resulted in their failure, the spect-actors would intervene and replace the protagonist, trying to perform the play differently and thus attain different outcomes by side-stepping or confronting the obstacle.

The 70-minute time limit presented a challenge. Having a single opportunity to explain to the students the nuances of Boal's intricate Forum theatre was not easy. Further, the students did not know me and it was difficult to establish trust; nevertheless, they were, for the most part, engaged and participated well. Theatre requires vulnerability, and a key theme I noticed in this project was an obvious resistance from students, not to

acting, but to sharing their stories. When asked to share stories in which they were denied something they needed, many of them were unwilling or unable to define the word "need" in a meaningful way. Their insurmountable obstacles² seemed capricious in comparison to the experiences of the New York workshop participants. With time, some students opened up and were able to share something essential that they wanted yet were unable to have (an internship due to scholarly and parental pressures, for example.) Acting out a situation in which a professional need was not met was undoubtedly terrifying for students' whose achievements define their sense of self.

This experience has shaped my approach to teaching in several ways. I'm convinced that bringing Boal's theatre to the Ivy League is an important pedagogical tool, if only to elicit more discussions on issues of privilege, race, and gender discrimination. With their own narratives as the starting point, the activity generates a more authentic form of empathy toward others, while making students aware of mechanisms of their own oppression. Creating a space for vulnerability in as guarded an environment as an Ivy League institution also allows students to see, once they are willing to share, that there is greater diversity in their classroom than they might have known. Did we succeed in building an authentic Forum theatre as Boal intended? Certainly not, and yet facing seemingly impossible obstacles with different strategies and trying to surmount them time and again seems to be in the spirit of his work and should not be excluded from any circle, regardless of how privileged it may be.

² Inability to dye their hair, unable to skip school on the day of the test.

SECTION III: STUDENT CHOICE IN PEDAGOGY

Optional Problem-Solving Sessions in Genetics: All or Nothing?

Jared Hale

Graduate Research and Teaching Fellow and Teagle Fellow 2012-2013

This study evaluates the use of optional problem solving sessions in an undergraduate introductory genetics and genomics course. The data were collected through surveys given to students in the laboratory course during the Spring semester of 2013. I examined the correlation between student performance and attendance at optional problem solving sessions offered throughout the course. Attendance at these sessions was used as an indirect measure of the students' familiarity and mastery of problem solving skills. The study demonstrated that student opinion was by and large favorable toward problem solving and to a lesser extent group problem solving. Students were favorably inclined toward the idea of incorporating group problem solving into the course. There was also a positive trend in student performance on exams correlated with increased attendance at the optional problem solving sessions. This suggests that group problem solving is a viable option to enrich the curriculum in this Genetics course.

INTRODUCTION

Problem Solving:

Genetics forms the basis from which biology, in all its many forms, can be understood. Therefore, a thorough understanding of genetics is critical for all aspects of the biological sciences. Problem solving skills are essential for students to understand genetics because the issues surrounding genetics require applying conceptual background knowledge in new, yet methodical, ways (Smith, 1988). There are multiple varieties of problem solving skills all loosely termed as "problem solving" but in particular genetics requires the use of deductive reasoning (Papatheodorou *et al.*, 2008). Deductive reasoning is unique in problem solving because it relies upon drawing inference to propose the best possible explanation. An everyday example would be if you left your home in the morning and found it was wet outside. If it had rained during the night then it would be perfectly reasonable to suggest that it would be wet outside. Therefore, by deduction, it is reasonable to say it rained last night. Genetics requires this type

of thinking in which a student must start with observations and then work backward to draw inferences as to what processes gave rise to the data. This reasoning is something that requires practice and all too often is under-emphasized in current genetics courses in favor of memorization.

Active Learning:

The current efforts within academia to develop curriculum that incorporates more active learning in an effective manner can be difficult in a genetics course. Studies have shown that students' opinions on certain types of active learning methods such as clickers are mixed at best (Welsh, 2012). Welsh's study demonstrated that students only find the clicker questions useful if incorporated in meaningful ways, such that they encourage group work, are relevant to the coursework and challenging, and if they add value and fit within the format of the lecture. Otherwise, the majority of these students felt the clickers were a waste of time.

Despite the mixed attitudes toward clicker questions in lecture, other studies have shown a benefit associated with clicker questions (Levesque, 2011). Students were polled with a clicker question then encouraged to discuss the answer, and, when retested afterward, the majority were able to answer correctly. As a proof of concept, the number of clicker questions answered positively correlated strongly with performance on exams regardless of whether the clicker questions were answered correctly or not. While this study did not separate the group discussion from clicker questions, it does demonstrate promise for active group work as a means to improve student performance.

Research suggests that interactive approaches provide a valuable means to foster student learning. In this light, problem solving has been employed through the use of various computer simulations (White *et al.*, 2007; White 2012). These programs provide near limitless opportunity for students to practice their problem solving skills by providing a hypothetical insect with randomized genetic properties. Other similar programs take the conceptual understanding behind genetics and build it into a program (Corbett *et al.* 2010). This program utilizes a cognitive model of genetics and can then follow the students' multi-part answers as they work through the whole problem and can advise on mistakes as well as give explanations for correct and incorrect answers. Thorough testing showed significant improvement in students' understanding of the course material, and this was empirically validated through traditional classroom testing.

Incorporating problem solving in an active learning environment:

One aspect not dissected from the aforementioned research is the idea of group problem solving skills. A broad survey from 46 influential players in the private sector of biotechnology showed a repeating theme of valuing communication and teamwork, particularly within experimental design (Miller *et al.*, 2011). Despite pressure from industry and the private sector, some genetics courses do not place enough emphasis on critical thinking and problem solving in a group environment. If incorporated into a course successfully, this could provide a foundation in communication and teamwork in the context of experimental design.

Promising instruction methods that incorporate group work and focus on engagement and structure to help guide the students are becoming increasingly refined. Methods such as POGIL, or Problem-Oriented Guided Inquiry Learning, have been deemed effective in STEM courses based on student and faculty response to the instructional method, wherein students organize into small groups and primarily work through peer instruction and cooperation while maintaining an instructor presence that allows for feedback and guidance to facilitate the learning process (Myers and Tevathan, 2012). In various STEM fields ranging from Information Technology to Biochemistry the student response has been overwhelmingly positive and traditional testing methods have indicated improvement in key conceptual areas of the course (Myers and Tevathan, 2012; Bailey *et al.* 2012). Furthermore, group learning methods such as POGIL have previously been demonstrated as feasible in small classroom settings, but recent work has shown the efficacy of such group interaction in larger classrooms at large universities where the students have little to no previous experience with such instructional methods (Bailey *et al.* 2012).

My research will fill a necessary niche in instructional methods for Genetics courses. Assaying student attendance as well as attitudes and opinions regarding optional problem solving sessions and correlating that data with individual student performance will likely provide insightful information toward incorporating problem solving in Genetics courses. While the nature of group work is only a minor factor in this study the findings from the somewhat less structured problem solving sessions can be extrapolated and used to draw inference about the potential effectiveness of group problem solving sessions. Attitudes toward individual and group problem solving as it applies to genetics will be invaluable in planning future courses and fostering the skills necessary for students to have a fundamental knowledge in Genetics and be able to use that knowledge in real-world problem solving skills and communicate their ideas with others.

METHODS

The participants in this study are all undergraduate students at the Cornell University enrolled in the laboratory course associated with the Genetics and Genomics Introductory course. There are seven total sections comprising the laboratory course. Physical surveys were given to students enrolled in five out of the seven course sections.

The surveys included demographic information questions, fill in the blank questions, Likert scale questions, and open-ended questions. The survey was given in paper form at the start of class. The student response rate was an extraordinary 100% for all sections surveyed (n=103), however students did leave questions blank on occasion and, unless stated otherwise, omitted responses were removed from the data pool. The data analysis was performed by linking survey responses with student preliminary/mid-term scores while excluding any unanswered questions. Therefore, all percentages were determined from the surveys only with a response in the given category.

Demographic information was grouped according to more general terms when students listed specific details (i.e. specific ethnicity was grouped into broader categories as best as possible). Because the preliminary/mid-term exams used as data were proctored as part of the associated lecture course (n=220) the overall mean values include students who are not necessarily enrolled in the laboratory course (n=150).

RESULTS AND DISCUSSION

The survey indicated that the student body was roughly equally distributed between sophomores (21%), juniors (41%), and seniors (38%). It is important to note that the course is not offered to first-semester freshmen and freshmen in general are discouraged from taking the course (Fig 1A).

Student race was self-reported and grouped as necessary. Overall, the student body for the course is primarily White (51%) followed closely by Asian (33%) then Hispanic (9%), and then all other reported ethnicities (7%) (Fig 1B). Males and females enrolled in the course were nearly even, with women representing a 1% greater proportion of the student body than men. Age was distributed

entirely between 18-23, with a majority (43%) of the students self-identifying as 21 years of age.

Student GPA was self-reported, and indicated a large number of students near a 4.0 with 60% of students reporting above a 3.5 GPA (Fig 1C). However, it is important to note that this may be somewhat inflated as self-reported prelim 1 grades showed a full 4% higher average than the actual prelim 1 grade average. Therefore, it is reasonable to suggest that a similar level of over-estimation is occurring with students' responses to their own GPA.

Students' effort in the course was evaluated using two different fill-in-the-blank questions. The first asked students to list the number of optional problem solving sessions they had attended (Fig 2A). The optional problem-solving sessions were offered on multiple occasions each week by the course coordinator and focused on the concepts and techniques for solving genetics problems. At the time of the survey students could have attended a maximum of 10 sessions. Most students reported attending in a binomial manner trending toward the extreme ends, indicating a tendency for students to attend all (22% attended 7-10 sessions) or none (35% attended 0-1 sessions) rather than half of the sessions. When students were asked to discuss why they did or did not attend optional problem solving sessions, the consensus was that there were scheduling conflicts or the times offered were not optimal, despite having multiple sessions offered in a given week.

An alternative way to assess the effort of students was addressed by asking the students how much time they spent in an average week studying for this course (Fig 2B). Responses varied widely, with the majority (36%) of students citing between 3 and 5 hours a week. A still significant portion (16%) listed 12 hours or more of studying for the course in an average week. This highlights the workload and difficulty of this course despite it being an introductory course. Not unexpectedly, a small number of students felt it necessary to write in a footnote detailing that they study very little—if at all—in a given week, then study as much as possible during the week of an exam.

To better understand student self-confidence, the students were asked about their own perspective

on their performance in the laboratory course, which was the focus of this survey, and also in the lecture course. In response to the statement, "I feel I am doing well in the lab," (Fig 3A) the distribution of responses were in the majority neutral (neither agree/nor disagree) at 35% with an even spread from there leaning slightly toward "disagree." Students were somewhat more positive about the lecture course (Fig 3B) with the majority (40%) still indicating neutral as their choice, but with a spread shifted slightly toward agreeing with the statement. The respondents showed a nearly identical response curve when the question was directed toward both courses overall (Fig 3C). Overall the students showed mixed feelings about their confidence in their performance in both courses but were marginally more negative regarding the laboratory course. This might be because the portion of their grade that was known to them at the time of the survey was significantly smaller in the laboratory course than in the lecture course.

Because this work is focused on understanding the effectiveness of problem solving in Genetics it is reasonable to believe that student attitudes toward problem solving would be integral to its effectiveness and therefore need to be evaluated. Students were given the statement, "I found the problem solving sessions to be useful for lab" (Fig 4A) and asked to indicate to what level they agreed with the statement. The majority (39%) again were neutral and the remaining skewed toward agreeing. This was in stark contrast to the statement when directed at the lecture course (Fig 4B). Students overwhelmingly (49%) stated that they strongly agreed with the statement while only a minority (8%) disagreed in any way with the statement. Interestingly, when the question was worded to address the usefulness to both courses overall (Fig 4C) the responses matched the responses for the lecture statement in a nearly identical manner. This could be interpreted as students giving more weight to the lecture course, or, alternatively, since they found the problem solving helpful more for lecture than the lab, then overall they felt that the lecture course was the most helpful of those two options.

The discrepancy between student responses for the lab and lecture was revealed in the open ended questions. Students often cited that the prob-

lem solving felt very similar to the exams given during lecture. On the other hand, students felt the problem solving sessions were more useful to lab as additional material was covered and emphasized that aided the lab course. It is important to note that the majority of the students' grades in the lab course at the time of the survey were from laboratory reports rather than problem based examinations. It is possible that students have a disconnect between the exam style questions that are more classical problem solving and the more abstract problem solving of conducting an experiment and reporting on the data and conclusions.

The short-term goal of this research was to try and examine the efficacy of optional problem solving sessions in a genetics course. In the long run the goal is to address if problem-solving sessions such as these should be more closely integrated into the Genetics curriculum. To address both of these questions the students' responses to the aforementioned survey questions were linked with their actual individual performance on two preliminary/mid-term exams. In this way it was possible to glean information about raw performance on each exam and to look for changes in performance over time.

To this end, actual performance data on each preliminary exam was organized according to the number of optional problem solving sessions attended (Fig 5). Groups were chosen in an effort to have as even as possible n numbers in each, and accordingly were assigned as students who attended 0, 1-2, 3-5, 6-8, and 9-10. The mean for each exam was known for the entire lecture course including students not surveyed and not in the laboratory course (n=220). The first exam mean was 60.6. Students attending nearly all (9-10) of the problem-solving sessions showed higher performance of 11.7% on their preliminary exams compared with the course average. Even students who did not attend any of the problem solving sessions showed a 2.2% increase over the class mean. Since students surveyed were only those also enrolled in the laboratory course (n=103) this may be indicative of the laboratory course reinforcing and strengthening the skills necessary for the formal exams in the lecture course. This is particularly evident when you examine the grades for all surveyed students as

a whole, as they average 4.2% higher on the first exam and 1.4% higher on the second exam than the lecture average, which includes ~70 students not enrolled in the laboratory course. Taken as a whole, students attending any problem solving sessions showed a trend toward improved performance on the exams.

Interestingly, one caveat appeared with students attending between 6 and 8 problem solving sessions. The average was 2.2% lower on the first exam than the course average and 4.6% lower on the second exam. The open-ended questions for these students provided little direct reason but suggested that at least a portion of these students realized they were behind after several weeks and then decided to attend the problem solving sessions to make up for this difference.

The quantitative data from the survey and the students recorded grades were mixed but generally positive in regards to the problem solving sessions. However, an important component in producing an effective course is the students' own perception and attitude toward its different facets. In an effort to understand this, open-ended questions were asked during the survey. Students had an overall positive attitude toward the problem-solving sessions, with responses such as, "I feel the optional problem-solving sessions will help me practice and improve my genetics skills and help me to do well in the course." And "[...] I would say [the optional problem solving sessions] are 10 times more useful than the actual lecture."

Students were largely receptive and positive toward the question, "Would you be interested in taking a genetics course that focused on group problem solving during lectures? Why or why not?" A typical example of student response was "[...] problem solving help[ed] me to master the

materials the most." It is interesting to note that most students focused on this question from the lens of problem solving in general, rather than the idea of group problem solving. This may be representative of the fact that the current optional problem solving sessions are not group focused unless the students take it upon themselves to form groups.

Conversely, a number of students commented more directly on the "group" portion of the question, citing, "It is more realistic since no endeavor (other than college) is ever all individual..." and adding such personal statements as, "I enjoy working with people. I also believe that teaching is the best way to understand it. You get perspectives and ways of approaching problems that you would not have attain[sic] otherwise." This demonstrates a fundamental understanding of the strong points of guided group learning, namely that trading roles within a group between student and teacher is a method of learning in both roles. Taken together the vast majority of students who responded were positive and open to the idea of incorporating group problem solving within the course.

In conclusion, the optional problem-solving sessions were mostly viewed favorably and students were generally open to integrating them more closely into the curriculum of this course rather than having them be an optional component. Student opinions showed that the actual performance associated with the optional problem-solving sessions were mixed, but overall it positively correlated with student performance in the course. This suggests that incorporating group problem solving into the curriculum of an introductory genetics course would be well received and enrich the learning experience for the students involved.

Figure 1. Student Body

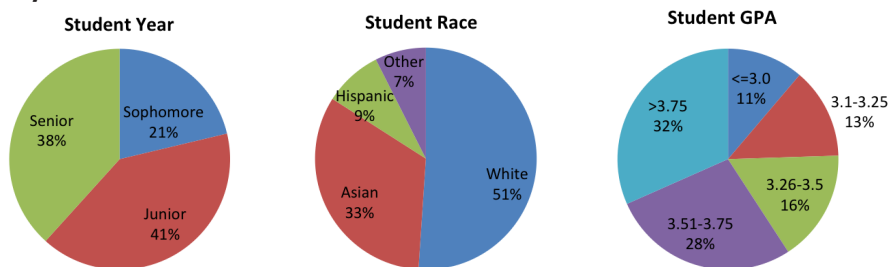


Figure 2. Student Effort

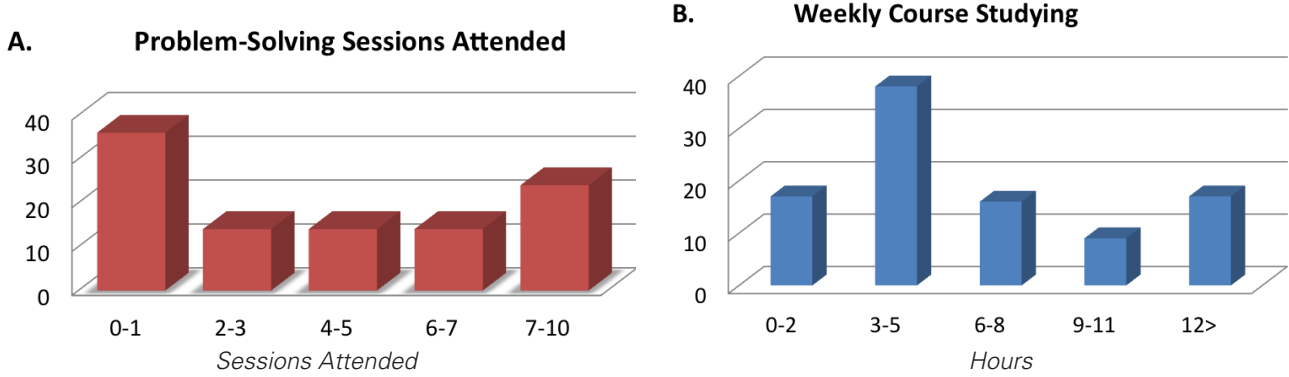


Figure 3. Student Confidence



Figure 4. Student Perspectives on Problem Solving

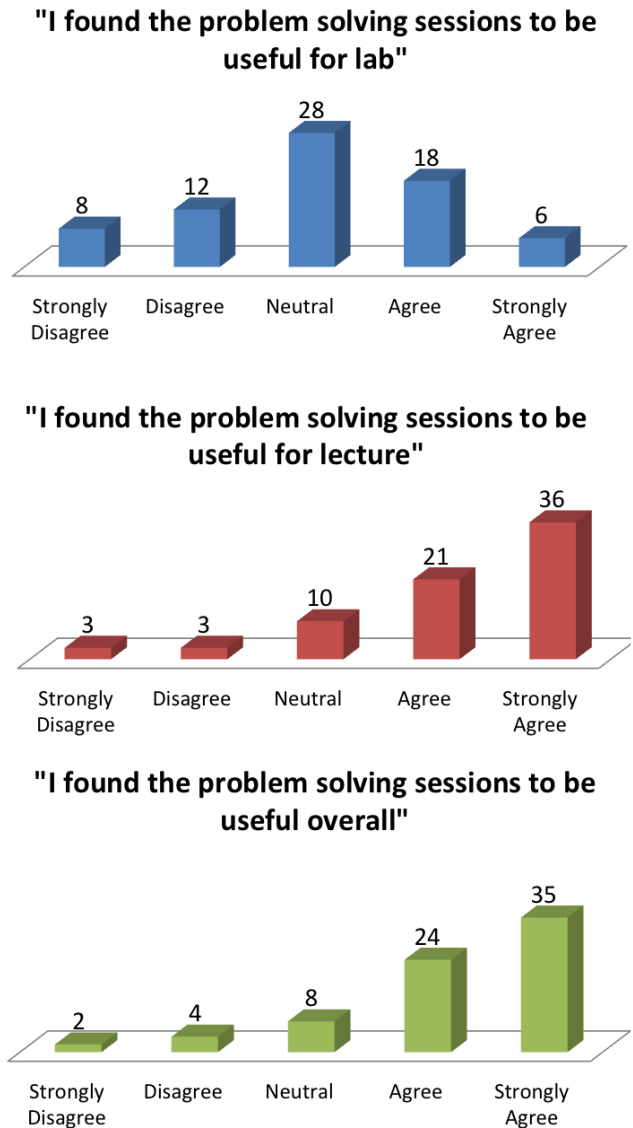
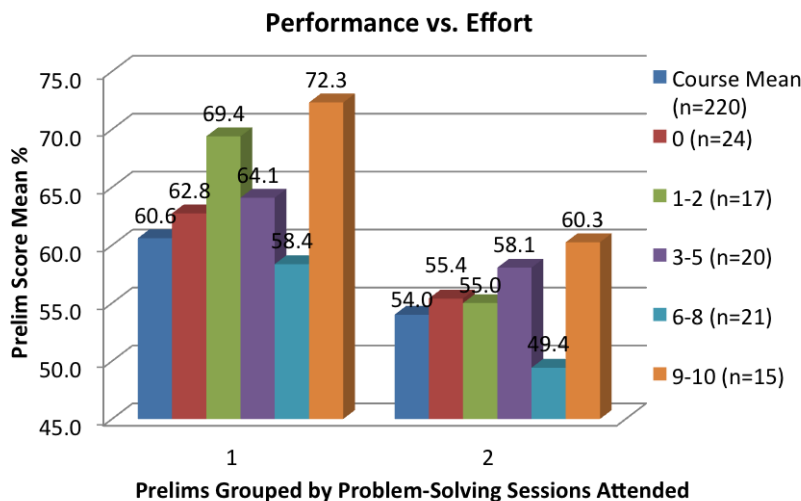


Figure 5. Performance vs. Effort



REFERENCES

- Bailey, C.P., Minderhout, V., and Loertscher, J. (2012). Learning transferable skills in large lecture halls: Implementing a POGIL approach in biochemistry. *Biochemistry and Molecular Biology Education* 40, 1–7.
- Corbett, A., Kauffman, L., Maclaren, B., Wagner, A., and Jones, E. (2010). A Cognitive Tutor for Genetics Problem Solving: Learning Gains and Student Modeling. *Journal of Educational Computing Research* 42, 219–239.
- Levesque, A.A. (2011). Using Clickers to Facilitate Development of Problem-Solving Skills. *Cell Biology Education* 10, 406–417.
- Miller, J.K., Repinski, S.L., Hayes, K.N., Bliss, F.A., and Trexler, C.J. (2011). Designing Graduate-Level Plant Breeding Curriculum: A Delphi Study of Private Sector Stakeholder Opinions. *Journal of Natural Resources and Life Sciences Education* 40, 82.
- Myers, T., and Tevathan, J. (2012). Overcoming the Glassy-Eyed Nod: An Application of Process-Oriented Guided Inquiry Learning Techniques in Information Technology. *Journal of Learning Design* 5, 12–22.
- Obenland, C.A., Munson, A.H., and Hutchinson, J.S. (2013). Silent and vocal students in a large active learning chemistry classroom: Comparison of performance and motivational factors. *Chemistry Education Research and Practice* 14, 73.
- Papatheodorou, I., Kakas, A., and Sergot, M. (2005). Inference of Gene Relations from Microarray Data by Abduction. In *Logic Programming and Nonmonotonic Reasoning*, C. Baral, G. Greco, N. Leone, and G. Terracina, eds. (Berlin, Heidelberg: Springer Berlin Heidelberg), pp. 389–393.
- Smith, M.U. (1988). Successful and unsuccessful problem solving in classical genetic pedigrees. *Journal of Research in Science Teaching* 25, 411–433.
- Welsh, A. (2012). Exploring Undergraduates' Perceptions of the Use of Active Learning Techniques in Science Lectures. *Journal of College Science Teaching* 42, 80.
- White, B. (2012). The Virtual Genetics Lab II: Improvements to a Freely Available Software Simulation of Genetics. *The American Biology Teacher* 74, 336–337.
- White, B., Bolker, E., Koolar, N., Ma, W., Maw, N.N., and Yu, C.Y. (2007). The Virtual Genetics Lab: A Freely-Available Open-Source Genetics Simulation. *The American Biology Teacher* 69, 29–32.

Investigating the Differential Learning Experiences for Students in an Auto-tutorial and a Lecture-based Biochemistry Course

Carolyn Fisher

Graduate Teaching as Research Fellow and Teagle Fellow 2012-2013

“Why should I teach myself when I pay to go to Cornell for professors to teach me?”
—*Undergraduate student in biochemistry lecture*

“It’s a little more difficult, but it is rewarding to learn how to teach yourself.”
—*Undergraduate student in auto-tutorial course*

Abstract

Biochemistry is often regarded as the most essential linchpin course for life science majors but is notorious for the advanced difficulty of the material, extensive amount of knowledge that must be learned, and integration of various prerequisite subjects required for the understanding of the course content. For this reason, biochemistry is often both the most feared yet interesting course that life science undergraduate majors are required to take. It is essential that biochemistry courses are effective in helping students to learn the material for their particular discipline or professional career path. At Cornell University, there are several choices for biochemistry courses that an undergraduate student can choose from. Specifically, if a student is ambitious enough to try to complete two semesters of biochemistry in one semester of time, s/he can select from either auto-tutorial biochemistry BioMG3300 or lecture biochemistry BioMG3350. The following study was interested in determining what motivates students to select one class over another and if one specific style seemed to have better output in terms of increasing students’ interest in biochemistry, desire to take additional biochemistry courses, improvement of study habits, or altering career aspirations of students. Interestingly, more than half of the surveyed auto-tutorial students signed up for the course because of a time-conflict they had with the lecture course or because they valued the flexible structure of the course in not having an official meeting time every week. Lecture students were motivated because they preferred learning from lecture classes or from a professor. Additionally, both courses did an excellent job of stimulating interest in the course, either through self-paced study or professor enthusiasm for the material. Specifically, auto-tutorial students seemed to have more of an improvement in study habits and were more likely to take another biochemistry course compared to lecture students. These findings seem to suggest that there is not one best way to teach biochemistry as most of the students in both courses seemed genuinely content with their selection and confident they made the right choice for their own study and learning habits. This study is to be expanded to include more students to flesh out more differences between these two groups of biochemistry students.

INTRODUCTION

Within the life and health sciences, biochemistry is often considered one of the more difficult subjects and therefore the most dreaded undergraduate course to take. Combining physics, math, chemistry, biology, and medicine into a single curriculum, or even a single semester, is no easy feat for professors to teach or students to learn (Wood, 1990). Several prerequisite courses are often required before students can take Biochemistry I, including but not limited to calculus, general chemistry, general biology, general physics, organic chemistry, and sometimes genetics. Biochemistry, in some form, is a required class for everyone majoring in fields from biology to chemistry, nursing to nutrition, and pre-med to pre-vet. Biochemistry professors have to be prepared to teach a wide variety of people with a variety of backgrounds, experience, knowledge, fortes, career aspirations, goals, motivations, and worst of all, fear levels. Biochemistry students, more than any other student in the life and health sciences, often enter biochemistry with inherent fear, dread, and visions of failure. Biochemistry professors must be confident, charismatic, helpful, and optimistic in terms of not only addressing these fears but also in alleviating them. One of the best ways that this can be done is to have a professor with a validated and effective teaching strategy for biochemistry that can help any student, regardless of strengths and weaknesses, be successful in the course to help aid him or her on their way. For these reasons, it is imperative to study the various ways that biochemistry knowledge is disseminated at a university setting to see which method best employs these essential techniques and aids students toward their ultimate career goals.

Lecture is one of the oldest techniques in education. Originally dating back to medieval times, the original purpose of lectures was to disseminate information from the mind of a person with considerable knowledge. At that time, there were no books to do such a thing (Wood, 1989). There are several advantages to lecture, both economic and pragmatic, which is why such a teaching method has persisted through the years, despite the invention of the printing press and the availability of books, journals, and the Internet. Economically speaking, a single professor can lecture to

hundreds, if not thousands, of students on given topics, without much more than the basic requirement of adequate space. This is advantageous in that the professor can also share his or her own intense enthusiasm for the subject and make the material "come to life" more so than reading from a textbook (Wood, 1989). From a student perspective, if his or her interest is piqued s/he is much more likely to be motivated to learn. From a pragmatic perspective, an expert professor lecturing on a topic will be able to organize material to best facilitate student learning, cover topics of interest that the textbook or other resources do not contain, model the way a professional in the field thinks through a particular problem, and provide first-hand assistance to those students with questions either during class or afterward (Wood, 1989). At best, lecture-based classes offer a lot of flexibility and variety to those professors willing to put the time into making their class successful in educating students within their field.

Since at least the 1970s, academics have started to come to terms with the fact that lecture does not deliver the long-term knowledge that is expected of biochemistry students in colleges, universities, and medical institutions. One major shortcoming of lectures is the lack of feedback from the students (Wood, 1989). In a lecture-based classroom, the role of the student is passive and the instructor has no idea whether the student is following every word or became lost in the first ten minutes of the class. Studies have shown that attention spans falter after about the first 15 minutes of lecture (Wood, 1989). PowerPoint lecture presentations are most helpful for students that learn via auditory or visual learning techniques, but PowerPoint lectures fails to support students who learn through a more kinesthetic approach, such as problem-solving. Thus, not all students will learn at the same pace and the instructor will have no way of knowing who understands the material and who does not. Additionally, lectures do not give students a chance to apply the knowledge from class to real-life problems (Wood, 1989). These inherent disadvantages of the lecture-based approach are important in trying to create a classroom where student learning is the priority and is achieved at the maximum level (Weiman, 2007).

Take a subject with an overwhelming plethora of constantly expanding knowledge and a teaching method comprised of subjecting students to listening to an earful of biochemical jargon and mundane facts—in my opinion, this is a deadly recipe for disaster. Biochemistry is the science of life, the study of how all living organisms function, survive, mutate, combat disease, grow, develop, and reproduce at the molecular level. It should be the most inspiring and fascinating field of study for any student—and it is for the most part, when taught in such a way as to illuminate students to the wonders and explanations that biochemistry has to offer. But, with so much information, jargon, metabolic pathways, and connections to learn and memorize, students are easily overwhelmed and find the subject laborious and boring (Vella, 1990). “Information-overload” is a common symptom of the twenty-first century biochemistry student. Many modern professors emphasize memorization and regurgitation on exams instead of understanding, problem solving, and application of knowledge (Vella, 1990). It is relatively “easy” for students to get lost seeing the forest with all of its trees instead of studying the wood and other facets of one beautiful tree (Garratt, 1982). Additionally, learning based on memorizing facts is most effective for the “cram-dump” method, but not effective for life-long understanding required for interest in and future study (Black, 1985). Furthermore, didactic lectures have actually been found to be lacking when trying to develop an individual’s problem-solving skills and reasoning (Vella, 1991). In the end, biochemistry really is not more difficult than any other subject to teach, and there is no reason why it really cannot be taught better to benefit more students. A wise teacher anonymously said it best: “There are no difficult subjects, only difficult teachers and difficult teaching methods” (Vella, 1991). Hopefully this study will elucidate the best teaching and learning strategies in the comparison of two biochemistry classes at Cornell University.

A new trend since the 1980s has been to implement more active learning techniques into science courses. More active learning techniques were employed in medical schools, where the goals were to develop students’ abilities to assess a problem or engage in a case-study within a group

of their peers, make appropriate observations, analyze their findings, and suggest treatment options and medical tests for these hypothetical patients (Kanfer, 1983). These problem solving or critical thinking skills are vital not only for future doctors, but also for future thinkers, inventors, engineers, scientists, problem solvers, or basically anyone who might encounter some kind of problem to solve anytime in their future, or, in other words, everyone. It has become part of the twenty-first century educational shift to incorporate various active learning techniques into a variety of classrooms, especially those in the STEM (Science, Technology, Engineering, and Math) fields (Eberlein *et al.*, 2008). The most popular method of active learning in the 1980’s was termed “Problem-Based Learning”, or PBL, by the medical institutions that employed such practices (Kanfer, 1983; Cohen, 1994). Similar methods of learning are still available at medical schools today. The learning methods of PBL have expanded into other techniques such as “small-group learning”, Process-Oriented Guided Inquiry Learning (POGIL), and peer-lead team learning (PLTL) (Eberlein *et al.*, 2008). The common denominator for all of these approaches is the availability of interactive discussions, problem-solving, case studies, and peer-teaching among students in the classroom setting (Frunder, 1978; Eberlein *et al.*, 2008). While these approaches do take up more class time, it has been found that students actually absorb more knowledge, learn to approach questions in various ways, obtain important verbal and written communication skills, and ultimately learn more long-term knowledge than in lecture-based settings (Eberlein *et al.*, 2008). In biochemistry classrooms, many of these active learning strategies have been tested and their use is positively correlated with a better understanding of biochemistry knowledge as well as long term retention of that information (Weiman, 2007; Lewis & Lewis, 2008; Bailey, Brown, 2010; Minderhout, & Louterscher, 2012). These active learning techniques are instrumental to the development of intellectual minds that can reason and think critically about problems within their field, or life in general.

The four-credit biochemistry auto-tutorial course at Cornell (BioMG3300) was started in 1971 by Joseph Calvo. Calvo’s original motivation for creat-

ing this course was to not only explore alternatives to lecture but also to offer something different to students with different learning styles and abilities (Calvo, 1978). After ten semesters of teaching this course and surveying students, Calvo was able to determine that students repeatedly reported that the course was much more labor-intensive than comparable courses but that the instructors still stimulated interest in the subject and students seemed to value the considerable amount of independent thought required for the course in order to be successful (Calvo, 1978). At the time, the only other biochemistry course at Cornell (BioMG3310) was also four-credits, taught in a typical large lecture format, and taking either the lecture or the auto-tutorial course could satisfy concentration requirements. As a continually growing and expanding field, biochemistry has grown now into various different courses and laboratory courses in order to cover the necessary undergraduate level material required for the major.

For the auto-tutorial biochemistry course, students need to read through their textbook and answer a variety of questions to guide their reading. The course has no formal meeting time and students are expected to do this work, for the most part, independently. Learning how to read, understand, interpret, explain, and process information from a textbook is a fundamental experience that will not only help these students with this course, but also in future courses and later in life (Black, 1985). There are, however, weekly review sessions that students can attend to obtain help when needed. There are also study groups that form in the Biology Resource Center of Stimson Hall on a regular basis. A team of about 50 undergraduate TAs hold plenty of office hours per week as another resource for students who are in need of help. Students are encouraged to form study groups and work through the questions for each chapter together each week. This basic scheme has been in place since Joseph Calvo started this course in 1971 and it persists today, over 40 years later, as one of the most effective ways to learn two semesters of biochemistry in one semester of time. Despite the numerous hours of studying every week, students seem to value the experience and the course continues to have a full class of about 120 students every semester.

Carl Weiman is a physicist, professor, and 2001 Nobel laureate in physics who has published numerous articles about how to best facilitate the learning of physics (Weiman, 2007). With the rest of the STEM community, he has found that active learning addresses such a problem and helps develop students into more adept critical thinkers and problem solvers. This trend seems to only be expanding in both science courses as well as the humanities. It has become widespread knowledge that most employers, regardless of field or profession, value an employee with an independent mind and the ability to think critically about problems in the field and forge unique solutions. For these reasons, it is imperative to analyze the differences between two classes of biochemistry students at Cornell to best assess what student motivations, behaviors, and outcomes are for each course.

Jim Blankenship is a senior lecturer in the Department of Molecular Biology & Genetics (MBG) at Cornell University and is responsible for teaching "Principles of Biochemistry: Individualized Instruction" (BioMG3300) each fall and spring semester. This course covers material from, normally, two semesters of biochemistry in one four-credit auto-tutorial-style course. This course can be taken by both students pursuing biochemistry concentrations and by non-majors. If a student with a biochemistry concentration opts to take this auto-tutorial-style biochemistry course, they are additionally required to take "Computer Graphics and Molecular Biology" (BioMG3340), which is also taught by Jim Blankenship. This one-credit course teaches students how to use PyMOL software for manipulating biomolecules. Alternatively, biochemistry non-major students could elect to take "Principles of Biochemistry: Proteins, Metabolism, and Molecular Biology" (BioMG3350) co-taught by J. Chris Fromme and Bik Tye. Similar in content to the auto-tutorial course, this course is also a four-credit course covering two semesters of biochemistry, but it cannot be taken by students who are pursuing a biochemistry concentration (which includes a large majority of biology majors). This fact leads an interested on-looker to ask the question: "Why would a student choose one style of learning over the other?" This research project attempts to probe the differences

between these two courses in order to answer this question.

The purpose of this study is to investigate the different motivations, experiences, career aspirations, behaviors, and course outcomes between students who opt to take an auto-tutorial biochemistry course or a lecture-based biochemistry course. Specifically, the following research questions are examined in this project: What motivated these students to take an auto-tutorial course or a lecture-based course? What did students feel they got out of an auto-tutorial course compared to previous lecture-based courses they have taken? Was the learning experience within an auto-tutorial course worth it? My hypothesis is that there are specific learning styles, behaviors, study habits, and/or extrinsic and intrinsic motivators that are specific to students who sign up for, are successful in, and have a positive experience with an auto-tutorial course versus a lecture-based course. This study will hopefully provide some insight about the specific characteristics of students who choose the auto-tutorial versus lecture-based teaching methods, and why.

METHODS

In total from both classes, there were 40 males and 68 females that were surveyed. For the BioMG3300 auto-tutorial biochemistry course, 10 males and 16 females completed the survey. These 26 students were selected from a class of approximately 120 students based on the fact that they were either present at one of the two review sessions I attended to pass out the survey, or self-selected in that they chose to respond to the survey I emailed the entire class. It is likely that within this small population of students, there is a bias for students that attend review sessions and perhaps are more likely to be hard-working students as well as a bias for students that read their email and respond generously to a plea for survey responses by a desperate graduate student fellow. At the beginning of two review sessions during the same week, I read aloud the IRB approved disclaimer about my study and then distributed the survey for the students to take. I allotted approximately 15 minutes for students to complete the survey and then collected them all back from the students. From these two review sessions, I

received 11 surveys back from students. Of these 11 students, 8 were female and 3 were male. Because the integrity of this study was at serious risk if I did not accumulate more surveys from auto-tutorial students, I then emailed the entire student body of the class asking them to fill out the survey and send it back to me. After a week and a half of responses from students, a total of 15 responded with completed surveys. I likely would have received more responses if the survey was in the form of an online Qualtrics survey and not a Word document. This will be something I will consider as I continue this study in the future.

Of the 26 auto-tutorial students that completed the survey, 9 were sophomores (36%), 8 were juniors (34%), 6 were seniors (24%), and 2 were classified as graduate students or other (8%). The majority of these students (20) were some kind of biology major, though none listed a concentration in biochemistry. There were also 4 biological engineers, 1 chemical engineer, and 1 math major. The majority of these students (24) were 19-22 years old, with an average age of 20.3 years old. The other two students listed that they were 29 and 30 years old, and these are the same students that listed themselves as graduate student or other. The average GPA for 25 of these individuals (one did not report) was 3.63, within a range of 2.5 to 4.0.

For the BioMG3350 lecture-based biochemistry course, 30 males and 52 females completed the survey. These 82 students were selected from the class of approximately 130 students for this survey in that they were present on the unannounced class day (for which they had a substitute professor) when I arrived and distributed the survey. It is entirely possible that there will be a bias for students that attend class on a regular basis and for students that respectfully choose to still attend class even when a sub is filling in for the course's professor. When the class began, I read aloud the IRB approved disclaimer about my study and then distributed the survey for students to take. I allotted approximately 15 minutes for students to complete the survey and then collected them all back from the students.

Of the 82 lecture-based students, 11 were sophomores (13%), 58 were juniors (71%), 11 were seniors (13%), and 2 classified as graduate stu-

dents or other (3%). For the students that reported (2 were left blank), the majority of these students were some kind of biology major (48). There were also 9 biological engineers, 7 chemical engineers, 5 chemistry majors, 2 computer science majors, 2 nutrition majors, 2 economics majors, 1 physics major, 1 French major, 1 human development major, and 1 anthropology major. It should be noted that for pre-medical students, it is not required that they have a Life Sciences major, only that they take the required prerequisite courses for medical school. This rationale most likely explains the extraneous humanities majors taking a notoriously grueling life sciences course. Indeed, all of these majors also reported that their career aspiration is to be a medical doctor. The average age for this group of students was 21 years old, including one 27 year old and one 29 year old. The average GPA for 76 of these students (6 did not report) was 3.50, within a range of 2.1 to 4.4.

Although there is a class-specific bias for biochemistry majors to take the auto-tutorial BioMG3300 course and non-biochemistry majors to take the lecture-based BioMG3350 course, this did not appear to be a concern for this study. None of the students for either class reported that they were a biology major pursuing a concentration in biochemistry, and thus would have been required to take the auto-tutorial course in order to earn the relevant credit. It is actually very interesting that not one student reported this as a major, and it begs the question of whether these students are so astute within their chosen field that they do not need to attend review sessions for the auto-tutorial course or are so smug as to not fill out un-required surveys. These wild accusations are highly skeptical and possibly grossly generalize the actual truth since the 26 responses I received from auto-tutorial students only reflected a little more than a fifth of the auto-tutorial student body.

Most of the questions for this study were generated using a Likert Scale polling strategy or open-ended question format. For the majority of the Likert Scale questions, seven choices of varying degrees of responses were most often used in order to reflect sufficient variance of student responses. Additionally, an "N/A" option was also available with each Likert Scale question in order for the student to abstain from answering a

question that they feel did not apply to their experience. The survey used in this study is attached as an addendum at the end of this document.

RESULTS & CONCLUSIONS

As described previously, there were 26 students that completed the survey for the Auto-tutorial BioMG3300 course. Of these students, 11 were present in review sessions and 15 were sent back to me online. Figures 1 and 2 summarize some of the demographic information that was already stated in the Methods section, above.

Figure 3 shows that 36% of students find that studying on their own is the most beneficial aspect of the course, closely followed by flexibility of the course structure (24%) and the amount of material learned in the course (28%). About 12% of the students also listed class structure as the most beneficial. One student commented that the auto-tutorial learning style "forces me to learn on my own and to teach myself" while another admitted, "I feel I will retain much more after I leave."

Figure 4 summarizes the various aspects that students found least beneficial. One third of the students (33%) commented on the fast-paced nature of the course and the amount of time that is required to be successful as being the least beneficial. Some students commented on the unfair nature of various tests and quizzes (17%), while others lamented the lack of hours the Biology Resource Center is open to get help (13%), or that the material is extremely difficult and there is a lot to memorize (13%). Still others struggled with self-discipline (8%), felt overwhelmed with frequent deadlines (8%), were frustrated by inept TAs (4%), or missed the typical level of student interaction that is part of a lecture-course design (4%). One student summarized the difficulties of this course design as follows, "There is very little downtime—you have to move onto the new unit immediately after a prelim, and you have to keep moving along with biochem[istry] even if you have a lot of other work. That said, the extension days do give a little bit of leeway."

Of these surveyed students, more than one third of them (37%) have career aspirations of becoming a medical doctor, 26% plan to pursue a PhD in

their field, 8% are pre-vet majors, 7% are pursuing a career in the health field, 4% would like to be a dentist, 4% aspire to be an engineer, and 14% either left this question blank or are unsure of their career goals (Figure 5). Of these 26 students, 24 of them did not change their career plans as a result of this course (data not shown). One of the two students of the minority said the following about the auto-tutorial biochemistry course: "It didn't change my career goals, but it really sparked an interest in science where I may want to pursue research at points in my academic and salary-based career."

As described previously, there were 82 students that completed the survey for the lecture-based BioMG3350 course; all of these students filled out the survey at the beginning of one of their classes. Figures 6 and 7 summarize some of the demographic information that was already stated in the Methods section, above. Figure 8 summarizes the motivations for why students signed up for the auto-tutorial course. One third of the students admitted that they signed up for this course primarily because they preferred lecture (33%) while the second highest majority were motivated to sign up for this course because they learn better with a professor (19%). About 14% of the class admitted that they lacked the self-discipline and confidence to be successful in an auto-tutorial course while 10% explained that they had a negative auto-tutorial experience previously and 9% said that they disliked the auto-tutorial style entirely. Interestingly, one group of 6% of the students explained that the only reason they were not taking the auto-tutorial biochemistry course was because they were already taking auto-tutorial physics and did not want to be overwhelmed by two auto-tutorial courses. About 5% of the students admitted that they were purely motivated to take this course because it was required for their major. There was a small fraction of the class (2%) that did not know about the auto-tutorial biochemistry course option and another 2% of the class that incorrectly believed that the auto-tutorial course was two semesters long, and because they wanted to get biochemistry completed in one semester, they took the lecture-based course. One student felt particularly strongly against auto-tutorial courses, as s/he stated, "Those paying ~\$60,000/

year should not [take] an auto-tutorial a.k.a 'teach yourself' [course]." Another student explained, "I like lecture style more than learning from the book. I can learn from a textbook whenever. And wanted to use the experience at Cornell to take lecture-based classes."

Figure 9 shows what students found to be the most beneficial aspects of the course. Indeed, most students (42%) admitted that they definitely learned a lot and 24% of them found the lectures to be most beneficial. The class structure (13%), one semester timeline for the course (10%), and instructors (5%) were also listed as the most beneficial aspects of the course. For a small group of students (6%), fulfilling the credit necessary for graduation was the only benefit they listed for this course. One student commented that the most beneficial aspect of the course was "[Prof.] Fromme's enthusiasm, [and] not having to read books."

Figure 10 summarizes all of the aspects that students found to be least beneficial. Almost a third of the students commented on the difficult material and memorizing involved with the course (31%). Similar to the auto-tutorial course, the fast-pace and large time requirement was another area of concern (16%). Some students described the least beneficial aspects as the readings and textbook problems (12%), the four-day-per-week class schedule or classroom location (10%), the lecture notes or slides (8%), the changing between three professors during the course of the semester (8%), and the quizzes and tests (6%). For 7% of the students, there was absolutely nothing that was not beneficial and the remaining 2% of students struggled with staying focused during class. One student explained, "the fast pace of the course makes me simply memorize rather than understand the material."

As shown in Figure 11, 43% of the students surveyed in this course have aspirations of becoming a medical doctor while 13% are planning on earning a PhD, 13% want to become an engineer, and 14% are planning on going to vet school. Of the remaining students, 4% want to be a Physician Assistant (PA), 2% want to be a high school science teacher, 1% wants to be a dentist, and 10% are either unsure or have other various career goals. The majority of these students maintained these

same career aspirations by the end of the course, but about 8 students shared that this course has helped encourage them to pursue more biochemistry or research-based careers in their future. One student commented, "I could see myself working in biotech or something involving biochemistry" by the end of the course while his/her original desire was to be a medical doctor before taking biochemistry.

Figures 12-24 summarize data that was collected when the question in the title of each graph was asked to students from both auto-tutorial and lecture-based courses. The table in each figure summarizes the number of students that submitted answers for the particular question and the average score for each class based on "1 = left-most descriptor" and "7 = right-most descriptor" on the x-axis of each graph. The percentages were calculated by dividing the number of each response by the "n" number for that class, located in the table for the same figure. Statistical differences were calculated in Microsoft Excel using the Student T-test. A p-value less than 0.05 indicates a significant difference between the two data sets.

When students were asked "How easy/difficult has this course been for you this semester?" 38.5% of the auto-tutorial students (n=26) reported that it was neither easy nor difficult and 30.8% reported that it was somewhat difficult, with an average of 4.5 exactly between "neither" and "somewhat difficult" (Figure 12). Similarly, the lecture-based students (n=82) had 34.1% of the class report that the course was "somewhat difficult," and 28.0% admitted the course to be difficult, with a 4.9 average leaning toward "somewhat difficult" as the class average. It seems as though both auto-tutorial and lecture-based students tend to agree on the difficulty of biochemistry, regardless of learning style. There was no significant difference between these two groups (p-value = 0.0904). When students were asked to compare how easy/difficult their biochemistry course was compared to other four-credit natural science courses at Cornell (Figure 13), 26.9% of the auto-tutorial students (n=26) chose "neither" and another 26.9% chose "somewhat more difficult," with a class average of 4.3 falling between these two Likert scale choices. Similarly, the lecture-based

students (n=79) had a 30.4% tie between "neither" and "somewhat more difficult," with a class average of 4.2. The p-value of 0.093 for these two groups agrees that there seems to be no obvious difference between the groups. As a follow up question, students were asked if they were putting more effort into this course than other previous four-credit natural science courses, and whether the extra effort was worth it for the learning experience and knowledge they were earning. For the auto-tutorial students, 14 selected "N/A" and of the 12 that commented, 11 responses were positive that they were indeed learning more, despite the extra effort. One student from the auto-tutorial course said, "I do believe I am learning a lot in this course, it is a little more difficult but it's rewarding to teach yourself and understand." Of the 82 students in the lecture-based course, 47 selected "N/A", 24 responded with positive answers, and 12 students did not believe they were learning more despite the extra effort for this fast-paced, information dense course. One student explained, "I am not sure if I am learning more but I am more interested in what I'm learning so I think it is worth the extra effort."

The students were asked to report how many hours, on average, they attended class, studied, and did any work for their specific biochemistry course in a given week. This was asked in order to determine how hard students worked for each class. For the auto-tutorial students, there was no scheduled class time but the lecture-based students had a class that met four times a week for 50 minutes on Mondays-Thursdays for the entire semester. Auto-tutorial students had two optional one hour review sessions they could attend per week and the lecture-based students did not. Figure 14 shows that 87% of the lecture students (n=82) were engaged in some aspect of their biochemistry course for less than 10 hours per week compared to 27.8% of auto-tutorial students (n=26). For auto-tutorial students, 72.3% of students study for 10 hours or more per week compared to 13% of lecture-students. On average, auto-tutorial students (n=26) worked on biochemistry for 13.2 hours per week and the lecture students (n=82) spent 7.6 hours per week. The data for the auto-tutorial students might be skewed in that I attended two review sessions to hand out surveys

and the students at these review sessions might be “regular” students that attend the optional review session on a weekly basis and just generally put more time and effort into studying and working on the course. However, this same bias could be for the lecture students as well since I attended one of their classes to also distribute the surveys. As a follow-up question, I asked if the number of hours students spent studying and working toward their particular biochemistry course was more, less, or about the same number of average hours that they would spend on other four-credit natural science courses at Cornell (Figure 15). The majority of lecture students (43.8%) said that this was about the same number of hours that they would spend on other four-credit natural science courses. For the auto-tutorial students, it was a tie at 32% for the same number of hours and for somewhat more hours spent working. Interestingly, these two groups are significantly different with a p-value of 0.035 when comparing the groups of students that study some amount less (8% of auto-tutorial students, 29% of lecture students), students that study about the same amount (32% auto-tutorial students, 44% lecture students), and those who study some amount more (56% auto-tutorial students; 25% lecture students).

Figure 16 summarizes the Likert scale responses from students regarding their interest level in biochemistry prior to taking the course. This was asked in order to determine if more interested or motivated students seemed to prefer one learning style over the other. Indeed 53.8% of auto-tutorial students (n=26) were “interested” in the course topics before taking the course. The majority of the auto-tutorial students (91.6%) confirmed that they had some degree of interest in biochemistry before taking the course. About one third (34.1%) of lecture students (n=82) admitted they were “somewhat interested” in biochemistry and 62.1% of all lecture students had some degree of interest in biochemistry before taking the course. There is no statistical difference between these two groups of students for their initial interest levels in biochemistry ($p = 0.063$). Regardless of the amount of interest before taking a particular course, one of the major goals for teaching in higher education is to stimulate increased interest in a subject and motivate students to pursue further study. Figure

17 displays the data for student answers to the question, “Has taking this course increased or decreased your interest in biochemistry?” One third (32.9%) of lecture students (n=82) answered “neither” while the majority (42.3%) of auto-tutorial students (n=26) answered “increased.” More than half of lecture students (58.5%) had some degree of increased interest in biochemistry compared to 88.4% of auto-tutorial students, with no significant difference ($p=0.084$). As another measure of interest stimulated by the subject matter, I asked how likely students were to take another biochemistry course based on their experience with their current course (Figure 18). When comparing the total percentages of students that were unlikely to take another biochemistry course (36.6% of lecture students [n=82], 8% of auto-tutorial students [n=25]) with the total percentages of students that were likely to take another biochemistry course (35% of lecture students, 72% of auto-tutorial students), there is a significant difference between these two groups with $p = 0.024$. This could be due to the bias within each population of students or the lack of a larger population of auto-tutorial students, but these data, at least, definitely report a significant difference. More tests will need to be performed in order to determine if this difference is true or not.

Figures 19 and 20 show the data for how likely students are to take the auto-tutorial version (Figure 19) or the lecture version (Figure 20) of a four-credit natural science course while they are at Cornell. The majority of lecture students (42.3%, n=79, Figure 19 and 41.3%, n=80, Figure 20) said they were “very unlikely” to take the auto-tutorial version but “very likely” to take the lecture version of such a course. Overall, 73% of lecture students were unlikely to take an auto-tutorial course and 85.1% of lecture students would likely take a lecture version of a four credit natural science course. For the auto-tutorial students, such a result was not as clear. Between 16.7% and 20.8% of auto-tutorial students (n=24) said they were either “somewhat unlikely,” “neither,” “somewhat likely,” “likely,” or “very likely” to take another auto-tutorial four-credit natural science course at Cornell. Based on this, over half of the students (52.7%) were some degree of “likely” to take another auto-tutorial course with 25% as some degree of “unlikely.” However, 60.9% of auto-tu-

tutorial students were “likely” to take the lecture version and only 8.7% were “unlikely.” This result could be due to the large inherent bias for lecture courses that are offered at Cornell. There are only three auto-tutorial courses that are offered within the life sciences for undergraduates to consider taking: general biology, general physics, and biochemistry. That is in comparison to the hundreds of lecture courses that Cornell offers to its life sciences undergraduate majors. Thus, even if students preferred auto-tutorial courses, their choices are often limited by what courses are offered so it makes sense that even if students preferred auto-tutorial courses, they are going to be very likely to take lecture courses in order to fulfill their degree program requirements. The most interesting result from Figures 19 and 20 is the degree to which lecture students adamantly refuse to take auto-tutorial courses.

Students were asked if their study habits had improved since they started their biochemistry course. Over half (56%) of auto-tutorial students saw at least “some improvement” and 24% said they experienced “much improvement” (Figure 21). The majority of lecture students said they experienced either “no real change” in study habits (35.8%) or “some improvement” (40.7%). Overall, 80% of auto-tutorial students experienced some level of improvement compared to 51.8% of lecture students. This data makes sense in that auto-tutorial students need to be self-disciplined and motivated to independently study all of the material for their course, while lecture students attend class four times per week to learn the material and are less pressured to study outside of class on their own. Regardless of these apparent differences, no statistical difference was calculated for these data ($p = 0.179$).

Students were then asked to report their expected grade for their class (Figure 22). For students that reported more than one potential final grade (i.e. “A-/B+”), I only counted the grade that they had written first in the sequence so as to not provide additional bias toward higher grades or lower grades that students wrote down. The majority of auto-tutorial students (41.7%, $n=24$) reported that they expected an A, and 25% expected an A-. Comparatively, 25% of lecture students ($n=75$) who expected an A and 27.9% of students who

expected an A-. No students reported expecting less than a C-. Could more than half of the students in both classes really be expecting an A or A-? It is entirely possible based on the past record of the GPAs for each group of students (Figure 23). Exactly half (50.0%) of the auto-tutorial students ($n=24$) have high GPAs of 3.75-4.0 and 75% of the class has GPAs that are a 3.5 or better. Similarly, 26.3% of lecture students ($n=76$) have GPAs of 3.75-4.0 and 55.4% of the class has a GPA higher than 3.5. While these two groups are statistically different ($p = 0.043$), it is again possible that the data is significantly skewed because only about a quarter of the entire auto-tutorial class ($n=26$) is represented by this data and a little less than two-thirds of the lecture class are represented ($n=76$). More tests on larger sample sizes without unintentionally excluding participants is required for more representative data and more thorough analysis and conclusions.

Lastly, Figure 24 summarizes the factors that students consider in deciding which course to take. Students were allowed to check as many aspects as they desired. The auto-tutorial students ($n=26$) yielded 92 responses, or about 3 or 4 each, while the lecture students ($n=82$), yielded 210 responses, or about 2 or 3 each. The majority of both the auto-tutorial student responses (25%) and lecture student responses (29.5%) agreed that “teaching style” of the course is one of the most important aspects that they consider, with “overall course structure” as a close second (29.0% lecture student responses, 21.7% auto-tutorial student responses). Interestingly, 28.3% of responses from auto-tutorial students were selective for the course’s meeting time.. Overall, it seems that teaching style, course structure, and meeting time are the three top priorities for students when selecting a class.

See all charts and graphs referenced over the next several pages.

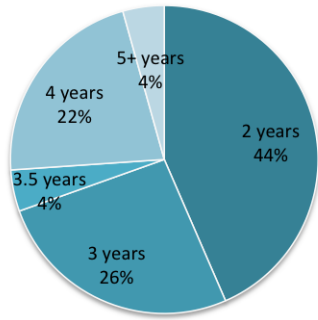


Figure 1: Auto-tutorial students' number of years at Cornell

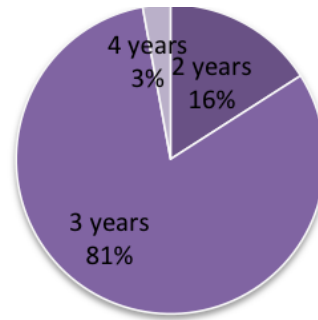


Figure 6: Lecture students' number of years at Cornell

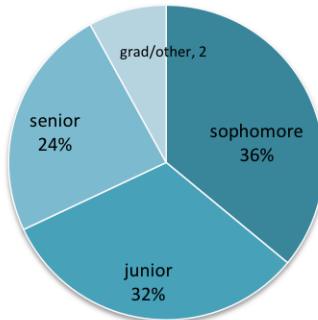


Figure 2: Auto-tutorial students' year at Cornell

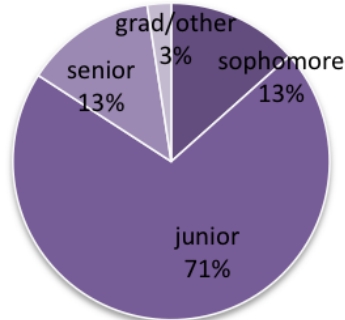


Figure 7: Lecture students' year at Cornell

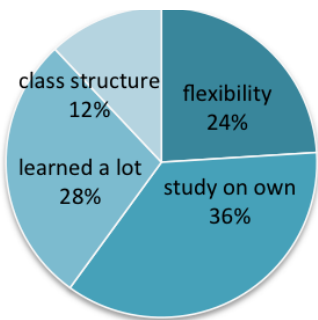


Figure 3: Auto-tutorial students, what is the MOST beneficial aspect of this course?

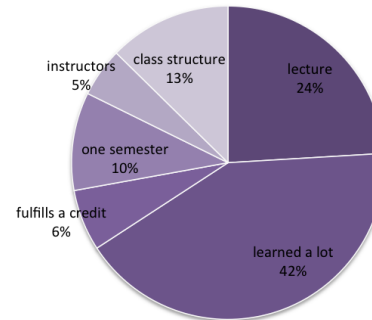


Figure 9: Lecture students, what is the MOST beneficial aspect of this course?

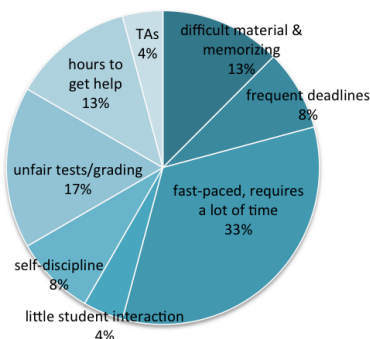


Figure 4: Auto-tutorial students, what is the LEAST beneficial aspect of this course?

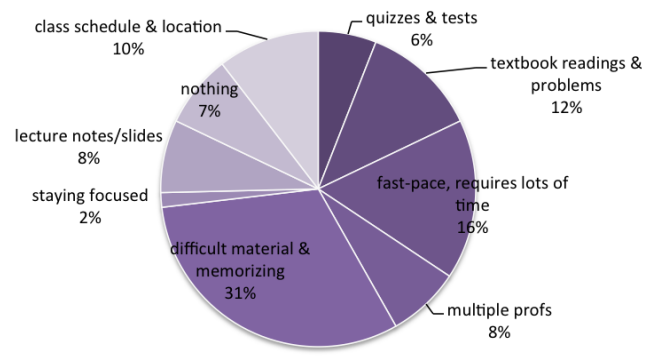


Figure 10: Lecture students, what is the LEAST beneficial aspect of this course?

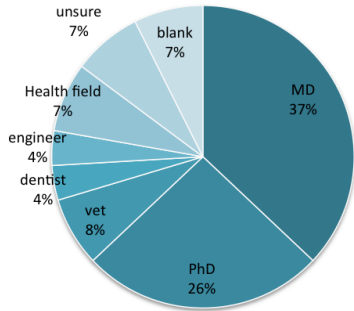


Figure 5: Auto-tutorial students, before enrolling in this course, what was your career goal?

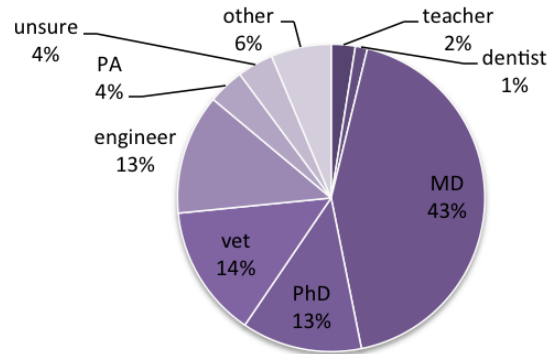


Figure 11: Lecture students, before enrolling in this course, what was your career goal?

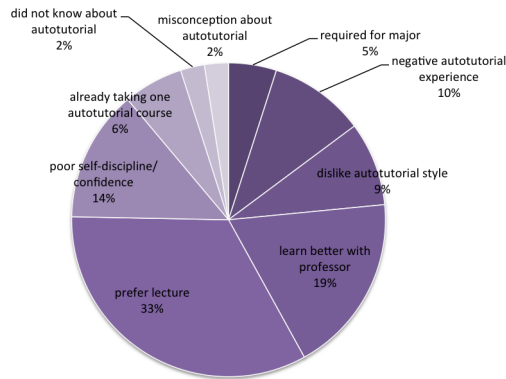


Figure 8: Lecture students, what motivated you to sign up for this course?

Figure 12: How easy/difficult has this course been for you this semester?

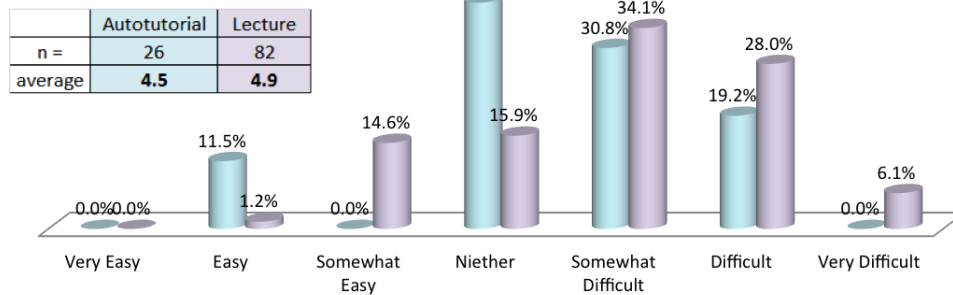


Figure 13: How easy/difficult has this course been for you compared to other 4-credit natural science courses you have taken at Cornell?

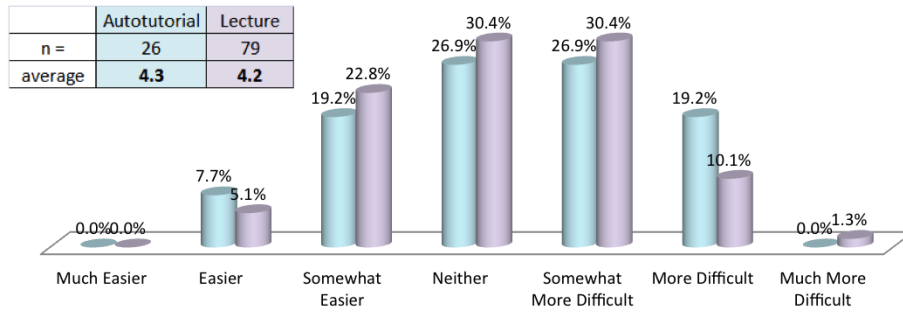


Figure 14: On average, how many hours per week do you spend in class, studying, and doing work for this course?

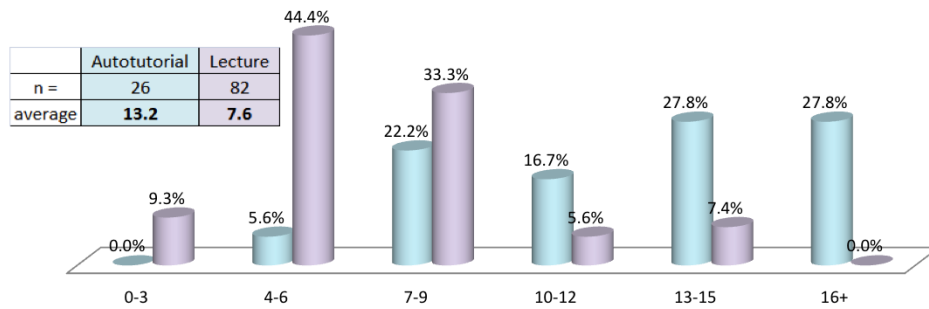


Figure 15: Is this more, less, or the same average number of hours per week that you spend compared to other 4-credit science courses you have taken at Cornell?

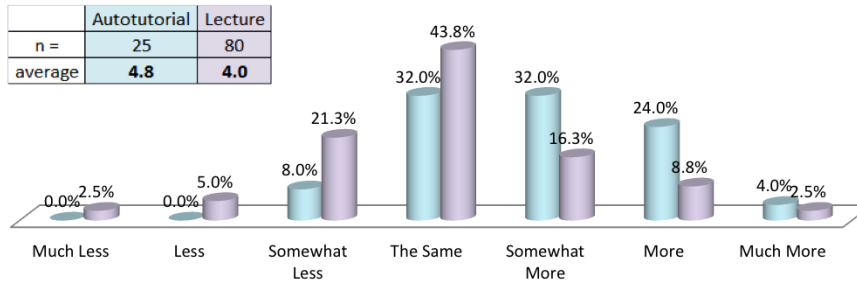


Figure 16: What was your interest level in biochemistry prior to taking this course?

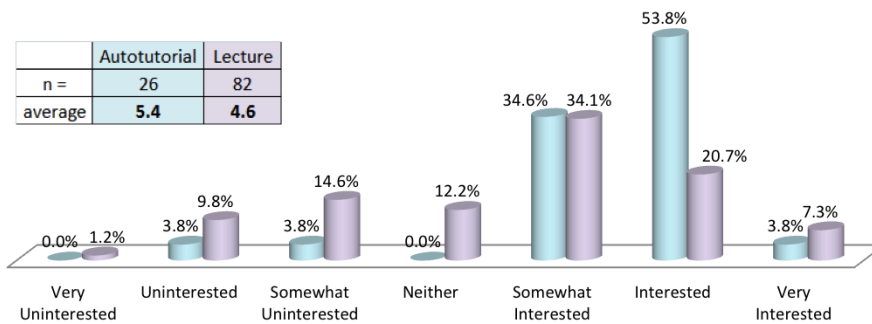


Figure 17: Has taking this course increased or decreased your interest in biochemistry?

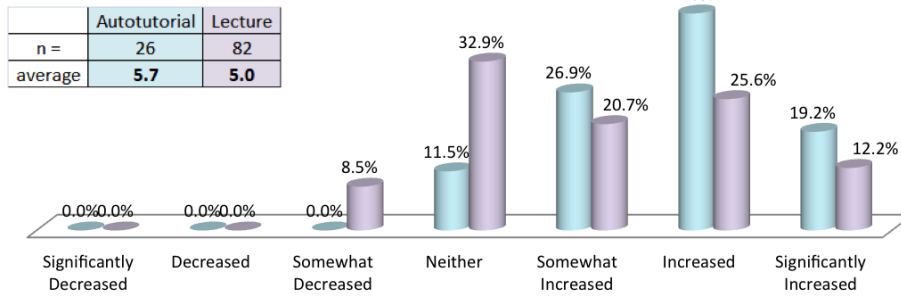


Figure 18: How likely are you to take another biochemistry course based on your experience?

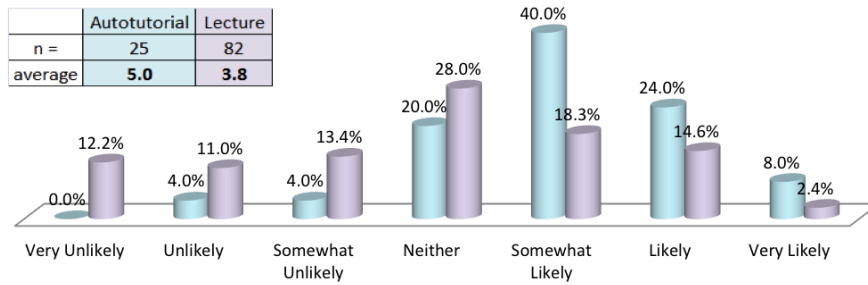


Figure 19: How likely are you to take the autotutorial version of a 4-credit natural science course while you are at Cornell?

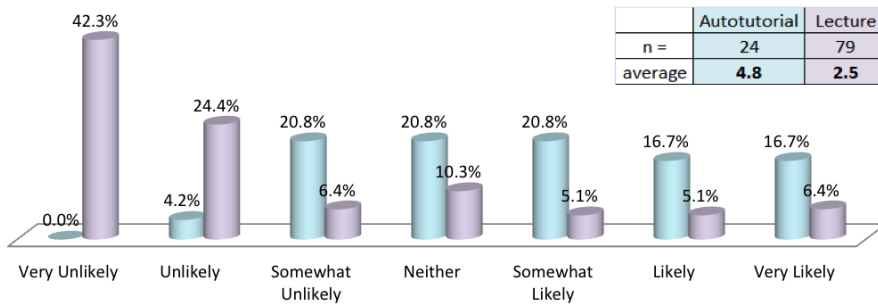


Figure 20: How likely are you to take the lecture-based version of a 4-credit natural science course while you are at Cornell?

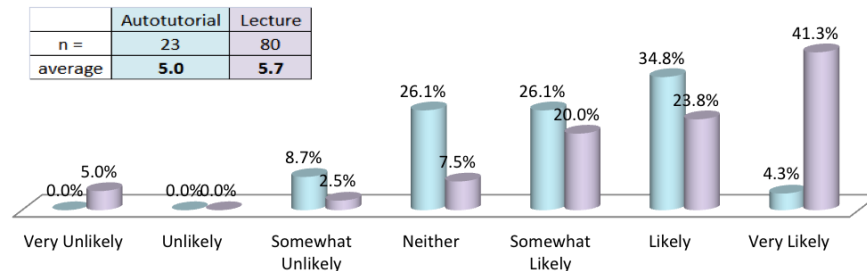


Figure 21: How have your study habits improved since you started taking this course?

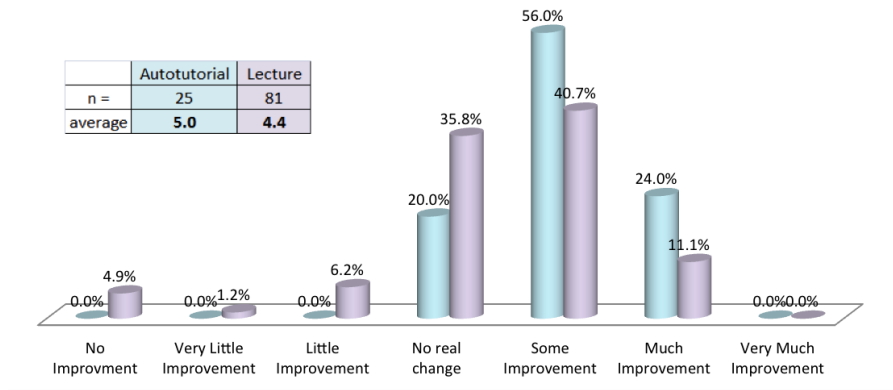


Figure 22: What is your expected grade for this class?

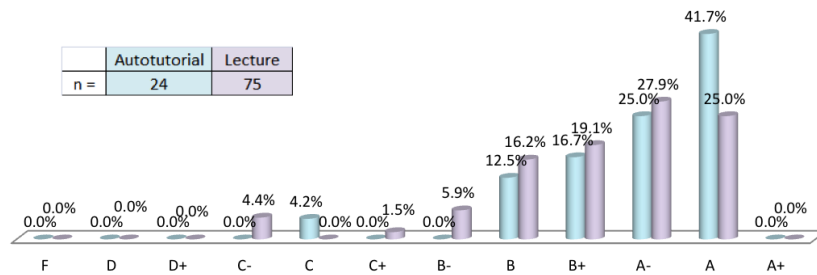


Figure 23: Current Overall Cornell GPA

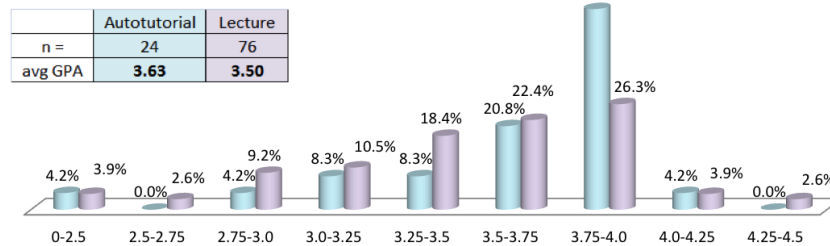
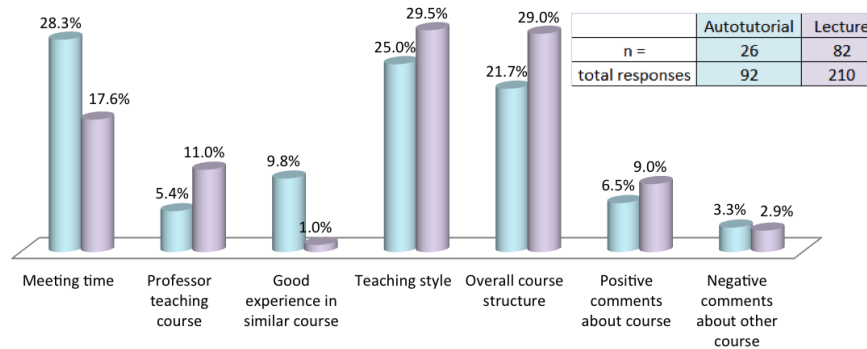


Figure 24: What factors did you consider in making the decision to take this course? Check ALL that apply.



DISCUSSION & SUMMARY

This study found that most auto-tutorial students chose the course for the flexible structure because they had a time conflict with lecture-based course, or because they were confident in their ability to teach themselves. Most lecture students chose the course because they admitted that they lacked self-discipline to teach themselves or had a distinct preference for learning via lecture from a knowledgeable and enthusiastic professor. Auto-tutorial students seemed to generally feel that they were learning the information more thoroughly because of the design of the course. They also gained confidence in their ability to teach themselves a rigorous subject. Most of the comments (10 out of 12) from the auto-tutorial students suggested that despite the extra effort, they did feel like they were learning and remembering more of the course content. Most of the students in the lecture course reported they would likely never take an auto-tutorial course. Compared to the lecture students, the auto-tutorial students seemed to have more of an increased interest in biochemistry, were more likely to take another biochemistry course, and saw improvements in their study habits. Several students from the lecture biochemistry course admitted that the course altered their career aspirations to include more biochemistry or scientific research.

One auto-tutorial student offered the following advice to future students of the course: "Really pace yourself. This is not a lecture-based course, so you must stay on top of your work. However, there is a strict format and deadline schedule to adhere to and plenty of good TAs, so you're not alone. Auto-tutorial will force you to become independent and take charge of your own education—a valuable skill to have. The weekly oral and written tests will make you a master of the material, no doubt. It's a great format [in which] to learn science, but [it] can be difficult if not planned out correctly." Interestingly, one student thinks that the lecture course would have been better. This student said, "I would recommend going to the review sessions. They are very helpful. However, I wish I had known how much work was truly involved in this course before I took it. Looking back, it may have been worthwhile to take the lec-

ture-based one semester course instead. That way, there was time built into my schedule for quizzes and I didn't have to plan the time on my own to go and take them." One student offered a method to avoid over-memorizing, by suggesting, "Always keep up on your work. Focus on understanding the processes, not memorizing the specifics. Once you understand what's going on, the chemical names and structures fall into place." Overall, it seems as though auto-tutorial students have a better handle on how to study for biochemistry and be successful since the majority of their time is spent studying for this course since there is no class meeting time.

One lecture student offers the following advice to future students of the course: "Make sure you stay on top of the lecture material every week because the quizzes and exams come up fast, the textbook is not very helpful—focus on the lectures." Similarly, several other students commented on the need to stay on top of the material and study or review a little almost every day. Many students also commented on how future students need to be prepared to memorize. One student wrote, "It's a lot of memorization. Just memorize everything. The book doesn't help. Memorize the lectures." Another student offered some pragmatic advice: "To do well in this course, it takes more time than initially expected. It would be best to choose the course that has a learning style that works best for the individual." Students also commented on the fact that competition within the class was fierce. One student points out that "Quizzes ain't no joke. Premeds... premeds... EVERYWHERE be ready to study your butt off." Certainly, lecture students felt the pressure from the fast-paced course, the two-semester's worth of material packed into one semester, and the competition for grades as the class is graded on a curve.

It is quite evident that this study needs to be repeated and possibly expanded to larger sample sizes. It is my intention to convert this 36-question paper-based survey into a 15-question Qualtrics survey to send out to larger numbers of students after they have completed the BioMG3300 auto-tutorial biochemistry course and the BioMG3350 lecture biochemistry course in the upcoming semesters in order to accumulate more data for this

study. I am hoping that by expanding the sample size for both classes, more distinctive differences will emerge.

This study has changed substantially from its original conception to this final written work. Originally, my goal was to try to ascertain which teaching style, lecture or auto-tutorial, was the best method for students to learn by in order to inform my own teaching style someday. I began this study with an inherent bias that, although I personally do not think I could be motivated and disciplined enough to be successful in an auto-tutorial course, I do believe that students learn more from that independent, self-paced active learning style than from a lecture-based course. Indeed, it seemed that the university supported this notion in that it is well-known that students working toward a biochemistry major can take the auto-tutorial course for credit toward their degree, but not the lecture-based course. Upon concluding this pilot study, I considered the entire situation differently. Perhaps there is not just a single effective style to teach by or to learn by, but by giving students the autonomy to decide what is best for themselves, they can select a style that is best suited for them.

Personally, I am taking away the newfound respect I have for student autonomy in deciding which course is better for them to take. As for my own future teaching strategies as a biochemistry professor, I will likely employ neither of these teaching styles. Instead, I intend to teach using an active-learning strategy known as POGIL (described in introduction), which is similar to the auto-tutorial style in that students work through answering a series of questions to learn the material, but instead of doing so independently outside of class, students meet during a regular class time and work in groups to complete these questions. Additionally, this course structure gives the professor flexibility to give "mini-lectures" of 10-15 minutes to help clear up confusion or address specific issues or problems. This learning style requires students to teach each other, which is beneficial for students to learn from their peers and for students to teach their peers as it helps to solidify their own understanding of the material. This method is very team-oriented in that everyone is working together to be successful instead

of competing against each other for the best class grades. Indeed, this style employs what I believe to be the best aspects of both auto-tutorial and lecture style teaching methods, and yet could still not be optimal for some students. This study has helped to open my mind and understanding of what "good teaching methods" are, and this is extremely subjective for each student. Although we may never find the one best teaching strategy for classroom use, a mixture of various strategies seems to be most helpful in finding something for everyone to relate to.

REFERENCES

- Black, J. A. (1985). How to use a Japanese toilet or some thoughts on biochemical education. *Biochemical Education*, 13(4), 171–174. doi:10.1016/0307-4412(85)90072-X
- Calvo, J. (1978). Individualized instruction of biochemistry at Cornell University. A summary of experience after ten semesters. *Biochemical Education*, 6(4), 78–79. doi:10.1016/0307-4412(78)90005-5
- Cohen, N. R. (1994). Problem-based learning and the distance-learner. *Biochemical Education*, 22(3), 126–131. doi:10.1016/0307-4412(94)90042-6
- Eberlein, T., Kampmeier, J., Minderhout, V., Moog, R. S., Platt, T., Varma-Nelson, P., & White, H. B. (2008). Pedagogies of engagement in science. *Biochemistry and Molecular Biology Education*, 36(4), 262–273. doi:10.1002/bmb.20204
- Frunder, H. E. (1978). Active participation of medical students in biochemical education: Problems and solutions. *Biochemical Education*, 6(2), 39–41. doi:10.1016/0307-4412(78)90134-6
- Garratt, C. J. (1982). An essay on metabolism. *Biochemical Education*, 10(3), 109–114. doi:10.1016/0307-4412(82)90087-5
- Kanfer, J. N. (1983). Biochemistry and training of medical students in problem-solving. *Biochemical Education*, 11(4), 137–139. doi:10.1016/0307-4412(83)90094-8
- Vella, F. (1990). Difficulties in learning and teaching of biochemistry. *Biochemical Education*, 18(1), 6–8. doi:10.1016/0307-4412(90)90004-8
- Vella, F. (1991). To Improve Biochemical Education Around the World. *Biochemical Education*, 19(4), 178–181. doi:10.1016/0307-4412(91)90090-U
- Weiman, C. (2007). Why Not Try a Scientific Approach to Science Education? *Change: The Magazine of Higher Learning*, 39(5), 9–15.
- Wood, E. (1989). Making lectures more exciting. *Biochemical Education*, 17(1), 9–12.

SECTION IV: STUDENTS AND TEXT

Teaching Medieval Books in a Digital Age

Joel Anderson

Graduate Research and Teaching Fellow and Teagle Fellow 2012-2013

Abstract

This paper is a reflection on my experience teaching a first-year writing seminar, titled Reading in the Middle and Digital Ages, at Cornell University (Fall 2012 and Spring 2013). Using qualitative research methods and reviewing “data” generated as part of my class (e.g., short surveys, final course evaluations, student essays, assignment prompts, etc.), I explore how teachers of pre-modern history and literature might put “unfamiliar” medieval texts into dialogue with “familiar” digital ones. I will argue that medieval manuscripts have the potential to generate particularly cogent discussions about the formal features of different texts (their page-layouts, handwriting, illustrations, etc.) Awareness of, and attention to, the significance of different forms of historical media ought to be a central concern for humanist scholars and their students in the digital age.

INTRODUCTION

In recent years, questions about the future of books, their role in the classroom, and students’ reading habits have occupied educators from a wide variety of fields and disciplines. Prophecies about the “death of the book” and soon-to-be-realized digital utopias have proliferated alongside eulogies for the printed text and complaints about the supposed decline in student literacy. While there is little consensus about where we are – or should be – going, the digital age has generated an increasing awareness among scholars and teachers that different technologies shape, often quite drastically, how we read and write.

Eschewing value judgments about recent media-technological developments, Andrew Piper has admonished the academic community to take stock of our present moment when he writes, “Now is the time to understand the rich history of what we have thought books have done for us and what we think digital texts might do differently. We need to remember [...] the manifold, and

sometimes strange, tools upon which [reading] has historically been based” (Piper, 2013, xi). In other words, Piper suggests that educating our students and ourselves about the history of the book and the history of writing technologies might provide us with a better “road map” for the future.

With such imperatives in mind, I recently taught a first-year writing seminar at Cornell University titled Reading in the Middle and Digital Ages (Fall 2012, Spring 2013). The course addressed topics related to the production, use, organization, and dissemination of texts in Medieval Europe. It also aimed to put medieval texts and textual practices into dialogue with the information technologies that are in the process of reinventing what it means to read, write, and communicate in our own society. The formats, layouts, and production-modes of medieval manuscripts display a number of features that students raised in an age of web-media can appreciate: the frequent use of decorative images and borders; an abundance of

annotations, glosses, and paratextual commentary; and an embrace of “multiple voices” on one page. My class started from the premise that “reading” and “writing” are practices that occur in modes, manners, places, and communities that are historically-specific, yet potentially comparable.

In the study that follows, I reflect on my experience teaching this course and pursue two central questions: first, how might teachers of pre-modern history and literature help students think about unfamiliar medieval texts in relation to familiar digital ones? Second, what are some of the potentials and pitfalls of these comparisons and what do students actually make of them? In the Literature Review section, I demonstrate that several scholars in medieval studies have begun to think about such questions in the context of their own classes. Building on their insights, I argue for the utility and relevance of book-history courses and medieval-digital comparisons in the undergraduate curriculum. Further, I make a case for finding ways to incorporate students’ voices and feedback into our scholarly reflections on teaching and learning. In the Methodology section, I discuss my course in further detail and outline the various kinds of “data” I gathered while teaching it. The Results and Discussion section that follows consists of my reflections on several “key themes” that emerged from this data.

This study is both global and local in its scope. In my attempt to think about how we might teach book history in light of digital technology, I engage with issues regarding the future of reading, the places of books in the classroom, and the potentials of broad historical comparisons. At the same time, I aim to come to grips with what actually happened in my class. What worked? What didn’t? And, what needs more thought?

LITERATURE REVIEW

In a recent article in *Arts and Humanities in Higher Education*, Vicky Gunn and Leah Shopkow (2007) take up broad questions related to why and how medieval historians ought to engage with the scholarship of teaching and learning (SoTL). They begin by arguing that, rather than offering a “one-size-fits-all” model for education, SoTL needs to find ways to “integrate with the fundamental

epistemologies of particular disciplines” (Gunn and Shopkow, 2007, p. 258). At first blush, SoTL’s emphasis on student-centered learning and its stress on finding ways to relate academic subjects to students’ own worlds might seem prejudicial to medieval studies. Studying the Middle Ages, after all, means studying cultures, texts, and modes of thought very much unlike students’ own. Following Gadamer (1989), Gunn and Shopkow advocate for a model of pedagogy in medieval studies that allows for transitions between the familiar and the strange. They elaborate: “[W]e need to develop methods of teaching and course design that provide both direct opportunities for relevance and also illustrate how apparently disconnected alien cultures, that do not initially seem germane to our students’ experience, can be understood” (Gunn and Shopkow, 2007, p. 260).

Courses, assignments, and activities that explore the history of the book as history, I suggest, might offer opportunities to realize some of the pedagogical models that Gunn and Shopkow envision. The scribal and manuscript cultures of the Middle Ages offer fundamental challenges, and surprising analogies, to modern conceptions of books, book-producers, authors, and audiences. On one hand, the textbooks, novels, and paperbacks that surround modern students are books whose basic components, formats, and organizations are founded on medieval archetypes. The idea of a book as a technology used to preserve, store, and disseminate information is one with a long history. As Eric Johnson (2012) discusses in an article on the role of rare books in the undergraduate classroom, allowing students to handle medieval manuscripts “in the flesh” compels them to grapple simultaneously with the familiar (page-layouts, columns of texts, reading left to right) and the unfamiliar (different languages, marginal glosses, scribal errors).

In a recent issue of the journal *Studies in Medieval and Renaissance Teaching (SMART)*, a group of scholars took up questions and issues surrounding the places and roles of book history in the undergraduate curriculum. Several contributors emphasized the capacities of medieval books and medieval modes of textual production to destabilize and defamiliarize students’ preconceptions about the relationships between “authors” and

their works. Dabney Bankert and Mark Rankin, for example, organized their syllabus for a course on “Manuscript and Print Culture” at James Madison University around “a set of unfamiliar theoretical issues” (Bankert and Rankin, 2012, p. 75). They chose several readings that emphasized the role of the scribe – as distinct from the role of the author – in producing medieval works. They also drew attention to the ways in which modern student editions of the medieval canon – e.g., the *Canterbury Tales*, the *Divine Comedy*, *Piers Plowman* – “sanitize” the medieval manuscripts that contain these works by correcting scribal errors, privileging certain manuscripts above others, and ignoring the manuscripts’ glosses and annotations (Bankert and Rankin, 2012, p. 75). This style of teaching and research might be seen as part of a larger project among medieval scholars to undermine or interrogate the “assumption that the transmission of texts [in the Middle Ages] was fundamentally stable, and that the edited versions [of medieval texts] we possess are suitable artifacts upon which to base assumptions concerning historical and rhetorical analysis” (Gunn and Shopkow, 2007, 265). As I discuss below, the historically contingent and contextualized nature of different editions was a theme that my students took up as part of a project on versions of Chaucer’s *Canterbury Tales*.

At the same time, other contributors to the *SMART* volume strove in their courses to explore lines of analogy, familiarity, and comparison between medieval manuscripts and modern ways of reading and writing. In his undergraduate survey courses in British Literature at the University of Ottawa, for example, Andrew Taylor (2012) used medieval scholastic texts, with their detailed glosses and cross-references, to help students come to grips with what academic authority is and how it operates. He explains: “My hope was that students who had looked at [medieval] glosses would be able to write footnotes. My ultimate goal was, more or less, to help my students write like academics, setting out rigorous arguments in complex, well-controlled prose and inserting themselves in chains of commentary” (Andrew Taylor, 2012, p. 19). Taylor’s suggestion of using highly glossed medieval manuscripts to talk about the codes of academic authority seemed very sensible

to me, especially after an informal sampling of my class in the spring semester revealed that only three students (of thirteen) had ever incorporated a footnote into one of their academic essays.

Several contributors to the *SMART* volume noted that the halting, complicated transition from manuscript culture to print culture in the fifteenth and sixteenth centuries has plenty to teach modern students who are living in the midst of the current transition(s) from print culture to digital culture. David Mengel (2012) argues that learning something about the history of the book will enable modern students to become more critical users of all writing technologies (especially digital ones) and also that it will provide students with historical perspective on contemporary debates about the “death of the book.” Likewise, Bankert and Rankin suggest that book-history courses “may encourage students to think more deeply about our current transition from a print- to an electronic-based knowledge system by viewing it as more complicated and dependent than it may at first appear” (Bankert and Rankin, 2012, p. 75). Channeling such themes, one of my most memorable class discussions in the spring semester concerned the similarities and differences between thumbing the page of a paperback book, scrolling with a mouse, and swiping through content on touch-screen devices.

Many contributors to the *SMART* volume planned activities and constructed assignments in their courses that allowed students to “experience” historical evidence “in the flesh” and to come to grips with the (un)familiarity of medieval manuscripts on their own terms. For example, during a unit on the medieval book, David Mengel (2012) required students to make their own manuscripts; starting from a large sheet of paper, they were responsible for folding, rubricating, illuminating, and binding their own “quire” (all by hand). Most of the contributors described visits to their institutions’ rare books collections; in these settings, students experienced the physicality of medieval manuscripts “up close,” noting such features as pricking, ruling, rubrication, and the quality of a manuscript’s parchment (Bankert and Rankin, 2012, p. 78). In the following Results and Discussion section, I concur with and extend these

contributors' insights on the pedagogical value of rare books collections.

As I read through the *SMART* volume, I was struck by the degree to which my own course shared the perspectives and goals of many of the contributors. Like Mengel, Bankert, and Rankin, I hoped that my own first-year writing seminar on medieval manuscripts and medieval modes of reading would encourage students to cultivate historical and critical perspectives toward "reading," "books," and "media" at the onset of the digital age. Like Taylor, I aimed to use medieval texts and textual practices in my course to help students reflect on, and to some degree replicate, contemporary academic practices of reading and writing. Building on the work of Gunn and Shopkow, I think that teaching medieval book history as history offers a way for students to begin to understand, sympathize with, and derive meaning from medieval culture. My previous experiences teaching first-year seminars on medieval saints and heretics led me to believe that many students regard medieval religious phenomena as fundamentally alien (if not alienating). The medieval book, on the other hand, might offer a more familiar and / or less bias-provoking starting point for courses that strive to explore the nuances of medieval culture and the contexts that surrounded medieval books.

A minor but persistent drawback of all of the above-mentioned articles was their failure to incorporate students' voices and students' experiences in any systematic way. Bankert and Rankin assure their readers that "teaching this course proved to be very rewarding, and students agreed" (Bankert and Rankin, 2012, p. 82). When introducing the concept that every new writing technology – the scroll, the codex, the printed book, the screen – borrows from, imitates, challenges, and "remediates" its predecessors, Mengel proclaims that "students grasp this idea quite quickly, and then become adept at spotting its manifestations" (Mengel, 2012, p. 28). I have no doubt that these statements are true, but their authors don't offer any evidence – qualitative or quantitative – for them. My study aims to correct this deficiency by registering and reflecting on the qualitative feedback that students generated in response to several assignments in my first-year writing seminar.

In the section that follows, I outline in the methods I used to generate, collate, and respond to student feedback in my course.

METHODOLOGY

I carried out this study in the course of teaching a first-year writing seminar (FWS) at Cornell University in the fall semester of 2012 and the spring semester of 2013. The FWS program at Cornell aims to develop entering students' writing skills in small courses organized around a particular theme. In any given semester, the Medieval Studies Program typically offers around five or six first-year seminars, which are taught by upper-level graduate students in the program. Recent first-year seminars have tackled topics such as medieval monsters, Tolkien's medievalism, and the Crusades. These seminars strive to introduce students to medieval studies and to the medieval world, while simultaneously devoting a substantial amount of time to sustained work on student writing. From an administrative standpoint, all first-year writing seminars at Cornell are required to assign at least six essays over the course of the semester.

Most undergraduates take two first-year seminars during their studies at Cornell. In the summer before their matriculation, entering freshmen submit a ballot indicating their top five preferences; they choose from descriptions of over one-hundred courses in more than thirty departments. Most students receive their first choice. The fall section of my class – Reading in the Middle and Digital Ages – had eighteen students (nine females, nine males), eighteen being the maximum number of students allowed in a FWS at Cornell. The spring section of my class had thirteen students (eight males, five females). In both semesters, most of my students came from the College of Arts and Sciences; the Colleges of Agriculture, Engineering, and Art and Architecture were also represented.

In both classes, I guided students through a series of essay assignments, mini-lectures, discussions, writing exercises, and field trips. Our first essay, which was ungraded, centered on a humorous Youtube sketch in which a "medieval monk" struggles to "operate" a book in much the same way that modern office workers struggle to

operate computers. Based on this sketch, I asked students to contemplate what it might mean to think about books as “technologies.” Subsequent essay assignments in both the fall and the spring asked students to compare modern editions of *The Canterbury Tales* with the medieval Ellesmere manuscript and to consider the roles that glosses and commentary played in medieval textual production based on excerpts from Gratian’s *Decretum*, the *Glossa Ordinaria*, and Richard of Devises’ *Chronicle*. The final essay assignment in both classes involved the production of a blog that explored connections and disconnects between the medieval world and the digital world.

I accumulated “data” in my classes from a variety of sources. These included: student essays; my handwritten marginalia for these papers; anonymous mid-semester evaluations and final evaluations of the course (both semesters); a short survey after Essay Five (spring semester only); and my classroom notes and observations. One of my richest sources of data consisted of the narratives that I composed in response to individual students’ essays. My primary methods for evaluating and assessing student writing are qualitative. Whenever I grade an essay, I read it twice. On my first reading, I try to take in the argument and structure of the essay as a whole. On my second reading, I make annotations and corrections in the margins and take short notes on my computer screen. After this, I organize my notes and compose a narrative in the form of a letter addressed to the student, doing my best to articulate both what I felt his or her paper did well and where I found problems. This epistolary form, I think, allows me more freedom to approach student essays as creative, individual, and not overly predetermined pieces of writing.

As I noted in my Literature Review section above, many otherwise excellent pedagogical articles on the teaching of medieval book history have, so far, not made a concerted effort to take students’ voices, students’ essays, and students’ impressions into account. With this in mind, I pored over the above-mentioned data. My primary goal was to isolate a few “key themes” that, I think, speak to the potentials and pitfalls of teaching medieval book history in the digital age and that illustrate

the ways in which my students grappled with medieval books. The following Results and Discussion section, then, is meant less as a universally replicable model for success than as a gloss and reflection on what happened in, and how students reacted to, my classes.

RESULTS AND DISCUSSION

In several different forums – e.g., final evaluations, in-class surveys, and informal discussions – my students reported, almost uniformly, that they enjoyed the class’s two visits to Cornell’s Rare Books and Manuscript Collections (RMC). Both semesters our first visit consisted of a short lecture on how manuscripts were made in the Middle Ages. During the presentation, a curator passed several medieval manuscripts around the table for students to handle. In our second visit, students were organized into groups of 4-6. Each group was given a manuscript and 20-30 minutes to inspect it. They then gave short presentations on their findings to the rest of the class.

Reflecting on these visits, many students remarked that handling medieval manuscripts “in person” helped them make connections between the “real thing” and our in-class activities and lectures. One student said, “To actually see manuscripts, and feel them, backed up everything we talked about in class and I thought the visits were very important for our learning process.” Other students were impressed by the physicality of medieval manuscripts. One student noted, “The visits to the Rare Books Library really help[ed] to give me a direct feeling of how medieval texts were produced. It [was] important for me to actually touch the parchments and see the pigments.” At face value, these reactions are not particularly surprising—what student wouldn’t be impressed by a seven-hundred-year-old book? Still, I suggest that such enthusiasm should inform institutional discussions about the missions of rare books libraries and that such reactions can be leveraged to help students think seriously about the contexts and forms of different kinds of texts.

As Eric Johnson (2012) reports, a widely held belief among librarians of the previous generation was that “rare books have small place in

the undergraduate program" (Johnson, 2012, p. 111). Perhaps not without reason, curators in the 1940s and 1950s worried about the risks associated with having undergraduate students handle scarce and valuable materials. Recent opinion, however, has tended to emphasize the value of special collections libraries as active instructional resources. The curators at Cornell's Rare and Manuscript Collections are active supporters of this position, giving about 150 class presentations per year. With only a few exceptions, Cornell undergraduates are able to call up and access almost all materials housed in the archives. Our visits to the RMC featured such treasures as a lavishly illustrated French book of hours from c. 1400 and a massive Gradual from Lombardy bound with stamped leather and decorated with brass bosses and spikes. As the quotations above demonstrate, handling these texts were formative experiences for my students. One of the primary recommendations emerging from this study is, quite simply, for teachers to find ways to integrate special collections materials into their courses whenever possible.

Even to relative novices, medieval manuscripts have an undeniable "allure" and a "power to attract." How might we, as current and future instructors of pre-modern history and literature, leverage this enthusiasm? What kinds of discussions might we open up? How might medieval manuscripts help undergraduates write and think in new ways? One powerful line of inquiry and analysis, I suggest, might be to encourage students to reflect on the relationships between physical and digital texts. After their visits to the RMC, my students read an article by Michael Camille (1998) titled "Sensations of the Page: Imaging Technologies and Medieval Illuminated Manuscripts." Camille begins by outlining some of the similarities between medieval and digital texts—both, for example, regularly integrate images and both allow users to play a role in textual reproduction. However, Camille spends most of his article emphasizing the distinctive materiality, physicality, and thing-ness of medieval manuscripts. Digital screens, he points out, cannot be "marked," "felt," or "stained" in quite the same way (Camille, 1998, p. 33-54). In both semesters, my students drew on their experiences at the RMC to echo many

of Camille's points. A crucial outcome of these discussions, it seemed to me, was that students recognized that, for all of their advantages, digital texts, like other media, shape and limit fields of knowledge and communication.

Building on this point, I suggest that medieval manuscripts can help students think and write about textual form and media. It is worth pondering that my students spoke so favorably about handling medieval manuscripts at the RMC in spite of the fact that none of them could read (strictly speaking) the texts they were looking at. Instead, the manuscripts compelled them to "look" and "read" in new ways. In particular, students were asked to think in detail about the relationships between a text's form, its functions, and its historical contexts: how, for example, a small, illustrated book of hours might have facilitated prayer, or how extensive glosses and marginal annotations might indicate that a medieval book was used by university students.

This mode of analysis was further emphasized through a major writing assignment on Chaucer's *Canterbury Tales*. Our central aim was to consider some of the social and historical dimensions of the diverse material forms that *The Canterbury Tales* occur in and were read in. Students were instructed to locate 2-3 different "instantiations" of *The Canterbury Tales*. Since *The Canterbury Tales* have been in continuous publication since the fifteenth century, they exist in a myriad of different formats (e.g., in medieval manuscripts, in children's books, in online modern translations, etc.). After they selected their texts, students wrote 6-7 page papers delineating the relationships between their texts' formats, their functions, and their historical contexts of production, reading, and reception. Final papers explored how, for example, illustrations of different pilgrims in the Ellesmere manuscript helped medieval readers foster the illusion that fictional figures were the narrators of their respective tales or how William Morris' hand-printed Kelmscott Chaucer (1896) could be better understood in the context of his dissatisfaction with the Industrial Revolution and its mass printing of books.

The newness of this kind of thinking was a theme on several student evaluations. One student wrote,

"To be honest, [before the Chaucer assignment], I had never even thought about these different features of books. Books were just something that I read and [their] marginal spaces and illustrations were of no concern. However, the assignment and all the activities encouraged me to look at (books) from a different perspective." Another student wrote, "This class was really interesting because it provided analyses of formats of books and how they related to [the text's] function." Additionally, another student wrote, "The material is very interesting because it looks at texts we have (or haven't) heard of in a brand new way—[focusing on] their formats and annotations rather than just the central text."

It is worth pausing over these remarks. It almost goes without saying that students live in an age saturated by different kinds of media. Scholars, particularly humanists, ought to think seriously about how to equip students with the tools to critically interrogate the media that surrounds them. Medieval manuscripts, I suggest, have much to teach us and our students in this respect.

REFERENCES

- Bankert, Dabney and Mark Rankin. (2012). Teaching Medieval and Early Modern Manuscript and Print Culture in Theory and Practice. *Studies in Medieval and Renaissance Teaching*, 19(1), 75-92.
- Camille, Michael. (1998). Sensations of the Page: Imaging Technologies and Medieval Illuminated Manuscripts. In George Bornstein and Theresa Tinkle (eds.), *The Iconic Page in Manuscript, Print, and Digital Culture* (33-54). Ann Arbor: University of Michigan Press.
- Gadamer, H. G. (1989). *Truth and Method* (second edition; trans. Weinsheimer and Marshall). Albany, NY: SUNY Press.
- Gunn, Vicky and Leah Shopkow. (2007). Doing SoTL in Medieval History: A Cross-Atlantic Dialogue. *Arts and Humanities in Higher Education* 6, 255-271.
- Johnson, Eric. (2012). 'A closed book is a mute witness': A Curator's Approach toward Teaching with Rare Books and Manuscripts. *Studies in Medieval and Renaissance Teaching*, 19(1), 111-128.
- Johnston, Michael. (2012). Introduction to Teaching the History of the Book. *Studies in Medieval and Renaissance Teaching*, 19(1), 7-14.
- Mengel, David. Teaching the Codex as Writing Technology. *Studies in Medieval and Renaissance Teaching*, 19(1), 25-38.
- Piper, Andrew. (2012). *Book Was There: Reading in Electronic Times*. Chicago: University of Chicago Press.
- Taylor, Andrew. Experiencing Authority, Confronting the Cool: Bringing Medieval Book History into the Classroom. *Studies in Medieval and Renaissance Teaching*, 19(1), 15-24.

“I See It As A Crime Scene”: Taking Close Reading Outside the Literature Classroom

Adhaar Noor Desai

Graduate Research and Teaching Fellow and Teagle Fellow 2012-2013

INTRODUCTION

Whether we like it or not, literary scholars in academia will all eventually have to define and articulate their contributions to higher education in terms of what (marketable) skills students can expect to gain from taking literature classes. As students are treated increasingly like customers by universities, and traditional campuses vie with technical schools and innovations in online education, those who wish to become teachers need to be able to clearly affirm what they offer students. I aver, though it saddens me that this does not always go without saying, that the study of literature offers unique and significant skills to students, and always has. Michael Bérubé has broadly argued, in an article entitled “The Utility of the Arts and Humanities” (2003), that these fields offer “merely the business of interpretation, of understanding the meaning of meaning,” that they clear a space to contemplate and determine “what it all means, in the broadest sense of ‘it’ and ‘means’, and just as important, how it all means” (Bérubé 38). As instructors, however, we might not be entirely clear, to ourselves or to our students, how one enters the marketplace of interpretation and contemplation. Beyond literacy and writing, which we as instructors should by no means downplay (and certainly should not regard

as below our responsibilities), the study of literature and the methodologies associated therewith offer students access to kinds of knowledge more difficult to acquire in other disciplines. By articulating these kinds of knowledge and what students must do in order to arrive at this knowledge themselves—beyond simply relying upon that worn out old chestnut, “critical thinking”—I believe English departments can motivate students to take literature classes not just for cultural capital or pleasure (though what a world that would be!) but because of the promise of transformative, sharpened, demonstrable, and translatable skills.

In 2006, the journal *College English* published a “symposium” of short reflective articles addressing the broad topic, “What should college English be?” The seven articles responding to this prompt address a wide range of subjects, though they largely focus on what the first essayist, Shirley Wilson Logan, describes as the “skills” the study of English offers students. Wilson Logan considers how university courses might expand the breadth of the skill-set they offer, such as acknowledging “the need to develop nondiscursive communication skills” like visual analysis, and encouraging students to “recognize the range of argumentative

perspectives surrounding" political and cultural events such as the Katrina disaster (Logan 107). Notably, the skills Wilson Logan touches upon expand beyond "primarily the study of words" in order to teach students "more intentionally how to analyze and deploy language and images in ways that better prepare for meaningful civic engagement" (Logan 110). The move to concerns outside of the literature classroom, and beyond a model of teaching simply subjects, texts, or authors, permeates many of the issue's articles, though not all of them seek, as Wilson Logan does, to broaden the disciplinary boundaries; only one out of seven articles in the issue discusses that fundamental "skill" associated with college English: close reading. If we are going to better understand our discipline in order to better educate our students and those outside academia of its inherent value, we will have to address this most fundamental instrument in our pedagogical toolkit. Moreover, we will have to find ways to improve not only the ways we teach, but also how we situate it within the broader curricula of higher education.

Close reading as a disciplinary practice traces its origins to the early twentieth century and the rise of what is known today as New Criticism, a school of literary analysis privileging the literary text and its rhetorical and formal features over contextual, historical, and biographical aspects. I.A. Richards, one of the founders of close reading, called it "practical criticism" and derived it from an experiment he conducted wherein anonymous undergraduate students were asked to comment on the value of anonymous works of poetry in order to arrive at a basis for discrimination and "the power to understand what we hear and read" (Richards 3). Close reading replaced what was known as "literary history" or the "old historicism" by dislocating a text from historical or biographical assumptions and, as Jane Gallop puts it, "inject[ing] methodological rigor into what had been a gentlemanly practice of amateur history." Gallop argues that close reading "transformed us from cultured gentlemen into a profession" and that it, "learned through practice with literary texts, is a widely applicable skill" that may be applied "to diverse sorts of texts— newspaper articles, textbooks in other disciplines, political speeches" (Gallop 183). Whereas the New Critics routinely come under fire

for linking ideologically to an exclusive and Eurocentric study of ostensibly depoliticized canonical texts, Gallop argues that the New Critical method of close reading enables the literature classroom to "level the playing field" by allowing students to "encounter the text directly and produce their own knowledge." For these students, close reading might mean "that they could not just apply knowledge produced elsewhere, not just parrot back what the teacher or textbook had told them" (Gallop 184-5).

Dan Bialostosky, in "Should College English be Close Reading" (2002), confronts the practice when he suggests that the issue with teaching literary analysis in the classroom is "not that students read literature with the unexamined resources they use to engage in everyday discursive exchange but that they check those resources at the classroom door, trained to believe them irrelevant to the special hermeneutic task that literature teachers require of them" (Bialostosky 113). In other words, students regularly see close reading not as an avenue for them to individually create and articulate discoveries, but instead as a set of expectations and rules transferred from the teacher that they must observe. Instead of privileging an ambiguous and monumental practice named "close reading," Bialostosky proposes the creation of "a pedagogical space where we teach productive attention to literary texts" (Bialostosky 113). My research, in turn, takes Bialostosky's article along with Wilson Logan's as a jumping off point for how to draw close reading out of the literature classroom in order to promote habits which help students "engage with the defining texts of their lives, to connect text and street" (Logan 108). In this sense, I want to go further than even Gallop's indication that close reading be applicable to other written texts, but to interpret problems more broadly.

Many observers have recently attempted to refine what exactly the practices of good reading are, and how the literature classroom might promote and improve them. Close reading, and its attention to the formal and rhetorical aspects of texts, of course plays a role in the cultivation of sensitive reading, but scholars have noticed other crucial elements of literary analysis, elements which pro-

mote reading skills as more than merely academic. Robert Scholes, in his influential piece "The Transition to College Reading" (2002), suggests that English professors endeavor to make close reading a more meaningful activity for students by restoring the "otherness" of the author. Based on his own experiences and the experiences of his colleagues, Scholes finds that students typically have difficulty separating themselves from the texts they are asked to analyze; they either "assimilate the thought and feeling of a text into their own thoughts and feelings," or "recognize a different position and simply refuse to think about it" (Scholes 169). In response, Scholes feels it necessary to combat some of the prevailing trends of literary criticism—at least in the undergraduate classroom—and allow the author to be a person with a voice for these students. He writes, "The author must live before the author can die. We teachers must help our students bring the author to life" (Scholes 167). Similarly, Dara Rossman Regaignon advocates for ways that teaching reading involves teaching students how to better "engage" with the text and its "ideas, assumptions, terms, and data" (Regaignon 121). Finding that the typical student "glides over the text smoothly, leaving no signs of his passing," she encourages instructors to help students find "traction," to help them offer interpretations rather than summaries (Regaignon 122). Noting how academic writing across the disciplines focuses on problem-solving, Regaignon suggests presenting close reading to students (and she includes her own extended handout explaining what close reading is) as a practice of "reading against the grain" (Regaignon 124). This practice encourages students to find ways to productively "rough up" the surface message of a text, even to disagree with it and "its tensions, contradictions, puzzles, and paradoxes" in order to engage with it and offer an interpretation—their writings, then, will reflect the choice they have made among many others in this "roughing up" (Regaignon 127).

We might then understand close reading, or college reading in general, as not simply limited to the skill of recognizing literary tropes and formal devices, but as a particular and self-conscious position toward a text that culminates in an interpretive argument. Close reading as now

understood in a literature classroom might extend beyond simply recognizing that a sonnet ends in a rhyming couplet or the continuation of a motif in a novel; teaching attentive reading practices enables students to ask questions about how or why formal features of texts contribute to the way they make meaning. Both Scholes and Regaignon clarify this manner of engagement, and it can be opposed to close reading as a product of New Criticism that promotes an appreciation for the formal qualities of canonical literary texts. It is unclear, however, how well literature classrooms are articulating that the skills associated with close reading are not those of recognizing tropes and the intricacies of texts, but of defining and pursuing the "habit of engagement" itself. My study investigates the extent to which students understand close reading as a "habit of engagement" in opposition to an understanding of it as the apprehension of a set of literary tropes and forms (though these two aspects are not mutually exclusive). If close reading is to extend outside of the classroom, I believe that students need to be able to draw connections not between the objects of literary analysis and other domains (relating one's personal situation to Hamlet's, for example), but between processes by which they approach literary texts and processes they employ elsewhere. Studies have shown that students in literature classes still tend to approach literary texts as Bialostosky describes, by checking their interpretive resources at the door, and that the assignments and lessons placed before students can actually obfuscate what students are supposed to learn rather than help them solidify and demonstrate knowledge (see: Weller, 2010; Manarin, 2012; Murray, 1991). What these studies hint at, and what my personal observations and colleagues' anecdotes indicate, is that we need to better understand undergraduates' reading practices in order to better reform them. As Robert Scholes points out, "We do not see reading," and as such can neither directly evaluate it or assess how to best teach it (Scholes 166); Regaignon's suggestion that literary study consider the mechanics of "problem-solving" as part of its enterprise acknowledges this limitation, and other commentators have proposed approaches attempting to change students' relationships to the texts presented to them in class.

Paul T. Corrigan, for example, writes about how he uses painting in his literature classroom in order to cultivate students' sense of reading as a "contemplative practice." Painting, he suggests, helps students "pay careful attention" to texts "by slowing them down and bringing them into contact with concrete things" (Corrigan 171). Moreover, painting offers an "occasion for rereading" and allows students to "linger with the text" (Corrigan 171-172). Catherine Gubernatis Dannen, another example, offers an account of how literature classes might approach close reading in terms of behaviors, attitudes, and discursive proclivities already possessed by students. Turning to the world of sports—by which she means not only the events themselves, but the discursive communities formed around in the form of sportswriting, television shows, debates, and news coverage—allows Dannen to channel students' attentiveness toward academic development. I bring up Corrigan's and Dannen's approaches because they both attempt to teach reading by way of some alternative or more accessible discourse, implicitly assuming that what instructors want students to do when they close read is related to what students are doing or can do in alternative contexts. Proposals like Corrigan's and Dannen's, while suggestive, however, do not fully articulate what aspects of reading are being developed and what "skills" are being improved. In Corrigan's account, I would have liked to see clearer articulations of what specifically he wanted his students to acquire from the painting activity. What does introducing different art forms to one another produce for the students? I am especially intrigued by allowing literature to interact with other kinds of texts, but I want to know if and how he wanted his students to approach this moment of contact. Does this activity, in other words, help make re-reading and attention into a critical practice, and if so, which habits of interpretation or thought does it exercise or introduce to the students? I think that literature instructors might gain some traction of their own by focusing on that moment of contact between a student and a text and clarifying what goes into it and what its stakes are. In order to do this, I think we need to first better grasp what the students themselves understand to occur at that precise moment. My study, then, consists of a survey that asks undergraduate students of close reading

how they situate their close reading encounters amongst other activities.

METHOD

In order to collect information about undergraduates' stances toward close reading, I designed a short survey (see appendix) to administer to courses taught at Cornell. All but one of the courses I surveyed were classified as First-Year Writing Seminars (FWS); the one exception was an upper-level course offered through the English department. I also had the instructors of these courses fill out the surveys. First-Year Writing Seminars are organized by the John S. Knight Institute for Writing in the Disciplines and are required courses for all Cornell undergraduates; most students take them in their freshman year. Cornell offers writing seminars in a broad range of disciplines—History, Psychology, Sociology, and even the hard sciences—but I focused on administering my survey on courses with topics in English literature, because even though all writing seminars are held to the same requirements and expectations, seminars in literary study generally rely on close readings and textual analysis in order to encourage students to think about their own writing. This tangential or even instrumental attention to literary analysis creates a scenario in which first-year students are compelled to quickly acquire the disciplinary skill set of close reading so they can employ that skill set in producing written compositions. The Knight Institute, I should make clear, does not stipulate that students develop facility with literary close reading in their courses; the institute's learning objectives are related largely to the mechanics of writing in a discipline. This inevitably entails, however, that students acquire disciplinary reading skills.

The first two objectives listed on the program's website emphasize that students be able to compose "writing that is suitable for the field, occasion, or genre in its use of theses, argument, evidence, structure, and diction," and writing that is "based on a competent, careful reading and analysis of texts" (Knight Institute). Though the program is largely structured in order to produce students capable of writing "in a range of genres and in ways that emphasize clarity, coherence, intellectual force, and stylistic control," the second

objective quoted above does explicitly recognize that improving students' writing necessitates compelling students to develop their reading skills. Now, "careful reading and analysis" are not necessarily synonymous with "close reading" as historically defined in literary studies, but as observed above [in the literature review], these disciplinary definitions are potentially ideologically restrictive and could be expanded or recast. Instructors in writing seminars are charged not with fashioning an army of English majors (a surefire way to discredit the institution!), but with helping students develop the skills to critically read in any field, and to report their analysis in writing. FWS courses in literature foster these skills by encouraging students to attend to the formal, ideological, structural, and linguistic qualities of a given literary text—what remains to be seen, and what this study purports to investigate, is whether these courses explain that these kinds of attention translate into more rigorous modes of reading in different (or all) disciplinary contexts.

Dispersal of the survey was admittedly constrained by time and by the nature of administration; I had to compel my colleagues to grant me 15 minutes of their class time to explain, pass out, and collect the surveys. In one instance, I was given the welcome opportunity to aid a colleague in teaching close reading to his students after they had indicated to him on their midterm evaluations that they were still puzzled by it. I administered the survey at the start of this class session, and then my colleague and I performed a lesson plan designed together around close reading that took into account some of the things I was seeing in survey results from other courses. After this lesson, I administered a short follow-up questionnaire to his students asking about our approach. I will explain this lesson plan and the insights it yielded in my discussion section at the end of this paper. While there was no guiding principle for selecting courses other than convenience and instructor assent, the courses themselves were not the object of study but rather the students within them. In order to be placed in one of these classes—which are required by Cornell for all undergraduates—students list their top five choices after seeing descriptions for all FWS courses offered; they are then placed in these courses according to

their preferences by a computerized system. In my experience, students choose courses largely because of interest, but a significant portion choose them because the course fits well into their crowded schedule. As a result, a given literature-oriented FWS class will have students from a wide variety of disciplines represented; my sample size underscores this diversity.

I administered the surveys over the course of two weeks after the mid-term break in spring term to four FWS courses; in total I received 52 surveys from these courses. Of these 52 students, only three declared majors distinctly in the humanities (Art, Archaeology, and Government), while 36 reported STEM field majors (predominantly Biology and Engineering), nine in Social Sciences, and four were undecided. None of the students had declared English or any literature-oriented course, though on average the students had taken 2.15 classes described in the survey as "college level classes focused on literary study (English, Comparative Literature, etc.)," with 35 of them listed as having taken only two classes including their current and prior FWS courses. The most any student had taken was five; predictably, this was one of the humanities majors. In contrast, of the ten students in the upper-level English course, all but one had declared English as a course of study either as their primary major or as one of their majors. Four of these students were seniors, two juniors, and four sophomores. They had taken on an average of 9.1 English classes with a median of seven; all of the English majors had taken over four, with one taking 21 and most taking between six and 13. As writing seminar courses are not fully courses in English literature and so are not necessarily populated by students interested in pursuing literary study as an academic discipline, teachers in these seminars may take nothing for granted. Whereas courses in literature might enjoy a largely receptive and engaged population of students, FWS courses cannot treat close reading and its attendant behaviors, habits, and modes of engagement as given or even desirable (though this is not to say that literature professors may treat them as such, either!). In short, these FWS courses posit an opportunity to consider close-reading as implicitly subject to students' interdisciplinary appraisal; it is in these courses

that students might initially encounter college-level close reading and where they might embrace or dismiss literary study's central technique.

The survey itself was motivated by two hypotheses: that students might be confused about what close reading is and how to go about it, and that students might believe close reading to be a methodological contrivance limited to literary analysis. In order to query these hypotheses, I had participants answer Likert scale questions exploring their level of agreement with statements such as "I am confident that I know how to engage in close reading" and "My instructors have explained why close reading is useful and/or important." I also directly asked students to evaluate close reading as a translatable set of skills by posing the statement, "I feel that I use skills involved in close reading in non-literary contexts." The final Likert scale statement I offered probed one of the central concerns about close reading, articulated by Saranne Weller as the apprentice model of close reading instruction. This statement, "When I do close readings, I try to imitate the ways my teachers have done close readings in class," sought to find out the degree to which students view close reading as a reproducible set of maneuvers rather than as a mode of engagement. Though a bit oblique—instructors have different "ways" of engaging in close readings in class—this question does offer some insight into how students react to the heuristic performance of close reading in a seminar. The broader, open-ended questions that follow the Likert scale statements sought to uncover some of the associations students forge with close reading. Because a central concern of this study was to evaluate the degree to which close reading is articulated by teachers and students as a "skill" or set of skills rather than as an assignment or contrived disciplinary practice, I asked students to "try and articulate what skills [they] believe are needed in order to close-read well." I also asked another technique-based question: "Do you approach texts you are supposed to close read differently than you do other texts? What do you do differently?" Seeking to address whether these multi-disciplinary students value close reading as an educational practice, I asked them what the practice provided them with, and whether they saw it as "relevant and meaningful outside of a literature

classroom." Perhaps the most open question the survey posed, then, sought to uncover whether students' language about skills and relevance in other questions actually translated into a recognition of close reading's affinity with other critical pursuits: "Can you think of any activities that are similar to close reading?"

More informally than with the students, I casually interviewed each of the instructors regarding not only the content of the surveys (I asked all of them the open-ended questions on the survey) but also the makeup of their classrooms. Each instructor was asked to gauge their confidence in their students' abilities as close readers, as well as their sense of students' receptivity to close reading as a practice. Though done largely for context, these interviews, when considered alongside the surveys' yield, illuminate some things about students' understanding of close reading. My goal with these surveys was never to arrive at a universalized account of close reading in higher education, but to gain an incrementally fuller understanding of how students view the practice. In the future, perhaps a fuller investigation of what goes on between teachers and students within a classroom (at the moment of heuristic performance, for example) might allow a deeper understanding of what works and does not in teaching close reading. The glimpse into students' assumptions and proclivities that this study offers, however, might still help those teaching literary analysis to better articulate themselves, and to render more clearly concepts that students still find challenging or confusing. While I confess that the sample size of this study is relatively small, I do consider the insights these students offer to be useful indicators in terms of reforming teaching practices. Indeed, what the study ultimately demonstrates most keenly is that there might be a disconnect between student's knowledge of close reading as a practice and their habit of engaging in it.

RESULTS

The 63 surveys collected—53 from FWS students, 10 from upper-level students—presented a variety of data in response to the Likert Scale and open-ended qualitative responses. Now, a set of 63 surveys culled from a not very representative

sample size of undergraduate students obviously does not allow us to formulate any definitive conclusions about the ways close reading is taught and taken up in the university. What these surveys do present, however, is a richer and more nuanced store of feedback from undergraduates about close reading, feedback that might allow instructors to better reflect upon their own pedagogical practices as well as upon potential blindness they might possess in their expectations of students. Accordingly, the results I hope to pull out of this experiment relate to a rounding out of instructional language, and through this a broadening of instructional techniques. After presenting first the general—and generally inconclusive—quantitative data from the set of surveys, I will draw some inferences from the qualitative data the surveys produced, data that will hinge upon the degree to which students were able to situate the practice close reading outside of the literary classroom.

A majority of the students surveyed expressed a surprising degree of confidence in their ability to do close reading, with the FWS students arriving at an overall average of 3.59. These students also generally felt that they had been sufficiently instructed in close reading (3.63), and that their teachers had explained to them why it was important (4.00). The upper-level English majors were, predictably, more confident and secure in their abilities as close readers, their level of instruction, and their instructor's explanations (4.3; 4.4; 4.0). Weller (2010) and Manarin (2012) have shown, however, that students' confidence in their abilities and their performance based on instructor's expectations are not necessarily correlated; when these students say that they believe they are capable close readers, they might be imagining themselves to be good at something they call "close reading" but which might not actually be the same skill expected of them by their instructors. Indeed, interviewing these students' instructors revealed that their instructors were generally "dissatisfied" or underwhelmed by their students' performances. Only the instructor of the upper-level English students offered uniform praise of students' abilities as close readers. While grading data on these students could not be acquired, determining their successes—or that of their teachers—was not really the focus of this

study. Instead, I sought to explore these students' relationship to close reading and their ability to locate it amongst other intellectual activity. In considering the qualitative data, analysis provided the opportunity to "code" these data along two axes which emerged through thematic reading of three questions: "In a few sentences, try and articulate what skills you believe are needed in order to close-read well"; "What does close reading provide you? Is it relevant or meaningful outside of a literature classroom?"; and "Can you think of any activities similar to close reading?" The two categories students placed themselves into were 1) those who viewed close reading as generally "limited to literary and artistic analyses" and 2) students who viewed it as a "habit of engagement" and so formed connections between it and other kinds of thinking. These categories or codes were by no means mutually exclusive—a feature especially presented by the upper-level students—but did indicate a fairly stark bivalence in terms of how students understand close reading. Below are descriptions of the categories and sample responses that allowed me to code students into one category or another. Following this is a brief discussion of the mixed nature of upper-level students' responses, and a table illustrating the differences in terms of responses to the Likert Scale questions between the two categories.

Close reading as limited to literary and artistic analyses

In response to questions 7, 9, and 10 on the survey ("In a few sentences, try and articulate what skills you believe are needed in order to close-read well" / "What does close reading provide you? Is it relevant or meaningful outside of a literature classroom?" / "Can you think of any activities similar to close reading?"), students who were coded under the category "limited to literary and artistic analysis" offered responses that generally listed features of literary texts, that described the mechanical processes of close reading, and related close reading literary texts to the appreciation of artworks and the uncovering of authorial meaning. In total, 30 out of 53 FWS students were thematically coded as viewing close reading in terms of specialized literary terms and in relation to the analysis of artwork. Here are some sample responses to question 7 ("In a few sentences, try

and articulate what skills you believe are needed in order to close-read well.") that were placed into this overarching category:

- "Be able to quickly discern block of text that is important. Re-read that block sentence by sentence; clause by clause; word by word."
- "You need to first have an understanding of the text itself. Then one should be able to analyze and discern the themes, motifs, symbols, and message of the author."
- "Comprehension of words and themes authors/writers are trying to get across is useful. Understanding of satire, figurative language, etc. that the author/writer utilizes is also very important."

Some responses to question 9 ("What does close reading provide you? Is it relevant or meaningful outside of a literature classroom?") coded under this category:

- "I think it is relevant in a literature classroom but not necessarily outside."
- "I never really do it unless I have an essay, cause it helps me give better analysis in the class."
- "Close reading helps me better understand the work and write essays with good evidence. Haven't really used it aside from school..."

And here are some responses to question 10: "Can you think of any activities similar to close reading?":

- "I'm sorry I cannot, it's a unique skill"
- "Analyzing a piece of art"
- "Observing art and listening to music. Watching movies/television"
- "Writing --> involves close reading"
- "Revising essays are similar in the sense that you are paying great attention to detail with a specific purpose."

I should be clear and say that students filed under this category did not exclusively list literary tropes and other artistic media as related to close read-

ing; some cited things like "attention to detail" and "critical thinking"—terms that were signals for coding in the other category. A mention of "attention to detail" by a student that situated close reading largely in terms of the specialized analysis of artworks tipped the scales toward this category. Many of the students in this category, for the record, could not think of any activities similar to close reading.

Close reading as a habit of engagement

Students falling into this category demonstrated more breadth of reference and association when it came to close reading. These students sometimes referenced explicit literary tropes, but generally described close reading in terms of interactivity, problem solving, and discovery, rather than the recognition of a set of literary or artistic features. 23 out of 53 students fell into this category based on their responses to questions 7 and 10. Here are some sample responses to question 7 that were placed into this overarching category:

- "You need to have background knowledge and a good ability to remember and make connections. Also, you need to have good judgement [sic] in discerning what is important. I think it just takes an enormous amount of practice and experience."
- "The skill set for close-reading varies with each text, however attention to detail, understanding literary & sound devices, and contextualizing are fairly universal."
- "You need to have an eye for detail and knowledge of different literary techniques"

Some responses to question 9 ("What does close reading provide you? Is it relevant or meaningful outside of a literature classroom?") coded under this category:

- "I think the skill itself is important because you can use it for mediums other than strictly literature or in the classroom. It provides you with a greater understanding of whatever you are studying."
- "I guess it provides me with analytical skill that can be used outside the classroom."
- "I believe it provides you the opportunity to be

at the same time analytical [sic] & imaginative [sic]; drawing greater meaning from a small part can be applied outside of literature as well."

- "It provides a more thorough interpretation and a longer-lasting impression of the work, yes. Close reading makes me more skeptical of what I read."

And here are some responses to question 10: "Can you think of any activities similar to close reading?":

- "I see it as a crime scene. Some of the elements like the dead body are givens, similar to the plot of a story. However reading pass [sic] the surface and trying to piece together just why the author writes what he/she writes is like analyzing the evidence."
- "Talking to people and engaging with them is similar to close reading. Both force you to be aware and attentive."
- "Problem solving in more technical fields also require [sic] analysis and an understanding of what is being presented/asked."
- "Any activity which involves comprehending and communicating any information. It's basically a life skill."

Again, as with the other category, some students seemed to fit into both categories. Having three questions allowed each student to be tipped one way or another; generally, students overwhelmingly spoke about close reading in terms of one category or another, anyway.

Upper-level English Majors: Mixing both categories

Instead of comparing the upper-level students to the underclassmen directly, I merely want to note that, of the ten students surveyed (nine of whom reported being English majors) almost all of them were decidedly mixed in their responses. For example, here are sample responses from the upperclassmen to question 7:

- "I think it is really important to understand literary patterns, such as various structures, metaphors, meters, etc. that contribute to a passage. There are certain styles that appear a

lot. You need to understand how a passage fits in a larger text and how to extrapolate information from small pieces of text. "

- "Knowledge of rhetoric and literary devices are essential in order to perform close readings. Most of all, however, I believe a strong imaginative mind is necessary in order to see beyond the superficial and thereby construct an argument."
- "I think critical thinking skills are need [sic] to close-read. Also knowledge of different types of literary devices as well as classical/Biblical knowledge is useful. "
- "Patience and a clear head. You need to be able to constantly re-read the texts and readily adapt your mindset to better understand the context, character, and language."

Some responses to question 9:

- "Close readings are relevant in any context outside of the literature classroom as the skills employed essentially teach the reader how to construct an argument and deliver a point so that another may understand the reader's viewpoint."
- "It gives a broader understanding of a text and its function in the greater world. I always appreciate how much a text engages with other literature and subjects after close reading. Assessing connections is definitely useful outside of the classroom."
- "It provides me with the multiple meanings a passage may have and a better understanding of the text. Yes it is useful outside, it can apply to any career involving texts (i.e. lawyers)."

As you might note, these students are able to draw close reading outside of the context of literary analysis, but still generally relate it to textual analysis. This leads to the last question, question 10, which asks them about activities similar to close reading. It's curious to find that the majority of these ten students relate close reading to artistic analysis; even though they are seasoned close readers and can recognize it at its core as a habit of engagement, their training as literary scholars

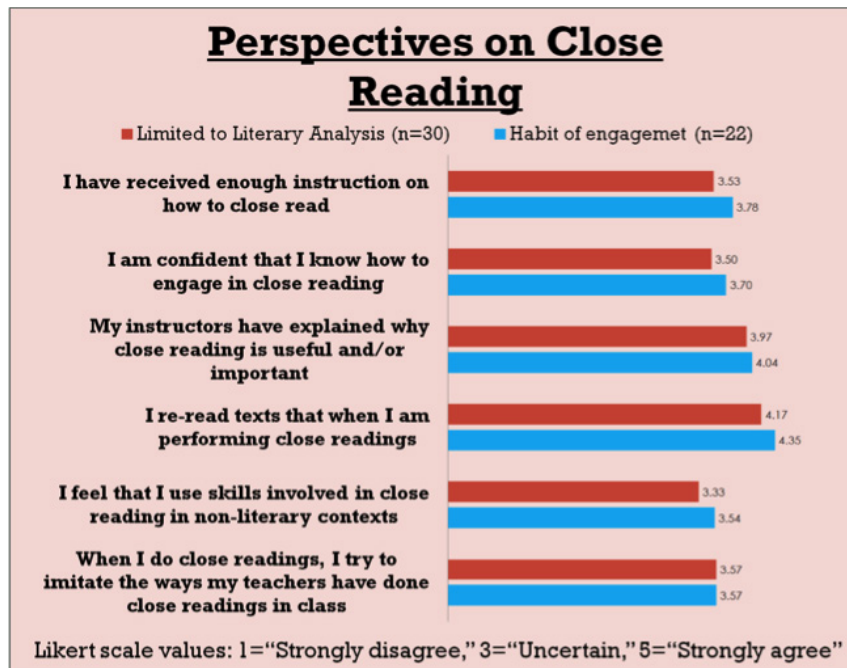


Figure 1: This graph illustrates the differences between the two categories described above in terms of their performances on the Likert Scale questions.

indicates somewhat rigid specialization. Responses to question 10 looked like this:

- “Analyzing other works of art.”
- “Taking exams! Professors often provide subtle clues in their phrasing. Also, as I have been considering law school, I find it helps me understand all arguments better.”
- “I cannot think of any activities similar to close reading, however, the process of writing an essay often utilizes the same skill set.”
- “There are some equivalents in art. Art classes will often focus on a specific element of a painting. There is a lot of analysis, for example, on Mona Lisa’s smile alone.”
- “Close readings essentially improve communication skills. I remember one professor once told me that close readings are like trying to figure out who Taylor Swift wrote a song about by examining her lyrics.”

I do not have any substantive inferences to draw from this trend among the English majors, other than noting that perhaps the valence of teaching

close reading as engagement became refined as engagement specifically with artwork and literary objects. Perhaps more could be done to convey to English majors that the skill set they are cultivating is one applicable to a host of scenarios and not limited merely to textual analysis. In my discussion below, I propose one way this can be ingrained in students at an early stage.

Comparing the Categories

Though none of the differences presented are significant enough to be remarkable, the data does present a consistent difference between the two categories. The students who viewed close reading more as a habit of engagement generally scored more positively on the Likert Scale questions. Figure 1 above illustrates the overall averages of the two categories of students.

DISCUSSION AND CONCLUSIONS: PROMOTING ENGAGEMENT IN THE LITERATURE CLASSROOM

In lieu of a polemical conclusion with regards to the teaching of close reading in the university, I will instead offer an account of one attempt to put

the kinds of information gleaned from this study to practice. If one of the things this study suggests is that many students are viewing close reading more in terms of an apprehension of a particular set of specialized literary terms, which are of course important to close reading literature but restrain a student's ability to extend close reading outside of the literary context, what can be done at the formative stages to compel more students to see close reading as a non-specialized mode of rigorous analysis, as a habit of engagement?

The course of this investigation necessitated my disruption of a series of my quite amiable and committed colleagues' courses; in one instance, a colleague, also a graduate student in the English department and an FWS instructor, afforded me the welcome chance to teach a lesson on close reading along with him. This instructor had recently administered mid-semester evaluations to his students from which he had discovered that his students were still unsure about what close reading entails and how to go about doing it. Seizing upon an opportunity that arose when I approached him with my survey, he and I decided to put together a lesson plan on close reading targeted at his students, one hoping to clarify close reading as a "habit of engagement" involving creativity, sensitivity, and rigorous decision-making. His students were about to begin work on a novel, Thomas Pynchon's *The Crying of Lot 49*, and we decided to fashion a lesson plan on close reading together that would take place after the students had read the first chapter. In the spirit of connecting the activity of close reading to something external to the literary classroom, and something that might quickly take hold in the context of one hour-long class period, I decided to connect the processes of engagement undergirding close reading to the processes involved in playing a game of tic-tac-toe.

The lesson plan was divided into two halves, with the first half consisting of a class-wide tic-tac-toe game and the second half focused on developing a reading of the chapter from *The Crying of Lot 49*. The tic-tac-toe game was set up as follows. The classroom of 18 students was split into two groups, which would be the teams playing against one another. A large tic-tac-toe board was drawn on the blackboard in the room, and a coin was

flipped to see which team would go first. During each turn, one team was asked to leave the room, while the other was asked to stay inside. The team inside was asked to deliberate on where they would place their X or O, while the team outside was asked to guess where the team inside would place their move. As they deliberated, each team was asked to write down their rationales for either placing their move somewhere, or for their guess of the other team's behavior. Teams alternated being in and out of the room until the end of the game. Here are what the rationales for the first move made in the game—an X in the bottom left corner—looked like from the side of the team making the first move, and the team guessing where the first move would be placed:

- Team making the move: "We chose the corner as it gives you the best chance to win. We chose the bottom right corner because it is an unusual selection and might confuse them."
- Team guessing: "The most optimal 1st move in tic-tac-toe is the corner, and there is a psychological ingrination [sic] in America (due to reading) to start top [left]."

The team guessing, once they came inside, explained that they were not at all surprised that they were incorrect, citing the bottom right corner as their second choice, because it reflects the opposite of their earlier assumptions. Later on in the game, as the game had played out and decisions became more limited, the guessing team was generally correct and the team making the move was more pressured to make certain moves; they cited reasons like, "Bottom center to avoid losing."

The end of the game posed an interesting and teachable surprise, however. At a certain point, everyone realized that one team was sure to lose (the winning team had a real tic-tac-toe whiz in its midst!). In this scenario, the team inside had to make a decision on what they were going to do—one they wrote no rationale for, curiously. The team outside guessed what the team inside would do in this scenario: "They will erase everything and put x's [sic] everywhere." The team inside did not do exactly this, but rather placed an O over the areas they needed in order to get three Os in a row. The guessing team, once they returned to the room, knew they were "right" in guessing

that the other team would cheat. I seized upon this opportunity, however, and had the teams play one more round, a round in which the rules had all been thrown out. In this situation, the team outside guessed simply “rule breaking” while the team inside, which had been denied their victory, put Xs in every box on the board, and crossed out every conceivable sequence of Xs on the board, explaining, “They cheated so now that the fabric of the game has been broken we are going to cheat also.”

After this bit of fun, we had the students reconvene and read out their rationales and talk over the game. Students were pleased to find out their intuitions had been right about one another, and that they had made some strong assumptions. I asked them to recount what went into their decision-making skills—why they were able to rationalize each move and what went into it. They cited things like patterns, the logic of the game board, and even, as with the first move, precedents from earlier games and knowledge about cultural institutions like the practice of “reading in America.” I then asked the students to keep this specific mindset in mind—a willingness to bring in earlier knowledge, an ability to discern patterns, and an ability to sense the “logic” of the game—and consider what happened when the “text” broke these rules, since the players all decided to break the rules. I asked what they were using to support their theories at the end, and they explained that they sensed that a new set of rules was forming, and that they were playing a different sort of game. This was the breakthrough I was seeking, and with this we turned to the first sentence of *The Crying of Lot 49*: “One summer afternoon Mrs. Oedipa Maas came home from a Tupperware party whose hostess had put perhaps too much kirsch in the fondue to find that she, Oedipa, had been named executor, or she supposed executrix, of the estate of one Pierce Inverarity, a California real estate mogul who had once lost two million dollars in his spare time but still had assets numerous and tangled enough to make the job of sorting it all out more than honorary” (Pynchon, 1).

I asked students what went into their ability to understand this first sentence, which they described as “confusing,” “convoluted,” and “hard to read.” I asked them to attune themselves to what kinds

of signals this sentence was giving off—what rules it was observing, and what rules it was breaking. The idea was for them to take on a habit of reading and paying attention to patterns and correspondences, and the assumed exigencies of a text. Literary texts obey certain rules, and often also challenge or subvert the expectations those rules foster. Sometimes, a text can take on the rule of having no rules. Playing tic-tac-toe allowed the students, I believe, to approach the text as this shifting, changing, disruptive object that they had to wrestle with, as they had “wrestled” each other in teams. It asked them to take an engaged approach to the literary text; to restore, as Scholes put it, the “otherness” of the author. The students’ comments afterward, which I collected through some take-home questionnaires, reflected, generally, that they valued the activity—specifically because it was a change of pace, but also because it allowed them to see texts differently. To conclude, here are some of their comments in response to the question, “What did you think of today’s class? Would you like to see more classes like it?”:

- “Yes. It was definitely interesting & more hands-on. I feel like I learn better from actively participating.”
- “I really liked today’s class. I thought the fact that the lesson was very interactive was very fun, especially the way we related it to close reading. I would love to see more classes like it. I [sic] was a great mode of learning.”
- “It was an interesting way at teaching us how to close read through relating it to an activity that we all knew and understand how to strategize. The classes (like this one) would be helpful if the topic trying to be taught is difficult to visualize or understand.”

And here are some responses to the question, “How, if at all, have your opinions about close reading changed? Will you approach close reading assignments differently after today? If so, what might you do differently?”:

- “It makes more sense now. I will by trying to just delve deeper into meanings and assume every word was written for a purpose.”
- “I realize that close reading needs to be thought about more and allowed to simmer

over in the mind. I will try to stop reading every once in a while and to reflect upon what I just read."

- "The class presented a new way of approaching close reading for me, because usually, I try to close-read with a given set of frame [sic], but instead, the class talked about deriving a frame/theme from the patterns and diff. elements that you notice from reading."

WORKS CITED

Bérubé, Michael. "The Utility of the Arts and Humanities." *Arts and Humanities in Higher Education* 2.1 (2003), pp. 23-40.

Bialostosky, Don. "Should College English Be Close Reading?" *College English* 69.2 (Nov 2006), pp. 111-116

Corrigan, Paul T. "Painting as a Reading Practice," *Pedagogy* 12.1 (2012), pp. 168-175

Dannen, Catherine Gubernatis. "Sports and the Life of the Mind: Sports media in the Freshman Composition Classroom." *Pedagogy*, 12.3 (2012), pp. 556-61.

Gallop, Jane. "The Historicization of Literary Studies and the Fate of Close Reading." *Profession* (2007), pp. 181-186.

Logan, Shirley Wilson. "Why College English?" *College English* 69.2 (2006), pp. 107-110.

Murray, Heather. "Close Reading, Closed Writing," *College English* 53.2 (Feb, 1991), pp. 195-208.

Manarin, Karen. "Reading Value: Student Choice in Reading Strategies." *Pedagogy: Critical Approaches to Teaching Literature, Language, Composition, and Culture*, 12.2 (2012), pp. 281-297.

Murray, Heather. "Close Reading, Closed Writing." *College English* 53.2 (Feb, 1991), pp. 195-208.

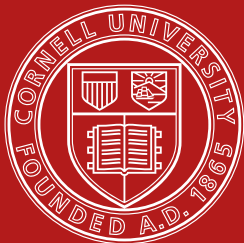
Pynchon, Thomas. *The Crying of Lot 49*. New York: J.B. Lippincott Company (1965).

Regaignon, Dara Rossman. "Traction: Transferring Analysis across the Curriculum," *Pedagogy: Critical Approaches to Teaching Literature, Language, Composition, and Culture*, 9.1 (2009), pp. 121-133.

Richards, I.A. *Practical Criticism: A Study of Literary Judgment*. London: Kegan Paul, Trench, Trubner & Co. Ltd. (1930).

Scholes, Robert. "The Transition to College Reading." *Pedagogy: Critical Approaches to Teaching Literature, Language, Composition, and Culture*, 2.2 (2002), pp. 165-172.

Weller, Saranne. "Comparing Lecturer and Student Accounts of Reading in the Humanities." *Arts & Humanities in Higher Education* 9.1 (2010), pp. 87-106.



CENTER FOR TEACHING EXCELLENCE
420 Computing and Communications Center
cornellcte@cornell.edu
www.cte.cornell.edu
607-255-3990