CURRENTS IN TEACHING AND LEARNING

(continued)

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EDITORIAL

New Approaches, Old Issues

Josna Rege

The two essays in *Currents* Volume 2, Number 2, "Creating and Using Podcasts Across the Disciplines" and "Addressing Plagiarism with Stasis Theory," exemplify the spirit and subject matter of the issue as a whole in a number of ways. One makes intelligent use of new technology, identifying when and under what conditions it can best facilitate learning, while the other goes back to the Ancients for guidance on an age-old problem, wary of technological fixes when thoughtful pedagogy could prevent it in the first place.

In "Creating and Using Podcasts Across the Disciplines," Laura Guertin notes that while the use of audio in teaching is not new, audio podcasts are new, and as such, they offer new opportunities, both in the classroom and online. Guertin discusses the possibilities and limitations of experiments in academic uses of podcasts such as "microlectures," and reports on early results of research on their pedagogical effectiveness, some of which she herself has conducted.

In "Addressing Plagiarism with Stasis Theory," Bill Bolin draws upon stasis theory from classical rhetoric to think through the problem of plagiarism. He notes that the increasing focus on detection of internet plagiarism creates an atmosphere of suspicion and distrust that does not foster learning, and instead proposes a "procedure...that values heading off potential plagiarism rather than investigating it."

One of the six teaching reports in this issue similarly addresses plagiarism by resolutely focusing not on the problem itself, but rather, on creating a learning environment in which there will be no incentive to plagiarize. In "Preventing Plagiarism, Promoting Honor: Or, How I Learned to Stop Worrying and Love Online Discussions," Jesse Kavadlo explores the ways in which technology, in particular online discussions, rather than offering temptations to cheat, may help to create a stronger sense of community and accountability in the class while at the same time teaching students to avoid plagiarism.

Over the past year we have made concerted efforts to invite a greater disciplinary range of submissions, and in this issue they have finally borne fruit, with contributions from instructors in Biology, Earth Science, English, History, Mathematics, Rhetoric and Composition, and Sociology. Our book reviews, too, range from science to style to service-learning. We have reports

from single-instructor and team-taught courses, inter-disciplinary and departmental courses, Writing Across the Curriculum (WAC) and first-year programs.

We are delighted to have two teaching reports on Writing Across the Curriculum outside of the humanities. In "Writing in a Mathematics Class?" Maria Fung makes the not-necessarily self-evident case that "Mathematics presents a natural venue for exploring the possibilities of writing both inside and outside of the classroom." She further defies the expectations of readers who might expect dry, utilitarian writing in a Mathematics setting by offering examples of personal, expository, and expressive writing assignments that are readily adaptable to other disciplines as well.

In "Writing in the Social Sciences: An Old Concept, A New Course," Suanna Davis, noting that "writing in the disciplines...requires an immersion into the academic community whose conventions the students need to learn," has designed a course in which students learn the conventions of the APA system of documentation. This move is all the more welcome because so many composition instructors are located in the humanities and tend to give preference to the MLA system of documentation.

Continuing the theme of return to old approaches that work, William Smith's "Using Community Studies to Facilitate 'Study in Depth'" makes the case for using book-length community studies to introduce students to a discipline, in his case, Sociology. In a teaching report whose approach readily translates to other disciplines, Smith, advocating teaching community studies so that, "instead of being exposed to material in a piecemeal manner (often a problem with textbooks), students are able to immerse themselves in monographs and see how sociological research is conducted from start to finish." Salutory advice in an era of soundbytes and short-term memory!

In "Emergent Properties," we move from within a single discipline to the creative intersections of two

disciplines. Nels Pearson (English), and Ashley Byun McKay (Biology), designed an interdisciplinary team-taught course that explored the question of whether there was "a mind or soul distinct from the biochemical brain and body...approach[ing] the question from both evolutionary and philosophical angles." In their report, they publish excerpts from four student essays written for the course, accompanied both by student reflections and their own commentary, in which the students' insights gained through their syntheses of very different readings and modes of understanding mirrored the spontaneous evolution found in nature itself.

"Engagement" and "assessment" are currently buzzwords on campuses large and small, as instructors and administrators alike (if for somewhat different purposes), are seeking ways of measuring learning outcomes. "Designing Exams" and "The Uncommon in Common Reading Programs," a teaching report and a program report respectively, both focus on assessment, each addressed to the first-year student experience. In "Designing Exams," History professor Frederick Dotolo uses active learning techniques from WAC pedagogy to guide students through the process of developing their own exam questions in his lecture course, and in so doing, "synthesizing knowledge from course material and developing their critical thinking skills" as well as allowing "the students to "own" and "practice" history" in a way that keeps them engaged. In "The Uncommon in Common Reading Programs," Janet Moser assesses five years of a freshman common reading program at her urban commuter college, reporting on its success at "creating a community of beginning scholars" through a variety of strategies, from author visits to student writing anthologies.

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As we complete our second year of publication we extend our thanks and gratitude to our trusty band of peer reviewers: Sven Arvidson, Daron Barnard, Lisa

Kristoff Boehm, Andrew Bourelle, Paulette Brooks, Phil Burns, Judith Jeon-Chapman, Stephanie Chalupka, Dave Cotting, Timothy Dale, Nathan Dickman, M. Thomas Gammarino, Richard Garrett, Leslie Gerber, Sean Goodlett, Ruth Haber, Jim Henry, Kim Hicks, Eihab Jaber, Matthew Johnsen, Amanda Katz, Justin Koenitzer, Rick Laist, Linda Larrivee, Holly Larson, David Marlow, Patricia Marshall, Patricia McDiarmid, Pearl Mosher-Ashley, Steven Oliver, Mathew Ouellett, Ana Pérez-Manrique, Swati Rana, Michael Reder, Beth Russell, MaryLynn Saul, Dan Shartin, Carey Smitherman, Seth Surgan, Brian Thompson, Pennie Ticen, Amber Vayo, Donald Vescio, Jeanie Warnock, Catherine Wilcox-Titus, Margaret Wiley, Karen Woods Weierman, Karl Wurst, and Janice Yee. Without your generosity and scholarly commitment, we simply would not be able to function. As we receive more submissions, we continue to need new referees, so please write to us if you are interested in participating in this capacity.

Our Editorial Assistant Brian Burgess becomes more indispensable every day, always eager to take on new challenges as he juggles his work for *Currents* with the increasing demands of his graduate program. Thanks, as always, to our active Advisory Board and to especially to our dedicated production team: copyeditors Ruth Haber and Karen Woods Weierman, APA-checker *par excellence* Beth Russell, tech wizards Karl Wurst and Jeff Nichols. A special thank you to outgoing members Sue Foo and Catherine Wilcox-Titus, and welcome to incoming member Maria Fung.

We have decided to extend the submissions deadline for the Fall 2010 issue of *Currents* by six weeks, to June 1st, 2010, for submissions in the essay category only. Although we have received plenty of teaching reports for the Fall issue, essay submissions have been far fewer, perhaps a function of the faculty overwork that is a function of the current hard times, leaving little time during the academic year for the deep reflection required to produce a full-length essay. The submissions deadline for the Spring 2011 issue is November 15, 2010. In the meantime, of course, we continue to accept submissions on a rolling basis year-round.

Finally, we are pleased to announce a new feature in *Currents*. For some time now we have been seeking more feedback from readers, and in this issue we introduce a a discussion link that makes it easier than ever to send us your comments or to discuss this issue with other readers. Simply **click here** to send us your thoughts; we long to hear from you. ◼︎

Creating and Using Podcasts Across the Disciplines

Laura A. Guertin

Abstract

Portable audio is an important part of our culture and can range from music on portable audio players, to broadcasts on public radio. One type of audio recording is termed "podcast," an audio file listened to via streaming technology or internet download. Podcasts have moved beyond recreational listening to become an integral part of higher education. This paper explores a variety of podcast uses by faculty and students across many disciplines. From classroom lectures to review sessions, faculty have used podcasts to deliver course content both as short pieces and full seminars. Student-created podcasts for course assignments may range from the creation of public service announcements and movie reviews to engineering projects and impacts. Podcasts have demonstrated a use and purpose in higher education that is innovative and effective.

Keywords

podcast, audio, educational technology, pedagogy, lecture

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Introduction

One does not have to look too far to find someone with earbuds attached to some form of handheld audio player. One person may be listening to an audio tour in a museum, while another listens to a report on insights into the workings of the Vatican by Father Roderick on a subway. Self-guided walking tours, lecture series, talk shows, job training, storytelling – as audio files, all can be loosely defined as podcasts.

The term "podcast" is global in its reach and has an audience that continues to grow. In December 2005, the New Oxford dictionary named "podcast" the word of the year (BBC News, 2005, p. 1). In August 2008, the Pew Internet & American Life Project reports 19% of internet users downloaded a podcast, a value higher than the 12% who downloaded podcasts in August 2006 and the 7% who downloaded podcasts in February-April 2006 (Madden & Jones, 2008).

A podcast is an audio file that can be downloaded from the internet to a portable listening device and/or a computer. Originally, the definition

of a podcast required a file to be in XML (eXtensible Markup Language) format enclosed in a RSS (Really Simple Syndication) feed. This file contains an index of available audio "episodes". Listeners subscribe to feeds through aggregators and receive automatic downloads of new episodes. The listener has the ability to control when and where they listen to the audio file, and whether they listen to the entire content at once. A podcast also may be listened to as online streaming content.

Today, the definition of a "podcast" has been broadened to include any audio file that is placed on any online location that is accessible to others. There does not need to be a subscription to a regularly updated, topic-consistent program. University instructors may create a podcast series based on lectures for a course, ends at the completion of the semester. Students may create a single podcast that is part of a class collection of audio projects. In this paper, I will review a range of podcasts that can be created and utilized in higher education across various disciplines.

Faculty Uses of Lecture Podcasts

While podcasting may seem new, it is important to keep in mind that audio recordings have been in use at universities since the 1970's. From reviewing taped Earth Science audio-tutorial programs (Gould, Langford, & Mott, 1972) to providing cassette tapes with voice-recorded feedback on writing assignments (Kates, 1998), audio has a history of effectively impacting student learning. Today, the use of audio ranges from listening exercises in foreign language courses to listening to the differences in heart murmurs.

The most common use of podcasts in higher education is creating audio archives of classroom lectures. This use of podcasting is sometimes termed lecture webcasting or course-casting. Although some students find that being able to connect with course material while traveling, especially during commuting times on public transportation, is the main benefit of having lecture podcasts (Evans, 2008), one consistent finding by researchers is that most students report listening to lecture podcasts at home or on a computer, rather than in a mobile environment with a portable device (Brittain, Glowacki, Van Ittersum, & Johnson, 2006; Lane, 2006; Malan, 2007).

Podcasts do not need to contain the full information from a 60-to-90 minute lecture. San Juan College is experimenting with "microlectures," a traditional lecture in which key concepts and themes are condensed down to a one to three minute segment (Shieh, 2009, p. 1). Some faculty find that a three-to-five minute audio clip is an optimum podcast length, similar to the length of a song students listen to on the radio (Walsh, 2004). Because microlectures are limited in the amount of content they can convey, students are required to complete their learning with additional readings and assignments. Pedagogical limitations include situations where a prolonged discussion or explanation is necessary, such as when solving mathematical problems, extending English literature discussions, and explaining complicated processes.

Another use of educational podcasting involves the delivery of supplemental course materials. Supplemental materials might include pre-recorded lectures that can be accessed in advance of class time, summaries highlighting important information, reviews of homework problems, or relevant podcasts produced by a third party. Students report a higher satisfaction with a course that has audio as a supplement to print material versus only a print material supplement (Miller & Piller, 2005).

In summary, audio has been utilized in higher education for many decades. The primary use of audio is to serve as an archive recording of a classroom lecture. Additional uses of instructor-created podcasts include lecture summaries or supplemental course information.

Research on Student Use of Lecture Podcasts

Guertin, Bodek, Zappe, and Kim (2007) and White (2009) both create lecture podcasts for their introductory-level science courses. Guertin teaches a small lecture (~30 students) in geoscience at a small commuter campus, while White teaches a large lecture (~200) in general biology at a large residential university. Both researchers investigated the pattern of lecture podcast downloads for a semester to see what this suggests about student use of the podcasts.

Once the lectures were completed each day, the instructors immediately uploaded the lectures on a course website. Neither instructor utilized a subscription feed that would automatically distribute the podcasts to the students. By utilizing a course website, each instructor was able to track when the students downloaded each individual lecture.

Access logs to the podcasts showed that many of the lectures were downloaded well after they were posted, which suggests that students do not often use podcasts for immediate review of recent lectures. Guertin found the largest number of lecture podcasts accessed were from the first day of class, the class where she explained in detail a significant semester project, the lecture where she reviewed for a final exam, and the lecture that substituted for a snow day. White learned that the overwhelming majority of the lectures downloaded in the week before each of his exams were relevant to the corresponding exam. These data suggest that the majority of his lectures were listened to during the week before each exam, likely as part of the students' preparation for each exam.

There is some concern among many instructors that when lecture podcasts are placed online, students will stop attending class. However, White found that students are not using the full-lecture podcasts as a substitute for attending lectures. He determined no clear relationship between the lectures that are poorly attended and those that are frequently downloaded. This finding is confirmed by Bonge, Cizadlo, and Kalnbach, (2006), where 95% of their students self-reported that they did not attend class less often as a result of having the podcasts available.

In both of these studies, as with many others (e.g., Flanagan & Calandra, 2005; Windham, 2007), students reported great value in having the audio files for lectures available. The podcasts provided the ability to pause, rewind, and listen to difficult material several times. These features that allow students to control the pace and frequency of listening to course content is especially useful for English as a Second Language (ESL) students and students with learning disabilities. Even though the number of access to the podcasts does not reflect a frequent use of this resource, students appreciate having the podcasts available as a "safety net" and "just in case" (Guertin et al., 2007, p.139).

Additional Faculty Applications of Podcasting

Some faculty are very innovative in their use of podcasts, utilizing audio beyond recording traditional classroom lectures. What follows are representative examples of podcasts designed to enhance and supplement the face-to-face classroom and online learning experience.

Weekly Discussions of Course Content

Miller (2006) at the University of Connecticut uses podcasts for a post-lecture discussion with students (see http://web2.uconn.edu/millerd/iCube.html). For his introductory-level general psychology course, his podcast series is termed "iCube: Issues in Intro." Each week, students voluntarily gather in his office to discuss lecture material in greater depth. The recording sessions allow students to come together in a smaller group and get to know one another, something that is not possible in a large lecture hall. The student podcast listeners who are not involved with the recordings still report a greater sense of connection with the class and content.

Review Sessions for Quizzes and Tests

Guertin (in press) teaches introductory geoscience courses for non-science majors at Penn State Brandywine, a commuter campus. One of her challenges is the scheduling review sessions before quizzes and tests, as commuting students are faced with considerable employment and family obligations. She creates an audio file and asks twenty-five questions, encouraging the students to pause the file between each question to formulate a response, as if they were taking the quiz live. The pre-recorded audio review session ensures that students have a flexible, mobile learning opportunity to engage in content review structured by the faculty member.

Alleviating Pre-Class Anxiety

Chan and Lee (2005) from Charles Sturt University state that students have anxiety and preconceptions about subject content and other course-related materials even prior to the commencement of a course. When these anxieties are brought into the classroom, they often work as an immediate impediment to effective learning. Providing students printed material to read may only enhance prior misconceptions and their lack of confidence to succeed. Customized podcasts provided before a course begins can help alleviate some of the pre-class anxiety and allay student concerns about issues such as tips for time management, social aspects of the subject, and course assessment.

Providing Answers to the Most Frequently-Asked Questions

Noland White at Georgia College & State University has found a strategic use for podcasting that opens more class time for discussion instead of a question and answer session (Bluestein, 2006). At the end of each week, he creates a podcast of the week's most-asked questions. The podcast then provides an online supplement to his office hours and is accessible beyond the time he is in his office.

Reducing the Sense of Isolation in Online Learners

Students in online courses can feel a strong sense of isolation and lack of inclusivity. Lee and Chan (2007) from Charles Sturt University produce podcasts for their online courses in immediate response to information from formative feedback and questions and concerns. The podcasts are formatted in short, talkback radio-style segments. Students reported the podcasts effective in clarifying and enhancing their understanding of the subject, providing a reinforcement of the material recently learned, and supplying guidance on the direction in which to channel their study efforts.

Exercises for Student-Created Podcasts

Podcasting is not limited to content delivery by faculty. Many instructors have developed assignments that require students to produce and submit their own podcasts. This type of podcasting is most useful in classes in which oral presentation and/or building technical competence in podcasting are closely related to the course goals. For example, students are able to create their own podcasts to record reflections, a summary of notes, or additional creative accomplishments. Below are five representative examples of student assignments in university courses showcasing a range of diversity and complexity for student-produced podcasts.

Summaries of Course Lectures

Frydenberg (2008) noticed that a majority of his students were not listening to the 60-minute podcasts that he created after each lecture. A student survey showed that his students preferred a much shorter review of each lecture. The instructor then challenged the students to work in pairs and create six to ten-minute video podcasts that shared something they learned during the previous class session. Not only was there an increase in the number of downloads of these abbreviated podcasts, the students explored using advanced recording features and video effects to enhance not only their learning and the learning of their peers.

Public Service Announcement

Dangler, McCorkle, and Barrow (n.d.) asked students to write a proposal for an audio Public Service Announcement (PSA) on a social issue based on readings from his course textbook (homelessness, gang violence, animal cruelty, etc.). After consulting with the instructor on the proposal, students produced their own PSAs, complete with background music and other ambient sounds. The PSAs were then submitted to the entire class for studio critique. Afterwards, the PSAs were re-edited and shared with the other students via a class blog.

Engineering Projects and Impacts

Brevy Cannon (2006) reports that for a final project in a second-year engineering course in statics, students were required to produce a six-minute podcast that discussed a major, real-world engineering project and its impact. The goal was to get students engaged in big-picture engineering questions, as the big-picture thinking normally does not occur until the final year of an engineering curriculum. Four-member student teams produced podcasts that discussed projects such as the Hoover dam, sustainable building practices encouraged by the LEED standard, the new Guggenheim museum in Bilbao, Spain, and the Three Gorges Dam on China's Yangtze River. The podcasts also addressed how such projects impacted or would impact the economy, the environment, tourism or the local community.

Movie Reviews in a Foreign Language (from Armbrecht, 2009)

Armbrecht (2009) reports that in a French literature class, students created ten-minute video podcasts that reviewed a French film. They played the role of commentators on a film, developed a script, and illustrated their analysis through film clips. Through this assignment, students developed their spoken and written academic French, as well as strengthened their analytical and technical skills.

Literary Criticism

In an English literature course, Evans required students to produce a "podcast pair," which he defined as two five-minute podcasts (Evans, 2006, p. 2). In the first podcast, the students read a brief passage from a novel. In the second podcast, students were instructed to provide discussion of that passage, including why it was chosen, what details were most important, what themes and issues the passage raised, and how the passage related to the rest of the novel. All students were required to listen to their classmates' podcasts related to the current reading assignment before coming to class. The goal for the podcasting assignment was not only for the students to read, analyze, and comment on the readings, but also for them to engage in a dialogue with their peers.

Further Uses of Podcasts

Higher education institutions are using podcasts outside of the classroom in a variety of different applications. Universities have found that digital audio offers new possibilities for lifelong learning outside the academic classroom (Pownell, 2004). Stanford University is looking beyond their current students and are providing alumni and a broader audience access to lectures and other campus events (The Sounds of Stanford, via the iPod, 2005). This same practice is being followed by the American University Washington College of Law, where the number of listeners that selected lecture podcasts from guest speakers by Supreme Court Justices went from 400 listeners in September 2005 to 15,500 in early November 2005 (Briggs, 2006). The Office of the President at Arizona State University produces a weekly podcast on university-related topics. Several Admissions Offices have created a series of audio files to recruit high school students, and Student Life Offices have produced audio files that act as a freshman survival guide.

Conclusions

It is important to note that although the use of audio files by faculty and students as a supplemental course tool or for an innovative assignment design is popular, the positive impact of podcasts to enhance student learning is still debated and has not undergone extensive rigorous pedagogical research and review. University of Dayton's CIO Thomas Skills comments that, "podcasting has a very relevant application in higher education, but it needs to be carefully integrated into the curriculum in a thoughtful way" (Blaisdell, 2006, p. 4). Faculty need to clearly define and identify their objectives for using podcasts while instructing students how to make the most effective use of this technological tool. ▪▪

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Appendix A

The following is a list of university websites that discuss and provide examples of podcasting projects. Examples range from classroom lectures to campus seminars and interviews.

Georgia College & State University: http://ipod.gcsu.edu/index.html

Indiana University podcasts: http://podcast.iu.edu/Portal/

Johns Hopkins podcasts: http://www.giving.jhu.edu/podcasts

Mansfield University podcast: http://podcasts2.mansfield.edu/wordpress/

MIT on iTunes U: http://web.mit.edu/itunesu/

Purdue University BoilerCast: http://www.itap.purdue.edu/tlt/BoilerCast/

Stanford University on iTunes U: http://itunes.stanford.edu/

Swarthmore College podcasts: http://media.swarthmore.edu/faculty_lectures/

UCLA Burkle Center podcasts: http://www.international.ucla.edu/burkle/podcasts/

University of Connecticut iCube: Issues In Intro: http://icube.uconn.edu/iCube/Welcome_to_iCube.html

University of Virginia podcasts: http://www.virginia.edu/uvapodcast/

Appendix B

The following is a list of resources that address

podcasting in education.

Additional Articles

Many articles can be found on *The Chronicle of Higher Education* website (http://chronicle.com/) by searching with the term "podcast."

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    Education), 142 pages.
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Addressing Plagiarism with Stasis Theory

Bill Bolin

Abstract

There are at least two schools of thought in addressing plagiarism in academic settings. One promotes prevention, while the other promotes detection. This paper looks at stasis theory from classical rhetoric as a possible avenue to promote prevention and reduce, but not eradicate, detection.

Keywords

plagiarism, stasis theory, detection software, writing instruction, turnitin.com

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Introduction

Teachers and scholars offer a number of reasons why spending the time to catch plagiarists is the preferred method in dealing with problems of intellectual property, both inside and outside of academia. First, according to a number of sources—as well as our own visceral reactions—plagiarism makes us feel attacked and disrespected. Richard Murphy (1990), for example, describes student plagiarism as a thin splinter at the edge of his thumb that he cannot stop rubbing. It bothers him. He also dwells upon the idea that he and his students are working together to promote their learning, so their cheating—and his reactions to it—creates a disturbing distance between them that he finds troublesome but necessary. A.E. Malloch says that we pursue plagiarists because plagiarism makes us look bad and feel bad. It is a personal affront to our professionalism (qtd. in DeVoss & Rosati, 2002). And, of course, many of us who assign research-based writing in any academic discipline can probably admit that we investigate suspected plagiarism not so much to help those students grow but to remind them just whom they are dealing with. We want to treat plagiarism the same way we tend to treat cheating on exams or classroom disruptions. We want the perpetrators to feel punished. Amy Robillard (2007) theorizes these feelings of anger, clarifying the role of the reader in the interaction and arguing that the reader's role validates the affective response. In other words, the reader's emotions count; thus, we must acknowledge the fact that the reader is an important part of the intertextual transaction.

However, this paper will advance the other argument: that our time would be better spent and our students better served if we channeled our ener-

gies into discouraging plagiarism in the first place, and reserving detection as a subsequent move, as needed. In the effort to reduce plagiarism in writing assignments, instructors should focus more time and effort into teaching students accepted definitions of plagiarism and how to work within the conventions of academic writing before resorting to detection when suspicious writing warrants it. Two reasons support this position. The first reason is that detection is not always effective, despite the time investment. The second reason is that detection might be counterproductive to our mission as educators. We can fruitfully use stasis theory, as adapted from classical rhetoric, to promote the idea of prevention over detection and, potentially, to reduce student plagiarism.

Current Discussion of Plagiarism

Although Nivens (2009) argues that students are aware of, and thus influenced by, high-profile cases regarding intellectual property in the entertainment industry and the political arena, this paper will focus almost exclusively on the concept of plagiarism in institutions of higher education without examining possible external influences, because, in many ways, higher education operates in a different sort of environment. The idea of capital gain is more intellectual than monetary, and the principals involved are, in most cases, still learning the rules rather than being experienced practitioners of academic writing.

The argument that plagiarism has increased along with modern technology, specifically the Internet and its easily shared electronic texts, has gained prevalence (Ma, et al. 2008; Auer & Krupar 2001). However, a number of scholars are more cautious in making an easy and direct correlation between the increase in availability of technology and an increase in instances of plagiarism (e.g., Marsh 2007). Anthropologist Susan D. Blum (2009) distinguishes between what she terms the performance self and the authentic self when dis-

cussing the possibilities that the Internet and social networks in particular have made plagiarism easier or, at least, seem a more natural part of communal sharing of ideas. Blum contends that the performance self leads one to offer any expression that would fit the stated or understood circumstance without "a tight connection between their words or their inner being, so they don't sweat it if others use their words or if they use the words of others" (p. 61). So, for example, in a social networking environment like Facebook, participants may borrow freely from outside sources and each other in constructing their online identities, sorting themselves into groups who would be familiar with certain expressions well known to that group even without clear attribution. Thus, one might easily and fairly conclude that the Internet does offer increased opportunities to plagiarize, but also increased opportunities to perform publicly with relative ease. By contrast, what Blum calls the authentic self is the identity most often expected in scholarly writing; the students are expected to form a tight bond between their thoughts and expression and to respect—through proper attribution—those bonds in the written work of others.

Classical Rhetoric and Contemporary Writing Instruction

With so much public conversation about plagiarism both inside and outside academia and the variety of situations in which an act may or may not be identified as plagiarism, stasis theory provides a means to examine and respond. There is in contemporary education a tradition of using classical rhetoric for writing pedagogy, even though many of the precepts adopted from the Ancients focused on oral instruction. The following are just a few examples of the use of classical rhetoric in composition studies.

Edward P.J. Corbett, author of *Classical Rhetoric for the Modern Student* (1965), subsequently co-authored with Robert J. Connors (1998), is considered

one of the primary forces in using classical rhetoric for contemporary writing instruction. Before publishing this widely used textbook, Corbett (1963) argued for the benefits of borrowing ideas from the ancient Greeks and Romans for use in twentieth-century composition classes. Several of his recommendations are general: classical rhetoric demands a focus on audience and the audience's needs, and on appeals to reason, emotions, and credibility. Corbett also addresses a version of stasis theory popularized by the Romans and adapted from the Greeks to help students formulate thesis statements.

More evidence of the use of classical rhetoric to teach current composition students can be found in the number of successful textbooks following Corbett's, including works by Connors (with Corbett, 1988) D'Angelo (2000), Crowley and Hawhee (1999), and others. Corbett's 1965 text was the model for Crowley's first edition of *Ancient Rhetorics for Contemporary Students* (1994). (Crowley admits even to patterning the title of her book after that of Corbett, her former professor.) Both textbooks explain the artificial proofs of ethos, pathos, and logos in the historical context of the Ancient Greeks, demonstrating how modern students can learn to strengthen appeals in writing about contemporary topics by learning how the Ancient Greeks used those proofs in an oral culture. The textbooks above also spend some time with syllogistic reasoning as explained in Aristotle's Rhetoric, demonstrating how the premises and conclusion in a syllogism can be amplified to draw attention to parts of a modern argument.

Frank D'Angelo's *Composition in the Classical Tradition* (2000) is a textbook that takes a somewhat different approach to borrowing from classical rhetoric. This book is based entirely on the *progymnasmata*, the multi-step progression of assignments from the simple narrative, a retelling of events, to the more complex legislation, an argument for or against certain laws.

D'Angelo provides brief but instructive explanations of how these steps were used in ancient times before offering sensible suggestions for adapting each step to modern issues in a sequence of assignments that can work in college writing classes. For the narrative, for example, D'Angelo offers an exercise in which a parent must write a letter detailing issues she is having with her twelve-year-old daughter, issues that make sense in the context of modern America.

It seems to follow, then, that teachers of writing in all disciplines might also find guidance in classical rhetoric on other issues in modern writing, such as policy-making for plagiarism, even though the ancient Greeks and Romans had radically different ideas of text ownership than do modern Americans. Stasis theory, purportedly created by the Greek rhetorician Hermagoras in the late second century, BCE, is particularly instructive in finding ways to address plagiarism in any writing-intensive class. It is quite possible that Hermagoras adapted stasis theory from the earlier work of Aristotle (Rhetoric, III) from some two centuries earlier; however, Hermagoras asks more focused questions than did Aristotle. The questions, which seem determined to take us from the particular to the general, are these:

- » 1. **Conjecture:** Is there an act to be considered?
- » 2. **Definition:** How can that act be defined?
- » 3. **Quality:** How serious is the act?
- » 4. **Procedure**: Should some policy be invoked? (Crowley, Hawhee, 1999)

Applying specific contemporary cases to the scrutiny of these questions will necessitate some qualification and modification, but the general idea of stasis theory remains the same.

Conjecture: The first step, of course, is to ask if plagiarism has occurred in any given situation. For most teachers, that question arises because of suspicion. While reading student papers, we come across one that trips an internal alarm. The paper, or a passage in the

paper, sounds out of place with the student's usual voice or with our perception of what a student's voice ought to sound like. Murphy (1990) describes two such occurrences, one involving a student who plagiarized from Joyce scholarship for a paper on James Joyce's "The Dead," and the other involving a student who wrote a riveting personal account of her struggles with anorexia. The first student did, indeed, plagiarize, but the second student did not, and admitted to doing so only after realizing that Murphy (1990) believed strongly that she had and would continue interrogating her about her sensitive personal battles until she admitted to plagiarism. In both cases, the flow of the students' prose, more sophisticated than he had expected, triggered his suspicions.

Murphy's essay serves to remind us that sometimes our suspicions can lead us clumsily astray when we attempt to confront students with charges of plagiarism. He implies that we teachers of writing have become too sensitive to the possibility that our students will try to cheat us, that they will not take seriously our carefully crafted assignments, that they respect us so little that they will attempt dishonesty. His experiences remind us of the importance of knowing when to carry through with conjecture; we must be comfortably close to certain before we confront a student about possible plagiarism. This need for near-certainty leads naturally into the next stasis.

Definition. Once the teacher has determined that something has happened, something out of the ordinary, at any rate, the teacher must then examine whether or not that event can be defined as plagiarism. This is no easy task when one considers that almost every definition available is distressingly vague. So many policies define plagiarism as the presenting of others' ideas as one's own, but such an imprecise definition does not distinguish between ideas that are common knowledge in certain circles and ideas that are more esoteric. Complicating matters even further, Darsie

Bowden (1996) offers a survey of the uses of the term plagiarism, including Irene Clark's observation that the giving of aid in a writing center might be construed as plagiarism as the tutors work with the students' writing. In capitalist societies we adhere so strictly to the doctrine of intellectual property that we err on the side of the ridiculous, worrying that offering possible phrases to student writers, even holding their pens during a session, might cultivate in the student writing the fruits of our own imagination.

Some teachers consider student intent as a factor when they define plagiarism, while others do not. The thinking here is that students have been instructed in how to provide proper attribution, so the assumption is that any deviation from that system must be intentional. A cursory look at the policies of a number of universities, however, shows that there is a tendency to allow the occasional mistake in attribution. For example, the Department of Sociology, Anthropology, and Criminal Justice at Rutgers University includes the following statement in its plagiarism policy: "While unintentional plagiarism is generally treated more leniently than intentional plagiarism, it is nonetheless a sign of sloppiness and/or failure to educate oneself about what plagiarism is" (Plagiarism Policy, 2004, n.p.a.). And the Writing Center at the University of Louisville (2004) addresses the difficulty of determining intent even more directly:

> Specific definitions of plagiarism vary, but most people define plagiarism as using other people's words or ideas without giving them credit. Although this definition seems clear-cut, plagiarism is not a simple issue. Many cases of plagiarism result not from students' intent to deceive but from students' lack of knowledge about academic writing. (University Writing Center, 2004, n.p.a.)

The statement further explains that teachers have difficulty determining intent, even if those teachers do see

a significant difference between intentional plagiarism and careless use of source material.

Even so, if the university or department policy is too vague in defining plagiarism, each teacher and student must attempt a more Aristotelian definition by taking a particular incident and locating it either inside or outside of a larger, more general classification called plagiarism. In those cases in which students sell their work to online paper mills, one would have to try to classify even the selling of an original paper to a paper mill as plagiarism or academic dishonesty in order to punish that student and to set the precedent for future classes. The university policy would have to include such a transaction as a transgression.

A guiding principle, then, in addressing plagiarism in writing classes, is to involve the students in instructional conversations about how intellectual property is defined and given attribution in scholarly writing. Because there is significant variance in definitions of plagiarism across academic institutions, this stage of stasis theory provides a procedural reminder to craft the local definition of plagiarism and, by consequence, to determine and clarify the research and writing procedures for the class depending on skill level and audience expectation. Working through the definition stage for plagiarism in local settings the way classical rhetoricians worked through their problems would involve the students in the conversation in ways that could illuminate the principles of intellectual property and keep them in the forefront as students do their research and writing.

Quality. Related to defining a particular act as plagiarism is the third step: deciding how egregious the act is, and whether it is an act already committed or a potential act. Even if one decides that plagiarism has been committed, one might also want to explore the degree of malice involved. Perhaps the student became lost in the confusing jargon of a particular discipline and resorted to copying large sections of

a text. Perhaps the student waited until the eleventh hour to begin writing the paper, and the plagiarism was more the result of carelessness than malevolence. These considerations qualify the definition of plagiarism and help to determine how or whether one will administer punishment or admonishment. For example, one might decide that a student who bought the paper from an Internet paper mill was clearly dishonest in attempting to receive credit for someone else's work while putting forth minimal personal effort. However, one might also determine that a student who wrote a paper and then sold it to an Internet paper mill was—while not entirely blameless—a degree less dishonest because that student did not attempt to achieve any academic gain in the course.

As students are taught to discuss the stasis of quality regarding plagiarism, they would have opportunities to ask why certain acts are less acceptable than others. The above case is just an example, however, underscoring the importance of determining the boundaries of a definition of plagiarism. As teachers of writing debate the merits of such a definition with their students, they also clarify the degree of wrongdoing and, thus, set the groundwork for the fourth stasis.

Procedure. Finally, the determining and defining must result in some action, preferably in line with a previously stated policy. With the move from the specific to the general in the stases, each incident or potential incident of plagiarism can be scrutinized according to the existing policy, along with the context and circumstances, to determine exactly what procedure should be followed. in each case. However, this attention to procedure for each case necessitates a review of the work going on behind the scenes. We must ask ourselves what we are doing to address the problem. As I indicated at the beginning of this essay, there are at least two schools of thought regarding procedure and policy. The first is to spend time and resources attempting to identify and punish plagiarism as it occurs. The second

is to invest that time and those resources into teaching about intellectual property in an effort to reduuce the number of instances of plagiarism. We tend toward one or the other depending upon personality, circumstance, and teaching philosophy. Using stasis theory as a means to delineate the steps toward identifying plagiarism and varying degrees of intellectual ignorance and misconduct can involve student interaction in each step, thereby instructing students in the accepted methods of researching and writing in specific classrooms or academic disciplines. Stasis theory highlights the process and reminds instructors and students that intellectual property is often a misunderstood concept.

Murphy (1990) makes the point that although he did catch one plagiarist through dogged determination and a bit of luck, he also falsely accused a student, a particularly vulnerable one at that. He ends his essay, "I did not mean for it to come to this," and I believe he wishes to point out that the occasional success in nailing a dishonest student does not justify the occasional mistake when a student's character is wrongfully attacked. The teacher/student relationship is an uneven one, and any disrespect we feel from students who cheat in our classes is, although a valid feeling, not as damaging as the feeling of disrespect a falsely accused student would feel. Educators must assume that at least some students will take shortcuts and try not to get caught. Students, however, should not have to assume that they are under suspicion at all times. Such a relationship precludes any real chance of a productive learning environment because of the teacher's heightened sense of alert, which some would call paranoia.

A related problem involves detection software. A number of scholars have pointed out that the most popular program, Turnitin, has several shortcomings. John Royce (2003) notes that Turnitin is effective in discovering two kinds of plagiarism: the copying of published material that is available on the Internet and the copying of previously unpublished material that

is available on the Internet (other students' essays, for example). However, he notes that the program does not search what is sometimes referred to as the Invisible Web--those areas of the Internet available through subscription databases and discussion lists. In a test for effectiveness, Royce submitted a few essays he had plagiarized, along with several genuine student essays, to various detection software companies. He found that Turnitin discovered no matches for the intentional plagiarism from online encyclopedias, online journal articles through subscription databases, and discussion groups. Turnitin also came up short when confronting loose paraphrasing. Further, Royce cites another study whose authors conclude that detection software is not effective in tracking down Internet plagiarism and that "some of the products/services promote a real lack of trust and [a] resentment between professor and student" (qtd. in Royce, 2003). Evidently, Turnitin has responded to this blind spot and now claims on its website that its algorithms search three main categories of sites: the two previously mentioned, as well as "various proprietary databases" (The WriteCycle Collaborative Writing Solution, n.p.a.). The claim is vague, though, on just how extensive a search the service can do on the most common databases to which universities subscribe and to which students have access. Moreover, any article or presentation addressing plagiarism detection software relates an anecdote about how that software failed to perform a simple task. This essay is no exception, and here are two personal anecdotes:

Two years ago, I was charged by my department head with leading a committee to write a mission statement for the department. The committee members and I began our task by searching the Internet for departments at universities similar to ours in order to examine their mission statements. We created an early draft of a statement that borrowed heavily and even quoted selectively from a few of the existing statements, all easily accessed through the Internet. Out of curiosity—

and a little boredom—we ran this early draft through Turnitin.com, and the report came back saying that it was one hundred percent original. Of course, the promotional materials for Turnitin.com claim that it will find matches of phrases on the Internet.

The other anecdote involves an undergraduate course on the rhetoric of Plato. I had the students write response papers to the assigned reading, and the responses were to include personal experiences or observations related to one or two points in the reading. One particular paper did not seem to fit the assignment but did seem especially polished. I fed the first sentence into Google and discovered that the entire paper had been copied and pasted from a website called Suite101.com. Afterwards, just to check the skill of Turnitin in detecting this plagiarism. I ran it through that software, which returned a report that the paper was only fifty-one percent original, borrowing the other forty-nine percent from another student paper. Moreover, Turnitin did not give me access to the student paper that was submitted to another university and that was forty-nine percent like my student's paper. This exercise led to two conclusions: First, that Turnitin was not terribly effective, since it did not accomplish what it promised to do as effectively as did a free search through a search engine, and, second, that someone else's student was a bit shrewder than mine in copying only half a published piece from Suite101.com, while my student used only one, copying it wholesale.

This last example brings us to the second reason to invest time in teaching students to avoid plagiarism rather than in policing it. Rebecca Moore Howard (2001) fears that we are "replacing the student-teacher relationship with a criminal-police relationship" (B24). Such a relationship shuts down the possibilities that we will teach our students through healthy, cooperative means. They will write papers and lob them fearfully at us rather than bring them to us in a spirit of mutual trust. Moreover, she points out that submitting

student papers to plagiarism detection programs violates the students' intellectual property rights because the student papers become a part of the programs' databases (cited in Foster, 2002). Other detection tools exist which do not keep copies of student papers in their databases. Two of these are Eve2 and Copycatch (Foster 2002), but these are not so widely popular as Turnitin. However, even if they were popular and even though they are utilized, their use still exemplifies the attitude that Howard describes as unfavorable: that the students and teachers are locked into an antagonistic relationship regarding the students' ownership of the writing that they submit.

A number of scholars have offered suggestions for teaching writing in a way that would help decrease instances of plagiarism by making sure the students are regularly reminded of the accepted ways of giving credit to others and of the consequences for taking academic shortcuts by passing off the work of others as their own. For example, Maryellen Hamalainen (2007) describes what she calls research assignments with a twist: asking students to go beyond merely presenting information that they have researched—and could have too easily found in just that form—and adding another dimension to the assignment such as writing a persuasive essay to a particular audience based on the researched material. Although Hamalainen does not mention this, such a twist that turned upon a local angle would increase the effectiveness of this idea because a student bent on shopping for a completed paper could easily find somewhat generic persuasive essays based on research. But a requirement to include local features would reduce that threat. Laura Hennessey DeSena (2007) offers a book full of tips, and while many of them are written for assignments involving literary analysis, one important point serves an interdisciplinary audience. That point is to spend time and energy teaching students how to summarize, paraphrase, and integrate external sources into their own writing. While DeSena does not shrink

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from plagiarism detection—-in fact, one chapter is titled "Tools for Detecting Plagiarism"—she promotes the cooperative strategies of designing assignments that are more difficult to plagiarize and of teaching students how to avoid plagiarism. All of the suggestions stated above can be used within the framework of stasis theory: determining what occurred and to what degree, and then determining a reaction. Stasis theory would serve to remind instructors to feature instruction in accepted definitions of plagiarism in academic settings and in well-designed assignments and lessons on proper attribution.

Conclusion

Stasis theory, then, provides a means of featuring the teaching of rules of intellectual property, thereby front-loading the writing process with instruction rather than making detection and punishment the primary activities. As the students read about cases of potential plagiarism, they would be asked to consider if, indeed, something suspicious or at least unconventional had occurred in the preparation of a written artifact. The students might be assigned to read papers intentionally written for such an examination, or that might read published articles detailing suspected acts of plagiarism such as the accounts describing Jessica Seinfeld or Ian McKewan (Nivens, 2009).

Most teachers will probably find a combination of instruction and detection that suits their teaching philosophy. Although I spend a considerable amount of time on instruction in intellectual property and academic attribution in both first-year and advanced classes, I will also continue to check those papers with suspicious passages, just as I will continue to monitor the room when students are taking an exam.

Whatever policy we choose, stasis theory permits a logical and helpful sequence of actions to take and decisions to make, and it allows us to include students in every step, thereby offering a number of teachable

moments. Because definitions of plagiarism are so unclear and dependent on circumstances, the move from the particular to the general encouraged by stasis theory allows us some structure in evaluating student writing and then taking appropriate action. Teachers of rhetoric flourished in Ancient Greece and then in Ancient Rome for several reasons. Many profited financially from their skills in teaching oratory in a society that required the accused to defend themselves in the courts. However, many rhetoricians wanted to teach young boys to become good citizens. We can follow that example, too, when we make our procedure one that values heading off potential plagiarism rather than investigating it. ◼▬

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Writing in a Mathematics Class? A Quick Report on Classroom Practices at the Collegiate Level
Maria G. Fung

Abstract

This teaching report describes a series of writing assignments for the college mathematics classroom that can easily be adapted to other disciplines.   It focuses on examples of personal, expository, and expressive types of writing assignments and provides ideas for evaluating these assignments.

Keywords

writing, mathematics, assignments, evaluation, examples

Maria Fung first started using writing assignments in her calculus courses as a graduate student at Cornell University, and then taught for seven years at Western Oregon University (including several writing-intensive courses) before coming to Worcester State College. Her main interests lie in active pedagogical methods, mathematics education, and the mathematics preparation of K-12 teachers.

Introduction

With the revival of writing-intensive courses or writing across the curriculum (WAC) initiatives (Bazerman & Russell, 1995), each of the academic disciplines has had to re-examine, update, or create venues for fulfilling these demands. Mathematics at the collegiate level has been traditionally taught in the conventional lecture-discussion format, with regular homework problem sets and testing in the form of quizzes and exams. With the expansion of the WAC initiatives, however, mathematics instruction has had to expand its repertoire to include a variety of writing assignments throughout the curriculum, with the goal of improving mathematics achievement and retention of students. This short report considers specific examples of writing assignments, from the simple to the more complex. It also shares sample rubrics for evaluating these assignments.

Significant issues in mathematics education at the college level include underachievement and lack of motivation in students; persistent difficulties with abstraction, symbolic representation, and proof; and the resulting inability to apply and connect ideas across different contexts (Krantz, 1999). Finally, there has been severe anxiety reported among certain groups of students which negatively affects their ability to learn and retain mathematics knowledge (Perry, 2004). Recent educational research supports the view that learner-centered instruction that involves students' actively thinking about, discussing, and reflecting on their learning helps mitigate all of these problems. The individual and the social aspects of learning can be combined successfully in classrooms that use a variety of active learning strategies and cooperative groups. In

particular, classrooms where students both discuss and write about the mathematics they are studying show significant gains over traditional classrooms, even ones where one of the discourse or writing techniques was applied (Cross, 2009). Hence it might be beneficial to college instructors in mathematics and other disciplines to consider adding writing activities to their pedagogical tools.

Writing requires sustained thinking and reflection. It is shown to promote understanding and positive attitudes in mathematics, and it helps students in constructing new mathematics knowledge (Russek, 1998; Abdalkhani & Menon, 1998). Well-designed writing assignments can provide students with opportunities to practice mathematical inference, to communicate mathematical ideas, to organize their thinking, to interpret results and solutions to problems, and to make connections between different concepts (Abel & Abel, 1988; Countryman, 1992; Meier & Rishel, 1998). Thus writing can be a pedagogical strategy that moves students through the levels of Bloom's taxonomy (Bloom, 1956), away from simple recall of mathematical facts to understanding the concepts and applying them in different contexts in the process of problem solving. Furthermore, students can be asked to write down their conjectures through experimentation and generalization, as a way to synthesize new knowledge. Finally, students can use writing to analyze and to evaluate their own or their peers' work on a mathematical problem. Writing can be an invaluable tool in getting students involved in the learning process and in discussions with both their peers and the instructor in the course; it can complement the writing development of college students by providing a different opportunity to generate ideas in writing that are discipline specific (Pugalee, 2001). Moreover, writing in mathematics can help both teachers and students figure out and address misconceptions (Evans, 1984).

Types of Mathematical Writing

The writing process in mathematics can be divided into three categories: personal, expository, and expressive (Meier & Rishel, 1998). Examples of personal writing include letters, personal reflections on a specific topic, and journals. Expository writing ideas include short paragraphs or entire essays on specific topics in mathematics, research papers (e.g., in an elementary statistics course or as a senior project article), or simply recording or revising the answers to a test. Expressive writing examples include problem and story writing and other creative pieces. For each of these three types of writing, assignments can be designed at beginning or advanced levels.

Personal Writing Ideas

Personal writing is by its very nature informal. Among all three types of writing in the mathematics classroom, however, personal writing can best provide immediate and invaluable information to a college instructor about the history and/or present state of affect and grasp of the material for each student. This in turn allows a professor to make thoughtful instructional moves grounded in the acquired information about both her students' affect and the state of their learning that these assignments provide: Which topics should an instructor focus on when reviewing for a test? Is there a need for an extra problem solving set or another in-class activity that can clarify concepts and address misconceptions? The answers to these questions can be readily obtained from personal writing assignments.

From the learner's perspective, a personal writing exercise could be seen as an opportunity to have her voice heard and her anxieties, successes, or difficulties shared and addressed privately. Most students who are too shy to speak up in front of an entire class (whether to ask a question, contribute to a whole class discussion, or point out a mistake) will be able to articulate their

issues with the material in a course when prompted to write about it. This type of writing can make a learner more keenly aware of her strengths and weaknesses, and thus ultimately help her make better study decisions.

A college instructor can easily incorporate a variety of writing ideas from this category, from simple to more complex ones, without having to restructure her entire instructional practice. An added bonus for this category of writing assignments is the lack of time-consuming assessment—typically most of these assignments are simply perused and checked off. Here are some examples of personal assignments, arranged in order from the simple to the more complex:

1. After distributing index cards, a professor could ask her students to discuss which was the most difficult problem or idea from the homework, lab experiment, or assigned reading. This assignment can be done either at the beginning or at the end of the class period, and they can be anonymous.

2. Instructors can use exit cards (also known as *Do-It-Nows* or *Ticket-to-Leave*) with simple prompts like these:
   - One idea from today's lesson I find compelling is….
   - One idea I am still struggling with is….
   - For me calculators are….
   - To study for a mathematics test I….
   - I can do word problems when…
   - Factoring is easy when…

   These prompts can easily be modified to fit different disciplines. These writing exercises are quick to administer, and they provide valuable immediate feedback about students' understanding, habits, and struggles.

3. Instructors can use free writing in their classrooms as a way to introduce a topic or focus the attention of the entire class on a specific concept. Students are typically given a short fixed period of time (five minutes or less) and asked to describe everything that comes to mind when thinking about a specific idea. For instance, pre-service elementary teachers could be asked to describe everything they remember about fractions from their school days, or calculus students can be asked to describe what calculus means to them at the end of a term. An instructor needs to read these written responses right away as a way to modify lesson plans based on the input and background of the students. In a classroom where students feel safe to share their false starts and misconceptions, these free writing assignments can be read by, reviewed, and discussed with peers in small groups. The exchange of ideas usually results in improved learning of the topic, since it involves different perspectives and approaches.

4. Mathematical autobiographies are a perfect first homework assignment in almost any mathematics course. They can be topic-specific (for instance, a algebra or geometry autobiography) or more general. Students should be encouraged to share not only what they learned in their previous mathematics classes, but also the accompanying feelings any particular mathematics subject evoked in them throughout their schooling, together with information about how their overall attitudes evolved over time. The data from these essays is invaluable for an instructor's quest to get to know her students at more than a superficial level and to foresee ways to resolve any problems that might arise due to previous traumatic experiences or anxiety. Autobiographies also help students see themselves at the center of the learning process.

5. Journal entries can take on several forms depending on the mathematics course and its

goals. Journals can be completed for every class meeting, or on a weekly or bi-weekly basis, and they can focus on a specific topic (e.g. one idea per writing period) or a more general response. It is important to give complete and precise instructions to the students regarding content. For example, a journal might include false starts in problem solving, feelings about mathematics, and attitudes towards the material in the course. Journals are meant to be interactive, and thus need to be returned promptly to students. With the advent of modern online systems, journal writing can be relegated to online discussion forums or sent electronically to instructors in almost real time. Even though they are time consuming for professors, journals have been widely used in practice and have been the most researched type of personal writing assignment in mathematics education for over two decades: they have been found to improve mathematics knowledge and its retention (Keith & Keith, 1985).

6. Letter writing can be used in variety of contexts in the mathematics classroom. Most typically, it will involve writing a letter to a peer who missed a class and needs to have a complete explanation of the important ideas and concepts studied in his absence. Sometimes students can also be asked to write a letter to a novice in the field (e.g., a mom with no formal mathematics training is interested in knowing about an interesting mathematics fact like the fact that the difference of two successive squares of the positive integers is always an odd number). Pre-service teachers can be asked to write a letter to a child in their future classroom who is struggling with a particular concept (e.g., a middle schooler cannot understand the difference between median and mean for

a data set). Letter writing demands a different level of explanation from students—they need to put formal mathematical relationships into layman's terms and provide accessible examples of the relationships under question. They need to provide solid yet accessible justifications of their mathematical claims, moreover, and this process of looking at the same topic through a different lens makes them clarify and solidify their own understanding.

Personal writing ideas can be a regular part of the pedagogical toolbox of every college instructor. These writing assignments require minimal time investment for huge returns in terms of the immediate assessment that can allow a professor to tailor her instruction to the needs of her students.

Expository Writing Ideas

Expository writing assignments can vary from informal genres (and thus remain very similar to personal writing exercises) to formal projects that adhere to the highest writing standards of each discipline (e.g. research papers or senior theses). The main purpose of these assignments is to provide students with reflective opportunities to apply, analyze, and connect ideas from the content material. In mathematics learning, the knowledge of how to realize such applications, analysis, and connections is crucial to students' understanding and retention of material. Formal expository assignments, in addition to these properties, also contain the element of new knowledge synthesis and evaluation, which is the highest level type according to Bloom's taxonomy (Bloom, 1956).

From a learner's perspective, an expository writing assignment can be an opportunity for both reviewing mathematical topics and for learning new ones by deliberate focus on reflection, applications, and connecting ideas. There could be some resistance to writing in upper -level mathematics courses, since

some mathematics (and science) majors are anxious about writing. An instructor can alleviate some of this apprehension by providing very specific instructions for each assignment, by designing appropriate rubrics for evaluating such assignments, and by emphasizing the fact that high quality written communication is a significant learning outcome for each mathematics (and science) student. To be fully effective, expository writing assignments perhaps should be included as a part of the grading system for the course as a motivation for students' putting forth their best efforts in working on these assignments.

A beginner's expository writing assignment can consist of simple extensions to regular homework assignments and exams. These extensions put increased ownership of knowledge on the learner. For instance, at the end of a homework assignment, students might be asked to write a couple of sentences about which questions were difficult or easy, which applied a certain concept, and which caused them to get stuck. It is straight-forward to imagine how a traditional homework question can be transformed so it focuses on reflection: one can demand students to either present another strategy for solving it or discuss what mathematical knowledge assumptions are necessary for completing the problem.

On a test, questions that demand clear and precise explanations, illustrations, and descriptions are bound to produce effective writing in the discipline. For example, on a college algebra test, students who have studied the properties of quadratic functions can be asked to describe all possible graphs of quadratic polynomials and to relate these graphs to specific properties of the polynomials, such as their x- and y-intercepts. This exercise helps students revisit all the information they have learned about quadratics and try to produce a generalization about the relationship between graphs and intercepts, again moving them up through Bloom's knowledge levels.

Often students struggle with test anxiety, and one writing technique that might help relieve this anxiety is to offer students the opportunity to submit test corrections for credit, a process known in education as remediation. These small writing assignments involve a description of the initial mistake, a corrected result, and a short explanation about what caused the error. Test corrections can be utilized with great success in any lower- level mathematics course where student achievement and anxiety pose a real challenge—remediation forces students to revisit their exams and learn material they were not comfortable with at the time of the exam.

Open-ended or more complex mathematics problems and outside-of-class projects can also be used as expository writing assignments, especially if they are to include a deliberate reflection element. For instance, students in any mathematics course can be asked to solve a "problem of the week" or "mastery problem" that require a looking-back component incorporating verification of results, or false starts, or connections with other mathematical problems and ideas. Small cooperative groups can work on a series of problems related to a central topic in the curriculum (usually known as projects) and write a project report of their findings, together with a log of meetings and what was accomplished at each step. In upper- level courses, these projects are written using the formal language of the discipline and generally account for a significant proportion of the overall assessment of each student. Small changes in traditional outside-of-class homework assignments and projects that add an important reflection element have the potential to increase student learning value by requiring a much higher level of metacognitive awareness.

In lower-level mathematics (or science) courses, students can be asked to write formal reports on a specific topic that lies outside of the material covered in class or about a specific application of the material; this choice typically will not require any new mathematics

techniques. For instance, students in elementary statistics or college algebra can work on finding examples in the press of the uses of statistical displays and mathematical functions, respectively. They are instructed to make a display of these examples and to write a short explanation of what they observed and how it fitted with the mathematical definitions of these objects.

In higher-level mathematics courses, students can be required to recast a proof that has been worked out informally or intuitively in class as though they are submitting it to a formal mathematical journal. Sometimes an instructor might present a common student misconception to the entire class and ask the class to construct a response to the fictitious student who has made the mistake, with special emphasis on using correct terminology and proof techniques. This type of expository assignment is especially important for pre-service teachers who need to get used to analyzing students' work. It sets the stage for a robust class discussion of common misconceptions.

In mathematics classrooms where cooperative learning is a daily occurrence and student discourse is at the heart of most learning, students can be tasked with working on producing written posters, comparison charts, or other documents focused on a series of related topics from the curriculum. Each of the small cooperative groups is assigned a specific topic, and they are responsible for becoming experts on this topic by writing down all the ideas they can generate around this topic. Then group members move around the classroom to form new groups and share their knowledge. At the end of this group exercise (sometimes referred to as *jigsaw*), the entire class produces an extensive product. For example, students can work on comparing triangles in Euclidean, hyperbolic, spherical, and Taxicab geometries. A follow-up of this type of group writing assignment could be an individual essay written by each student about what was learned from this experience.

Another version of an expository group writing exercise is called *carousel brainstorming*. Group members are given different colored pens and tasked to record exactly one idea about a topic per round. (Groups can be given only one or several different ideas to consider in each round.) When the instructor gives a sign, papers are exchanged with group members, and new ideas are generated. The color coding allows group members to keep track of their own ideas. At the end of the writing process, all possible ideas about the topic are generated. This writing technique can be especially useful when reviewing material.

Expository writing assignments can be incorporated into the mathematics college classroom at different levels and to different extents. They can range from writing assignments that can simply be added onto a traditional classroom to writing assignments whose success depends on a complete shift from instructor-centered to student-centered classroom. The defining property that these assignments share is that they give the students the opportunity to expand and to reflect on their learning and to connect different concepts and ideas, while at the same time learning to apply (informal and/or formal) writing techniques within the discipline.

Expressive Writing Ideas

These writing assignments are the most creative types of writing in the mathematics classroom. Just like the expository ones they can vary from the informal (e.g. stories, songs, or problems) to the formal (models, formal systems, study reports). They typically involve students constructing or creating a mathematical application of some type. The purpose of these assignments is to provide students with opportunities to synthesize and to internalize mathematics knowledge by making it their own, through the process of creating a new product around specific mathematical concepts. Due to their creative nature, these assignments perhaps result

in the highest degree of sense-making from all three types of writing, but they are also the most difficult to generate, to execute, and perhaps to evaluate. Typically for these assignments, students need to choose a topic they want to explore and the methods for their exploration. They need to research sources beyond their class material and demonstrate flexible thinking about possibly open-ended questions. Problem and test writing items excluded, perhaps most instructors will choose to relegate all other expressive assignments to seminar type courses and upper level major courses, where more time and resources can be dedicated to making these assignments a central part of the learning process.

In expressive assignments, students can create word problems around a specific mathematics topic (e.g. systems of linear equations with two unknowns) or write exam questions. Students can also research and construct their own applications of course material or write a report about mathematical models they built or a study they designed and carried out. They can write about proofs they constructed or new patterns they discovered. Defining the audience for these expressive assignments is very important, and it can predetermine the level of formal writing required: it matters if the student is writing for a peer, the instructor in the course, or a mathematics journal.

A Word on Assessment

Effective assessment practices in mathematics should inform instruction, and well-designed writing assessments can do so by providing invaluable information about students' understanding of mathematical concepts. One remaining challenge is the evaluation of writing assignments in mathematics. The beginning, informal assignments can be simply checked off for completion, but as the depth and breadth of writing increases, so does the need for appropriate assessment. Most mathematics professors are only comfortable using a points system of grading. Thus, rubrics for

evaluating writing can be especially beneficial. The simplest of these rubrics is based on a 3-point system: 1 for students who "missed the boat," 2 for students who "are on the right track," and 3 for those who "got the point." Another simple rubric contains four components: mathematical accuracy, completeness, clarity, and language use. For each component, a student might receive a score of 1, 2, or 3, corresponding to minimal, emerging, and thoroughly developed. Every instructor could modify these suggestions or create a rubric tailored to the specificities of the writing assignment. Three actual writing assignments and their rubrics are included in the Appendices A, B and C.

Conclusion

Writing assignments constitute one of the important ways an instructor can get students actively involved with the material they are learning in any college course. As a discipline that requires constant revisiting and connection of ideas and a need for clear organization, justification, and rigor of thinking, mathematics presents a natural venue for exploring the possibilities of writing both inside and outside of the classroom. The benefits of using writing can include not only gains in students' learning that stretch beyond mathematics content into the realm of critical thinking, but also overall improved attitude, success rates, and retention. This article is meant to give the reader a taste of the possibilities, without trying to be exhaustive, and to inspire instructors in all disciplines to contemplate incorporating writing in the college classroom. ▪▪

Appendix A

Comparing Different Geometries: Project Guidelines

Working as a group, you will investigate a problem or idea from taxicab or spherical geometry (or both) and, if appropriate, relate your results to Euclidean geometry. Each group will write a detailed report of their discoveries and will create a poster to display their work from the project and present it to the class on Thursday or Friday of the last week. Presentations should be about 15 minutes, including a few minutes for questions.

It is expected that your work on this project will <u>show</u>:

- understanding of the mathematical concepts and processes.

- where appropriate, clear evidence of doing purposeful mathematics, including investigating, experimenting, analyzing, or solving.

- mathematical supporting arguments that may include examples or counter-examples.

- creativity and thoughtfulness in communicating the results and the interpretations of those results, to the appropriate audience (your classmates), using dynamic and diverse means.

- a high level of mathematical thinking that includes, where appropriate, making comparisons, conjectures, interpretations, predictions, or generalizations.

SOME POSSIBLE PROJECT TOPICS

<u>Topics in taxicab geometry</u>:

1. Investigate the results of adding one-way streets.

2. Investigate the results of adding a mass transit route.

3. Investigate taxicab geometry if the streets are laid out in a triangular grid (or on another regular or semi-regular tessellation of the plane.)

4. Investigate/compare ellipses and other conic sections in Euclidean and Taxicab Geometries.

5. In Taxicab Geometry, investigate Euclidean congruence theorems (such as Side-Angle-Side.)

Topics in spherical geometry:

1. Explore the relationship between angle sum and area.

2. A polar triangle is defined to be a triangle that contains a pair of polar points as two of its vertices. Explore the properties of altitudes, angle bisectors, and perpendicular bisectors of its sides in a polar triangle.

3. Investigate the geometric properties of globe that are preserved by a cylindrical projection.

4. Investigate measuring area of spherical triangles and other spherical polygons.

5. Investigate the Platonic solids and their resulting tessellations on the plane.

6. Investigate on the sphere the analogs of the following Euclidean transformations: reflection (flip), rotation (turn), translation (slide), and glide-reflection (slide-flip).

GEOMETRY PROJECT SCORING RUBRIC

Names of group members: _____

Category	Exemplary 4	Accomplished 3	Developing 2	Beginning 1	Score
Communication	Mathematical ideas are presented in a highly effective manner, using correct vocabulary, symbols, and/or pictures.	Mathematical ideas are presented effectively, using correct vocabulary, symbols, and/or pictures.	Some mathematical vocabulary, symbols and/or pictures are used ineffectively or incorrectly.	Many mathematical vocabulary words, symbols and/or pictures are used ineffectively or incorrectly.	
Doing Mathematics	Clear evidence of doing purposeful accurate mathematics, including investigating, experimenting, analyzing, solving, comparing, conjecturing, and/or generalizing.	Evidence of doing purposeful accurate mathematics, including investigating, experimenting, analyzing, solving, comparing, conjecturing, and/or generalizing.	Some evidence of doing purposeful accurate mathematics, including investigating, experimenting, analyzing, solving, comparing, conjecturing, and/or generalizing.	Minimal evidence of doing purposeful accurate mathematics.	

Oral Presentation	Highly organized. Thoughtfully prepared with specific audience in mind.	Well organized. Appropriate to the audience.	Some parts are disorganized. Not all parts are appropriate for the audience.	Disorganized or incomplete. Inappropriate for the audience.	
Creativity	Project explores ideas in depth showing creative connections and reflective thought.	Project explores ideas showing some creative connections and reflective thought.	Project explores only a few ideas showing some creative connections and reflective thought.	Project shows minimal evidence of exploring ideas or showing creative connections and reflective thought.	
Sharing the Workload	The workload was divided and shared equally by all team members.	Most team members contributed their fair share of the workload.	Most team members participated in some aspect of the work, but workloads varied.	The workload was not divided equally and few team members contributed their fair share.	

Appendix B

Formal Mathematical Writing for a Peer

Your friend at Rival University is taking a proofs course. He is very confused about sets and their operations (unions, intersections, complements, difference). He cannot even begin to understand De Morgan's laws. Write a two-to-four page letter to him explaining thoroughly the concepts of sets and their operations. You should definitely include plenty of examples to illustrate your points. Also, you might want to use Venn diagrams to aid your friend's understanding.

Assessment: Your writing assignment will be graded according to the following rubric:
- ❖ Mathematical Accuracy: 1(inaccurate) 2(minor mistakes) 3(completely correct)
- ❖ Completeness: 1(minimal) 2(in development) 3(thorough)
- ❖ Clarity: 1(minimal) 2(in development) 3(great)
- ❖ Language and Neatness: 0(needs work) 0.5 (in development) 1(excellent)

Appendix C

Portfolio Assignments

There will be six portfolio assignments during the term. These will be problems that each of you will write with the task of illustrating a particular prescribed problem solving strategy. These problems should have at least three different mathematical steps to them! Try to make the problems interesting and relevant to children's lives, and thus useful for you upon entry into the teaching profession.

Have fun and use your imagination!

INSTRUCTIONS: Write your very own multi-step story problem that can be solved and will be solved most effectively using the prescribed problem solving strategy below:

a. Portfolio 1 : draw a diagram or use a picture (choose one of these strategies or the other!)
b. Portfolio 2 make a list of all the possibilities or eliminate possibilities (choose one of these strategies or the other!)
c. Portfolio 3 : guess and check
d. Portfolio 4 : use sub-problems or patterns (choose one of these strategies or the other!)
e. Portfolio 5 : use algebra
f. Portfolio 6 : use Venn diagrams

Please organize your writing in the following format: Problem, Prescribed Strategy, Solution, Verification, Comments for Teachers. The Comments for Teachers section can include ideas for (a) extending or generalizing the problem, or (b) reflective comments about which topics this problem illustrates within the K-12 mathematics curriculum.

The entire portfolio problem is assessed on a scale of <u>20 points</u>.

Prescribed Strategy: Two (2) points are given for specifying which problem solving strategy your problem is illustrating.

Problem: Ten (10) points are given for this section of the assignment which contains the wording of the actual problem:

- Two (2) points are given for a problem that can be best solved using the prescribed strategy in the assignment.
- Two (2) points are given for writing a problem that illustrates an important mathematical idea.
- Three (3) points are given for an interesting story.
- Three (3) points are given for clarity and good use of language.

The remaining thirteen (13) points are assigned as follows:
- Six (6) points for a complete and correct Solution.
- Four(4) points for Verification.
- Three (3) points for the Comments for Teachers section.

IMPORTANT: Please type and staple one of the scoring sheets below to each of your portfolio assignments:

Portfolio Problems Scoring Guide						
Category	**Possible Score(s)**					
Strategy	0		1		2	
Problem						
Appropriateness	0		1		2	
Math idea	0	1			2	
Story	0	1	2		3	
Clarity& language	0	1	2		3	
Solution	0	1	2	3	4	5	6
Verification	0	1	2	3	4	
Comments for Teachers	0	1	2	3		
				Total:	/25	

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Writing in the Social Sciences: An Old Concept, A New Course

Suanna H. Davis

Abstract

Building on the theories of writing as a mode of learning and writing in the disciplines, a new course attempts to meet the needs of students whose disciplinary discourse communities follow the conventions of APA style. The course has engendered different expectations in various instructors and in the students. Variations in writing style, including sentence- and document-level differences, and content knowledge issues are addressed. Writing assignments in the course include annotated bibliographies, a literature review, an abstract, and a journal article review. Other assignments include a poster presentation and an oral report on the topic of the literature review.

Keywords

writing in the disciplines, social sciences, writing assignments, literature reviews, writing conventions

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Introduction

Writing in the Social Sciences is a relatively new course at my university. Added two years ago, the course was implemented to ensure that students entering the social sciences (sociology, psychology, and education) had the composition skills and experience necessary to successfully complete upper division courses.

This is an issue that has been of concern for years (Duke, 1982; Young, 1985). The first developed discussion came in 1979 when the first course specifically focused on APA writing and library research skills was proposed by Calhoun and Selby (1979). The reception of this suggestion, however, was generally negative, and the predominant move was to integrate additional writing assignments into extant courses in the discipline (R. Dowden, Conference of College Teachers of English presentation, March 5, 2010).

Since then college faculty have continued to find that requiring one or two general writing courses is insufficient to give students the skills needed for adequate academic writing within their disciplines. Adding writing components to multiple courses within disciplines has also been seen by many as an

unsuccessful attempt to improve student writing. Thus, even while many universities are continuing to emphasize writing across the curriculum, Dowden describes that they are also "seeking reinforcements through specialized courses" (R. Dowden, Conference of College Teachers of English presentation, March 5, 2010), such as Writing in the Social Sciences (now listed as Writing in the Behavioral Sciences).

At my university, this course is the first as well as the gateway offering in the social science majors. Until majors have a C or better in Writing in the Social Sciences, they cannot continue with any additional coursework in the majors. Because of this, the course sets the stage for writing as a mode of learning within these disciplines (Emig, 1977). Relevant writing skills are recognizably essential to the process of socialization within the discipline (Madigan, Johnson, & Linton, 1995). Even though they are not in the social sciences, nursing majors also take the course, because their discipline also conforms to the APA style manual (APA, 2001). The students in this course are socialized into their discourse communities through the introduction of applicable writing conventions (Porter, 1985), which serve to guide both readers and writers into a shared understanding of the expectations for texts within the social sciences.

The course is beneficial to multiple colleges at the university. Clearly it is a benefit to the social sciences, because the content-specific courses in their departments do not have to devote time to writing skill introduction, but can focus on writing ability refinement and content knowledge. As an introduction for their students to the conventions of their disciplines, writing skills, and library research, it is also beneficial to the nursing school. Finally, it is a benefit to the humanities division because they have an additional composition course, required by all social science majors, within their purview.

Expectations of the Instructors

When the course was originally created, differing expectations between the social science instructors for whom the class was initiated and the English instructors who would be teaching the course were discussed. Writing in the MLA style tends to lend itself to persuasive argument based on personal interpretations (Hult, 1996). A literary analysis, for example, would focus on one possible interpretation of a work and argue for its importance, even while tacitly acknowledging the possibility of multiple alternative interpretations. In contrast, the APA style of the social sciences prefers an objective factual presentation which they hedge with limiting qualifiers (Madigan, Johnson, & Linton, 1995) and build their arguments as part of a continuity of the discipline (MacDonald, 1994). They place their discussion within the framework of the discipline by beginning their papers with where the field has been and ending with where it should go next.

In addition, the social science teachers wanted specific assignments. Their desired outcome was to have the social science majors be able to write literature reviews, abstracts, and annotated bibliographies and to be able to interpret research. Research in the social sciences has found that oral communication is also important for social science majors (Nadelman, 1990). All of these learning outcomes were incorporated into Writing in the Social Sciences.

Expectations of Students

When the students enter the Writing in the Social Sciences course, their expectations are not always in line with the learning outcomes of the course. The common background of the students in the course is a year of freshman composition spent writing using MLA formatting and style, because that is a university-wide requirement. This familiarity with another style manual can be problematic as students expect to be able to continue with the

writing they have already mastered. They are sometimes, as Nadelman observes, surprised when the discursive practices they have mastered do not transfer perfectly (1990). A clear delineation between the MLA and the APA styles of writing, however, helps the students realize that the two sets of conventions differ significantly and that there is plenty of new information for them to learn.

Reasons for the Differences in Styles

The differences in writing styles are a clear manifestation of the discourse communities' values. Within the humanities, the emphasis is on the "human" and what the author of the text knows, experiences, or extrapolates. Within the social sciences, the emphasis is on the "science" and there is a determined move away from the personal and towards an objective tone with details that can also be presented as statistics or in graphs.

The reasoning behind the social scientists' emphasis on objectivity is unclear, though some arguments have been made about its genesis. Historically the social sciences have been looked down upon by the hard sciences as being less empirical or even unscientific, at least partially because there is less consensus among social scientists regarding how and what to measure than there is among naturalistic scientists (Goldstein, 1984). The social sciences, however, have seen their roots in the sciences, and therefore the disciplines have made a concerted effort to present their work in a scientific way by being consistent, clear, brief, recursive, and accurate (Dunn, 2008). Some further argue that the discourse community views its work as cumulative and collaborative and thus an objective tone is seen as focusing on the empirical details and not personalities (Madigan, Johnson, & Linton, 1995). Regardless of the reasons, APA style is significantly different from writing in the humanities (APA, 2001).

Various instructors have integrated the differences between MLA and APA style in multiple ways.

Basically one of two approaches has been implemented. Either the instructor begins with an MLA style persuasive argument as the first essay in the course and followed by a transition into APA style, or the instructor teaches APA style writing only in the course. While each approach has sound pedagogical reasoning, I have chosen the second approach.

Introducing the APA Writing Style

As part of the intent of the course is to differentiate between APA and MLA, the first lecture and readings in my class discuss the unique characteristics of each style (APA, 2001). Differences in writing expectations come first, since the focus of the course is composing. Students are taught that the variations in the two styles are not random: there are differences in word choices, verb use, sentence length and agency, paragraphing, formatting, quoting, and the use of discursive footnotes.

Word choice can be quickly covered. Though the students will probably not recognize this when they first begin reading, since they do not know the vocabulary of their fields yet, the preferred word choices in their majors are simple or common words. Though it is clear that some words cannot be simple or common, since the subject matter often requires highly specialized vocabulary, if there is a choice between an everyday word or one which is more esoteric, social science writers tend toward the more common (Young, 1996). Without specific instruction, it is hard for students, reading for the first time about comorbidity or significance, to comprehend that the authors are not trying to confuse them, but are simply using specialized vocabulary.

Verb use in the two styles also differs considerably. While within the humanities we argue for dynamic sentences in which the verbs are active, and, in fact, some English instructors put a moratorium on the "to be" verbs, verbs in the social sciences tend to be passive or linking (Cluett, 1976). The use of the passive voice is a way of forming an objective tone (Fulwiler, 2002).

Sentence length and agency also vary between MLA and APA style (APA, 2001). Within our courses, sentence length is discussed, requiring a three-line maximum for APA sentences (Kennedy, 2008, Appendix). Other differences in writing conventions at the sentence level include subject emphases in terms of the expectations of APA style, specifically identifying differences between MLA and APA (APA, 2001). I mention that psychology's sentence subjects tend to be groups that are studied (such as depressed mothers) and the quantitative details (such as "the evidence"), because in social science writing the focus is on the research. In contrast, in literary study, the sentence subjects group in literary terms (such as "the ironic tone") and in particulars (such as Chaucer) (MacDonald, 1994), because in the humanities the focus tends to be on the authors and the literary techniques they employ.

Paragraphing issues, both length and how to break topics into segments, are also addressed. A requirement of at least two paragraphs per page for social science writing (Kennedy, 2008) is introduced. Paragraphs also have a minimum length of two sentences. The concept of chunking information, as it is used in electronic media, is compared to the social science convention.

Formatting differences, including headings, sub-headings, and the use of cover pages, are introduced. While cover pages are not ubiquitous in the social sciences, they are expected at my university, and so they are introduced and required in this course. MLA style convention numbers the introductory pages of the text differently from the main body of the text, while in APA the introductory pages, usually the cover page and abstract, are numbered sequentially with the rest of the paper (APA, 2001). These are stylistic issues that need to be made transparent to the students. The use of headings and subheadings allow for shorter prose, since transitional passages are unnecessary, and also for easier navigation through the text since the headings act as visible breaks and place markers.

Another difference that is introduced and discussed is the different expectations for quotations within the two styles. MLA expects multiple short quotations, with the occasional longer quote, while APA actively discourages quotations (APA, 2001). One of the most significant differences in the writing of APA style papers for the students involves the removal of quoting as a writing activity (APA, 2001). Students are so used to a required percentage of quotations in their papers, that eliminating all quotes can be a frustration for them. The two styles also differ in regard to footnotes. While discursive footnotes are prominent in many kinds of humanities writing (Madigan, Johnson, & Linton, 1995), they are rare to the point of being non-existent in the social sciences, depending on the field.

While these points primarily relate to the mechanics of style, the rhetorical aspects of the two approaches to writing are also different. The story schema, the way disagreement is expressed, the hedging of conclusions, and the use of appeals are different in MLA and APA styles (APA, 2001).

As mentioned earlier, the headings form signposts for organization in the APA paper (APA, 2001). They also reinforce a certain story schema in empirical reports. Empirical studies begin with an introduction, have a methods section, give the results, and then discuss the findings. Bem's model of the empirical article, an hourglass figure with introduction and discussion as the more developed ends, presents a simple understanding of the standard in APA style for the empirical model (as cited in Dunn, 2008). This orderly progression of information is imposed on the studies by the authors after the fact. Too often research is not linear and logical. In their presentation of research, however, APA writers are always orderly and show a step-by-step progression (Madigan, Johnson, & Linton, 1995).

In addition, the standardization of headings and subheadings creates between the writer and reader a

common understanding of expectations in communication (Madigan, Johnson, & Linton, 1995). While the students in my classes are not writing empirical studies, they are reading them, and so it is important for them to recognize the cohesiveness of their disciplines' schema (Madigan, Johnson, & Linton).

APA style also requires depersonalized disagreements (APA, 2001). To properly disagree the writer must remove the other researcher from the conversation. The researcher is never wrong: the focus in APA style disagreements is on the empirical process. When an author disagrees with a previous study, the generalizability of the work is described as problematic, or the methods are suspect, or the data is reinterpreted (Madigan, Johnson, & Linton, 1995). Students need to recognize these as markers of disagreement.

Social scientists also value hedging conclusions. In the MLA fields, hedging lessens the strength of the argument. "It seems to me" implies, in the humanities, that the writer could be wrong. This makes the argument weaker. In the APA fields, hedging strengthens the argument (Madigan, Johnson, & Linton, 1995). By hedging, the authors are limiting the argument to specific data that supports the argument, while leaving open the possibility of new data and a change in interpretation. Thus, the hedging supports the objectivity of the writing by giving primacy to the data rather than to the conclusions.

Finally, the discussion of rhetorical appeals is introduced. The appeal to logos is a strong one within both the humanities and the social sciences. This appeal is one the students do not have difficulty recognizing. A discussion of the ethical appeal includes a discussion of how references to other studies-- primarily in the literature reviews of empirical research, but also in the discussions-- draws on the appeal to authority. This is a clear use of the ethical appeal, and students recognize its difference from what they have read before. The fact that people within the field would also recognize

the important researchers listed among the authors is a fact that I point out, but do not dwell on. Instead I tell them that they will learn the significant researchers within their areas as they focus on those areas in their discipline-specific classes. We also discuss the lack of the emotional appeal in APA style. There are no heart-string tugging introductions or stories as examples within the text, as can be found in some humanities writing. All of the appeals are employed in APA style to present an objective tone (APA, 2001).

After this discussion of style differences in the writing conventions is finished, explanations of the APA style of references begin. As a means of reinforcing the APA style as it is introduced, a worksheet with MLA and Chicago bibliographic entries are handed out. Chicago references are included because some students have been introduced to these in other courses. The students are instructed to change the two styles of bibliographic entries into the correct APA format (APA, 2001). This is a low-consequence homework exercise that forces the students to begin applying the correct referencing style.

Content Knowledge Issues

Because this course is a prerequisite for the social sciences majors, there are issues beyond stylistic differences that must be addressed. While the course requires an understanding of content issues, the students enter the course with a minimum of content knowledge. Indeed their content awareness is rarely more than sufficient for them to register an interest in the major, and thus they have no clear focus for research.

To ameliorate the problems which are inherent in a lack of content knowledge, simple "introduction to the field" exercises are helpful. First, instructors discuss the importance of journals within the social science fields (Dunn, 2008). Then they supply a list of first tier journals in these fields (Cuba, 2002). Discipline-specific resources may also be suggested (Hult, 1996).

These introductory explanations allow the students to identify the best sources for research. After the journals have been introduced, students are instructed to access tables of content (TOC) from multiple journals. As a homework assignment, I require six TOCs from at least three journals so that students can see what kinds of studies are represented. It also gives the students possible directions for their semester-long writing project. To ensure that the TOCs are read and not simply printed out, I require that the students write yes or no beside each article title, indicating whether or not the student finds this particular topic of interest. After this homework assignment is turned in, a quiz asking which topics the students found in the TOCs might become research interests ensures that the students have actually read at least the titles of the articles.

Major Assignments in the Syllabus

Following the introduction to the citation style, journals, and possible research topics, instructors introduce the series of assignments which build upon each other towards the major project. Students must choose a topic for research, find fifteen studies published in top tier journals within a limited time period (usually five, sometimes ten, years), and use those studies for both annotated bibliographies and a literature review.

Before the reading of the chosen journal articles begins, the format of the studies which the students will be reading are introduced through both informational explanations and examples. Once the students have an understanding of the consistent content of the studies: including introduction, method, results, and discussion, they feel less adrift when researching and reading. An explanation of the introduction as placing the work within the discipline helps students see why such significant citation is expected (Goddard, 2003). This minimal familiarity makes the studies more accessible to them. Then some simple guidelines in how to read a journal article are presented (Dunn, 2008).

An overview of what the literature review entails and more specific directions for annotations are then presented, including well-written examples of both assignments.

Annotated Bibliographies

Students are instructed to begin reading the article that seems easiest to understand. The first assignment in this series is a single annotated bibliography entry. Through this assignment the students learn to read sources for content, accessing information and beginning to make evaluations of the value of the work. Often the researchers presenting the study in article form have already noted problems with their own work, and these indications offer the students points of evaluation for other studies later.

Students also benefit from good question guides (The Health Care Communication Group, 2001). Instructors can provide as many or as few guiding questions for the students as they wish. I do not hand out a list, but instead I go over possible questions in my presentation of a sample annotation over a sample journal article.

A peer-editing workshop on the single annotated bibliography entry, with points to identify and questions created by the instructors, facilitates discussion of the expectations in written form. I have found that when students are exposed to examples of other student work, they feel more secure in their own understanding of what the assignment actually entailed. I use the time when the students are critiquing each other's annotations to quickly read through all the annotations and make short notes on areas where the students are lacking. In the next class period, I discuss significant issues which appeared in multiple annotations. Students then revise their single annotation for a grade and begin completing the rest of the fifteen annotations. By presenting the work in stages, I am more likely to receive work which is on par with my expectations. Through repetition, the students become more familiar with the

APA style of referencing and through their descriptions and evaluations of the various studies, they begin to move into a position from which they can discuss the topic they chose to research with some facility.

Literature Review

When the annotated bibliographies are complete, a more thorough introduction to the literature review commences. Students are shown multiple strong examples, as well as a few (usually only one or two) with significant issues. These few poor examples are clearly labeled because otherwise, students tend to forget that the example was presented as "what *not* to do." Following this extended introduction to the literature review, students are assigned prewriting exercises.

Both a midterm and a final are required in this class; the midterm is an essay about the expected trajectory for the literature review which the students write after having been given a few days for prewriting and thoughtful ruminations. This fulfills the specific expectation for a midterm and also gives me an opportunity to comment on their planned organization for the literature review before any significant writing has been accomplished. In addition, asking the students to write this assignment as if it were for a popular magazine gives them a different audience to think about (Nadelman, 1990).

Even though students have read and comprehended the journal articles well enough to write annotated bibliographies, most students do not take the time to write notes over the articles while they are completing their annotations. A second reading of the material is necessary for note taking and this is often helpful for the students because they are able to absorb more information on a second careful reading.

Within the writing of the literature review, multiple issues manifest. Sometimes the students are unable to synthesize due to a lack of experience with synthesis. In those cases, I recommend that the students group their articles and attempt to discuss their categorization.

This is a simple beginning to the synthesis necessary to complete their literature review in an acceptable manner. Review of the format goes on while the students are writing. It is one thing to hear what they are supposed to do before the work has begun, but once they are writing specific questions arise, and these are often not topic specific. Since many students are likely to experience similar issues, questions asked and answered in class limit repetition from my perspective.

When the literature review is about halfway complete, the class has a peer editing workshop. This helps to encourage students to keep up with a schedule of writing and keeps them from drifting too far from the assignment. Issues that have been resolved during the peer editing workshop have included incorrect citations, lack of citations, the interjection of entirely personal discussions, and unfocused writing. The workshops have shown themselves to be valuable tools for the students and have salvaged many grades through preemptive corrections.

A second literature review peer-editing workshop follows the completion of the literature review. It allows formatting issues to be identified, including inconsistent running heads, page numbers that are not sequential or are restarted in MLA style, cover pages that do not meet the assigned parameters, misused headings, and incomplete references. All of these are items which students have made a lower priority than the actual writing of their paper. Thus the peer editing workshop helps to ensure that the format of the submitted literature review fully follows the social science conventions.

Abstract

Once the literature review is fairly complete, the abstract is introduced. Again both articulated limitations and examples are presented. Abstracts range in length from one hundred to two hundred fifty words, depending on the specific discipline the students go into and the requirements of various journals. Because I do not want to have to keep in mind the various majors of all the

students while grading, and remembering Pascal's dictum (1656) that writing which is short is significantly more carefully crafted and time consuming, I limit the abstracts to between one hundred and one hundred fifty words. Students must be able to cover the important sections of their paper and describe the significance of their topic in a single short paragraph.

I explain the importance of keywords and ask them to make a list of these for their paper as the prewriting exercise for the abstract. Then they create an abstract. In some classes students have instituted a second prewriting exercise in which they start with the longest abstract length and tighten the writing from there. While I have not added this as a required prewriting exercise, it has been a useful tool for those students who have employed it, and I recommend it for students who are having trouble getting started due to a fear of the word limitation.

Poster Presentation

After the literature review is turned in, students are introduced to the concept of poster presentations. While poster presentations are ubiquitous in the social sciences, they are extremely uncommon in the humanities, and many instructors have never seen a professional poster presentation. This knowledge gap can be overcome by some assiduous searching of the internet since both professional recommendations for poster presentations and samples are available online. Some of the professional recommendations must be amended for students; they did not do primary research and thus their research method is not the most important focus of their poster presentation, but other advice is very useful.

Discussions of the poster presentations include design concepts, readability issues, limitations for colorblindness, and the introduction of both student and professional examples. Students tend to work up to the level of the posters they are shown, and so I present only those which are exceptionally well done. This has

resulted in some fascinating and outstandingly professional poster presentations.

One issue within the poster presentations is the question of whether artistic representation should be fairly clear or may be more abstract. An example of this was from a student writing on homophilia, which is an aspect of humanity that tends to have people search out those who are like them. She wanted to use a Frankensteinesque apple, the two halves, one green and one red, sewn together with heavy suturing thread. This abstraction was abandoned when reminded of the need to design for colorblindness.

Since at the present APA style tends to eschew the metaphoric (APA, 2001), I recommend to the students that their visualizations be limited to obviously identifiable aspects of their studies, though not everyone follows my recommendations.

Oral Presentation

Despite the fact that poster presentations are usually limited to discussions with individuals perusing the area, students give an oral presentation on their topic utilizing their posters. These oral reports, between three and five minutes long, are intended to share with the class an overview of their research. The oral presentations allow the entire class to see the various avenues of research followed by their classmates, and the speakers are able to use the posters as visual aids.

Submission Requirements for Two Journals

The final out-of-class assignment for the course is the preparation of a list of journal submission requirements. Students are asked to use two of the journals whose articles they read, find the submission requirements for those journals, and present a one-page comparison/contrast in a table. Having students present this compare/contrast in table form, which is easy to read and allows for rapid differentiation between the two journals, also ensures that they are familiar with creating tables before they enter their discipline-specific courses. This assign-

ment usually only takes one day of in-class introduction and then students can complete the work at home.

Journal Article Review

For the final exam, students must compose a journal article review. The students will have already read the article at least once for the annotated bibliography and again for the literature review. This third critical reading makes sure the students have had sufficient time to reflect on the study they are critiquing. As a final exam, the journal article review also emphasizes skills they should have learned in my class, including creating bibliographic citations, summarizing, and analyzing.

Since the final exam is announced in advance, students have the opportunity to prepare for the journal article review. The students are allowed to choose to review any of the fifteen articles they read for the earlier class assignments. I recommend to the students that they choose an article they feel confident discussing. The students must turn in the article with their review, which allows me to double check the article easily if there appears to be a problem or if I wonder about claims the students are making.

The journal article review I ask for in class is less detailed than a professional version; it is, however, a beginning and a version adequate for a sophomore-level class (Gimenez, 2007). The assigned length is between two and four pages. The first section is the student's bibliographic reference for the article they have chosen to review. The students have already compiled a bibliographic reference for the article, when they were writing their annotated bibliography, and by finals they should know the style well enough to create a new citation during the final exam. The second section of the journal article review is the introduction, which should include a discussion of the type of article they are looking at. Since the students are required to only use empirical articles, this identification is simple. The third section provides a summary of the article including the problem addressed, the methodology of the study, and the evidence provided. To some extent, the students have already done this section in their annotated bibliographies.

The fourth section of the journal article review requires the greatest skill. Students must evaluate the article for strengths and weaknesses and for appropriate evidence for the conclusions provided within the article. This is still not terribly difficult, since the students have been doing this since the initial annotated bibliography. In the fifth section, students have to take a position on the article, saying whether they agree or disagree with the author and articulating their rationale for this decision. Even though some students have already taken a stance on the article before the final exam, for example, by grouping it with studies that have many flaws, the process of identifying their stance can be a challenge for other students. The students have to choose whether to agree with an expert, as a journal article author can certainly be identified, or to disagree with the expert.

Since the students are fairly new to their subjects and have only their own life knowledge and fifteen articles' worth of reading on the topic of that article, taking an oppositional stance can be difficult. It can also be unnecessary. It is at this point that thoughtful preparation for the final exam is most crucial. If students feel unable to disagree with the experts, they may choose an article to review with which they agree.

The journal article review as the final exam is a culmination of the work the students have been doing all semester. It shows whether or not the students are able to create a bibliographic reference, whether they can introduce and summarize an article they are extremely familiar with, and if they have mastered the proper skills for the identification and evaluation of strengths and weaknesses in an empirical study.

Conclusion

The Writing in the Social Sciences course builds upon an older concept. Writing in the disciplines, especially

as expressed by Miller (1984) and Bazerman (1988), requires an immersion into the academic community whose conventions the students need to learn. In this course, students learn about the academic community as they explore the discourse of the community with a guide who is able to articulate for them the writing conventions necessary to be successful in their major fields. After successfully completing this course, the students can be sure that they have at least a rudimentary understanding of the kinds of writing expected of them within their disciplines. ■■

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Using Community Studies to Facilitate "Study in Depth"

William L. Smith

Abstract

A particular strategy used in a sociology course can be applied in other disciplines. Sociology's classic and contemporary community studies are one potential resource that facilitates "study in depth." Community studies facilitate study in depth by exposing methodological and theoretical issues, the interconnectedness of social institutions, and the influence of social structures on everyday life. The various intersections of race, ethnicity, class, gender, religion, stratification, and other key sociological concepts occur in most of these studies, leading to a deeper understanding of the components and the complexity of social life. Community studies provide a good framework for thinking (they encourage reflection and theorizing), and using them as part of an instructional strategy can foster deep learning and study in depth.

Keywords

study in depth; community studies; significant learning experience; deep reading; liberal arts education; sociology

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Study in Depth

This is not a theoretical or a methodological piece. Instead its purpose is to generate discussion on an important issue about teaching and learning. My goal is to share with readers from a broad audience (not just sociologists) how one course and a specific set of readings contribute to a department's overall plan for "study in depth." Wagenaar lamented that students, from all disciplines or majors, experienced little study in depth (1993, p. 358), one of the defining characteristics of a liberal arts education and the result of a variety of practices that produce a sophisticated thinker. The Association of American Colleges described study in depth as "not so much an additional component of the curriculum as it is recognition of the degree of complexity and sophistication with which the various components are interrelated and understood… Study in depth should lead students to some understanding of the discipline's characteristic questions and arguments, as well as the questions it cannot answer and the arguments it does not make" (1985, p. 28-29).

The American Sociological Association (ASA) recommends that departments implement practices that foster study in depth (Schwartz, 1990; Sherohman, 1997; Roberts, 2002; Berheide, 2005; McKinney et al., 2004). The ASA Task Force on the undergraduate major defined study in depth as "the development of a coherent and mature conception of sociology as a scholarly endeavor that involves the interplay of empirical and theoretical analysis of a wide range of topics" and they made sixteen recommendations that incorporated the best practices for achieving study in depth (McKinney et al., 2004, p. 2). Included within the third recommendation was the point that "pulling the disparate pieces of the sociology major together" is an essential ingredient of a study in depth plan (McKinney et al., 2004, p. 7). Gans noted that community studies can help accomplish this task because they allow "researchers the opportunity to report on a variety of people across a wide range of institutions and situations" (1989, p. 6). Morgan (2008) found that community studies are "good frameworks for thinking. This is because the method, which allows themes to develop in the course of the analysis and seeks to explore some sense of the whole, is still an important feature of sociological enquiry" (p. 38).

This paper argues that community studies, both classic (e.g., Thrasher, 1927; Wirth, 1928; Lynd & Lynd, 1929; Shaw, 1929; Zorbaugh, 1929; Lynd & Lynd, 1937; Warner & Lunt, 1941; Warner & Lunt, 1942; Warner & Srole, 1945; Warner & Low, 1947; Warner, 1959; Caplow, Bahr, Chadwick, Hill, & Williamson, 1982; Caplow, Bahr, & Chadwick, 1983) and more recent (e.g., Gans, 1962; Gans, 1967; Suttles, 1968; Kornblum, 1974; Whyte, 1981; Horowitz, 1983; Anderson, 1990; Pattillo-McCoy, 1999) are potential resources that facilitate study in depth in sociology.

Community studies facilitate study in depth because of their overall design and attention to methodological, theoretical, and substantive issues. In essence, community studies provide a venue where many of the major questions of the discipline are discussed. They also facilitate study in depth by emphasizing the key elements of the sociological perspective. By reading and studying these monographs students can see (1) the role of social structures and social processes, (2) how individual experiences are linked with larger social forces, and (3) the importance of empirical research for understanding everyday life. Community studies also contribute to study in depth and a significant learning experience by fostering the development of cognitive skills such as knowledge (content), comprehension, application, analysis, synthesis, and evaluation (Fink, 2003; Bloom, 1956). Students see how researchers progress logically from creating research questions through the following stages of the research process: gathering data, interpretation, analysis, and theory construction.

Community Studies

During the past twenty-five years I have used monographs by Zorbaugh (1976), Whyte (1981), Suttles (1968), Horowitz (1983), Anderson (1990), and Pattillo-McCoy (1999) in my Sociology of Community course with great success, and I found them to be a valuable teaching tool. I also have used monographs on alternative communities (see Smith, 1992 and Kraybill, 2001). Instead of being exposed to material in a piecemeal manner (often a problem with textbooks), students are able to immerse themselves in monographs and see how sociological research is conducted from start to finish. In addition, community studies expose the interconnectedness of social institutions and social life. The various intersections of race, ethnicity, class, gender, religion, stratification, and other key sociological concepts occur in most holistic studies. This is something students often do not see when they are only exposed to bits and pieces of a particular community study discussed in a short passage within a textbook or an article. Community studies facilitate study in depth

by integrating the various concerns of the sociological perspective and by answering some of the major questions that are of concern to sociologists of community (Almgren, 2000).

The following brief synopses of the previously mentioned six community studies are not meant to be definitive or exhaustive. I offer them to highlight their integrative and comprehensive nature and to orient those who may be unfamiliar with community studies. These particular works are important because they provide a basis for understanding society and identify the influence the social setting has on behavior. Another reason these particular texts are important is that they are representative of studies done during the twentieth century. Student learning is enhanced as a result of comparing and contrasting social life within these various communities.

Harvey Warren Zorbaugh's (1976) *The Gold Coast and the Slum: A Sociological Study of Chicago's Near North Side*, originally published in 1929, is one of the earliest studies that employed the ecological approach that became the hallmark of the Chicago School of Urban Sociology. Zorbaugh adeptly described the degree of social segregation and disorganization in the diverse neighborhoods of the Near North Side, and he found little semblance of what might be called a community. Critics have mentioned that Zorbaugh discounted alternative types of community life that nurtured social relationships.

William Foote Whyte's (1981) *Street Corner Society: The Social Structure of an Italian Slum* is a study about Boston's North End which he referred to as Cornerville. Whyte was a participant-observer during the late 1930s and chronicled the lives of two groups of young men: the corner boys and the college boys. The corner boys were parochial in nature and interested in the local community, while the college boys were cosmopolitan and interested in social advancement. Whyte also investigated how Cornerville was related

to the larger society. His major conclusion was that Cornerville was an organized community, contrary to the popular belief that slums were socially disorganized areas.

Gerald Suttles' (1968) *The Social Order of the Slum: Ethnicity and Territory in the Inner City* is an investigation of Chicago's Taylor Street (Addams) neighborhood (made famous by Jane Addams founder of the Hull House). Suttles was a participant-observer from 1962-1965 and used symbolic interactionism and social ecology to explain the relationships within this community of Italians, Mexicans, blacks, and Puerto Ricans who were physically as well as socially segregated from each other. Taylor Street was very provincial, inward looking, and self-centered, although its residents maintained connections to the wider society. Suttles used the concept of ordered segmentation to describe the social structure of Taylor Street. The social order of the community was maintained by age, sex, ethnic, and territorial groups. The residents used provincialism and ordered segmentation to create a moral order. Suttles concluded as Whyte had several decades earlier, that a slum, contrary to popular belief, was an organized community.

Ruth Horowitz's (1983) *Honor and the American Dream: Culture and Identity in a Chicano Community* is an examination of Chicago's 32nd Street neighborhood. Horowitz was a participant-observer from 1971-1974 and again in 1977. She found that the lives of people in the 32nd Street community were organized by two normative codes. The first code was expressive and focused on personal ties and family honor while the second was instrumental and focused on the pursuit of the American dream. Horowitz examined the structural, ecological, situational, and cultural components of this community. She was particularly interested in explaining the role that symbols, values, and norms played in constructing the social order of the commu-

nity. Horowitz found that the social order was continuously modified and recreated through negotiation.

Elijah Anderson's (1990) *Streetwise: Race, Class, and Change in an Urban Community* is an ethnography of two communities in Eastern City (Philadelphia). Anderson did fieldwork in the Village (predominantly a middle to upper class, racially mixed, gentrifying neighborhood) and Northton (predominantly a lower class black neighborhood) from 1975-1989. These communities shared a common border (Bellwether Street). Anderson studied how social relations were influenced by race, class, drugs, crime, poverty, etc. and he uncovered the rules which governed street life and local culture. He used human ecology to explain the physical changes which had taken place within these two communities. He also used symbolic interactionism to show how identities were negotiated and the strategies that people used to navigate the streets of the Village and Northton.

Mary Pattillo-McCoy's (1999) *Black Picket Fences: Privilege and Peril Among the Black Middle* Class is about Groveland (a pseudonym), a lower-middle-class black neighborhood on the South Side of Chicago whose residents were struggling to maintain their social class position. She was a participant-observer in this community during the 1990s for three and a half years and lived there for one year. Pattillo-McCoy (1999) used social ecology and symbolic interactionism to explain the nature of social relationships both within and outside the neighborhood, and she investigated how "racial segregation, changing economic structures, and disproportionate black poverty" affected the residents of Groveland particularly young people. Strong family and friendship ties created dense social networks within Groveland which often allowed less savory elements of the nearby ghetto to infiltrate the community. Pattillo-McCoy unraveled the intricacies of growing up in Groveland and how identities and lifestyles were negotiated.

While these six studies addressed some of the major questions of the discipline, they all focused on what Amlgren described as "the units of social structure within the community and the relationships and interactions between structural units" (2000, p. 363). For example, Horowitz (1983) discussed the role played by provincialism and ordered segmentation in influencing the social order of the 32nd Street Chicano community. The community, segmented by age and gender, directly influenced how people related to one another. Suttles (1968) also used provincialism and ordered segmentation to analyze the Taylor Street neighborhood. Not only was Taylor Street segmented by age and gender, the interactions within this community were influenced by ethnicity. Anderson (1990) investigated the dynamics of social class, race, and gentrification. Pattillo-McCoy (1999) depicted the social life and generational differences between the residents of Groveland. For Zorbaugh (1976, p. viii), Chicago's Near North Side consisted of a cacophony of discrete ethnic groups, social classes, immigrants, and various types of people such as "elites, artists, hoboes...and many more." Whyte (1981) highlighted the importance of reference groups such as the corner boys and the college boys and their impact on social identity and mobility.

Study in depth (an intellectual undertaking based on the empirical and theoretical analysis of a wide range of topics) within sociology is enhanced by exposing methodological and theoretical issues, the interconnectedness of social institutions, and the influence of social structures on everyday life. One example of a methodological issue discussed in the community studies was the challenge of being a participant-observer. Horowitz discussed how she negotiated her identity with the various residents (gang members, young women, parents, etc.) in the 32nd Street community (1983, p. 9). In particular, she was cautious "not to develop a sexual identity." She had to be careful to not spend too much time with any particular gang member

so as not to offend their girlfriends. Pattillo-McCoy (1999) relied on both micro and macro sociological theories to analyze Groveland, and she challenged some of the assumptions about the black middle-class.

As previously stated, study in depth is enhanced by illuminating the interconnectedness of social institutions such as the family, education, and economy. Anderson (1990) described how families from the Village and Northton used the Village elementary school as a venue for interaction and building racial/ethnic harmony and understanding. Horowitz (1983) analyzed the various roles women fulfilled in their patriarchal society. She found that some of them broke with the traditional norms of the community and sought higher education and employment outside of the community. These women were usually chastised by the community for bringing attention to themselves and for violating established social norms.

As previously stated, study in depth is also enhanced by examining the influence of social structures on everyday life. Social structures are networks of relationships among group members. Suttles (1968) identified the set of standards that governed and regulated the behavior of the residents of the Addams neighborhood. A moral order existed in this community although it was fragile and incomplete. Whyte (1981) acknowledged that one's position in the social structure of the community impacted the number of favors or benefits people received from politicians. The more influence one had in the community, the more likely one was to receive political favors.

Discussion

Community studies are a method of enquiry and answer some of sociology's major questions; at the same time they assist students in the development of a sociological imagination. They also facilitate a deep learning experience (culminating in understanding) by focusing on the human dimension. Deep approaches to learn-

ing emphasize higher-order, integrative, and reflective skills (Nelson Laird et al., 2008, p. 480). Students learn about others, and in the process they also learn about themselves. This is what study in depth is attempting to accomplish. Community studies facilitate the process of "deep reading" (reading for meaning). Roberts and Roberts stated, "Deep reading is enhanced whenever readers come to see connections to their own lives, their emotions, or their future ambitions" (2008, p. 130). Ideally our students become reflective thinkers who rely on a variety of knowledge bases and cognitive skills to successfully navigate everyday life. Essentially, this is what it means to be liberally educated.

Nelson Laird reminded us that the context of a course is important "in shaping students' approaches to learning" and "whether a student will gravitate toward a surface or deep approach" (Nelson Laird et al., 2008, p. 471). Along with requiring my students to read community studies, we spend 3-4 classes discussing each book. Throughout the discussions I make connections with the sociological literature and encourage the class to do likewise. This fosters deep learning as do the essay exams which are administered during the course.

As part of the teacher/course evaluation at the end of the 2009 spring semester, students completed a half-page survey containing seven items using a 5-point response scale ranging from "1=strongly agree" through "5=strongly disagree." The purpose of this short survey was to determine whether the three community studies we read facilitated an understanding of the key elements of the sociological perspective. A student passed out the survey and once each student had completed the survey they placed it in a large manila envelope that was on a table as they exited class. Students were told not to write their name or student number on the survey. Seventy-six percent (44/58) of the students enrolled in the class completed the survey. One of the limitations of this survey is that it is disciplinary-specific. More data is needed to be able to generalize the results

beyond this one class. Ninety-three percent of the students agreed that the books (*Honor and the American Dream*, *Streetwise*, and *Black Picket Fences*) facilitated their understanding of the role of social structures (networks of interaction) and social processes (activities). Ninety-one percent agreed that the books facilitated their understanding of how individual experiences are linked with larger social forces. Eighty-four percent agreed that the books facilitated their understanding of the importance of empirical research for understanding everyday life. Ninety-five percent agreed that the books facilitated their understanding of the interconnectedness of social institutions. Ninety-one percent agreed that the books facilitated their understanding of someone else's views by imagining how an issue looks from their perspective. Seventy-eight percent agreed that the books facilitated their understanding of how the various components of the discipline of sociology are integrated together and seventy-three percent agreed that the books facilitated their understanding of themselves based on learning about others.

Most of the students in my sociology of community class want to pursue careers in social services and criminal justice. These students, in particular, benefitted from reading community studies. For example, a former student who is currently a counselor at a residential treatment center in Chicago wrote to me about the practical impact of reading community studies: "I don't know if you still visit Chicago, the neighborhoods are vastly changing and I've seen much gentrification during the 9 years I've lived in Chicago. It's a sociological experience. What I find most fascinating are the trends that you read out to my class in 1996. I have been watching the trends occur as predicted. I'm able to see these trends since I live in a metropolitan area."

Conclusion

Community studies can easily be incorporated into a variety of disciplines other than sociology to enhance

study in depth. While this discussion focused on a rationale for a specific discipline, study in depth is clearly a multidisciplinary concern, and it is a vital tool for teaching and learning. Nearly three-quarters of the students agreed that the books facilitated their understanding of themselves based on learning about others. This reflexive process is at the center of study in depth and is something which can be accomplished in other disciplines either by addressing discipline-specific concerns and/or items of an interdisciplinary nature.

By discussing methodological, theoretical, and substantive issues (like race, class, and gender), community studies serve as a platform where the disparate pieces of the sociology major come together. While my Sociology of Community course is not a capstone course, it functions as one in this regard. Some students have their first "aha" experience or sociological epiphany while reading these monographs. They see how all this s*tuff* (their term) that they have been studying in other sociology classes comes together! This experience is what Roberts and Roberts identified as a key enticement to "deep reading" (2008, p. 130). Thus, it is possible to achieve a pedagogy, as the Association of American Colleges recommended, in which the various parts of the curriculum "are interrelated and understood" (1985, p. 28). As Horowitz stated, "community studies can provide insights and explanations that less systematic analyses might not provide" (1983, p. ix). These studies can contribute to a department's study in depth as an instructional strategy that fosters deep learning. ▪▪

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Preventing Plagiarism, Promoting Honor: Or, How I Learned to Stop Worrying and Love Online Discussions
Jesse Kavadlo

Abstract

While academic integrity is often defined negatively—what students may not do, as opposed to what they must do—instructors must attempt to reframe academic integrity as a continuing, positive practice, rather than a code of punishments. At the same time, many instructors reflexively blame the internet for what they perceive as a rise in incidents of plagiarism. This essay will reflect upon a particular course, Conspiracy in Contemporary American Literature and Film, in order to explore the ways in which technology, particularly online discussions, rather than offering temptations to cheat, may create a stronger sense of academic accountability and community in the classroom while at the same time teaching students to avoid plagiarism.

Keywords

plagiarism, academic integrity, online discussions, literature, writing

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Introduction

I often begin discussions of academic integrity by telling students how much harder it used to be to plagiarize. "When I was in college and wanted to steal a paper," I tell them, "there was no Google to find 1,800,000 sources in .23 seconds. I had to use a card catalogue all afternoon, just to find one source! And then I had to find it on a shelf in the library! And I couldn't just copy and paste it from a website into Word. I had to type it, all of it, myself. Back in my day, plagiarism used to be hard work." Some students don't know that I'm joking. But thanks, in a large part, to the internet, plagiarism really is easier than ever. While I may tease students about the effortlessness of finding and copying online material, I hope to show that the seeming problem—the unprecedented access and availability of information on the internet—may also provide a way to help students do their best work, and, at the same time, avoid plagiarism.

I want to emphasize preventing plagiarism over merely presenting policies and punishments. Blogging in the *The Chronicle Review*, Laurie Fendrich (2008) reacted to the news that "64 percent of high-school kids admitted to having cheated" by recommending that "college honor systems [be replaced]

with an academic penal code," a three-strikes-and-you're-out system "of crime and punishment that dispenses with the mushy idea of honor that no one believes in anyway" (n.p.a.). I understand faculty anger, and I agree with Fendrich that many current academic polices are inadequate. Yet Fendrich's proposal is merely a harsher version of the same policies she eschews. As a case in point, the only two mentions of plagiarism in my university's Student Handbook place it under "Offenses Against the [Academic] Community," followed by recommended punishments; later, it is discussed under the Grievance Process for contesting grades. In both cases, in keeping with Fendrich's proposal, plagiarism is discussed only after it has been committed; positive prevention strategies seemingly have no place. I want to suggest that mere injunctions against plagiarism demonstrate disappointingly low expectations of students. As naïve as it may sound, I want to believe that students' motivation to succeed is intrinsic and that they favor learning over grades cheapened by cheating. For them, academic integrity should not be defined negatively—by what they may not do—but, rather, by what they must do. We can and should reframe academic integrity away from proscription and toward affirmation. And I believe that the technology that we reflexively blame may instead be used to create a stronger sense of accountability and community in our classrooms and colleges.

To understand our students' mindset, I will borrow their approach by citing the dictionary. To "plagiarize," according to *The New Merriam-Webster Dictionary* and countless syllabi, means "to present the ideas or words of another as one's own," deliberately or accidentally. Perhaps, then, through daily reading and writing assignments, in-class conversations, and, especially, routine online discussions, students can discover that, when it comes to analysis, they do not need to look for words or ideas other than their own and, when it comes to texts, that they can learn proper attribution through

consistent, careful, and communal practice. Every day that students present their own ideas, and support them using properly credited sources, becomes a de facto exercise in academic integrity.

In order to devise syllabi and assignments that will discourage plagiarism effectively, however, instructors should understand students' motivation for plagiarizing. Chris Park (2003) constructs a useful "typology of reasons why students plagiarize." These include "[e]fficiency gain," in which "[s]tudents plagiarize to get a better grade and to save time"; "[p]ersonal values/attitudes," which reminds us that "[s]ome students see no reason why they should not plagiarize or do it because of social pressure"; "[t]emptation and opportunity," or the idea that "[i]t is both easier and more tempting for students to plagiarize as information becomes more accessible on the Internet and web search tools make it easier and quicker to find and copy"; and "[l]ack of deterrence," or the fact that "[t]o some students the benefits of plagiarizing outweigh the risks, particularly if they think there is little or no chance of getting caught and there is little or no punishment if they are caught" (pp. 479-480). Codes, threats, detection, punishment, and prohibition address only "[l]ack of deterrence." Therefore, instructors must also remove the motivation and change the attitude. We must work to make plagiarism more difficult and less efficient than simply doing the work honestly—which was almost certainly why previous generations of students plagiarized less frequently, not because they were inherently more truthful. At the same time, we must redirect social pressure towards integrity. Donald McCabe, Linda Klebe Treviño, and Kenneth D. Butterfield (2001) advocate the very honor codes Laurie Fendrich finds inadequate. Their paper concludes by constructing "10 Principles of Academic Integrity for Faculty," including "foster[ing] a love of learning, "treat[ing] students as an end in themselves," and "reduc[ing] opportunities to engage in academic dishonesty" (p. 230). I agree with these rem-

edies. The question is, what do these principles look like in practice?

The Course: Conspiracy in Contemporary American Literature and Film

I would like to use a specific class to support and exemplify these principles. Conspiracy in American Literature and Film is a special topic for an English and Humanities Honors course, which I realize may differentiate it from many others. The class afforded students frequent opportunities to react to the texts; screen and assess ubiquitous and dubious conspiracy websites; and respond to each other's work. Using online resources, we were able to emphasize access, transparency, and community, the same forces that have accelerated the advent and ease of online plagiarism (and conspiracy theories). Granted, this essay provides one model that is workable only in certain courses and in certain settings and given the existence of certain technology. Yet the main point transcends the particulars of the class: rather than reacting to plagiarism after the fact or only prohibiting it beforehand without continued discussion, instructors can establish consistent public displays of personalized and authentic writing, so that students will not only have difficulty plagiarizing, but they also will not want to.

A great deal of reading was assigned. Students read, in order, *The Da Vinci Code* (2003), *The Crying of Lot 49* (1966), *Mumbo Jumbo* (1972), *The Handmaid's Tale* (1986), *Libra* (1988), and *Fight Club* (1996). In addition, outside of class, they watched *The Truman Show* (1998), *The Manchurian Candidate* (2004), *The Stepford Wives* (1975), *JFK* (1991), *A Scanner Darkly* (2006), and *Fight Club* (1999). Each book and movie received its own online discussion topic, usually with multiple instructions and questions. Some tasks were more general, such as this one for *The Da Vinci Code*: "As the book continues, keep track of what we can call the conventions of the conspiracy story here. Use quotations

for support." Others, such, as this for *Mumbo Jumbo*, directed students toward specific questions: "Much of the novel is built on a series of deliberate anachronisms. What are some? Where are they? What do you make of them? Use quotations." As I explained in writing to my students, most online posts were to be responses to my questions and prompts, with some kind of close reading or a particular passage from the novel in question, but students could also post research-based responses, again based on my postings. All of these instructions, questions, etc. asked them to analyze why the author and the particular work are studied; to provide historical or contextual information involving the novel's period or premises; or to read and comment on additional essays (available in D2L's Content; that is, a repository of links and documents available for individual access in the Desire to Learn online course management system), such as Richard Hofstadter's famous work, "The Paranoid Style in American Politics." In keeping with the online medium, students were encouraged to cut and paste quotations, links, audio, and video as much as they liked as part of their posts, although students should do their best to make the post as coherent and readable as possible. All outside work required clear citations and, when possible, usable links.

Despite my initial ambivalence, I declined to provide a specific number of required posts or length requirements. This ambiguity could have created obstacles. Indeed, Fernando Mortera-Gutiérrez (2006), in keeping with the literature of blended learning courses, suggests that instructors "establish a well defined set of assignments to be develop[ed] by the students at the end of each unit or module. It means, to describe well within the e-learning platform, what they have to do to avoid confusion" (p. 332). These strictures, though, create two problems: on the one hand, minimum length or posting requirements—say, one post per class, or 250 words per post—often look to students like maximums; that is, they stop writing as soon as they hit what they think of

as the goal. On the other hand, these kinds of specific, stipulated requirements become inducements to pad, or worse, plagiarize. I want students to stop when they get to the end, wherever their end is, and the more engaged they are, the more space they may require. Indeed, once the course began, many students posted more frequently, and in greater length and detail, than I would have required of them. Finally, individual posts did not receive grades; rather, I posted my own additional questions and comments on the boards themselves throughout the term, and also gave students personal, evaluative midterm grades, with substantial commentary, for their online writing. Overall, they worked to create a solid body of work over a period of time and assortment of texts, not necessarily, or immediately, individually accomplished or polished posts. Regardless of course or content, instructors can comment on, and grade, students' process, instead of or in addition to specific assignments. Semester-length opportunities to create a body of work allow students to do better work overall—but, in keeping with Park's topology, they also reduce the motives to plagiarize, since single, high-stakes assignments provide the grade-boost needed to justify plagiarizing, while short, multiple assignments do not. At the same time, frequent responses—from both instructor and classmates—provide additional deterrence to plagiarism, as I will discuss.

As the semester progressed, each student began to take on a specific role in our online discussions, one that emphasized his or her individuality and the inter-disciplinary nature of the class. If plagiarism represents students' attempt to pass off another writer's work as their own, then the course's assignments, construction, and transparency must allow and oblige students to be themselves. James, a pre-med major, regularly provided historical context to our readings, wondering, for example, of Ishmael Reed's *Mumbo Jumbo*, "What does everyone think about the Haiti/Vietnam comparison? Reed places the war during the 1920's, trying

to parallel the unpopular Vietnam war of the 1960's." Tyler often found bizarre and paranoid links to dubious websites as evidence that the novel's worldviews were not invented or even exaggerated. Based on his findings, he posted this poem, with links:

> Jews in a pact with the devil,
> *take control of the*
> Bavarian royal line,
> *who then use the power to infiltrate the*
> Illuminate,
> *who use their connections to infiltrate the*
> Jesuits,
> *who write a book meant to tell*
> Robespierre,
> *to incite the*
> French Revolution,
> *but the book never got there because,*
> the courier was struck by lightning,
> w*hich was suppressed by the*
> German government,
> *who used their influence to bring into the group*
> Alexander Hamilton,
> *who was a part of the cabinet of*
> George Washington,
> *who used the influence of the*
> Freemasons, …
> And this is only about one-quarter of the history
> of this supposed timeline.

Similarly, Alyssa was able to discover the way in which Google searches about the John F. Kennedy assassination only magnified her inability to find reliable material, mirroring character Nicholas Branch's exact frustration to uncover the truth in Don DeLillo's *Libra*: "The word 'conspiracy,'" she wrote, "garners over 39 million hits on Google. It brings to mind a tangled web of lies, murders, and cover-ups. For some it even brings to mind a set of conspiracy theories about a specific person or event, like John Fitzgerald Kennedy."

Amanda, consistently level-headed and a nice foil for James, wrote the following of *The Da Vinci Code*:

> I knew that it was fiction, yet I still fell for Brown's words. Call me gullible (I openly admit that I am); I too asked myself why I hadn't noticed those things on Da Vinci's paintings. I wondered if this was all really possible. I think this is what made the book as appealing as it was for me. I fell for the story. I believed his words, even though I knew better.

And Vanessa, the class's only English major, provided narrative approaches and reminders to students like Amanda that what we were reading was, at bottom, fiction: in *Fight Club*, Chuck Palahniuk "gives you snippets of conversation and thoughts, but never drags out descriptions. He also changes time frames, as if he is telling you the narrative verbally rather than writing it down. This could be confusing, but the concise language ensures that everyone is able to keep up."

My point is not just that these brief selections show exceptional student thinking—although taken together, along with fifteen other student points of view, over the course of fifteen weeks, we engaged in excellent discussions. These examples show how a hypothetical attempt at academic dishonesty—for example, an attempt to copy and paste a paragraph about one of the novels from an unacknowledged website—would require more than just falsified work. Plagiarism would require the continuous creation of a consistent yet entirely fraudulent persona. At the same time, an obvious misappropriation would also look suspect to the rest of the class. Contrast the above excerpts from the discussions with the opening of this *Wikipedia* entry (2009): "*Mumbo Jumbo* is a 1972 novel by African-American author Ishmael Reed. Set in 1920s New York City, the novel takes its plot from the struggles of 'The Wallflower Order,' an international conspiracy dedicated to monotheism and control, to contain the 'Jes Grew' virus, a personification of ragtime, jazz, polythe-

ism, and freedom." The language and tone are nothing like the students' work, but more importantly, the voice, personality, and sense of questioning disappears. Put simply, plagiarized online posts are hard to fake and easy to detect. More importantly, though, there would be little reason to fake it at all, since I did not want or ask for anything like the *Wikipedia*-style summary.

Online discussions also leave a traceable trail of our semester, as exemplified by the fact that I can still reproduce the quotations above. At many points in class, I pulled up previous posts and assignments to allow students to reexamine not just where we ended up, but where we had been and how we got here. Instructors in any class can incorporate discussion boards for consistency, or just convenience. Online writing leaves a clearer paper trail than hard-copy papers, which are returned to students. Online discussion boards allow students to see, or be taught to see, progress in their own and their peers' writing and thinking. The daily use of online discussions, then, provided us with a clear sense of both constancy (of tone, voice, and personality) and development (of connections, content, and close reading skills) across individual student posts. As a collection, these posts not only allowed me to track students' development but could be used to reveal academic dishonesty through observable inconsistencies, shifts, or omissions. Moreover, students were able to respond and react to each other in a way that would clearly make plagiarism unfair not just to me as the instructor, but to their peers. By requiring students to read and respond to each other's work, not just in occasional peer review sessions but routinely, instructors can build an online social component into their course design. Students who deliberately try to submit someone else's work as their own are clearly trying to dupe their instructor, and they are certainly cheating themselves. I believe that many students who might not cavil at deceiving their instructors would be reluctant to try to fool their friends, throughout a semester, over and over again. A

plagiarized term paper, however dishonest, is a one-time course event. But the attempt to fabricate daily responses and replies, to both instructor and peers, in person and online, would require a far greater level of deceit.

I want to emphasize that academic honesty must be inextricable from coursework, not some kind of addendum to it. My primary goal was to promote student reading and discussion: any course, not just an Honors or English course, can require students to share and respond to their work, and then follow up on the experience through reflection and dialogue. Plagiarism, to that degree, would require even more effort than honesty, thus removing the motive. Maybe I am like Amanda, who was tempted to believe Dan Brown's elaborate fictions. However, I am hard-pressed to imagine a student orchestrating a convoluted, nefarious hoax to get out writing a few hundred words twice a week.

This is not to say that our online discussions were neat or pretty. However, traditional papers that only I would have read might never have led to a sustained close reading of Thomas Pynchon's *Crying of Lot 49*, where students' confusion and frustration—ostensibly, a reason for some students to plagiarize—became a way to unpack the novel rather than an impediment to understanding. I made sure that the class understood that problems and questions were ways into the discussion, not roadblocks. Their aggravation should not have tempted them to look for answers elsewhere, because I was not interested in answers: I was interested in the aggravation itself. Students can't plagiarize when I want their questions and when, at least at the beginning, there are no concrete answers to copy.

We began with one student's problem:

I have only read the first two chapters and have already pretty well decided I do not care for this book. It's not the content that bothers me; in fact, once the story started developing, I was somewhat eager to continue reading. The structure of the sentences, however, are [sic] driving me nuts. Some of his sentences are upwards of 4, 5, even 6 lines long! I got so lost in the continuation of thoughts that I found myself repeatedly having to go back and re-read. This is definitely a style I am unfamiliar with and will need some time adjusting to...

That post led to other ideas from other students. One wrote, "I think Pynchon has his sentence structure like that to form an almost uneasy feeling in the reader, kind of a set up for the conspiracy to come," and then, from another student: "I think Pynchon tends to write in long oftentimes confusing sentences because it becomes congruent with the plot. As I read more of this book, more conflicts and side-stories open up. Pynchon keeps the mind in a constant state of chaos and what better way to move that chaos along, than by his use of almost-run-on sentences." After 20 posts, over two weeks, one student posted this reply: "By using long, sometimes confusing sentences that address many topics and thoughts at once, Pynchon brings the reader into the mind of Oedipa [the novel's main character]. Because this book also focuses upon conspiracy, the confusion or fractured lines of thought also lend that uneasy feeling that many have mentioned." Notice the collaboration, increasing sophistication of the reading, eventual eschewal of "I think"-style qualification, and the way in which the first student did not feel the need to claim expertise—or to plagiarize outside sources—in order to participate. Like Pynchon's novel, the discussion emphasized the telling—the quest itself—over the answer, the destination, and therefore students had little incentive to present anything other than their own questions and thoughts.

Despite this article's title, preventing plagiarism was a secondary concern. Teaching students to unpack and create meaning out of the text's difficult prose was the main point. Other topics also elicited extended back and forth volleys between students, in one memorable

case, about whether the 1975 film *The Stepford Wives* is feminist, anti-feminist, or something else and about why this distinction matters. After a long deliberation on the film's ambiguity, Megan sardonically suggested that "In the end, the men win, the women lose, and order is restored to the world. Yay." Tyler of the paranoia poem responded, in part, this way:

> What is to be said about the obviously feminist message in the fact that the Stepford men are unwilling to live in reality, and are thus forced to create a supplemental reality? That often men are so incapable of accepting social progression, that they must revert to extreme measures to stop this ideology?

Each went back and forth four times—in addition to twenty comments posted by others—allowing me to use their arguments as a springboard for in-class discussion that included the full class face to face in real time. It is possible that students could have plagiarized their responses by copying, or even modifying, a critic's response to the film. If the assignment had been a single, stand-alone task, then a student may even have attempted this kind of fraud, leaving an instructor little recourse but to attempt to find the pilfered original and fail the paper. But in the course context of sustained discussions, personalized responses, and appreciation for student questions and conflicts, a plagiarized cut-and-paste job would have been an obvious *non sequitur* and conversation-ender. These students were engaged and thinking, and the few students who had not followed the online discussions were then left out of what was clearly a lot of fun for the rest of the class. Most of the students felt compelled to keep up with the class in a timely manner simply for its own sake—McCabe, Treviño, and Butterfield's need to "treat students as an end in themselves" (2001, p. 230)—or maybe because of peer pressure, in keeping with Park's observation that "some students see no reason why they should not plagiarize or do it because of social pressure" (p. 479). In

either case, students' motivation to do their own work did not come from the threat of a perfunctory punishment to be issued later on.

Of course, traditional in-class discussions can and do yield excellent results, but any reference to or recollection of them may be less than reliable. Here, however, the students and I left the course with clear, readable evidence of what had transpired: 623 individual posts, many smart, funny, and thought-provoking, and nearly all of them, as these few examples demonstrate, personal, colloquial, and, crucially, honest. Yes, some students could get away with less formality than I would ordinarily have required. And yes, students could strategically reply to cherry-picked posts to create the appearance of doing the reading when they had not. But based on the way in which the assignments were constructed and the course conducted, exemplified by the individualized quality of what I saw, I believe that these students behaved honorably. They knew that dishonesty would waste the chance to express themselves while learning from others. They knew that misappropriating another's words or ideas would be easily detectable and provable, given the number of responses, virtual trail, and the additional eyes (that is, the rest of the class) on their work. And they understood quickly that, in the end, there was simply no benefit to plagiarism—no time saved, no better grade.

But more importantly, I believe that the students in the class understood that plagiarism would have caused them to miss out on the fun that the rest of the class was having with the material, or at least it would make them feel excluded from the intellectual kinship that the discussions created. Students had every incentive to be themselves, participate, and take risks, with little or no incentive to use another's words or ideas or pass themselves off as experts. The discussion boards were always about fostering *discussion*, not, as answers often do, ending it. As full participants, students would be unlikely to feel as though plagiarism would some-

how save them time, improve their grades or conform to social pressure, as Chris Park's topology discusses. Requiring students to post their progress to the whole class throughout the semester created an ethos of honesty and truthfulness along with the related virtue of candor. For these students, the best use of time and resources, the best way to fit in with a class's social norms, and the best route to a high grade came, perhaps paradoxically, from being themselves and also from being part of the class's community.

I also felt as though these discussions were not enough. Students can use the discussions boards to show me their thoughts, responses, process, and progress, but ultimately I would also need to see a polished product in the form of a research essay, the genre best known for fostering student plagiarism. Of course, the online discussions and the term project were not mutually exclusive. Instead, and perhaps best of all, the online forums allowed students to work on their term research projects incrementally and openly. Breaking projects down into smaller, lower-stakes cumulative assignments is, of course, a common plagiarism-prevention practice.

Echoing Chris Park, Richard Posner (2007) suggests that plagiarism is so common on college campuses because "weak students and also very ambitious ones have a strong incentive to plagiarize if they have a good chance of getting away with it" (p. 79). Online class publication broadens the likelihood of detection since students read each others' work. Just as the creation of a feeling of community makes it less likely that students will use plagiarized material in their posts, it makes them less likely to plagiarize when they're writing papers that the whole class will see. Emphasizing writing as a process requires students to practice controlling and citing sources over multiple drafts, with frequent opportunity for correction from their classmates if problems of citation and documentation arise. Students had repeated opportunities to build and develop their ideas through our informal online discussions, and then

to hone and support their best ideas through multiple drafts, thereby learning the conventions of academic writing together, over time, with my oversight. By the end of the semester, after annotated bibliographies, drafts, student responses, and my comments—all visible to everyone in the class—I collected their term papers, none of which contained plagiarism, inadvertent or deliberate.

Conclusion: "Conspiracy" as Community

The notion of community can extend even beyond the classroom. And so, for their final project, three students from the class and I set out to create a panel for a conference presentation, going through our online archives to analyze the dynamics of these responses from political, psychological, and literary perspectives. In doing so, these three students were able to compare the use of discussion boards with traditional papers; the use of discussion boards in honors versus non-honors classes; online discussions in a humanities and a social science class; and online discussions as a genre in keeping with, yet distinct from, essays, debates, conversations, and letters. All agreed that online participation emphasizes intrinsic motivations—to read and write, to participate, to learn. In the traditional class, students write just for the teacher. All of the students in the class had an audience for their work—me, and 18 peers. In addition, between the conference and colloquium, five of my 19 students also saw their work extend beyond our classroom Here, these conference-bound students were writing for me, for each other, for their classmates, and for their conference audience. What is more, our university's new monthly Honors Colloquia now feature exceptional student papers from previous semesters. Two students with the best term projects from my class presented their analyses of the conspiracies surrounding the assassination of President Kennedy, using different approaches (narrative vs. historical), to First-Year Honors students. In posting and presenting, these stu-

dents were not avoiding something negative, but doing something positive: writing their best, persuading their peers, broadening their audience—in short, providing their own incentives to be honest. By devising and implementing courses that publically prize honesty, rather than simply threatening to punish fraudulence, perhaps faculty can work to raise the bar for academic integrity.

I may continue to joke that plagiarism used to be hard work, and students may still wonder whether I'm joking. After my classes, I hope they also wonder why anyone would have ever wanted to plagiarize at all. Even more importantly, I have come to realize that, too often, college instructors' attitudes toward plagiarism can mirror the paranoid mindset that our class studied and challenged. It is easy to allow evidence of plagiarism in the past to make us distrust students in the present. We must be careful of succumbing to a paranoid, McCarthyist appeal to ignorance: students cannot demonstrate that they did *not* plagiarize, and a lack or evidence against them does not mean that they are simply efficient liars or that readers are gullible. To prevent plagiarism, instructors must combine academic honesty with their specific course goals, rather than treating it as a section in a manual or on a syllabus, or even as a unit or module within a course—although certainly such prevention efforts are far better than punishment alone. Even a course that has an instructor-led presentation defining plagiarism and explaining how to avoid it should also expect that students need regular practice, not just prohibitions.

If instructors establish conditions to prevent plagiarism's root causes, if we read students' work consistently and carefully, and if we allow students to find their voices and to develop as thinkers, then we can and should learn to trust their work. Can I be sure that no one in that class plagiarized? Of course not. Even expensive, intrusive plagiarism-detection software cannot guarantee that a student has not cheated. But I have no reason to think that they did, and a semester's worth of writing to support that they did not.

I remain ambivalent toward technology's continuing encroachment on education, especially the idea that the solution to plagiarism is more software. At the same time, we can remain open-minded about aspects of the technology that seems to have accelerated dishonesty. On the one hand, a paper title that alludes to *Dr. Strangelove* seems an invitation to apocalypse, or at least irony. Certainly, I hope not to ride the bomb to the end, whether that bomb represents blind belief in students' honesty or in technology's utility. At the same time, however, this class—and other classes that I have taught since—suggests to me that we can, without insincerity, indeed learn to stop worrying about the Internet, electronic discussion boards, and even plagiarism. Perhaps then we can get back to worrying about teaching our students to read well, write attentively, and think for themselves—not despite technology or plagiarism policies, but because of them. ▪▪

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Designing Exams: Student-Drafted Exams in Survey and First-Year History Courses
Frederick Dotolo

Abstract

This paper describes a guided process that allows students to draft identification and essay questions to be used in examinations for a lecture-delivered course. While these techniques were used in an introductory history survey and an all first-year Learning Community history course, they are by no means are exclusive to history. Within any course, student learning differs considerably, and so instructors should incorporate different pedagogical techniques that encourage active learning. An effective way is to guide the students, both in small groups and as a class, into drafting exam questions and short-answer identifications. Various informal and formal written assignments familiarize students with the material and allow them to begin asking questions that will guide the compilation and drafting process.

Keywords

teaching, student-generated, active learning, identifications, essay questions

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Introduction

After several years of instructing sections of the European history survey course and the content portion of a cross-disciplinary Learning Community at a small comprehensive college, I noticed that several of my non-major and first-year students had difficulty learning from the lectures, but not necessarily from the other course materials. Over the semester, a portion of these students cooled to the subject and, I would assume, decided against continuing their study of history at the college level. Colleagues in other disciplines who relied on lecturing also had similar experiences. While in-house educational workshops offered some helpful insights, many of us felt that we were being asked to consider exploring alternative ways to deliver class content. Nonetheless, we still believe that lecture-driven area courses are valuable. For instructors in lecture courses, the challenge lies in finding ways to reach students who are not comfortable with lectures and to accommodate their learning styles without completely abandoning discipline-accepted pedagogies.

My solution was to incorporate several techniques from the Writing-Across-the-Curriculum (WAC) movement. The results were noticeable. By

mid-semester, students who had not been participating actively began to share insights with peers and, in general, assumed greater ownership over their learning. One such student in the survey course, for example, observed how nationalism seemed to be less important in Russia than in Germany during the Revolutions of 1848 because the political legacy of Napoleon and of the French Revolution was established more deeply in Western Europe than in Russia. His point sparked an impromptu discussion on other possible reasons for differences between Western and Eastern Europe and, ultimately, inspired an essay question for the final exam. I began to think about how to expand the limited WAC techniques that had obviously helped one student make connections between concepts and information learned in various parts of the course so that other students would begin to think on that level and participate as active learners.

I. An Active Learning Technique: Writing Across the Curriculum

While thinking about why some students were having difficulty with the lecture, I re-examined how standard assignments from the survey—lectures, outside readings, quizzes, and examinations—a workload countless students have in the past handled with relative ease—might be adversely affecting how the first-year and non-major students were learning. It seemed that they struggled with assignments that were more sophisticated than merely collecting facts or summarizing information; some were even surprised that the material the class had already covered would be necessary throughout the rest of the semester.

A key component of historical thinking is the ability to evaluate evidence and trace change and continuity over time. Students need to be able to construct arguments from historical sources. Kathryn and Luther Spoehr (1994), among other commentators, believe that college students must be able to "suggest hypothetical responses and explain why they find one more or less persuasive than the others" (p. 73). In other words, students need to evaluate academic arguments and positions to reach a mature understanding of history. Additionally, the Spoehrs (1994) argue that "thinking historically . . . seems to require . . . develop[ment of] hypotheses about cause and effect, allowing for the possibility that a cause may be quite remote (in time, in category, or both) from its effect" (p.7 3). Likewise, the American Historical Association (1998) has urged teachers and professors to ensure students "have the opportunity to develop their own historical interpretations" (n.p.a.). Historians who teach at colleges and high schools must cover large content areas and encourage critical thinking and writing within the historical methodology. Otherwise, students, who may believe that they have been abandoned in the classroom, are forced to develop the skills they need on their own. More likely, they will disengage from the course and lose interest in the subject.

Expanding on my use of Writing-Across-the-Curriculum techniques, I experimented with student-generated written exams. Not only did guiding students through the process of developing examination questions help the class to learn European history and historical thinking and familiarize them with the historical method, it gave compelling evidence of the power of these techniques to foster student engagement in a content-heavy lecture course. What works for my history students could be adapted for use in a psychology or even a chemistry class, as it involves students in reviewing, demonstrating their understanding of, and evaluating the significance of facts and concepts, with the faculty member moving from conveyor of information to facilitator of learning.

Essay exams are certainly not an innovation for the study of history or any liberal art. In fact, Bean (1996) argues that written exams evaluate and encourage student-learning, asking students "to synthesize concepts

and draw together various strands of course material" and "see the whole course in perspective" (p. 183). Likewise, they provide a means to introduce students to the field of academic history. As Bean (1996) explains, "essay exams send the important pedagogical message that mastering a field means joining its discourse, that is, demonstrating one's ability to mount effective arguments in response to disciplinary problems" (p. 187). Additionally, Bean (1996) argues that the process of compiling exams—a process that also includes the use of review sheets—benefits students by providing them opportunities to prepare for the exam while developing their critical thinking skills. The principal drawback for students is their lack of experience in designing their own exams. Thus, Bean (1994) reminds faculty that "particularly in lower-division courses, where students are still learning academic discourse, instructors need to teach students how to write essay exams" (p. 188).

II. The Basics: Scaffolding, Small Groups, and Informal Writing

The first class of the new survey is conducted as a mini-methods course to introduce students to historiography and to lay the foundation for the skills needed for the successful study of history. I start by reviewing the major historical schools of thought and giving a short history of the field from Ancient Greece to Modernity. In the next class, we do a series of drills and exercises that teach the basics of historical inquiry, introducing students to what the types of sources are, how to read and take notes, and what is expected in a history paper. In the final class of the first week, I conduct a reading exercise that provides the foundation for the later work in teaching critical and historical thinking. The assignment involves distributing a paragraph from a document and asking the student groups to work through a series of questions designed to encourage closer reading of the material. I also schedule a library visit and meeting with a research librarian to help students understand the types of historical sources and research databases available for their papers. Additionally, I have the student groups write and revise course papers from thesis formulation to initial drafts and final revisions.

A principle of critical thinking is scaffolding, whereby students summarize and analyze information before synthesizing knowledge. An effective scaffolding technique is the use of academic journaling, which offers students the opportunity to practice developing and presenting their ideas without the pressure of a formal, graded assessment. For the survey, each student is required to keep a journal over the course of the semester. Starting in the second week of class, students are required to make two journal entries per week. These entries are expected to be only one page in length, and each one is numbered, dated, and summarized at the top of the page. Usually, the individual students choose their own subjects for one of the two weekly entries, based on an aspect of the weekly reading they are most interested in, while I assign the other, based a topic or question raised in the classroom. I require each entry to have a thesis, textually proven assertions, and a conclusion that makes a broader point by linking the item to the present. Periodically, I ask a random volunteer to read an entry and then spend ten minutes or so discussing it with the class. At other times, I collect and randomly redistribute the journals and ask the students to read and write constructive comments about an entry.

Coupled with the principle of scaffolding is the use of small work groups. During the second class meeting, I assign every student to a study group with two or three other students and then ask these groups to examine an excerpt from a course reading and answer a series of written questions within their group before starting a class discussion. First, each study group is given its own excerpt. Each student must write a brief summary describing the main point of text. Then the students consult each other, comparing and contrasting what they wrote and why, analyzing what their inter-

pretations have in common and what their differences are. The students then reformulate the main point of the reading into a question, trying to contextualize the material in a manner that makes it understandable to each student within the group and within the other groups. Then one student from each group writes the group's question on the board. Finally, each group must answer a question asked by another groups. Usually after two or three of these exercises, most students are able to evaluate longer excerpts and then transition to outside course readings for papers. With the lectures, course readings, and formal assignments, my students can demonstrate that they have improved their critical thinking skills and the quality of their work. With these skills in place, I then address developing the students' comprehensive understanding skills.

In-class writing assignments develop the skills used in journaling and introductory group work and also encourage active learning. The first assignment occurs after a period of lecturing, usually twenty minutes. I distribute an excerpt from a lecture-related source, usually a document that I mentioned, and ask the students to take a couple of moments to write a brief answer to a question. After ten minutes, I ask a student to read out his or her answer and then use it to start a class discussion. For the early part of the survey course, I use the *Declaration of the Rights of Man – 1789*, requiring the students to write on the nature and origins of the rights established by the French National Assembly (The Avalon Project, 2008). The second type of in-class writing can be performed toward the end of class and asks the students to evaluate the lecture, analyzing what they have found useful—or not—and what they have learned.

The final type of in-class assignments is designed to give students practice in writing short identifications and exam essays. For identifications, I ask students to identify, describe and give the significance of a particular person, place, event, or idea in a solid paragraph. The

important elements of an identification question are the relevant facts and data of an item, the proper contextualization of the item, and the students' interpretation of those facts. To get the significant facts in their answer, I remind them to answer the basics questions, who, what, when, and where. Dates are important, as is a sense of chronological sequence. Listing that the item took place in X and that it resulted in Y is important for historical thinking. However, merely mentioning pertinent facts or, worse, regurgitating a *Wikipedia* entry that does not reflect an informed opinion is not acceptable. Students must realize that the instructor has read those entries and are reminded that an identification question asks for an informed, substantiated opinion. Obviously, this type of assignment can be frustrating to students who want a narrowly defined answer. The problem is that identifications depend on the students' understanding of the history and that there can be many different good answers. The best way to encourage students to approach identifications is to have them practice writing examples. Therefore, three or four times during the semester, I take ten to fifteen minutes of a class to have them read, write, and discuss examples of identifications, in a process Bean (1996) calls "norming sessions" (p. 158). I give them an item to identify, asking them to give the item's origin, description, and significance. They can consult their textbook or notes, but the items I assign for the in-class exercise are those just covered in lecture. Once the students are finished, I ask three students to read their answers aloud to the class, while I write on the board the highlights of their entries. We then compare and contrast the three answers, and the class tells me which one it considers the best, why, and what it would change about all three answers.

III. Directed Student Generated Exercises: Tying it all Together

The exercise for composing an exam essay is similar to the identification exercise and reflects the idea of

norming. First, I give the class a topic from a lecture with which they are familiar. Then I have the students generate a thesis statement based on that topic. Next, I ask them to write a question for that thesis statement. Once they have finished, I ask for several volunteers to write their questions on the board. We spend several minutes discussing and, if necessary, revising the best question. During the process, I ask the students to consider the following points when composing a potential question that Bean (1996) argues is important for the learning-through-essay exam process: can the answer begin with a thesis statement? Can the question be answered in a reasonable amount of time? Can the student use course material to answer the question? Can the question be posed simply, and does it avoid sub-questions or hints?

After several weeks of attending lectures, participating in interactive learning exercises, and completing other writing assignments, students are experienced enough with historical methodology to generate an exam review worksheet of short identification and essay questions. The students compile the sheet a week before the midterm and final exams. The whole process begins, however, with two journal entries. For the first assignment the students, working individually or in groups, must explain how they would classify and order all of the various items (broadly defined) covered in the course by devising three broad categories. Toward the end of the next lecture, the class lists those categories on the board and begins to consolidate or eliminate the categories systematically until three exclusive categories remain. Usually, the students decide on some variation of persons, events, and ideas/concepts.

The second assignment requires the students, again using relevant course materials—texts, readings, and lectures—to compile a list of five items per category (see Appendix A). These items can be chosen in whatever manner the student desires, based on interest or on consideration of what is most important to the course. Each item must be followed by a brief explanation. After finishing the identifications, the students need to write either a brief essay question or an idea for one. These entries do not have to be polished; a draft of ideas on paper is adequate.

The next part of the exercise usually takes a whole class period. At the start of class, I assign each student a study partner and give everyone an individual review worksheet to begin the exercise, the creation of categories of analysis. The first part of the worksheet, the initial choices, asks the student to pick four out of the five items in his or her journal for each category. The two partners then discuss their separate lists and choose three items in common per category. Meanwhile, I divide the board into thirds, one for each of the categories, and then have a student from each group write the group's items under the corresponding categories. This part of the exercise requires no more than ten minutes. Should an item be redundant or should the groups differ about which category an item should be placed in, that is fine too.

After every group has posted its items, the students are asked to consolidate the lists. Working in their groups, students discuss and decide which one item under each category they would eliminate to make the list more manageable. Once they are finished, I systematically go through each category with them to determine which one should be eliminated, encouraging students to discuss the merits of each item, fostering active learning. I referee any disputes in order to help the class reach a timely decision. If a majority of the class decides that an item should be eliminated, then it is gone, unless I believe that it is important to the course. Likewise, I tell the students that I will retain the right to add any item that I think is important for the final review sheet.

The process can be lengthy, but if the students have had experience with identifications beforehand, as in the in-class norming sessions, then by the time

this exercise is held, they are familiar with the type of questions that are effective and appropriate for an exam. Compiling the items can lead to interesting developments, which can greatly benefit knowledge and an understanding of history. An example of this occurred when my Learning Community on the history of early Britain selected the *Magna Carta* as both an item and a concept. The choice told me that the students were thinking about political concepts and meanings that were relevant to them. However, in cases like this, I tell the students that I expected their answers to be appropriate to the category in which they placed the item.

With the identifications finished, the class turns to the essay questions, which can be an easier process as long as the students are prepared. First, the students write an essay question in their journals. My advice to the students, as reinforced by the in-class assignments, is to compose a straightforward question that can be answered by a thesis statement and that avoids sub-questions. (For some students the assignment can be a bit overwhelming, so I allow them to note the ideas for their questions rather than preparing fully developed questions.) With their study partners, students read and analyze their questions, revising the best one to write on the board. If their questions resemble ones that other groups have already proposed, I ask them to write theirs under the ones already on the board, grouping similar questions together. Once the questions are on the board, I consolidate the similar ones. Then I go through each remaining question, asking the group that wrote it why they chose it and asking the class whether they would like to keep it. As with the identifications, I referee any disputes and offer insights into refining the question. My goal is to keep three or four questions on the board. During the selection process, I tell the students to pay attention to the intent of the person who composed the question and the explanation behind the question. Once everything is clear, I ask for final thoughts on the whole exercise.

The last portion of the exercise involves recording, adding to and/or revising the identifications and essay questions. I revise, for clarity if necessary, but also if I need to emphasize a significant issue that the students either did not or chose not to address. The students know that until the whole review sheet is posted it is not the final version. I do not subtract anything from the draft list, and so the class knows what will be on the exam even if the final essay questions might not be exactly the same as the ones in the exercise. I also include my own essay question on the review sheet. Usually this is some comprehensive question that draws on and synthesize the whole semester. After the class session ends, I finish my portion and post the items and questions, those generated by the students and any I have added, as a review sheet online on the class's Blackboard site. The students now have a way to prepare for an exam that is largely of their making, and the experience of synthesizing knowledge from course material and developing their critical thinking skills in the creation of that exam has increased both their command of the material and their ability to use what they have learned as they formulate good answers.

This process reveals how students think about course material, which in turn could provide for future discussion in class or, perhaps, a writing assignment. For example, in the Learning Community class, most of the "persons" picked by the class for the identifications were rebels. I would not have known that without having asked the class to compose the items. This allowed us as a class to spend some time talking about this interesting point. Would they expect a group of college students from England to focus on the same list? What does it mean for the study of history and, more importantly, their own understanding of history once they see history as also reflecting some unconscious or cultural factors? Similarly, after seeing the mid-term lists, I am often able to adjust the course in ways to appeal to their interests. I can see what issues they may not

grasp sufficiently and then tailor my lectures to fill that gap. Finally, the process allows the students to "own" and "practice" history. History ceases to belong only to the professor or the academy and becomes something which students are able to do at a basic (and for some, even an intermediate) level. ▪▪

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Appendix A

Student-Generated Midterm Examination Review Worksheet

NAME:_____

Study partner:_____

IDENTIFICATIONS
Identification questions ask you to give short written answers that identify (explains the item's origins and provides a description) and give the significance of various items.

Initial choices
Using your own journal, class notes, and course readings, and without consulting your study partner, list four persons, events, and concepts, and to the right of each, explain why you think they make good identifications.
Persons:
1.

2.

3.

4.

Events:
1.

2.

3.

4.

Concepts:

1.

2.

3.

4.

Revised choices

Now compare and contrast your list with your partner. Together ,choose three from either of your initial categories, write them here, and explain why you chose them.

<u>Persons:</u>

1.

2.

3.

<u>Events:</u>

1.

2.

3.

Concepts:

1.

2.

3.

NOTE: If another group writes one of your items on the board, please place a check mark immediately to the right of the item.

Class choices
Of the three items on the board under each category, pick one you would eliminate, and explain why.
Persons:

1.

Events:

1.

Concepts:

1.

ESSAY QUESTION:

Review the material we have covered from the lectures, readings, and class notes and begin formulating a simple essay question:

Can this question be answered by a thesis statement? If not, then can you refine the statement? If yes, then can the question be answered in an essay of about twenty minutes?

Read and discuss your question with your partner. What are the strengths and weaknesses of your question?

How would you revise your question after the discussion?

As a study group, pick one of the questions that you would present to the group. Why did you, the group, choose that question? What makes it a good question?

Appendix B

Below are the initial student-generated identification and essay questions for the midterm European survey exam.

IDENTIFICATIONS
Persons

Constantine	Petrarch	Columbus	Julius II
Cortez	Michelangelo	Isabella	Ferdinand
Lorenzo the Great	Prince Henry the Navigator		Martin Luther Henry VIII
Guttenberg	Medicis	Machiavelli	Charlemagne
Pope Leo I	Joan of Arc	Otto I	Merovingians
Jews	Muslims	Magyars	Vikings

Events

Reformation	Printing Press	Exploring	Renaissance
Hundred Years War	Black Death	Dark Ages	Fall of Roman Empire
Church of England	Little Ice Age	Fall of Constantinople	`Printing Press
Pilgrimages	Knights of Malta	Crusades	Holy Roman Empire

Concepts

Sola scriptura	Transubstantiation	Justification by Faith	Predestination
Humanism	Individual Agency	Determinism	Feudalism
Renaissance	Discovery	Farming techniques	Paid Soldiers
Age of Exploration	Divine Image	Mercantilism	

ESSAY QUESTIONS
1. Discuss the effects of the Age of Discovery on European history.
2. How did humanism undermine traditional beliefs in God?
3. What did the Renaissance mean for Italy?
4. What were the reasons for the Spanish and Portuguese voyages of Discovery?

Below are the final items and questions the students and the instructor chose for the review sheet.

IDENTIFICATIONS

Persons

Constantine	Petrarch	Columbus	Pope Julius II
Cortez	Michelangelo	Isabella & Ferdinand	
Lorenzo the Great	Prince Henry the Navigator	Charles V	Francis I
Martin Luther	Henry VIII	Pope Leo I	Wycliffe

Events

Council of Trent	Printing Press	Exploration	Renaissance
Hundred Years War	Black Death	Church of England	Little Ice Age
Constantinople 1453	Printing Press	Avignon Papacy	English Peasants' Revolt
Fairs	Battle of Crecy	Wars of the Roses	Sale of Indulgences

Concepts

Sola scriptura	Transubstantiation	Justification by Faith	Predestination
Humanism	Individual Agency	Determinism	Fiefs
Neo-Platonism	Three-field rotation	Paid military service	Journeymen
Idealism	Conciliarism	Vassalage	Nominalism

ESSAY QUESTIONS

1. Evaluate the political conditions that caused the division of the Carolingian Empire after the death of Charlemagne.

2. Explain how the absence of a strong papal and imperial presence in northern and central Italy in 1300-1500 contributed to the flourishing of the Renaissance.

3. Discuss the role of humanism as it emerged during the Renaissance had on changing the established political, artistic, or religious order of late medieval Italy.

4. Compare and contrast the Portuguese and Spanish reasons for the voyages of exploration during the late 15C and early 16C.

Emergent Properties:
Interdisciplinary Team Teaching in Literature and Biology

Nels C. Pearson and Ashley Byun McKay
with student authors James Ballanco, Heather Boyd, Greg Burke, and Shawne Lomauro

Abstract

In this essay, we reflect on the outcomes of our interdisciplinary, team-taught, undergraduate core course in modern literature and evolutionary biology--a course designed to study the problems of identifying the emergence of distinctly "human" beings. The essay reflects on the positive, unexpected outcomes that we experienced, especially in student writing, via the metaphor of "emergent properties," a biological term that refers to how new and complex traits, behaviors, or life forms emerge from the interaction of "simpler units" which in themselves would not produce these properties. Given that so much of the course content came from the students themselves—in particular, from their interest in the question of human consciousness as an evolved trait—we have incorporated excerpts from student essays that were produced for the course. These excerpts are preceded by student reflections and accompanied by observations about the compelling fashion in which students synthesized not only scientific and literary content, but also objective and subjective writing styles.

Keywords

interdisciplinary teaching, team-teaching, classroom practices, Arts and Sciences, student writing

Introduction

This essay concerns the unique learning experiences which emerged from a team-taught, interdisciplinary course called "Minds and Bodies" at Fairfield University, a Jesuit liberal-arts institution of 4,000 students in Fairfield, Connecticut. Part of a core course sequence for first and second-year students in the Honors Program, "Minds and Bodies" is taught annually, but with different faculty teams. As professors of biology and English literature, ours was a particularly unusual pairing and as such, we were both enthusiastic and apprehensive about how we could combine these two fields into a single cohesive course. Deciding upon objectives and learning outcomes was especially challenging, as we realized just how deep the differences were between

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Ashley Byun McKay is an Assistant Professor of Biology at Fairfield University where she teaches Evolutionary Biology, Vertebrate Zoology, General Biology and mentors undergraduate research. Her research interest include the evolution of new gene functions and post-glacial phylogeographic distributions in temperate and tropical rainforests and her work appears in journals such as *Evolution* and *Trends in Ecology and Evolution*.

Literature's metaphoric and philosophical mode of understanding nature and Biology's empirical mode. Resisting the urge to teach these as separate ways of looking at nature—to present them simply as two "different disciplinary lenses"—was a daily challenge.

The course that we ultimately developed centered upon the question of whether there is a mind or soul distinct from the biochemical brain and body. We approached the question from both evolutionary and philosophical angles, introducing students to the difficulty of distinguishing distinctly human traits and cognitive faculties from those in the animal kingdom while also engaging them in the humanist dilemma of the inability to affirm metaphysical absolutes or origins. Alternating between case studies in animal evolution and philosophical responses to evolution and genetics in 19th and 20th-century literature, our goal was to initiate student reflection on the possibility that human capacities such as love, language, or justice are not unique to our species, but properties that emerge along an evolutionary continuum.

In Biology, an "emergent property" is a new and often unpredictable trait that arises through interactions of the individual components of a system. Independent of the system, the individual component would not exhibit that particular property, behavior or function. As the semester progressed, we and our students became increasingly interested in how the emergence of complex biological properties such as male sexual displays and bird flocking might also explain how humans developed certain traits such as emotion, social behavior, cognitive function, and perhaps even what we refer to as the "mind." Although we had not planned it to be a focus of the course, we found ourselves increasingly occupied by this topic: could human consciousness, and associated traits such as love and free will, be the emergent products of mere biochemical and cellular interactions, and if so, then might this not help to resolve the opposition between the autonomous

self and the inflexible laws of nature that had troubled writers like Mary Shelley, Alfred Tennyson, and Fyodor Dostoevsky? Could it explain how free will would actually evolve according to a natural law (traditionally its philosophical nemesis)? Our main purpose, here, is not to provide a detailed answer to that question (although our student contributors, below, engage it from different perspectives). Rather, it is to propose what this spontaneous development indicated in and of itself, namely, that the phenomena of emergent properties was actually happening in the class. That is to say, as the philosophical components of literary study and the empirical components of Biology interacted, a new matrix of innovative and often unexpected topics and ideas was evolving, especially in student writing and discussions. As in nature, our content had emerged spontaneously out of a collocation of life forms.

This unplanned content included students working through their personal discomfort regarding the ambiguity of what it means to be human (especially when "hard science" was helping to fuel the problem rather than solve it), developing novel social and political perspectives and new views on spirituality and the autonomous self (including the challenge of integrating science into a religious viewpoint), and having vociferous arguments about how to resolve the apparent contradiction between distinct consciousness and natural law. Because of the interdisciplinary nature of the course, we had agreed to encourage a range of possible writing styles, with the one stipulation that students develop their ideas through the balanced integration of citations from both scientific and literary sources. When we read the results, we noticed that the unique evolution of our course's subject matter or topical focus was reflected not only in the content of student's essays, but also in their form. Just as their subjects were original, so too did their writing cross discursive borders between source-driven research writing, the personal or reflective essay, and thesis-driven interpretive and

analytical argument. Indeed, we often noted that it was when students were using close readings of literature to illuminate or interrogate concepts in genetics and evolution, and vice versa, that their compelling synthesis or juxtaposition of scientific and literary modes of inquiry was most evident.

Below are excerpts from four student essays, each of which illustrates these general observations about the course and its outcomes. These essays were among the best in the course, but the main reason we select them is that they best demonstrate the original combinations of scientific and literary concepts or approaches that the students themselves had generated. A few of the essays we received could be considered more technically proficient or rhetorically consistent than these, but less innovative, while many others were neither as original nor as technically sound. What really struck us as different about all the papers was that so many of them could only have been produced by independent thinking about the different ways that course concepts fit together. Even the least provocative among them tended to have a compelling, untypical insight. The ones below had many. Each excerpt is preceded by a student reflection on his or her processes of thinking, writing, and discovery and framed by our own comments and perspectives.

Heather Boyd

The process of writing this paper was overwhelming at times as I reflected on the nature of humanity and attempted to ground rather large ideas in biology and literature. These thoughts infringed upon my indoctrinated view of mankind. Often, I struggled to articulate what I was slowly coming to understand. Through conversations with my professors and then by my writing, I was able to wrestle with the implications of my findings. If I accept that every action I take is rooted in biology, how can I also believe that a supreme being created me as an unique individual with free will? By experiencing this process of confusion and, at times, frustration, I was able to unlock ideas which I had

believed should be thought about in purely religious terms. Ironically, the answer I found did not undermine my belief in God or the dignity of the individual, but did result in an even more awe-inspiring view of the world.

Literary works repeatedly reflect upon the implications of the considerable evidence which refutes the existence of uniquely human traits. Even the capacity for language, emotions, and complex intelligence, three traits generally assumed to be exclusive to humans, appear to be subject to natural law. This likelihood raises several philosophic questions that authors Ian McEwan and Fyodor Dostoevsky grappled with in their respective novels *Saturday* and *Notes from Underground*. Their important concern is this: if the complexity of human language, the depth of human emotions, and the degree to which humans can learn and reason are all determined by genes, then what choices are left to free will?

According to Tom Siegfried (2008), "Free will is not the defining feature of humanness, modern neuroscience implies, but is rather an illusion that endures only because biochemical complexity conceals the mechanism of decision making" (para. 3). In his novel *Saturday*, Ian McEwan (2005) explores this challenge to the notion of autonomous consciousness. The main character, neurosurgeon Henry Perowne, believes that every human action is attributable to genetics:

One kilogram or so of cells actually encodes information, holds experiences, memories, dream and intentions. He doesn't doubt that in years to come, the coding mechanism will be known, though it might not be in his lifetime. Just like the digital codes of replicating life held within DNA, the brain's fundamental secret will be laid open one day. (p. 262-263)

At the end of *Saturday*, Perowne uses this understanding of genetic inevitability to assess Baxter, a London street criminal, as suffering from Huntington's disease. By acknowledging that this disease predisposes

an individual to behavioral and psychiatric problems, Perowne is able to ignore Baxter's attack on his family and operate on him. But McEwan leaves the question open: isn't Perowne's decision to operate on Baxter still precisely that: a willful choice to act ethically?

That depends on how, exactly, we define "free will". According to Siegfried (2008), "The issue is understanding the complex circulation of molecular information that is massaged and manipulated at various stations by neural systems tuned to multiple decision-making considerations. That process *is* free will, even if it isn't really free" (para. 9). In the end, the neurochemistry of the brain controls decision-making. Free will is merely the end, not the means to an end. In other words, if a person defines free will as being able to make decisions, then the fact that neurological firings in the brain lead a person to making the decision is irrelevant.

Accepting that free will is subject to natural law is a central theme in Fyodor Dostoevsky's *Notes from Underground* (1994). Dostoevsky describes the ranting of a man who is confronted with this very conundrum— "Once it's proved to you that you descended from an ape, there's no use making a wry face, just take it for what it is" (p. 13). "It" pertains to the fact that human beings are subject to the same natural law as apes. In the *Encyclopedia of Philosophy*, Edward Wasiolek (1967) discusses the fear of the underground man: "If the laws of nature really exist, then 'free will' is an illusion that will be dispelled by reason" (p. 411). The reason behind any choice, even the choice to deny this irrefutable truth, is biological. This circular logic drives the underground man mad as he cannot stop asking questions and over-thinking his situation.

I cannot help but wonder why the assumption that human beings are subject to natural law offends so many people. I cannot refute that the choices I make are determined by natural law or that that my experience of empathy, love, and grief is traceable to chemicals. But Natural law's innate tendency for variation

has also led to the birth of individuality. Every brain is unique. Although human brains consist of the same fundamental components, from slight variations, different personalities and tendencies emerge. If your brain is unique, and your brain is part of the unique person that you are, then why do some people have a problem accepting the truth about free will?

> Heather's essay is a compelling mixture of reflective and analytical writing. Using her citations as signposts to mark the specific places where her thinking was challenged, her larger objective is to offer a more personal review of how she came to understand the paradoxes of natural law and the human will. We liked the way that this form helps to show her not merely receiving knowledge, but engaging it in deep dialogue with an existing religious viewpoint that she didn't allow to be static or inflexible. The possible reconciliations that she offers, in the idea that variation is a key component of evolution and in the sense of awe regarding the "magnificence" of evolutionary processes, are important discoveries that the class had begun to make, thanks in large part to Heather's contributions.

Although these realizations were hard to come to, I am starting to see the grandeur in my new understanding of free will. I once had believed that knowledge of biological processes, genetics, and natural selection was irrelevant to my philosophic view of humanity. I was entirely wrong. The process of reconciling spirituality and science is an integral part in one's exploration of their life philosophies. Furthermore, spirituality cannot be used in place of natural law or to explain what science has yet revealed. I believe that spirituality exists outside of natural law. Some people think that believing that human choices are shaped by natural law means that human beings are not in control of their destiny, but rather, everything is predetermined. Even Dostoevsky grappled with this same concept. My sense of purpose has yet to falter even in the face of the irrefutable truth that human behavior is subject to the same natural law

that govern all plant and animal life as I do believe I can make choices and change the world around me.

James Ballanco

My paper focuses primarily on the phenomenon known as consciousness. I wanted to prove that consciousness is merely a complex biological function—thus disproving that it is a manifestation of some God-given human superiority. To do this, I looked for examples in literature, supported by modern science, in which the human mind showed that it was subject to the laws of nature. I struggled as I wrote this because the conclusion I came to was both provocative and unsettling. It seemed wrong to suggest that human beings are only as free as certain biological processes allow. In the end, I looked to the writing of Tennyson to support the idea that an absence of free will can actually be thought of as a soothing gift that might even be embraced.

Human consciousness can be thought of as an emergent property that has evolved over many generations. This complex trait emerges through the interactions of nerve cells or neurons, and supporting cells known as glia. In "Animal Intelligence and the Evolution of the Human Mind," Dicke and Roth (2008) review evidence that the unique cognitive abilities of the human brain over the animal brain are not due to any large scale alteration of brain architecture but rather, due to microscopic upgrades in these fundamental units. More neurons and thicker myelin sheaths both which allow the human brain to process more information faster has probably played a key role in allowing our brains to reach a level of complexity that is not biologically possible in other animals (paras. 13-17).

Is the human mind a set of simple neural interactions that, when examined as a whole, results in the emergent property which we understand as consciousness? Has consciousness emerged as a result of evolution in the same way as other seemingly complex traits such as the heart or human fingerprints? In Ian

McEwan's novel *Saturday* (2005), neurosurgeon Henry Perowne seems to subscribe to this belief:

> "…the brain's fundamental secret will be laid open one day…Could it ever be explained, how matter becomes conscious? . . .the secret will be revealed…the explanations will refine themselves into an irrefutable truth about consciousness" (p. 262-263).

Though there is not yet concrete evidence of how our biological matter becomes conscious, there are many examples that seem to illustrate that human consciousness is indeed a trait that emerges according biological laws.

Being a biological function subject to natural law, human consciousness can be impaired, altered, or even temporarily suspended in accordance with biological properties and interactions. For example, during sexual intercourse, levels of the neurotransmitter dopamine are greatly increased in the brain. Dopamine, the body's reward system, results in a feeling of ecstasy that results in a temporary lapse of consciousness (Robinson, 2006). This idea is mirrored in *Saturday* when the narrator describes Henry's experience of sexual intercourse with

> James's approach seemed to us highly original: McEwan's novel certainly cries out to be analyzed in terms of actual neurochemical research, but given our specialized fields, chances are that no scholar has yet done so. James not only moves smoothly between paraphrase of current scientific studies and interpretive close reading of literature, but extends his observations across several different literary works, showing a continuity of concerns running through Tennyson, McEwan, and the science of the brain. His essay also captures one of our own favorite discoveries in the class, which is the unexpectedly efficient way that biology and literature can be combined to help us explore the question of what the mind "is," and from what it derives.

his wife: "Now he is freed from thought, from memory, from the passing seconds and from the state of the world. Sex is a different medium, refracting time and sense, a biological hyperspace as remote from conscious existence as dreams, or as water is from air" (McEwan, 2005, p. 52). Here, Henry's temporary loss of consciousness serves as a cathartic exercise. However, it also shows how drastically human consciousness can be influenced by changing levels of dopamine [. . . .]

Though human consciousness can be altered by natural processes, better evidence for its evolutionary emergence may lie in the ways that humans have learned to control it. For example, the use of anesthesia during surgery demonstrates the way biological elements can be used to turn consciousness on and off. To study how consciousness can be altered by means of anesthesia, researchers from the University of California-Irvine performed experiments (1999) using positron emission tomography (PET). Their findings suggested that halothane, an inhalant anesthesia, decreased activity between the thalamus and the mid-brain (as cited in "Anesthesia," 2009). Thus "wake-up" signals cannot be processed, resulting in unconsciousness (paras. 5-6). This ability to manipulate consciousness is portrayed in *Saturday*, when Perowne is thinking about the surgery his wife Rosalind needed to correct her vision. He remembers how the anesthesiologist injected the needle and "then she was gone" (McEwan, 2005, p. 44), illustrating how astonishingly easy it is to control human consciousness. Perowne finds an odd comfort in the principle that this memory reconfirms, namely that consciousness, and the yearning self that we associate with it, are functions of brain chemistry. [. . .]

There is no question that humans possess many notable differences from animals but those differences may only be in degree rather than in kind. It is undeniable that humans, just as animals, are bound by biological limitations that challenge any simple understanding of individuality. In his long poem *In Memoriam*, Alfred

Lord Tennyson (2004) understands that it is futile for him to blame nature for the death of his friend and that death is a part of natural law over which he has no influence. He writes, "I curse not nature, no, nor death / for nothing is that errs from law" (p. 7-8). He accepts that all aspects of the world are subject to this same natural law by stating that nothing can exist if it deviates from that law. For in the end, everything dies. And at that time, the exalted human consciousness ultimately is reduced to nothing more than "a weight of nerves without a mind" (Tennyson, 2004, p. 7).

Greg Burke

The male bower bird is renowned for its ornate and completely individualistic nests which it builds to attract a mate. During class, one student made an unsubstantiated remark that this behavior can be explained by the bird's genes and therefore there is no choice or creativity involved in this very unique action. Upon hearing this I realized that we, as humans, assume that we alone have choice and creativity. If we can defer any examples of such traits in the rest of the animal kingdom by ascribing them to mere genetics that are "out of their control," we can remain at the top of our own self constructed pyramid or Scala Naturae. This was the first bias that presented itself to me and caused me to begin asking more questions.

One fundamental and universally accepted saying is, "you can't find what you are not looking for." I came to realize that this remains particularly true in science. The most significant barrier in our ability to identify animal traits lies within the perceptive boundaries of being human. If an animal has an ability or a trait that we do not, then we cannot fairly perceive or associate with that trait. It will go either unnoticed or insufficiently understood. An illustration of this bias is seen in studies that have shown that female and male scientists can interpret particular interactions between opposite genders in a species in very different ways and "that where males [scientists] see dominance, females see equality" (Bekoff, 2002, p. 77). If we cannot even avoid

projecting our human gender identities onto animals, then how can we ever be sure that we are truly perceiving what is present in the organisms we study?

Once an observation is made, regardless of how unbiased it might be, it then is subject to anthropomorphism, a humanization of non-human behaviors, actions, or traits. To understand how anthropomorphism limits what we can understand about animals, just think about *Hallucigenia*, a Middle Cambrian aged fossil form the Burgess Shale formation in British Columbia, Canada. This creature's name comes from the fact that it is one of the strangest looking species ever found in nature. Scientists had great difficulty trying to make sense of the animal: "how can you describe an animal when you don't even know which side is up, which end front and which back?" (Gould, 1990, p. 154). This frustration illustrates the idea that with no perspective or point of reference other than our own, identification and interpretation of animal traits may be inadequate.

Sometimes we assign human reactions and emotions to animals in an effort to associate with our non-human companions on a human level. For example, in McEwan's novel *Saturday* (2005), neurosurgeon Henry Perowne will "never drop a live lobster into boiling water" (p. 128) since its set of polymodal nocipetor sites are similar to ours, and he extrapolates from this that the lobster must perceive pain in the same ways that we do. By humanizing an animal, we create a closeness to another species and sometimes a sense of solidarity, but this practice arguably just reflects our own consciousness rather than the experiences of the life forms we perceive.

As I became more aware of how this bias operates, I also became hopelessly conscious of inherent human biases in general, and how impossible it is to understand anything, even our own selves, objectively. I found myself continually questioning all things that I once took as truth and it began to frighten me. I soon real-

> Greg's discovery that scientific methods are subject to inevitable bias is essentially epistemological (i.e., a discovery of how we form knowledge). It is also an example of interdisciplinary "emergence" because his initial curiosity about this problem, which would not typically be cultivated in an empirically-based course of study, was instead ignited by fiction and poetry that insistently asked whether or not humans can know themselves objectively. In turn, however, it was only by studying the actual "hard" science that Greg saw this literary theme take on meaning and become real. His ideas reveal a dynamic interchange between the two subjects that also corresponds to the formal features of his writing, as he moves between adroit deployment of scientific vocabulary and an almost confessional level of personal/reflective writing.

ized, much like Dostoevsky's underground man, "that to be overly conscious is a sickness, a real, thorough sickness" (Dostoevsky, 1994, p. 6). All that I have learned this semester suggests that humans may not be so distinct from animals. We seem to place ourselves at the top of *Scala naturae* because we value most highly those traits which we believe unique to us. However, it seems that we are part of the same spectrum as other animals and that this supposedly natural hierarchy has been turned on its side. Am I then subject to the same fate as my animal brothers? Or, as Tennyson asks, "Are God and Nature then at strife, / That Nature lends such evil dreams? / So careful of the type she seems, / So careless of the single life" (Tennyson, 2004, p. 40). Does this mean life is meaningless? This possibility has kept me up at night and I wonder if I have to just "go ahead and accept it, there's nothing to be done, because two times two is mathematics. Try objecting to that!" (Dostoyevsky, 1994, p. 13). Indeed, how can I possibly argue with what seems to be the truth? The implications of this seem outrageously bleak to me, but I do not see the point in arguing if it is, in fact, the truth. And so I am left alone in a fog trying to find my way to a light I am not sure exists.

Shawne Lomauro

Academia is much like a two edged sword. Learning is a passion, but along with it comes a responsibility of knowledge, so strong, that it can make you question why we seek to expand our horizons of thought. This feeling of angst has become a typical part of my academic life, so researching and delving into it only seemed like a normal reaction. The nexus of literature and biology gave me just the platform to begin this exploration. The use of human language gives the optimal viewpoint into the lengths that human thought and creativity can go. Meanwhile, evolutionary biology allowed me a space in which to question the necessity and, ultimately, the diminishing returns of that ability. While studying what I began to call the destructive capacity of human thought, the vast array of emotions I felt along my path to knowledge only seemed more normal. Deeper knowledge, it seems, is truly a Promethean gift.

The underground man's misery, set beside his assertion that he is more intelligent than all other men, shows that higher levels of intelligence as seen in the human species may indeed be detrimental to our development and success. The underground man claims, "I'm guilty of being more intelligent than all those around me" (Dostoyevsky, 1994, p. 88). Although he recognizes within himself the ability for higher intelligence, that intelligence reaches a point of diminishing returns. He cannot better himself with this knowledge, and it instead leads to his isolation and demise. This predicament also suggests that other animals have the biological capacity for higher levels of cognition, but such an adaptation has not yet occurred. This has potentially startling ramifications, given that, at least according to evolutionary theory, beneficial characteristics tend to repeat themselves independently within nature. For example, the highly advantageous camera eyes found in humans and in octopi is believed to have evolved independently in these two lineages, suggesting that advantageous traits evolve multiple times in nature. The wing, and subsequent benefit of flight, have inde-

pendently evolved in species such as bats, birds, and insects. The fact that intelligence itself has not been reproduced—despite the fact that "Human intelligence may be best likened to an upgrade of the cognitive capacities of nonhuman primates rather than an exceptionally advanced form of cognition" (Dicke & Roth, 2008, para. 1)—suggests that it may not be as much of a beneficial characteristic as it is generally believed to be. In other words, it is possible that intelligence as seen in the human species is not a benefit to long-term growth.

In our current socially constructed realities, it seems as though intelligence needs to be checked by some type of greater force in order to maintain a state of nonviolent and peaceful equilibrium. Kathleen Gibson (2002), for example, points out that "higher orders of intentionality are mental constructs that create relationships among ideas and embed ideas within each other to form higher order constructs" (p. 16). This hierarchy of intentionality can ultimately lead to deception. According to Daniel Dennett's rubric of intentionality (1998), for example, "'x believes that p' represents first order intentionality; 'x wants y to believe that x is hungry' represents second order intentionality; and 'x wants y to believe that x believes he is all alone' represents third order intentionality" (as cited in Gibson, 2002, p.

Shawne's essay is probably the best example of interdisciplinary thought as an emergent property. It combines associative, interpretive and critical thought in compelling ways. As she interprets the theme of burdensome knowledge in Dostoevsky via close reading, she also associates it with scientific studies of deception or confusion in the communication of intention. She then contextualizes these ideas not in philosophical reasoning about the paradoxes of knowing, but in terms of observations that Biologists are just beginning to make about the ways that human intelligence may not be a fully adaptive, environmentally successful trait. Finally, she applies this entire matrix of ideas to a third discipline, that of social justice, a topic that is deeply relevant to her academic and personal life.

16). If gone unchecked, this increasing complexity of intentionality can have adverse ends insofar as deception can lead to things such as tension and fighting.

It can also lead to an isolating "madness," as it can be argued that it is this third order intentionality that plagues the life of the underground man. The underground man's desire for the reader to believe that he is all alone in his miserable-ness is a depiction of the third order of intentionality. He notes, "Now I'm living out my life in a corner, trying to console myself with the stupid, useless excuse that an intelligent man cannot turn himself into anything" (Dostoyevsky, 1994, p. 86). If we analyze this claim in terms of the three orders of intentionality, we notice that the underground man is both exercising the third order and pushing beyond it. He is trying to convince the reader not only that he is alone, but also that he believes himself to be completely detached from the rest of society. This is evidence of the capacity for deception inherent in the third order, because indeed he cannot be detached from society if he is relating his aloneness to someone else. He is also arguably moving beyond the third order, and not just participating in it, when he tries to convince *himself* that he is in his current predicament because only foolish men are successful, and that he is too intelligent to turn himself into anything. His predicament therefore encapsulates a sobering challenge not only to the notion that our intelligence is preferred by evolution, but also to the belief that we can employ it to engineer a just society.

Conclusion

These outcomes remind us that much of the content generated in interdisciplinary teaching and learning is difficult to predict—that it takes shape out of the ideas, tangential questions, strange and unique leaps of associative thought that arise from the collocation of different modes of inquiry and knowledge. However, they also may suggest that this unpredictability is more biological than we might suppose. Like biological emergence, it arguably happens not because two distinct elements or in this case, two self-contained "disciplines" are interacting, but because the disciplinary limits cease to contain or control the live elements or components within them. The concepts, skills, and objectives that we tend to think of as comprising a discipline begin to interact independent of their original systems, evolving into a new, interactive system of inquiry and expression. Upon reflection, perhaps it was our decision to not force traditional learning outcomes in either Biology or English literature upon our students. We eventually came to accept that in a course such as Minds and Bodies, the learning cannot and should not be constrained through rigid predetermined objectives but rather allowed to emerge naturally; the real challenge is finding a way to encourage that emergence and as professors, accepting the unpredictability. Cardinal Newman (1959), who also used a biological metaphor to describe the integration of core learning in the Jesuit tradition, was perhaps thinking of something similar when he proposed that "all branches of knowledge [in a core curriculum] are . . . not isolated and independent of one another, but form together a whole system; . . . they run into each other, and complete each other" (p. 221). The important difference, as we experienced it, is that this "whole system" is neither closed nor predetermined. ▪▪

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The Uncommon in Common Reading Programs:
The Freshman Reading Program at Brooklyn College
Janet Moser

Abstract

Since 2004, each entering freshman class at Brooklyn College has participated in the freshman common reading program. We choose memoirs (a genre familiar to students) set in New York City and written by authors who are available to visit campus, as the introductory, transitional reading. The first two weeks of all freshman composition classes are devoted to discussion, analysis, and writing generated by the book. The author is invited to address the freshman class; instructors select and submit the best student writing generated from this common reading for possible publication in a collection entitled *Telling Our Stories, Sharing Our Lives*; towards the end of the semester, administrators, interdisciplinary faculty and students gather to celebrate the publication of the selected student essays, to honor the authors and listen to their stories. This concentration on one text for all students at a tremendously diverse commuter school helps create a community of beginning scholars both inside and outside the classroom.

Keywords

common reading program; freshman; diversity

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Introduction

Two recent large-scale studies underscore the need for continuing attention to the importance of the freshman-year college experience. The 2007 National Endowment for the Arts Report, "To Read or Not to Read: A Question of National Consequence," warns of "a general decline in reading among teenage and adult Americans. Most alarming, both reading ability and the habit of regular reading have greatly declined among college graduates" (p. 3). One possible remedy may be suggested by the findings of the 2007 National Survey of Student Engagement (NSSE) Annual Report, which identifies the proliferation of first-year seminars, common intellectual experiences, and learning communities as among the most effective developments in what may be seen as a general increase in institutionalized interdisciplinary and communal study.

Learning communities—cohorts of freshmen simultaneously registered in groupings of related courses—are now long-standing, institutionalized com-

ponents of the freshman experience on college campuses throughout the country. Freshman common reading programs, less well-studied than learning communities but increasingly popular at widely diverse institutions, including schools with and without substantial core requirements, two-year or four-year colleges, schools in rural or urban locations, and institutions with mainly homogeneous or strikingly multicultural student populations, have not produced a corresponding scholarly inquiry into the ways in which these programs define their goals and measure success. This article attempts to fill this gap in the scholarly record by providing a detailed case study of the continuing evolution of the Freshman Common Reading Program at Brooklyn College—a mid-size, public, urban liberal arts college noted for its commitment to reconciling the demands of a substantial core requirement with the needs of a predominantly working class and immigrant student population. We have borrowed some ideas and elements of what we do from other institutions and invented some of our own, but the way we put it all together and get our Freshman Common Reading Program to work successfully is mainly determined by our ability to adapt sensitively to our own particular circumstances. No doubt Freshman Year faculty and administrators at urban public institutions similar to Brooklyn College will find this account of the details of our experience useful reading. One also hopes, however, that this case study will provide any reader anywhere involved in freshman planning with examples of the kinds of strategic thinking and flexibility that might be required to deconstruct the very appealing one-size-fits-all general notion of a Freshman Year Project and custom-tailor a program that will actually fit the circumstances of his or her own institution.

Background to Common Reading Programs

While the content and specific academic objectives of common reading programs are shaped by the particular cultures of their colleges, all participating institutions share a general interest in the gains in social cohesion and academic accomplishment generated by engaging incoming students in the reading of a single text. Common texts may play roles of varying importance at different institutions, but all programs underscore the social benefit derived from using a shared reading experience to unite a group of incoming students, allowing them to arrive on campus for the school year with a ready-made topic of conversation.

An examination of college websites reveals that the great majority of those institutions with summer reading programs offer some suggestions for discussion of the selected text during freshman orientation. While most college reading programs end with orientation (Ferguson, 2006), some extend the text-based conversation to curricular activities in the first semester of freshman learning communities, English composition classes, or even year-long clusters of courses. Many colleges invite instructors to include the summer reading program in freshman courses; fewer (including Brooklyn College) go further and make the text a required part of the first-year curriculum.[1] Campus-wide events linked to the shared text help to establish connections between what happens inside and outside the classroom, reinforcing the communal message of the first-year reading program and disturbing the students' notion of fixed boundaries between formal and informal learning. Different programs report a variety of activities related to the themes of the text: campus visits and public readings by the author; invited lectures; panel discussions; library exhibits; film series; and essay or creative contests.

Freshman Common Reading at Brooklyn College

In 2004, Brooklyn College launched its Freshman Common Reading Project, a program that, while sharing many of the fundamental goals of similar initiatives throughout the country, responds in particular ways to

the culture and population of this urban institution. Brooklyn College, a four-year liberal arts college that is part of the City University of New York, is a commuter campus with a tremendously diverse student population. Its freshman class usually numbers around 1,000 and reflects the variety of backgrounds, preparation, age, and ethnicities that characterizes New York City.

From its beginnings, the Brooklyn College Freshman Reading Program was inseparably linked to the College's long-standing commitment to the concept of a core curriculum whose mission was redefined critically and pragmatically in the 1980s. The idea of the relevance of cultural literacy, of a shared core of knowledge as a means of social and intellectual advancement, was in the air and became a topic of intense debate and controversy among scholars in the early 1980s.[2] In 1985, the Core Curriculum Committee issued a carefully considered policy statement, perhaps in response to the wave of principled criticisms that had arisen in the academic world at large directed at the seeming arbitrariness and social conservatism of these kinds of programs. The Committee forthrightly asserted the impossibility of agreeing on precisely "what the educated man or woman should know," but nevertheless accepted, in phrasing that conveys a sense of conscientious reservation, the value of "the attempt to agree with respect to a limited objective." The committee, however, enthusiastically endorsed "the sheer pedagogical advantage of common intellectual experience" (The Core Curriculum, 1985).

According to recent freshman-year scholarship, the most successful common reading programs are those that reflect the general objectives of the college (see Laufgraben, 2006; Ferguson, 2006). At Brooklyn College, we found it a fairly straightforward matter to unify the disparate parts of our freshman mission by bringing together the innovative model of the learning communities and the revised pragmatic model of the traditional core program, offering entering students demanding courses under common rubrics in a supportive environment. The institutionalized synthesis of these two models serves as a congenial and fitting structure for the implementation of a program like our Freshman Common Reading Project, with its focus on providing our students with an integrated intellectual and social academic experience.

How we do it

Towards the end of the fall semester, we receive book recommendations from faculty, staff and administrators across the college. Since the book will be taught in all freshman English classes, the final choice rests with a committee consisting of the Chair, the director of Freshman Composition and other full-time members of the English department who regularly teach beginning composition, along with the Office of the Dean of Undergraduate Studies (charged with the responsibility for running freshman orientation and coordinating the college-wide goals of the program). We have generally chosen memoirs and memoir-based essay and short-story collections, set in New York City and written by authors who are available to visit campus, to serve double duty as the common freshman orientation text and the introductory, transitional reading for first-semester English classes. We began our program in 2004 with Frank McCourt's *Angela's Ashes*. In 2005, students read Dave Eggers' *A Heartbreaking Work of Staggering Genius* (2001); in 2006, Jonathan Safran Foer's *Extremely Loud and Incredibly Close* (2005); in 2007, Jonathan Lethem's *Disappointment Artist* (2006) and in 2008, Jhumpa Lahiri's *Interpreter of Maladies* (1999). This year, students have been reading Barack Obama's *Dreams from My Father* (1995).

As at most other institutions, students receive books and general information about the reading program and the role of the text as required reading in all freshman English classes at registration in the spring; a postcard reminder is sent during the summer. At ori-

entation, students are placed in small groups to discuss the book informally with faculty and staff volunteers from across the campus. Discussion leaders are given a list of possible themes and questions to help guide their sessions. For students, the small-group setting provides a friendly, unthreatening introduction to what is, basically, their first academic experience at the College. For faculty, these discussions provide an opportunity to meet entering students outside the traditional setting of a particular discipline and to engage in conversations with colleagues on a topic that may be outside their areas of expertise.

In the classroom

Because students know that the selected text will be the first book discussed and written about in the opening weeks of all sections of English 1, they are likely to complete their reading before the semester begins. The teaching of a common text at a common point in the syllabus of a multi-section course serves both practical and philosophical purposes. Each fall, we schedule approximately 60 sections of English 1 (Seminar in Expository Writing), with some sections meeting evenings or weekends to accommodate student needs. The students who make up our large, urban, commuter population, many of them adults whose academic lives are often complicated by work and family responsibilities, frequently need to adjust fall class schedules that seemed appropriate at registration in the previous spring. In the opening weeks of the semester, the use of a common text, although taught by different instructors from a variety of different perspectives, makes individual first-week program changes less disruptive for both students and instructors.

Aside from these practical considerations, the concept of one text for all incoming students neatly fits in with the objectives of both our first-year learning communities and the core curriculum, the keystone of the liberal arts education we offer our students. The

common reading program eases the transition from high school to college, focusing on kinds of writing that are familiar to student readers. We choose texts that lend themselves to a variety of instructional approaches and settings, inviting students with different learning styles to participate and excel. For example, freshmen who read *Extremely Loud and Incredibly Close* in 2006 participated in a range of assignments, appealing to linguistic, visual, auditory, and tactile learning styles, devised by their individual instructors. Some students wrote reviews of the novel; some wrote personal 9/11 memories; some interviewed eye-witnesses; some recounted tragedies in their homelands; some followed and wrote about the routes the protagonist takes through the subways and streets of the five boroughs of New York; some photographed the neighborhoods that the book described. The varied class activities were unified by their common origin, the reading, in a small-scale model of the role that we hope shared knowledge will continue to play for our students throughout their undergraduate experience at Brooklyn College.

Author Visits

In-class discussion and on-campus activities serve to heighten the effectiveness of the common reading program, blurring the distinctions between what occurs inside and outside the classroom, suggesting the ways in which the academic and social life of the campus might interconnect. We try to select a text written by an author who will be able to visit the campus the following fall. For the great majority of our students, the experience of hearing an author read from a work that they have read and discussed in class, of asking questions of the writer, of engaging in discussion with someone who has written and published a work of literature, is something entirely new, a festive initiation into a community of readers and writers of which they are not likely to have imagined themselves as members.

When we started the Freshman Common Reading Program in 2004, our objectives were fairly simple and straightforward: we sought to adapt to the particular dynamics of a large urban institution serving a commuter population a type of program that we knew worked well in residential colleges. If our goal was to smooth the transition from intensely local experiences and values to those of the larger academic community, then we needed to adapt in ways that would work for our students and for the complex administrative particularities of our institution. Brooklyn's abundance of celebrated local authors writing on local subjects led us to the idea of building an integrated communal and academic program around the author visit, setting the tone for what we hoped to accomplish in our use of the author's text in the classroom in the coming weeks. Perhaps it was our fortuitous choice of Frank McCourt's *Angela's Ashes* that accounted for the remarkably enthusiastic reception of this program among both faculty and students. The text, a memoir of growing up in Ireland and New York, had great appeal to our working-class, immigrant-based student population; and McCourt, an alumnus of the College, was a willing and winning lecturer.

Author visits are scheduled for club hours, a weekly two-hour block of time when no classes meet. This event is publicized in class, posted on campus bulletin boards, and advertised on the College website. While it isn't possible to mandate student attendance, all instructors actively encourage their students to attend, and many instructors accompany their students to the reading. We ask visiting authors to give a brief introduction to their work, telling students how they came to write this particular book, what most intrigued them about the subject and what challenges the writing presented. Then the authors read a selection from their books. When I look around the auditorium, I am invariably rewarded by the sight of students taking out their copies of the text and reading silently along as the author speaks. After the reading, students are invited to ask questions. Some come with index cards ready; others respond more spontaneously to something the author has said or to something in the excerpt that has been read. At each yearly event, there have always been more students with questions than there is time. Since we try to choose authors who live in and write about New York, students come to these meetings with a sense of a shared geographical experience with the author. Many students want to know about the author's daily writing routine, and the idea that a famous person might be composing his or her next novel at a neighboring table in the local coffee shop never fails to intrigue our students.

When Jonathan Safran Foer spoke about *Extremely Loud* to a Brooklyn audience that had experienced 9/11, the common bond of remembrance created a rich source for conversation between author and audience. When Frank McCourt and Jhumpa Lahiri read from and spoke about their works, the theme of immigration, familiar to a first- and second-generation American audience, lent a certain air of fellowship to the student-author exchange. After the question-and-answer exchange, authors stay and chat, autographing students' books, adding a personal aspect to an academic exercise.

The empowering character of these encounters for students from vastly varying backgrounds and experiences is yet another significant, unifying aspect of the common reading. When Dave Eggers was not able to come to campus, we offered a videotaped interview between the author and a group of Brooklyn College students, made over the previous summer, for freshmen gathered in a large-group setting. While this sort of activity lacks the immediacy and force of a personal appearance, it does provide another opportunity for students to meet and discuss the text and its themes in a setting other than the classroom When Frank McCourt visited campus, the overflow crowd had to be

accommodated in a separate auditorium equipped with a large-screen projection TV. The turn-out for Jonathan Safran Foer and Jhumpa Lahiri was almost as large, with students afterwards commenting on what was, for them, the surprising accessibility of these authors and the openness and graciousness with which students' questions were greeted.

Student Anthology

In the course of the semester, freshman English classes soon move on to the study of expository reading and writing. However, we continue the thread of the common reading through our anthology project, *Telling Our Stories/Sharing Our Lives.* Each year, towards the middle of October, instructors submit the best of their students' text-related responses (mostly memoirs, but also poems, literary criticism, photography or graphics), generated by assignments based on the shared text, to a committee of English department colleagues. The committee members review all submissions and make selections for publication in the student anthology.

Our publication reflects the diversity of our students' backgrounds and interests: the anthology contains work from second-language students coming from Russia, China, East Asia, Africa, Haiti, South America, the Caribbean, who have been in this country only for a year or two; from Generation 1.5 students whose fluency in two languages and two cultures is apparent in their choice of themes and idiom; from students who are pursuing a second degree; from students who work full-time and attend college at night; from parents who juggle childcare and academic commitments; from adults who have returned to school after long absences; from 18-year-old native, first-generation college students who have rarely ventured out of Brooklyn.

While student submissions throughout the five years of the project share certain overarching themes—coming of age; assimilation; cultural and religious differences; personal and national tragedies; generational

conflicts—**how** students respond, the particular ways in which they approach these standard themes, is shaped by the character of each year's text. For example, most student writing generated by the reading of *Angela's Ashes* focused closely on the dramatic or humorous retelling of a particular childhood experience either of their own or from family lore. In their responses to *Extremely Loud and Incredibly Close*, many students, influenced by Foer's style, used a child's voice to tell their stories and to describe generational conflicts. Others focused on landmarks and geography to inform their writing. The perception of correspondences between the personal and the universal, the movement towards a broader view, whether in discussions of family roles, illness or death, marked many of these student memoirs. Like the Foer text, Jonathan Lethem's *Disappointment Artist* generated student writing that described neighborhoods, train stations, houses, but here these students adopted the nostalgic tone suggested to them by many of Lethem's essays. The student writing in response to Jhumpa Lahiri's *Interpreter of Maladies* echoes many of the themes from previous years' collections, but takes its tone and shape from the assimilation themes in the text. Students focused on differences in food culture (Chinese dumplings, Sephardic Sabbath meals, the "dishes of a Trini girl"), generational differences in clothing (Nike sneakers, patent-leather Mary Janes, veils, headscarves), religious observances (Christian and Jewish funeral services), and the familial roles of husbands and wives. These students, too, wrote about places, but from the perspective of change—of uprootings and transformations.

With each passing year, the anthology has grown in importance as an institutionalized part of the freshman program and of the campus culture. The ever-increasing participation of students and instructors has led to a corresponding improvement in the quality, variety, and appearance of the collection. We now include a link to the online versions of past student

anthologies on the English Department homepage, inviting students to view what their predecessors have produced at http://depthome.brooklyn.cuny.edu/english/TellingOurStories/archives.html.

At the end of the semester, we sponsor an event to honor those students whose work has been included in *Telling Our Stories*. This festive occasion serves as the culmination of our Freshman Common Reading Program, bringing together all the students, faculty, administrators and staff who participated in its various phases: those who helped launch the reading project during small-group discussions at orientation; those who gave it the imprint of academic legitimacy by continuing these discussions in the English 1 classes; those who came together for the author talk and discussion; and those who now finally gather to see the best efforts of this incoming freshman class acknowledged and celebrated in print. The turnout is gratifyingly large, with friends, classmates, and even parents, spouses and children coming to applaud our authors at the public reading of their work. In the last few years, the increasing numbers of family members attending this event—parents taking time off from work, grandparents who speak and understand little English, younger siblings seeing first-hand the rewards of academic work—attest to the broad resonance of this successful program. For first-generation college students and for those whose first language is not English, this early, public acknowledgement of their place in the academy marks an important moment in their higher education. As one student from Uzbekistan wrote of his participation in the freshman common reading program, "This is the first writing assignment in English 1 course. I had two major surprises. First, I was surprised when my story was selected for publication[.]…I was even more surprised when I heard and read other students' stories[…].Share your lives and you will see how other students manage to study. Finally, you might decide that your life is not so difficult after all. There are no excuses not to study."

Assessment

The Freshman Common Reading Program began as an experiment in adapting ideas that worked in other places and assessment for us was mostly a matter of gauging what generated enthusiasm and what did not. We were happy to note the extraordinary student turnout for McCourt's visit and the lively exchange between students and author following the public reading. On the other hand, we were surprised at the number of students who found some of the Lethem readings discouragingly difficult.

As the program has grown and become institutionalized, we have become more aware of our need to set up some reasonably impartial means of evaluating its success in meeting its objective of providing an intellectually and socially unifying academic experience for our incoming freshmen. With each year, and with our increasing experience, we have been better able to make useful appraisals of what works and what does not.

We are now at the point of introducing some ways of getting more quantitative feedback. For example, we have been able to measure collective student response in terms of attendance at both orientation discussions and author talks and in the number of submissions to the anthology. An increase in the number of students who have read the text before attending orientation, based on anecdotal reports of discussion leaders, may be attributable to the more efficient distribution of books and dissemination of information about the program. To learn more about this early stage of the program, we plan to devise a questionnaire to be administered at next year's orientation. The rise in submissions to *Telling Our Stories*, from the project's first year, when we received forty-two essays, to last year, when teachers submitted over one hundred student texts for publication, clearly reflects the growing appeal of the program. And a correspondingly impressive growth in participation can be seen in attendance at our student celebration. In our first year, we met in a conference room with a capacity

of 35 to hear students read; now, we reserve and fill a space that accommodates one hundred people for that same event.

This year, we plan to collaborate with the Brooklyn College Institutional Research Office on producing less informal instruments for measuring, over time, the qualitative aspects of individual student response to both the selected text and the program overall. We are eager to learn more about the unifying effects of the project beyond its ability to produce an impressive turnout at program-related campus events. To what extent does successfully completing the first college assignment—reading the book before classes begin—give students a feeling of "really belonging" at the college? Does the opportunity to discuss the text in an informal, low-risk setting at orientation foster a sense of empowerment that might later lead to greater participation in college-level intellectual discussion? Does exposure to faculty from different disciplines, acting as discussion leaders, help convey the message that the intellectual inquiry reflected in the act of critical reading is valued by all departments for all majors at the college? Does the shared experience of the common text facilitate and shape social connections among students outside the classroom? Does the author visit, with its personalized question-and-answer component, give students a sense of themselves as contributors to the culture of the academy through their participation in the give-and-take dialogue that lies at the center of a liberal education?

Conclusion

The answers to many of these questions are already evident informally and anecdotally in what is seen and overheard in the first weeks of the semester. Walking through the campus last fall, on the quad, in the cafeteria, on the way to the subway, I would overhear students talking about the Lahiri book, sharing their favorite characters and stories in conversations that had moved

outside of the classroom and into the larger world. At the beginning of the semester, long before the deadline, students who had heard about *Telling Our Stories* from juniors and seniors appeared at my office door to ask about submitting their essays to the anthology. Each year, more and more students volunteer to read their work at the increasingly well-attended publication reception. We are consistently surprised at the power of the students' voices, at the ability of students in their public readings to impart a forceful, personal note that is often less audible in their written texts. And although the schedules of our urban, commuter students prohibit us from making attendance at the author talk mandatory, impressive numbers of students do manage to find the time to come, many prepared with questions and armed with books to be autographed.

These incidental observations tell us that we have fashioned a reading program that touches our students, one that, in its own very particular variations on a national formula, has grown in ways that respond to our particular academic objectives at Brooklyn College, and to the social circumstances and academic preparation of our particular student community. With each new freshman class and each new text, we learn what works for us and what does not. We also learn from watching and adapting what other programs do at other institutions. All happily functioning freshman reading programs may, to some extent, be alike; but they are alike mostly in their general recognition that a harmonious conjunction of program, freshman class, college, and surrounding community means paying careful attention to the particular needs of the various partners to the marriage. ▪▪

Notes

1.   See Laufgraben 2006 for a more detailed discussion of the different approaches taken at various schools.

2.   E.D. Hirsch (1988), one of the leading proponents of cultural literacy, promoted the importance of acquiring a common core of knowledge, of advancing a "curriculum that is traditional in content but diverse in its emphases, that is pluralistic in its materials and modes of teaching but nonetheless provides our children with a common core of cultural information" (p. 126-7). This call for a core literacy attracted a fair share of cogent criticism as the privileging of an exclusionary, class culture, one that disregards diversity and change. (See Scholes 1988, Fish qtd. in Green, 1988), Profession 88, 1988). In response, a middle position emerged—its supporters often citing a 1980 speech by Harvard sociologist and historian Orlando Patterson, given at a conference in honor of Mina Shaughnessy, a noted champion of open admissions at public universities. Patterson (1980) identified a "wider culture" in which "the people who run society must be literate" but which nevertheless "doesn't belong to any group. It is essentially and constantly changing, and it is open" (p. 72-73). Hirsch himself amplified Patterson's point: "Literate culture is the most democratic culture in our land: it excludes nobody; it cuts across generations and social groups and classes; it is not usually one's first culture, but it should be everyone's second, existing as it does beyond the narrow spheres of family, neighborhood, and region" (p. 21).

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Current Clips and Links

A list of links to interesting, non-commercial websites related to teaching and learning. Currents invites reader recommendations and will assume responsibility for seeking permissions as necessary.

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Represents an expanding community of academics, "academic technologists," librarians, and other proponents of liberal arts education. Their mission is to expand the traditional perception of liberal arts education by creating a resource of technological innovation and collaboration. The site has teamed-up with the National Institute for Technology in Liberal Education (NITILE http://www.nitle.org), creating a strong partnership that promotes international pedagogical exchange across disciplines through accessible innovations presented through case studies.
http://www.academiccommons.org/

International Society for the Scholarship of Teaching and Learning: Founded in 2004, ISSOTL is dedicated to recognizing
innovative development in post-secondary education. ISSOTL promotes international pedagogic dialogue and facilitates the integration of knowledge across academic disciplines by providing a forum for discussion, and resources for international exchange and dissemination of research. The website provides access to links and resources from Canada, Australia, the United States, and many countries within the European community.
http://www.issotl.org/

Smarthistory. Art. History. Conversation: A self-described work in progress, this web-book site developed by Dr. Beth Harris and Dr. Steven Zucker promises to facilitate the expansion of art and art history pedagogy through the use of blogging, podcasting, and video multimedia. The site is beautifully organized, with links that take the reader through the historical progression of artistic periods, each well-summarized and replete with links to representative artists and styles, as well as images, maps, and links to podcast and video discussions.
http://www.smarthistory.org

Teaching Commons: The DePaul University Scholarship of Teaching and Learning Teaching Commons website is a comprehensive resource that embraces and promotes
innovative and informative strategies and concepts in higher education. The site contains links to academic journals, blogs, podcasts, and numerous other teaching and learning-related websites. The "How Do I" link, for instance, directs the reader to a list of resources and ideas from course development to strategies for motivating students and the uses of online tools.
http://teachingcommons.depaul.edu/scholarship/index.html

Tomorrow's ProfessorSM: This email-newsletter, sponsored by the Stanford Center for Teaching and Learning, is an amalgam of blog postings, book reviews, and articles relating to the broad and multifaceted subject of pedagogy. Each posting is preceded by a brief introduction by Dr. Richard M. Reis, identifying how the posting may be relevant to list subscribers. Topics range from the social parameters of academia and the strategic evolution of teaching and research, to advice and perspectives on graduate education.
http://cgi.stanford.edu/~dept-ctl/cgi-bin/tomprof/postings.php

Including Different Voices in Service-Learning

Amanda Wittman

Students as Colleagues: Expanding the Circle of Service-Learning Leadership. Ed. Edward Zlotkowkski, Nicholas V. Longo, and James R. Williams. Boston: Campus Compact, 2006, 279 pp., $47.00 (PB) ISBN: 0972939458

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The Unheard Voices: Community Organizations and Service Learning. Eds. Randy Stoecker and Elizabeth A. Tryon. Philadelphia: Temple University Press, 2009, 211 pp., $24.25 (PB) ISBN: 978-1-59213-995-8

The concept of service-learning is not new in the academy, and has been successfully implemented in a variety of disciplines. However, as the practice becomes more commonplace, new critiques of service-learning have emerged. Some of these critiques center on questions of who should benefit from service-learning, and how to ensure that multiple voices involved in the practice are heard. Service-learning can be thought of as a triangle, involving students, faculty and community partners, all of whom have a unique role in the practice and all of whom should give and take in different but equally important ways. Too often, however, the only perspective we read on service-learning is from faculty: they write the articles, present the papers, and direct departments and centers focused on service-learningThe two titles under review, *Students as Colleagues: Expanding the Circle of Service-Learning Leadership, and The Unheard Voices: Community Organizations and Service Learning*, aim to open up this discussion to include the other points of the service-learning triangle—students and community partners.

In *Students as Colleagues* (2006), the editors make the convincing point that students need to be better included in the development and practice of and reflection on service-learning experiences. It argues that "rather than posing a threat to faculty, students engaged in [service-learning] can connect the community, the faculty and the university in a powerful, productive alliance" (Zlotowski, Longo, & Williams, p.10). Students are portrayed throughout the chapters as researchers, staff, directors, leaders, community organizers, and academic entrepreneurs. Each chapter in *Students as Colleagues* highlights a university which utilizes students' passion, experience and enthusiasm in ways which go beyond traditional student roles. For example, it includes programs that demonstrate how service experiences can help empower and nurture

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student leaders through which students train other students and foster strong community and student-faculty partnerships. The most compelling of these chapters are written in conjunction with students or have engaged students to tell their own success stories, and the book as a whole stays true to its premise of inclusion, as one of its co-editors was a student at the time it was written.

Overall, *Students as Colleagues* makes a strong case for redefining the role of students in the service-learning paradigm. I would have enjoyed a stronger theoretical framework that connected the chapters and sections, but overall, this could be an important resource for faculty members or administrators interested in ways in which students could be better included in the planning and execution of service-learning experiences.

The Unheard Voices (2009) also makes a strong case for including more perspectives on service-learning practice, focusing on the voices of community partners. The editors argue that too often service-learning experiences benefit only the faculty and students who are performing the service, leaving open the question of whether or not the project truly serves communities. Echoing Students as Colleagues, this book is written in conjunction with students who carried out research that focused on the perspectives of community partners— their desires, wishes, needs, and (dis)satisfaction with service-learning experiences.

The Unheard Voices has caused a stir in the service-learning community, partly because it questions some of the foundational texts that 'prove' the value of service-learning. I did not find it as incendiary as I had expected. Rather, I found it to be a critical yet fair discussion of 'what is known' in service-learning. Like any other qualitative study, the data reflects the perspectives of the people interviewed from the sample of community partners, but the analysis is complete, thorough and sustained. Furthermore, the authors and editors provide useful suggestions and ideas for ways to ensure more

effective partnerships: for example, explicit contracts between community partners and students/faculty, or ensuring that faculty make contact with community partners throughout the experience. They also provide much-needed community standards for service-learning. These suggestions and standards may not work for every partnership at every institution, but they are strong starting points for anyone thinking about how to be more inclusive in partnerships with the community. Overall, *The Unheard Voices* succeeds in providing a rich analysis of community partners' perspectives on service-learning.

Students as Colleagues: Expanding the Circle of Service-Learning Leadership and *The Unheard Voices: Community Organizations and Service Learning* successfully argue that service-learning is stronger when collaboration leads to true partnerships among all the actors involved. Both contain resources, suggestions, and practical tools for those looking to be inclusive in their service-learning programs, and they work well together. They are recommended both for faculty who utilize service-learning, and for administrators and directors of service-learning programs and centers. ■■

Strategies for the Science Classroom

Rebeca Befus

Handbook of College Science Teaching. Eds. Joel J. Mintzes and William H. Leonard. Arlington VA: NSTA Press, 2006, 416 pp., $49.95 (PB), ISBN 978-0-87355-260-8

Teaching science at the college level can be quite daunting for a novice professor. On the other hand, it can be intimidating for a seasoned professor to deal with the changes in student expectations and behaviors that characterize today's milieu. Millennial students expect and require more than the simple lecture-based curriculum many university science courses offer. *The Handbook of College Science Teaching* can be used effectively by both novice and seasoned professor alike to not only understand their student population better, but to also improve their own approach to instruction, as well as the techniques they use.

The handbook (Mintzes & Leonard, 2006), is separated into eight units, each of which begins with a preface written by the editor that provides background information and a summary of the unit's contents. There are thirty-eight chapters – each written by different authors and including a small biography of the respective author with his or her credentials. Each article also has a substantial list of references and many include tables, graphs, and graphics.

Unit One discusses issues of student motivation. Chapter one begins the book by detailing the research of Jeffrey Mall on science anxiety, a term he introduced to the world (p. 3). He discusses anxiety as it relates to students who are pursuing degrees in the sciences versus those who may be forced to take a science course for a general education credit as well as anxiety based on gender. Mallow also discusses nine practices to use in the classroom to help reduce anxiety including: group work, laboratory exercises, and learning styles (p. 8-9). Chapter two details the research findings of biology professors who changed their introductory courses from a traditional course sequence to one that infuses learning with scenarios, multimedia, field trips, and application of concepts rather than regurgitation (p. 16-17). They detail their research and conclude that overall attitudes towards learning biology were improved due to this style of learning. The final chapter in this section is more of a theoretical discussion of motivation and the sciences and further discusses the

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use of questionnaires in assessing student attitudes and motivations. The authors of this chapter discuss the use of their own questionnaire: the Student Motivation Questionnaire (SMQ).

Unit Two details various strategies to engage science students in active learning. The sciences are fortunate because they have a unique situation of requiring laboratory components for their courses. One of the challenges for many science professors is that they are forced to teach in large lecture style classrooms. Chapters four and five address active learning in two ways: experiential learning and interactive lectures, where students can participate in answering questions or in demonstrations during lecture. Chapter six details the importance of allowing undergraduates a chance to participate with professors in research, something this reviewer found to be one of the most rewarding experiences in her undergraduate career. It allows students to make connections between theory and practice as well as see a professor in their element, which is very exciting. Chapters seven and eight discuss specific active learning techniques one of which is concept mapping, which is used in many humanities courses and peer mentoring, and is now being used campuswide at many institutions, especially with first year students. The final two chapters discuss laboratories, which as shown by research in unit one, are an essential part of science learning.

Unit Three includes chapters 11-15 that consider instructor responses to students who have difficulty or resistance to learning, especially when the teachers themselves find no difficulty in understanding the material (p. 108). The chapters focus on a sequence of learning, reasoning and critical thinking skills, and on relating these concepts to coursework. Readers who found Unit Two interesting will most likely find chapter fifteen on active learning relevant. Chapters eleven through fourteen focus more on theories of learning.

Units Four and Five give specific examples of various teaching strategies used by professors in the classroom. Primary literature is often excluded from introductory curriculum in the sciences and chapter sixteen details the uses of biological literature to contribute to learning. Table 16.1 details the various sources used by the author of this chapter to select relevant literature (p.161). Chapter nineteen includes an interdisciplinary approach to general biological education using poetry. For campuses looking for collaborative cross disciplinary interactions this chapter may be of particular interest. Unit Five focuses on the use of technology in the classroom. However, this reviewer cautions when using technology for education it is important to remember that it becomes dated very quickly. The only chapter that probably has longevity is twenty-six which describes an assignment that requires students to investigate and evaluate science information on the internet.

The unique portion of this handbook is Unit Six. This unit speaks to the special challenges of reaching out to specific subsets of students, such as those with learning disabilities, students with knowledge gaps, and students who, although bright, may have difficulty with some concepts. Although useful to anyone in the profession, this section is probably most helpful to the professor who instructs in a large urban university. As a member of such an institution, this reviewer has found an increased number of diverse and learning disabled students, as well as students coming from high school with inadequate background in science preparation, all of whom then struggle to succeed in general credit natural and physical science courses. The chapters in this unit can help increase the ability of science professors to notice the students who may be struggling quietly—as well as learn how to motivate and help them.

For high school teachers and those professors who primarily work with first year college students Unit Seven provides three chapters that outline some of the struggles and solutions to problems that arise

during the high college transition. This unit may help those who are working on partnerships between high schools to align science curricula with the skills necessary to succeed in college courses.

The book concludes with Unit Eight which navigates the process of continually examining and improving instruction. The four chapters in this unit are mostly theoretical. Chapter thirty eight is probably most useful for those who are interested in instruction as it shows how to conduct instructional research and how to use it to improve the classroom.

This handbook provides significant insights into students and science instruction at the college level. Longtime instructors who would like new ideas for the classroom, or those teaching more advanced courses, may find the contents to be of less interest, since many chapters are of a theoretical nature. They may be more interested in Druger, Siebert, and Crow's *Teaching Tips: Innovations in Undergraduate Science Instruction* (2004). But for graduate student teachers or new faculty, *The Handbook of College Science Teaching* would make a great addition to their library. ■■

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Teaching with Style

Andrew Bourelle

Style in Rhetoric and Composition: A Critical Sourcebook. Ed. Paul Butler. Bedford/St. Martin's, 2010, 479 pp. $43.75 (PB), ISBN 978-0-312-54733-2.

In the introduction to *Style in Rhetoric and Composition: A Critical Sourcebook*, Editor Paul Butler refers to President John F. Kennedy's famous maxim: "Ask not what your country can do for you; ask what you can do for your country." Butler explains that the phrase's effectiveness was not just because of its purpose—a call for volunteerism—but also because of the style in its construction. In it, Kennedy reverses the order of repeated words for effect, using a figure of speech known as *antimetabole*. I didn't know the definition of this word (and neither, I suspect, would most readers), but I could recognize that it is because of the style of Kennedy's sentence construction that this component of his now decades-old speech has entered the American cultural lexicon. Butler uses Kennedy's widely recognized dictum to highlight the importance of style in writing, speaking, and communicating. However, he explains that, for decades, style has largely been absent in the field of composition and rhetoric—and consequently from the teaching of writing at the university level. Butler argues that this absence has been detrimental to students' higher education, and to their writing in particular. "The study of style," Butler says, "which is concerned with analyzing readers' responses to texts and how writers achieve those effects, can, in turn, give students knowledge of how to deploy similar techniques in their own writing" (p. 1).

Butler has made this argument before in his single-authored book *Out of Style: Reanimating Stylistic Study in Composition and Rhetoric* (2008)Need full reference for references at end (APA style), where he provides a historical overview of why style is ignored in contemporary composition and rhetoric scholarship and calls for the renewal of stylistic study. *Style in Rhetoric and Composition* continues this conversation with twenty-six essays chronicling the history of stylistic study and providing theoretical groundwork for teaching style in university classrooms. The essays include writings from classical Greece through modern-day journal articles, grouped into five sections: "The Rise and Fall of the Study of Style"; "Stylistic Influences and Debates"; "Style and Pedagogy"; "Style and Culture"; and "Style and the Future." While the section on pedagogy constitutes only roughly one-fifth of the book, I found

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that practically all of the essays focused explicitly on teaching and learning. In other words, the essays aren't about the study of style simply because the topic is interesting; rather, they are meant to explore how teachers can improve their teaching of writing with a greater focus on style. This is the reason I recommend the book to Currents readers: Not only would teachers of composition benefit from increased consideration of teaching style, but teachers in other disciplines—at least those interested in teaching writing in their disciplines—could benefit as well.

This latter benefit becomes clear when one considers Butler's definition of style. Style in writing is often looked at in a pejorative sense as fluff, or as flowery ornamentation added to language, nonessential to the meaning in a text. However, Butler explains that style "is never divorced from content" and is what "makes writing memorable" (p. 5). Style "is a *rhetorical* concept, meaning that it is connected to a writer's purpose, subject matter, audience, and context" (p. 1). In other words, when a writer is considering how to convey meaning—to a particular audience in a particular context—she necessarily makes decisions that pertain to style. Therefore, style involves diction, syntax, and tone, in addition to the numerous devices such as Kennedy's *antimetabole*—including more commonly recognizable ones such as metaphor, alliteration, and parallelism—that writers use for effect. A writer does make unconscious choices when writing, but Butler's assertion is that many stylistic choices are conscious and intentional. And the more students study style in writing, and practice writing with a conscious eye toward their own style, the better prepared they are as writers.

In the chapter titled "Teaching Style," Edward P.J. Corbett claims that "[b]y analyzing an accomplished writer's style, we can recognize the marks of effective style, and then we can begin, either consciously or unconsciously, to incorporate some of those features into our own style" (p. 211). Corbett provides advice about how students can gather data about style—whether in the work of a published author or a student writer—and draw conclusions that can lead to an improved understanding of effective writing. "Certain patterns or motifs begin to emerge that tell the students something about a particular author's mindset," Corbett says. "The presence—or absence—of figures [of speech] tells students something about the texture and flavor of an author's prose" (p. 215). Corbett uses examples from literature—such as Ernest Hemingway's redundant use of coordinating conjunctions or Henry James's frequent use of parenthetical asides—but I, for one, can imagine such studies going on in a variety of classes with students looking at a variety of texts. Students in biology classes could analyze stylistic elements in lab reports while students in business classes could consider stylistic choices in business memos; students in journalism classes could analyze the style of effective news stories just as history students could look at style in historical texts. For readers who are thinking that those types of writing don't really include style, I return to Butler's explanation of style. It is not divorced from meaning, and when writers make decisions within disciplinary contexts, those are stylistic decisions. A lab report that adheres to a specific sectional format, that contains passive sentence constructions, and that is written via a seemingly voiceless narrator—that, in other words, seems void of style—is still written with style. Those characteristics are the style. All students studying writing—not just those in first-year composition courses—could benefit from a closer look at the style in the types of writing they are supposed to emulate.

This point is made further in the chapter "Making a Case for Rhetorical Grammar" by Laura R. Micciche, who asks readers to reconsider their ideas of teaching grammar to writing students. Grammar instruction, she explains, makes teachers nervous because it is uninteresting to students and is widely considered to be ineffective. Further, when grammar is taught, it is often left

for the final stage of writing, seen as polishing rather than an important part of how writers make meaning. By focusing on rhetorical grammar—in essence, style—teachers "can demonstrate to students that language does purposeful, consequential work in the world—work that can be learned and applied" (p. 252). Such instruction is important, she argues, in helping students learn to communicate effectively.

Micciche explains how she has her composition students conduct stylistic analyses of excerpts from Harper Lee's *To Kill a Mockingbird*, Kurt Vonnegut's *Breakfast of Champions*, Ambrose Bierce's "An Occurrence at Owl Creek Bridge," and other literary texts. However, such analyses are not limited to literature; the students also complete stylistic analyses of advertisements, text on food packaging, textbooks, syllabi, appliance instruction manuals, and billing information accompanying phone and credit card bills. Whatever the textual source, Micciche explains, these exercises "can be an asset to teaching practices that view analytical thinking as a necessary component of any socially engaged pedagogy" (p. 260). Such exercises could be used by any writing teacher who wants her students to develop an enhanced understanding of writing, whether in general (such as in composition classes) or within a disciplinary context (as students continue to write in upper-division classes of their majors).

Other chapters focus on stylistic imitation as a learning tool, sentence-combining practices, and the relationship between written texts and verbal speech. In "Whatever Happened to the Paragraph?" author Mike Duncan argues for further study of the form and function of paragraphs, which can differ widely across disciplinary lines. In "The Relation of Grammar to Style," author Virginia Tufte explores how writers' control of syntax—the rhythm created by putting together words and phrases—affects style. In "The Feminine Style: Theory and Fact," author Mary Hiatt explores gender differences in writing. And in "The Cultures of

Literature and Composition: What Could Each Learn from the Other?" author Peter Elbow explores the differing styles of these two English Department-based cultures' views of writing.

In "Grammars of Style: New Options in Composition," Winston Weathers proposes what Butler describes as "a unique approach to style pedagogy, identifying elements of style that reflects more closely the pluralism and diversity he sees as important to the composition classroom" (p. 206). Weathers' article, first published in 1976, prompted an entire collection entitled *An Alternate Style: Options in Composition* (1980), making Weathers' ideas more common today. This final example illustrates much of what Butler's *Style in Rhetoric and Composition* can do: It cannot serve as the final authority on the subject of style, but it can serve as a basis for readers and point them in the right direction for further study. Readers get an introduction to the idea of "alternate style" in Weathers' chapter; if they want more, they can seek out the book it influenced or myriad other texts. Butler provides a lengthy list of additional readings, helpfully listed under the book's five subject headings. I personally would have liked to see more practical suggestions of how to teach style in writing classes. While several of the essays do provide praxis, I found that most of the pieces provide a theoretical argument for teaching style, not necessarily advice about how to put such theories into practice. But Butler's purpose here is to open readers' eyes to the possibilities of teaching style in writing classes, not to provide a how-to book that teachers can follow step by step. The book aims to start—or reenergize—the conversation about teaching style in writing, not to be the final word on the subject. Therefore, my hope is that teachers—both of composition and of writing in other disciplines—might begin teaching style more and therefore be able to continue the conversation. To imitate Kennedy's *antimetabole*: Ask not what style can

do for your teaching; ask what your teaching can do for style. ◼◼

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