Going Multimodal

Programmatic, Curricular, and Classroom Change

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> In essence, multimodality lets the many-faceted world we live in be more accurately represented and analyzed. We experience life and learn through many different avenues and to try to confine our work to one, namely text, can constrict the possibilities immensely.
> —Zach Burns, Kenton Butcher, and Dirk Long, under-
> graduate students (Conference on College Composition
> and Communication presentation, March 2007)

As the students note in this epigraph, we do not live in a monomodal world. Rather, we experience the world and communicate through multiple modalities. "To confine" students to learning in only one mode, typically the textual mode in first-year writing courses, indeed limits students' understanding and creative potential—a point that has reemerged in considerations of education and the teaching of writing.[1] Instead, introducing students early in their college careers to the different ways of making meaning using a given mode and to a consideration of the contrastive affordances of other modes as they compose leads them to a

theme); rhetorical analysis; argument and research; design your own project; and reflection. With an emphasis on the importance of considering audience, purpose, and appropriate form, the fourth sequence provided a capstone experience of rhetorical knowledge: Students selected, planned, and composed—either individually or collaboratively—an intensive project of their own choosing. Even before our digital initiative, some students pushed their writing outside the bounds of the traditional essay, creating multimodal projects, such as CDs of musical compositions, brochures with visual images, web pages, and documentary videos. In short, students were already leading us into multimodality—and digital multimodality—before we developed digital classrooms and consciously set out to revise our curriculum to be even more explicitly multimodal.[3] Our current curriculum includes five interrelated inquiries: self-inquiry/initial reflection, textual inquiry/rhetorical analysis, issue inquiry/public issue argument, media inquiry/remediation, and e-portfolio inquiry/final reflection.

Historically, our program at Miami has been alert to new technologies, incorporating these into the recommended pedagogy as they emerged—for example, in the early to mid-1990s Listservs started to be used for extending class discussions, and by 2000 course management systems like Blackboard, with its forums and other spaces for writing, were commonly used by most composition instructors. And in 2005 we set up a composition wiki (password-protected) for collaborative writing projects. Despite these examples of integrating technology, no sections of composition were taught in computerized classrooms (at least not since the late 1980s when the program's one computer classroom was released because of lack of adequate funding for computer maintenance and replacement). So, prior to 2005, while we did not focus our curriculum specifically on the integration of digital technologies, we did have many technologies already infused into the culture of composition teaching at Miami. Although computerized technologies are certainly not necessary for multimodal composing, the affordances they provide for integrating visual, aural, and textual elements enable multimodal composing to occur more seamlessly, apply to a wider range of rhetorical situations, and reach potentially more audiences.

As for teacher preparation, we extensively train graduate student instructors in a monthlong, four-credit summer graduate seminar in the teaching of composition before they step into a classroom and a two-semester practicum meeting once a week during their entire first year of teaching. By 2005 we had also incorporated Universal Design for

with the president and provost and to other entities on campus—and in constructing it, we drew from the excellent article "Why Teach Digital Writing" (WIDE Research Center 2005). Key to our argument to those administrators who were less familiar with emerging trends in writing was that networked connectivity and multimodality have changed writing contexts, that students need opportunities in class to analyze and compose in these new contexts, and that doing so would improve their critical thinking, writing, and research—particularly their ability to evaluate online information and resources.

Because we were able to successfully argue for the need and the potential benefits of integrating digital technologies in the writing classroom and because Miami University was launching a laptop purchasing program where incoming students are strongly encouraged (although not required) to purchase laptop computers, we received internal funding from the provost and from the vice president of information technologies to develop several digital classrooms.[4] In 2006 we unveiled a new laptop classroom with a teacher station computer, projector, DVD player, document project, and wireless connectivity for use exclusively by the Composition Program and a desktop, high-end new media lab to be shared by English and Interactive Media Studies. In 2007 we opened another laptop classroom, enabling us to teach 30 percent of our more than 130 sections per semester with digital technologies. In 2008 we added another laptop classroom, enabling us to teach 42 percent of our sections with digital technologies. In 2009 we added one more laptop classroom, and in summer 2010 we added three more, enabling us by fall 2011 to teach more than 85 percent of our first-year writing classes in laptop or hard-wired classrooms. (Because of the Miami Notebook program, 98 percent of incoming students at Miami own laptop computers that they can bring to class. For those students who don't own laptops, they may enroll in sections offered in hard-wired labs.[5])

Materials Secured: On to Course Goals

Back in 2006, once we knew we'd secured the material spaces for teaching in digital classrooms, we administrators and graduate student instructors met to decide if we wanted special course goals for the digital sections. Our Composition Program's goals are adapted from the *WPA Outcomes Statement for First-Year Composition* (WPA 2000) and address both composing processes and rhetorical knowledge. We soon realized that we did not want to create new, special goals for the digital writing

diverse group. The Digital Writing Collaborative was chosen because it seemed appropriate to call ourselves a "collaborative" to emphasize the range of resources each person brought to the table. Our technological backgrounds and pedagogical interests ranged from those comfortable with high tech to those who call themselves "old school" when it comes to technology. We began with a commitment to validate this range of interests. With our various perspectives, we sketched out what it might look like to teach in multimodal ways with the affordances of technology. We were at once excited and intimidated to be part of this new movement in our composition program but also cautious about not getting too carried away with technology and losing sight of program goals.

One of the first actions of the new DWC was to meet with the director of Composition and the graduate student editors of *The Teacher's Guide*, a yearly internal publication that serves as a manual for teaching the major sequences of college composition courses. The bulk of the guide maps out composition goals, classroom activities, and major and minor writing assignments for the semester. The guide has always been a great resource for instructors, seasoned or new, and is updated yearly with new ideas and curriculum changes, and we felt it was important to include a new digital section—one that would adapt assignments to digital environments and provide some new ideas as well. Although the ideas published were helpful, each teacher needed to work them over to more fully develop, remix, or refine the assignments to suit their and their students' interests, technological abilities, and teaching and learning needs.[6]

The composition theory summer seminar required of first-year graduate instructors was an obvious place to infuse training and support for the digital initiative. The aim of the course is to help new graduate instructors think through how they will construct and teach the standard composition syllabus. The course had already been providing teachers with tools for incorporating technology and multimodal assignments into their first-year composition courses: for example, learning to use our course-management system (now Sakai-based), virtual chat rooms, digital journals, message boards, discussion forums, Listservs, and the composition wiki. The emphasis was not on using technology merely for technology's sake but on incorporating only what each instructor felt comfortable with and what furthered particular pedagogical and writing goals. In this first seminar for graduate instructors we did not introduce the specific technologies of the new multimodal curriculum (for example, building web pages or composing sound essays) but instead focused on developing a solid base of self-reflective, multimodal teaching habits. We

key component of our instructor outreach. Each semester, instructors in the DWC offer six to eight workshops and discussions. These opportunities to share our work and to learn from each other are crucial for the sustainability of the program.

Sustaining Flight

Faigley (1999) has argued that "training reduces anxiety and increases understanding in how to use technology." In the second year the DWC in its role in the Composition Program faced two challenges: continuing to develop digital, multimodal pedagogy and training instructors in its use, while sustaining the energy and commitment of the teaching community. To build on the knowledge and experience gained in the first year, a great deal of digital archiving of materials occurred, some available publicly on the Web and some available only to members of the Miami University community at the DWC Blackboard site.[7] In addition to the digital resources, face-to-face resources were and continue to be developed.[8] As well, the workshop series continues, led by DWC instructors, and there are weekly mentor meetings for all instructors who are (or who are interested in) integrating multimodal, digital composition in their classrooms (whether they are teaching in the digital classrooms or in more traditional classrooms).[9]

Many things did run more smoothly in our second and subsequent years of the digital initiative. For example, since we've all now actually taught in the digital classrooms, the assignments in the teacher's guide have been revised and refined. Our series of workshops and discussions (twelve per year) are known and expected events with topics changing each semester to meet changing needs. And the DWC will continue to bring in guest speakers and, with the generous help of Bedford/ St. Martin's, sponsor a prize for the best digital, multimodal composition for students enrolled in first-year writing courses.

INSTRUCTOR REFLECTIONS ON VARIOUS MODES AND MULTIMODAL ASSIGNMENTS

As with the integration of any pedagogy, the integration of multimodal composing occurs along various continua in our program. Most instructors develop assignments asking students to analyze the rhetorical effectiveness of various multimodal texts created by others (for example, commercials, YouTube videos, audio essays, digital storytelling projects).

game chats, hours of watching YouTube videos generated by other players to illustrate strategies and concepts, and the hours spent in all the other reading and writing activities that went into finding solutions to their gaming problems. In five minutes of banter, these two young men who claimed to "not read and write" described their roles as highly literate participants in a set of gamer discourse communities.

Gaming currently occupies an interesting position for scholars and teachers. As we seek to incorporate digital and multimodal elements in our classrooms, we must remember that we walk a fine line. Many students play with these technologies (whether it is in console games such as *The Sims* or *Halo* or in online worlds such as *World of Warcraft* or *Lineage* with thousands—or millions—of players). While that sense of play and desire to create can be harnessed for educational purposes, we also run the risk of alienating students by "invading" their discourse and making it "academic"—or in student's terms, we could potentially "suck the fun out of it."

At the same time, gaming is the ideal starting point for a discussion of multimodality that engages without feeling exactly like "work." During one course I had a group of students visit the online Adobe Flash game *The Crimson Room* (Takagi 2004). The goal of *The Crimson Room* is actually quite simple: The gamer is placed in a first-person gaming environment, told he or she had "too much to drink last night," and must find a way out of the room. Initially, it seems almost too easy, and anyone playing the game—seasoned gamer or gaming novice—begins clicking around the environment, reading visual, audio, and textual clues while using the mouse to explore the room. Most gamers click to "stand" and immediately try the doorknob. But the door is locked. This starts an exploration of the room that can take hours, as the gamer checks every remote corner of the small, simply rendered room/world, trying to locate the door key.

Something interesting happens when I show people *The Crimson Room*. It's meant to be a quick, easy example of a video game space. The interface and mechanics are simple. It can be played on any computer that can run Flash Player. And initially it looks boring. But players get sucked in. With both undergraduates and graduate students—and even a professor observing one of my presentations—there's a quick jump from "this is interesting" to "wait, wait, I think I've got it!" The game moves from being a simplistic example to presenting a challenge, the challenge becomes fun, and that fun generates energy. In some cases people have contacted me the next day to inform me that they continued playing late,

At the start I had every intention of utilizing the digital environment to its fullest potential. The data were telling me that many teens with access were online; my dissertation research sent me into a whole netspace of active adolescent girls who were building and maintaining their own websites. I was hoping to see this in action, so I decided on a website assignment for the Design Your Own Project sequence, partnered with a paper based on an issue of public debate. Knowing that many professors would still require the standard "college paper," I didn't want students to be at a loss when they encountered traditional classrooms with no options for digital projects, so I used the argument sequence to assign a paper on a topic of public debate. I emphasized research during these weeks, teaching students how to navigate citation and plagiarism issues both traditionally and electronically; I still wanted them to familiarize themselves with the campus library and also to focus on how argument worked in both traditional paper-based as well as in web-based forms. When we discussed the upcoming website assignment, I encouraged students to choose topics they would be willing to research for the last half of the semester.

Once I responded and graded all the public debate papers, I introduced the new web-authoring sequence by placing students into groups based on similar topics. I designed the website assignment to include both a collaborative element and an individual effort. Each group was to create one homepage that introduced the shared issue of public debate with links to each student's own website. Each individual website required a minimum of four pages with a set number of graphics and other visual elements. Students used and revised text from their public debate research papers to build their pages and focused on making rhetorical choices as to how to compose and arrange text and image.

I was excited about this assignment. My research was telling me that this is a generation of students who grew up with technology; they have "never known life without the Internet" (Oblinger and Oblinger 2006, 8). I saw them surf the Web in the few minutes before class began, talk about chat discussions, and download music and videos. What I didn't expect was that out of my two course sections, not one student out of the forty-four had ever built a website. And what I didn't anticipate was how many students initially lacked the confidence to move forward with the assignment. As their drafting and website sketches proved, their ideas were strong. They utilized everything they had learned about rhetoric and argument to make creative choices about the visual and textual

become better listeners to themselves and to one another, and to translate this better listening into improved understanding of writing and rhetoric. In an effort to show my students how they can improve their own writing by listening to themselves and their classmates, I incorporate audio components into my first-year writing courses. I wanted to make literal for them what I was hearing from their pages. For me, using audio in the classroom is a way to put into practice what I want my students to learn about audience, argument, organization, style, tone, and word choice (to name just a few). To these ends, I include in my courses published audio "texts" to be rhetorically analyzed and project assignments that ask students to write, record, edit, and revise their own audio essays.[12]

Another pedagogical goal associated with using audio is situating such projects within the curriculum to help students practice the analysis and production of arguments in different forms, for different purposes and audiences. Audio assignments create opportunities for class discussions about copyright (and copyleft), about Creative Commons, and about the importance of free software, since my favorite cross-platform audio program, Audacity, is free and open to everyone. Creating a course with an audio component therefore is an investment yielding a great return in the discussions, activities, and projects it produces. Instructors can incorporate audio components into classes in a variety of ways. One approach I've used is to have students create audio research-based essays. Students created NPR-style segments based on traditional research, which they included in their annotated bibliographies and written scripts. The goals of these essays were for students to collaboratively work together to extend knowledge of an issue, group, or event that had been discussed in class. To begin, students listened to examples of audio essays and then we discussed them together, noting what was more or less successful in the works we heard. In completing these projects, students had to make choices, such as deciding which information was most essential and informative, what their specific audience already knew about their topic, how to arrange information to catch listeners' attention, and how to layer music and other sound elements to transition sections of the narrative. Students first wrote their audio essays as scripts and created visual outlines to represent the layers of sound, revising, reordering, and editing as they worked. Because of the way these projects were scaffolded—starting with research questions, then investigating and (re)searching to narrow the focus of the project—and the amount of writing that went into all of these stages of planning and producing, it is evident that the work of such projects mirrors the same skills and practices of traditional writing

in critical reading, writing, listening, and viewing activities throughout the semester. Near the end of the term, they produce an argumentative multimodal clip that demonstrates their cumulative understanding of the rhetorical functions of sounds, images, and alphabetic texts.

While digital video is not a foreign media, students may not be cognizant of its rhetorical operations and effects. Teaching how to compose a multimodal clip helps learners become rhetorically aware and critically perceptive about a pervasive medium and enables them to see and use technology as rhetorical tools to enrich their communicative options and abilities. Students learn to acquire what Stuart Selber (2004, 25) has called functional, critical, and rhetorical literacies in which they become users, questioners, and producers of technology. To launch the multimodal project, I begin with a unit on research and argumentation.

Students in my class spend five weeks learning how to conduct research and write a five- to six-page scholarly argumentative essay about a public issue. They learn syllogism, enthymeme, fallacies, citations, and academic conventions. Once the essay is finished, I begin a sequence on multimodality in which students learn to recast their essay arguments into a three- to four-minute multimodal clip designed for a specific public audience. Their project must include still images, sounds, and alphabetic texts, and the finished product is exhibited on YouTube for public viewing. (Students know from the outset of the class that their video project will be posted to YouTube so they make rhetorical choices accordingly.) Altogether this unit requires four weeks to complete, and throughout this period I help students learn to use video-editing software such as iMovie (for Mac) and Movie Maker (for PC), introduce them to Creative Commons, and teach them about copyright ethics. Most important, I engage them in two crucial exercises that are designed to sharpen their multimodal senses and to prepare them to compose their own video project: biweekly critical viewing of sample clips and collaborating on the grading criteria for the final project.

For the critical viewing, twice a week during this unit I ask students as homework to watch three to five multimodal clips of disparate qualities on YouTube. Some works are made by amateurs, and some are created by professional organizations such as PETA and Barackobama.com. I want to expose students to a variety of examples so that they can learn to evaluate and judge the rhetorical effectiveness of various video media. Before assigning the homework, however, I introduce the concept of critical viewing. I explain to the class that critical viewing involves closely

or he begins composing. A learner in my class, for instance, thought it was crucial that alphabetic texts accompanied every image and screen so that his arguments would be clear. He made that a required criterion. Having read what he submitted, I was able to talk to him about how having too much text can be problematic and to show him how to use sounds and images to assert and enhance his arguments. Third, collaborating on the evaluation criteria demystifies the grading procedure and allows students to see how they will be evaluated up front. Finally, the evaluation criteria can be used to guide peer response. All in all, building collaborative grading criteria for multimodal projects offers many pedagogical benefits for both students and instructor.

CLOSING IMPLICATIONS AND RECOMMENDATIONS

The teaching narratives offered by Phill, Michele, Abby, and Chanon are only a small sampling of the digital, multimodal assignments that instructors developed, but they demonstrate both the risks and rewards of teaching digital, multimodal writing. In addition to upping the fun factor, multimodal assignments can tap into students' creativity, hone their research skills, mobilize their rhetorical knowledge, and heighten their awareness of audience and writing's power to shape and represent identities. These are big rewards, but the risks in teaching multimodal composition are real as well and might be too daunting to some. Risks include the sharp learning curve needed to use software, glitches and unforeseen problems in carrying out assignments, students' discomfort with new technologies, the fear (or reality) that multimodal skills may not carry over to academic learning. This last risk can be a fear (of students, teachers, and program administrators) that undermines the reputation of a writing program, and so it needs to be addressed.

As any writing program administrator can attest, it's not enough to revise curriculum or even make it more appealing for students. Administrators also must be able to show that what they are doing is "working"— both to university stakeholders and grant sponsors who have supported curricular change. More important, we need such assessment information for students and teachers in our writing programs, as we seek to continue to revise and refine our curriculum and teacher training. In 2006, in our first year of the new digital and multimodal curriculum, we conducted a study that involved pre- and post-surveys of students, interviews with students, and a direct assessment of student writing in the digital sections. The findings from surveys and interviews showed that students

will include all of their major assignments, drafts, and reflective writer's letters for every assignment. We are especially interested in assessing how students' multimodal composing projects are meeting course and Miami Plan goals.

There are many essential components for sustaining a program-wide focus on multimodal pedagogy: preparing and supporting instructors, developing curriculum, securing and maintaining material and administrative resources, and conducting program-wide assessment. Balancing all of these is a challenge, but our institutional history—of commitment to the best practices of composition and to intensive training of our instructors—makes us hopeful that we can sustain the DWC. With a thirty-thousand-dollar internal grant from the provost for instructor training and curriculum development and with funding from IT for more digital classrooms, we have secured the needed resources to reach our goal of providing equitable learning opportunities for all first-year composition students at Miami's Oxford campus, being able to offer 100 percent of our English 111 sections in digital classrooms by fall 2011 and 75 percent of our English 112 sections.

One key ongoing concern is about access and fairness. In our digital classrooms we rely on students arriving with their own laptops. Although 98 percent of incoming students to Miami University's main campus bring laptops, 2 percent do not, and that 2 percent concerns us. In our discussions with administrators we have been active in urging the university to make laptops available to those who cannot afford to purchase one of their own. Each year Miami is able to provide approximately twenty-five laptops to incoming full-scholarship students who are enrolling under Miami's new access initiative for low-income students, but obviously that number is woefully inadequate for providing laptops to all students who need them. We will use our story of success with digital classrooms and our university network of supporters to continue to push for a program that will buy laptops for any student who cannot afford but wants one. We also continue to support and use a hard-wired lab for scheduling composition sections so that students who do not have access to laptops may be enrolled in sections with computers. As the first-year students who presented at the Conference on College Composition and Communication in 2007 noted, we live in a multimodal and increasingly digital world, and it's imperative that we ensure that all instructors and all students have opportunities to teach and learn in with digital multimodalities.

good, appropriate sources. Include all these sources in your bibliography so it is evident that you have done a lot of work on the topic.

Incorporate sources: You will need to be able to appropriately place quotations, paraphrases, and summaries in your audio text. This includes introducing them properly and showing your audience why the quotations you use are important. Your project, in the end, will need to have the following: a main idea or thesis, focus, coherent points, and clarity. In constructing this announcement, you should use rhetorical strategies. One of the most important elements is audience selection. Who do you want to reach with your message and why? Because this is a group project, you will be spending time outside of class meeting with your group members and working on the project. I suggest you exchange phone numbers, e-mails, and so on to make sure you can find one another and schedule meetings.

APPENDIX B. Critical Viewing Assignment Prompt (Instructor Chanon Adsanatham)

Clip 1

As you watch the clip from the Humane Society of the United States, pay attention to the following:

1. How are the images arranged? In what order do they appear? Is there any logic to them?
2. What makes the clip memorable and why?
3. What sounds do you hear first, next, and afterward? Why do you think they are put in that order?
4. How are quotations used; why?
5. How is ethos utilized?
6. What do you like about this clip that you might try to emulate in your own?
7. Is there anything that you dislike?

Clip 2

As you watch the PETA clip, pay attention to the following:

1. How does the author create balance between logos and pathos? Be specific. Does she or he use interviews, factual descriptions, and so on?
2. Why do you think the clip doesn't contain music like other ones?

depiction of the argument and clearly and effectively persuade the audience.)

5. Images should be clear, and the viewer must be able to make out exactly what the picture is.

6. Do the images enhance and enrich your argument? That is, they are not irrelevant or "place holders." They convey rich meanings.

7. Does each image have high-quality resolution and no trace of graininess?

Sounds

1. Music or sounds are used appropriately and make sense with the rhetorical strategy being used. This is not a music video; the sound should enhance the message of the clip and not distract from the images or persuasiveness.

2. Do the sounds flow smoothly, eliminating choppiness or awkward transitions in the music?

3. Are the sounds matched up with the clips or message behind the clips and images?

4. Does the music match the theme of the argument? For example, no techno music for a video about dying children in Africa.

5. Is the audio at the same pace as the presentation and flows smoothly with the slides?

6. It is obvious that time was taken to search for unique sound effects that influence the argument.

7. Sounds are organized and helpful to the understanding of the argument. They are relevant to the argument and cut in a manner that makes sense with the pictures.

8. Is the sound high quality (everything can be understood and heard)?

Transitions

1. Are the transitions appropriate for the message of the clip? Are they professional looking and go along with the mood?

2. Do the transitions connect the slides together, making it a clip rather than a slideshow?

3. Transitions between images and sounds are used where appropriate to enhance rhetorical appeal without distracting the viewer from the images. Having a goofy transition between each image is not very persuasive and will most likely get annoying. Transitions should be used sparingly and only where they will have a specific purpose other than entertainment.

Arrangement

1. Are the pictures, clips, and sounds arranged in a way that allows for the audience to see the progression of the argument?
2. Is the arrangement in an order in which the audience can view the clip in a way that makes sense to them?
3. The arrangement creates a smooth flow that keeps the viewer interested.
4. Make sure your images and media are not scattered randomly throughout your clip; they should follow are particular sequence.
5. Does everything fit together as a whole?
6. Does the clip have any spots in which one part does not fit with the others?

NOTES

1. Howard Gardner (1993; 2000) has influentially argued for "multiple intelligences"; the New London Group (Kress 2003) charted modes and modalities and means to enact them in classroom settings. Gunther Kress and Theo van Leeuwen (2001) have theorized not only how modes work in isolation but also how the logic of each interacts and interanimates the other, arguing that rhetorical knowledge is even more important in designing the most effective interaction of verbal, visual, and kinesthetic modes. Bill Cope and Mary Kalantzis (2000) have moved outside the academy to consider how multimodalities and multiliteracies work in contemporary societal communications. In computers and writing studies, a number of special collections of journals—such as the sound issue of *Computers and Composition* (Ball and Hawke 2006), and a number of books, including Anne Wysocki et al.'s (2004) *Writing New Media* and Cynthia Selfe's (2007) *Multimodal Composition: Resources for Teachers*—have examined the intersections of multimodal composing and new digital writing technologies.

2. In using the terms "mode" and "multimodality," we draw most fully upon the New London Group (2000), who emphasize the importance of teaching multiliteracies and multiple modalities. Modes such as the linguistic, visual, aural, and kinesthetic have their own "functional grammars, the metalanguages that describe and explain patterns of meaning" (ibid., 25) through which to communicate. Multimodality then is the ultimate design of making meaning, "as it represents the patterns of interconnection among other modes" (ibid., 25).

3. See Mary Leigh Morbey and Carolyn Steele's chapter 10 in this edited volume for further discussion of the ways students, not educational institutions, lead the way into new digital technologies.

(so-called millennials) use the Internet (Purcell 2011; Zichuhr 2010). These are the students who enter our college composition classrooms—familiar with technology, bringing a digital literacy to their writing processes.

11. Student statements and texts are quoted with Institutional Review Board (IRB) approval and individual consent.

12. In all my classes I (Abby Dubisar) also address the sometimes limiting and noninclusive assumptions we have about who is an audience for our compositions. When writers imagine audiences with a range of sensory disabilities, they can use multimodality to reach a range of users. I have not yet taught the audio essay to a student who is deaf or hard of hearing, but I have thought about ways to universally design this assignment: all students would provide transcripts of their audio essays. A deaf student could make a video essay with signing and captioning, and if it is a group project, the other members could voice the audio components.

13. These PSAs may be heard at http://www.muohio.edu/dwc/student_projects/projects.htm.

14. See http://www.muohio.edu/dwc/perspectives.htm for video clips from the student interviews.

15. The t-test finding comparing the median rubric scores of 2005 and 2006 is T-value = -0.56, comparing 2005 mean of 5.104 to 2006 mean of 5.269. Because we kept a record of only the mean score for each trait, standard deviations could not be determined, and statistical significance of the changes in mean scores of individual traits could not be determined. We would like to thank Denise Krallman, Miami University director of institutional research, for calculating the statistical findings for us.

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