

Introduction

As Stanley Aronowitz writes, ". . . just as it is futile to mourn the passing of the horse and carriage, there are really no alternatives to computer and electronic mediations of everyday life. Technology has become the new form of life; the only issue is how to harness it . . ." (121). In the rush to equip computer classrooms and implement the latest technological advances in instruction, there is sometimes little thought to the pedagogical theory that underpins these classrooms and teaching practices. Until recently, we haven't thought of technology use as a rhetorical choice. There is a great deal of both societal and academic pressure to incorporate technology into our pedagogies. Considerations often left out of pedagogical discussions are technological considerations, specifically the physical space of the computer classroom and how technology use functions in pedagogy. By technology use, I mean simply, the technologies that are actually used in the classroom such as various *Word* utilities, email, course websites and the Internet.

My interest in technology's role in writing and in the teaching of writing stems from my own fascination with how my technology use has progressed over time, as I've learned more about technologies like hypertexts, blogs and wikis. However the spatial design of the computer classroom is an interest sparked by my transition from a paper-based classroom to the computerized labs at Illinois State University. The impact of classroom design is only recently being discussed in terms of pedagogical considerations and student successes. Lisa Gerarrd insists that "classroom space is not a trivial concern. The physical conditions of a composition classroom—computers or not—tell students a great deal about what will go on there and what is expected of them" (Myers 150). But what does it tell graduate student teachers about what is expected of them?

Coming from a paper based classroom pedagogy I was unsure of what to do with all the students sitting in front of computers. When I arrived at ISU one of the graduate students asked, "What did you DO without computers?" While at home, my colleagues were asking, "What do you DO with computers in a composition classroom?" My experience generated a range of questions about technology and the writing classroom. Some of which, I explore in this pilot project. I am interested in how writing instructors describe their experiences teaching with computers. Does technology factor into their pedagogical decisions and if so, how?

Gordon Thomas' experience at the University of Idaho taught him that "particular hardware and software does encourage some pedagogies more than others" so that while most try to "prevent" technology from "driving the pedagogy," educators... have also found that technologies powerful influence on curriculum and teaching methods are difficult to avoid (Myers 197).

In *Classroom Spaces and Writing Instruction*, Ed Nagelhout and Carol Rutz explain how a metanarrative about classroom space can foster productive classroom dynamics:

To ignore unsuitable furniture or to work in spite of noisy distractions is to foster a fiction that requires the classroom to be idealized or normalized instead of being recognized as an environment with specific characteristics that affect the people and activities that occupy the space. [...] Working together to identify and name the idea of the classroom, teachers and students redefine this space every semester in ways that best suit their work together (7-8).

In order to “name the idea of the classroom” and “redefine this space,” composition teachers must learn to think and talk about the space of the classroom, the theory behind it, and the function (or dysfunction) of that space for the class underway. While the aesthetic design of any classroom affect teaching and learning, classroom design becomes even more important when computer screens, VCRs, microphones, and other technologies are complicating a classroom. In many ways, however, conversations about technology and pedagogies are only recently entering the discourse. As Cynthia Selfe has argued, humanist academics harbor a deep distrust of "the machine," and many continue to be reluctant or avoidant of technology-related fields (Connors and Glenn 512). But compositionists cannot ignore the influence of the computerized classroom. We must consider the design of the computerized classroom, the physical arrangement of the chairs and of computer screens. This projects aims to further the conversations about technology and pedagogies by exploring the ways in which graduate student teaching assistants describe their teaching both in and outside of computerized classrooms. Through observations, interviews and surveys I studied three graduate student teaching assistants in and outside of class to explore how they teach in the physical space of the computer classroom.

Methods

Before I began this pilot project, I knew I wanted to focus on teaching, on teachers of writing rather than on students. I have a particular interest in how technology impacts writing but also its impact on the writing classroom. As a teacher of writing, I could have conducted teacher research, reflecting on my own teaching methods and struggles with technology and the classroom. But I felt it was important to go beyond my classroom, to conduct a small case study, focusing on graduate student teaching assistants. My goal was to explore whether or not the physical structure of the computerized classroom impacted

pedagogy. In addition, I was curious how graduate student teaching assistants would describe their pedagogy, and how their descriptions would be enacted in the classroom. Would their actual classroom pedagogy correspond with their descriptions?

I began by sending an email to the English Department graduate student listserv to gauge interest in participating in my pilot project. (See Appendix B) I was quite explicit in my explanation of the project. I informed potential participants that I was interested in how the structure of the computerized classroom influenced their teaching. I explained that surveys, observations and interviews would be part of the study. Five graduate student teaching assistants agreed to participate.

Surveys

The surveys, consisting of five questions served multiple purposes. It narrowed the sample, provided a general idea of each participant's pedagogy, which would be compared to their classroom pedagogy and the interviews, and it presented information regarding the actual technology use of each participant. The surveys produced written responses by each participant. Having the participants' exact phrasing made analysis much easier. After securing their consent, the surveys were emailed to participants who typed their responses. This created a great deal of information, which formed the basis of the comparison between the survey, observation and interviews. (See Appendix C for survey.) I anticipated interviewing and observing all the participants but due to time constraints, I decided to narrow the scope of my project. Based on the participants' answers I selected three participants to observe and interview. The participants' ages range between 27-35. All three participants have taught Composition at Illinois State University and elsewhere. One of the participants has experience teaching composition online. Two females and one male had taught in both paper-based and traditional classrooms. It was essential that the participants had previously taught in some environment other than a

computerized classroom because I was curious as to how they would describe the move from paper-based classrooms and whether or not they would describe their pedagogy as changed.

I also wondered how the male participant would compare to the female responses. Would gender necessarily play a part in what technology he chose to use? Would he use the physical space differently than the female participants? As I read through the surveys, I also became interested in how pedagogy would be enacted in a computerized classroom. Would participants do what they said they do? How would they further describe their pedagogies in interviews?

Observations

All three participants allowed me to observe their teaching on multiple occasions. I observed each participant twice. The first observations occurred in mid-October while the second observations took place in late November after Thanksgiving Break. Both observations were relatively informal; one was planned while the other was unplanned, meaning I simply dropped by the classes and observed. The first observation was pre-arranged while the second observation was a drop-in observation. In the drop-in observations, the participants knew they would be observed, but not which day I was coming. I did not want the participants to perform for me, or to plan anything beyond their daily activities. I hoped to get a more accurate sense of how participants interacted with their students, how they treated the physical space of the classroom, how they moved in it, how what they did compared to the surveys. However, I am aware that simply by my presence in the classroom, I changed the classroom dynamic. I strove to get the truest picture of daily class activities as possible, with the understanding, that in some ways, the interaction between the students and the teachers would be a kind of

performance.

Two of the participants teach 50 minutes three days a week while the other teaches an hour and fifteen minutes two days a week. During the first series of observations, I stayed the entire class time but in the second series of observations I spent 45 minutes in each class so as not to spend more time in one class than the other. I sat at the back of each classroom and took notes on a notepad while the participants conducted class.

There are many reasons I employed observations as a method for this research. I wanted to see the graduate student teaching assistants in action. I have found that despite my best efforts, I am not always able to successfully enact my pedagogical beliefs. Sometimes the dynamic of the classroom, the social interaction of students or the structure of the classroom presents challenges to my pedagogy. I was interested in what, if any, challenges to the pedagogy described by the participants, would arise during the class, how those challenges would be handled. I also wondered if no direct pedagogical challenges were presented, how the participants would reflect their teaching philosophies. Observations were essential to this research project because I was able to gather multi-dimensional data on the social interaction of the students with one another and the students with their teachers, my participants.

Interviews

I conducted interviews after both observations were completed. The interviews lasted 30-45 minutes depending on the participant. Instead of having participants come to my office, we met in downtown Normal at the Coffeehouse. Interviews occurred over the course of three days, one interview per day. The participants had previously consented to

being audio-recorded. I simply placed the mini-recorder on the table when the interviews began.

I asked participants a series of questions (See Appendix D). Participants did not have access to the questions beforehand. In some cases, I asked participants to elaborate and/or interjected additional remarks for clarification. The interviews were loosely structured and conversational. I decided to wait until the observations were finished before the interviews began because I did not want the observations to be tainted by the questions I asked the participants in the interviews.

I hoped the interviews would provide more in-depth information than the surveys made available. In addition, I anticipated the responses would clarify participants' initial response and possibly shed light on the observations. Potentially, the interviews would help create a context in which I could understand each participant's pedagogy. I then planned to compare the interviews, the observations and the surveys in a kind of hermeneutic cross analysis. The interviews served as a holistic research method where all the bits and pieces of data came together to create a larger context beyond the data I'd already collected.

Analysis

Throughout the process of collecting data, I'd only read the surveys in the attempt to narrow my participants. I took notes during the observations and had tapes of the interviews. I began in reverse order, with the interviews because I anticipated it would take more time to transcribe the tapes than it would to analyze the observation notes or

the surveys. Once the tapes were transcribed, I revisited the observations. I created observation reports, recording (based on my notes) what happened in class. The reports included only what was written in my notes. I did not attempt to recall any activities or moments I had not previously recorded. The reason I took notes in the first place is because memory is faulty and I wanted an objective view of participant teaching. I intended to avoid forcing the data and instead relied on my notes to inform me of what occurred in each class. When the observation reports were written, I created packets with each participant's data included.

I looked through each packet, making note of interesting connections between the surveys, observations and interviews. I then compared these connections across the participants.

Describing Pedagogy: Paper-based vs. Computerized Classrooms

The first survey question asked participants to describe their teaching philosophies. Two of the participants wrote paragraphs while the third participant wrote bulleted notes that he considered the "key beliefs" when teaching writing. Pedagogical beliefs that appeared in all of the participants' descriptions include: creating social, collaborative environments, positioning self as learner and teacher, and an attempt to de-center the classroom. These answers are not surprising considering the participants are all teaching assistants in Illinois State University's Composition Program and collaborative environments and an attitude of learning and teaching are cornerstones of our pedagogical model.

Question two asked participants if their teaching philosophy had changed since teaching at ISU and if so, how. Two participants, Carol and John (as they will be referred

to from here on) responded by explaining that their pedagogy has been encouraged and helped them to be more confident in their beliefs about teaching. Mary expressed that since coming to ISU, she'd changed her entire way of thinking about teaching writing. "Before coming to ISU," she wrote, "I stood at the lectern at the head of the class and wrote on the chalkboard. I never moved around the classroom. To look at drafts, I had students come up to my desk or see me in office hours. It never occurred to me to try to meet them on more neutral ground or to move around the classroom, at all. I practically taught at them." Mary went on to describe her experience during Orientation. "The graduate students and Writing Program staff made a big impression on me. When they finished their presentation on the Writing Program's goals in teaching writing, I went home and wrote in my journal, 'I have to throw everything I thought about teaching out the window!' But you should understand this was a positive experience, learning new approaches to teaching."

Carol and John described the paper-based classroom (Question 4) as restricting their teaching philosophies. John wrote, "I hate the classrooms where there are 20 or so desks pointing toward the front of the classroom. It makes it seem like I'm delivering a message, like a sermon and the students are supposed to simply soak it in. I despise chalkboards. I prefer students to interact with one another. For them to tell me what is important about a particular text we might read and analyze. But if you stand at the front, it's tough for them not to rely on you for the answers. So you have to sit with them, preferably in a circle or small groups. Otherwise they won't talk. They'll just stare at you."

Carol echoed John's dislike of the paper-based classroom. "I never feel like I am

effective as I could be in regular classrooms. I always forget extra paper or chalk or something else I might need. The space itself becomes distracting with rows and rows of desks. There are never enough outlets for my CD player and computer, or projector or media cart. It seems like there's too much to think about supplies and materials. Assignments become the least of what I end up considering, which to me, is awful. I feel like an awful teacher, then."

For Mary, the paper-based classroom "takes a lot of effort if you want to be effective. I can see how I taught in it before probably wasn't the best use of the classroom. I didn't know any better. We were trained quickly without much discussion about styles of teaching. One girl who taught with me always seemed to do really odd things in class, like have students get out of their desks and stretch. I thought it seemed quite elementary but I never considered doing anything like that."

While Carol, John and Mary viewed their pedagogies since coming to ISU in different ways, they all noted the difficulties in teaching in paper-based classrooms. Since ISU composition classes are taught in computerized classrooms, the assumption is that all of them compared their teaching in paper-based classrooms to the computerized classrooms in the Stevenson Labs.

Technology Use

Question 5 (the last question on the survey) asks participants to describe their use of technology in their classrooms at Illinois State University. The purpose of this question was to see what kinds of technology graduate student teaching assistants actually use. I did not mention students in the wording of the question, but all participants discussed

their students in some way. This shows how student-centered the participants' pedagogies are, which plays a part in how each participant views, utilizes and considers technology. In my analysis, I also noticed connections between the surveys, observations and interviews, especially in terms of the use of technology. I included this question simply for my own curiosity, not realizing it would be significant when compared in cross-analysis. It is in this comparison that I was struck by how the three participants actually used technology in their classrooms and how their use seemed to reflect the ways in which they described their pedagogy.

John

John embraced technology the least. "I have a very rough and basic website. Students can check daily notes and the schedule. My email address and office hours are on there as well as links to assignments and library resources. It isn't fancy but it works. In class, students only use the computer on drafting and peer response days. Otherwise, the monitors are turned off, the chairs are turned around and we're having class discussions."

When I observed John, who teaches both a 50-minute and an hour and fifteen-minute class, it was a drafting day. The first observation was pre-arranged and due to my schedule, I was able to observe his hour and fifteen-minute class. Before the observation, I visited John's website. It was, as he described it, simple. Black text on a grey background displayed the name and section of the course along with John's name and email address. There were two graphics on the main page; the links were center aligned. I browsed through the assignments, the syllabus and the resource materials John provided online for his students. The only mention of technology was included in the syllabus.

John reminded students that “my computer ate my homework” was not a valid excuse for not turning in assignments, thus students should save their work in multiple places. In addition, he referenced the Course Guide for further information on using technology in the Stevenson 250 labs.

In the classroom, John moved among his students as they wrote, often sitting with them, helping them work through their drafts. He visited each student as they worked at least once. Some of the students called John back over to their computer to ask him questions while others asked their questions out loud and John explained the answers to the class as a whole. The students talked to one another, sometimes about class, sometimes about topics outside of class, but for the most part, they stayed on task. Halfway through the class period, John asked the students to save the drafts they were working on and work in groups of two to go over one another’s drafts. One student read his draft aloud while the other student interrupted when he/she didn’t understand a particular section or phrase or when he/she wanted clarification or further information. The student who was reading marked the text in some way and made note of the questions that were asked. I noticed most students using the highlight function in *Word* and writing the questions their partner asked in parentheses. Two groups of students used the “insert comments” function. One group read from printed copies of their texts and marked with a pen, the places where their partners had questions. John neither encouraged nor discouraged any particular way of completing this activity. The activity took up the remainder of class time. John reminded the students to bring their drafts and responses back the next class period; students quickly saved their work and packed up their belongings. I thanked John for letting me observe and went to my office to file my

notes.

The second observation took place after Thanksgiving Break when the students began thinking of revising for their portfolio. John did not know which day I would be dropping by to observe him. When John got to class, I asked if it would be okay if I observed. He said, "Of course." John's students immediately turned their chairs around to face him. He began by asking the students if they had any questions about their revisions or the portfolio in general. He fielded their questions and passed out portfolio checklists in "hard copy form". He mentioned the checklist was also on the website. The students asked more questions after reading the checklist. John suggested they get in groups of three and discuss how they might revise each paper globally for the portfolio. Students sectioned off in groups and began going through their previous papers to determine what ways they could best revise. Again, John allowed the students to decide how to take notes and run their discussion. All the students had their work printed and were writing either directly on their previous drafts or additional pieces of paper in their notebooks. Most of them hadn't logged on to their computers though a few checked their emails while they flipped through their work. They worked together in groups with John circulating the room, checking on progress and offering suggestions until I left 45 minutes later.

When I began analyzing data, I was intrigued by the way John treated technology. He used the most basic of applications, avoiding using the Stevenson folders because he considered them "too complicated and unreliable." He explained in his interview that he provided students with a hard copy of his syllabus as well as other course materials.

During the interview, John seemed to struggle with the question "How do you see the computerized classroom in the context of your teaching philosophy?" He twisted the

ends off a paper napkin as he took some time to answer. Finally he said, "I guess I see it as something I have to deal with. I prefer it to a paper-based classroom because the chairs have wheels and it's easier to move between students. I like rearranging the classroom to suit me. That was difficult with rows and rows of desks. But there are things I dislike." I asked him to talk about the things he disliked. John responded, "One of the rooms I teach in doesn't have much of a whiteboard space. The whiteboard is kind of in the corner and it's hard for the students to see." I asked him if the whiteboard was the only spatial concern in the classroom. "Well, the students have to sit pretty close together. Sometimes there isn't a lot of room for me to sit with them without interrupting the other students. It's different depending on which room you get, though. The other classroom is a bit bigger and makes it easier for students to make room for their peers and me. I like being able to walk behind the students as they work. I try not to lean over them so sometimes I end up wheeling around the room. That's been effective so far."

John's response lead into interview question 3, "Does the structure of the computerized classroom affect your teaching on a daily basis? Why? or Why not?" Since I'd recently observed John, I was curious to how he would respond to this question. "Like I said before, I suppose I consider it, but... ummm... huh. Well, I wouldn't say it affects how I teach. When I was in the paper-based classroom, I moved the desks around. I mean, this setup is easier to rearrange, but I'd find a way to make my teaching work no matter what. I am not always conscious of the space like 'oh my god there are computer screens everywhere'. I try to ignore them and use a more social, personal style of creating a writing environment, using the computers mostly to...only when I feel it suits the needs of my students."

What struck me about the way John's use of technology was his disregard for it. John used technology because it helped his students write in class. He created a website so students could reference assignments, schedules and due dates easily even if they were off campus. John was not enthused by technology as Carol and Mary seemed to be. Instead he accommodated it because it met some of his students' needs and that was important to him. He seemed disaffected by the structure of the classroom, though he did compensate for it by having students turn around and face him. In some cases he turned off the monitors. He walked around the classroom to monitor how students used the computer, making sure they were on task as much as he moved among them to help them draft.

Carol

Carol utilized technology in various ways. Her response to survey question 5 was quite lengthy. "I use technology, well, for everything. The classes I teach are very wired. All my course materials are online, including links to outside resources and readings students might find useful. I also archive my previous websites on my personal server and provide a link on my current site in case students want to browse examples of past assignments. It helps me to keep track of my own progression as a teacher and web user. Plus it might help me on the job market in a few years. It's fun to mess around with and change things up. Specifically, I have my websites, I use the Stevenson folders where *Word* versions of the syllabus and assignments are stored and the students save their own work there. I am not doing this now, but I have in the past had students post reading responses and drafts to a webboard. I encourage students to explore multimedia in their projects, especially for revision. We use the computers a lot during class, searching the

Internet, exploring online resources, discussing assignments, schedules, etc. and of course students write and share drafts.”

During my observation, Carol never stood in the same place for very long. She moved through the classroom, pointing at students’ computer screens and guiding them through the activities she had planned. Carol’s website is packed with information. The design is visually effective, not overly complicated but still interesting. She uses a blue and white color scheme that connects her pages together. Syllabi, assignment prompts, course schedules, resources and examples of student multimedia projects are included. The resource page is extensive; Carol provides links to libraries across the country, online writing labs, MLA formatting help, information literacy programs and local resources like Milner Library, UCLA, the Computer Help Desk and the Writing Program website. Also included is a link to a page dedicated to using technology in the Stevenson Labs and beyond. Carol’s syllabi discuss students’ responsibilities as well as her own expectations of engaging with technology.

In a section of the syllabi titled “Technology and the Computer Classroom” Carol explains, “We meet each day in a computer classroom. Therefore we will make use of the computers to work on and share drafts and other assignments. We’ll spend a great deal of time in front of these computer screens but when I enter the classroom, I expect you to turn your chairs around for updates and discussion. Feel free to check your email or surf the net if you get early or after class is over. Once class has begun, however, I expect you to give one another and me your full attention.” In addition to this statement, Carol encourages students to buy a flash or jump drive on which to store their data as well as requiring them to save their work electronically on their H drives and emailing it to

themselves. Her final note on technology describes technology as “occasionally unreliable” and reminds students it is their responsibilities to save their drafts. “Save early, save often,” is her motto when it comes to saving work.

During my first observation of Carol, she frequently reminded students to save their work. One of the students joked, “She must set a timer for that reminder,” but went on to tell his classmate about a time he lost half of a paper he’d been working on because he didn’t periodically save and when his computer crashed, *Word* recovered only a portion of what he’d been writing. Carol overheard him and said she’d lost revisions to a conference presentation she’d been working on. “That was the last time I relied on the autosave function. Now, it’s set to save every minute but I probably save every few seconds.” The students laughed.

Students were peer-reviewing drafts the day I observed. When I entered the classroom, Carol introduced me to the students. The students had moved their chairs away from the computers and were facing Carol who sat in a chair in the middle of the group. She ran down the schedule of when their units were due and what should be included in their folders. She explained that a checklist was in the Stevenson folders and on her website but some students took notes. Carol applauded students’ use of sources in the drafts she had previously seen. She asked if there were further questions or concerns about integrating sources or the works cited page that was required. Some students had specific questions about how to cite interviews and television programs. Carol asked the class if anyone remembered from the previous discussion how to cite those sources in MLA format. One student said, “No, but it’s on the website.”

Carol nodded and the students said they would look there and if they had other

questions they would ask. Since there were no other questions, Carol asked students to break into peer-review partners.

In pairs, the students explained in conversation the questions they had and what concerned them about their drafts. In addition, the students provided written revision questions at the end of their drafts. The peer-reviewer was to attempt to respond to both verbal and written questions/concerns. Each student read the text on his/her own computer. Carol reminded students to use the track changes function in *Word* and that the insert comment function could also be helpful. While the students worked, Carol circulated the room, not interrupting students but answering questions if they asked. Once the drafts had been read and commented on, the pairs discussed their drafts in informal conversations. Carol talked to each group about their drafts and offered suggestions and encouragement. This took up the 50 minutes of class.

The second observation where I dropped by unannounced, the students were preparing for portfolio revision by drawing pictures of each paper. Their partners were supposed to guess what the paper was about based on the picture and then they were to discuss why the peer guessed as such. The conversation then turned to revision and purpose. Carol encouraged students to look at the pictures they drew and think about their peer response and devise a plan on how they might re-draw, re-vise their work. The students moved around the classroom looking at one another's pictures. Carol drew her own picture based on a project for one of her classes and asked some students sitting nearby to analyze her drawing.

The students used markers and crayons Carol provided to draw their pictures. Once they were finished discussing revision, each student turned back to his/her

computer and wrote Carol a memo where they proposed a tentative revision plan. The following week Carol would conference with students based on a more solid revision plan students would work on and bring with them. Carol linked requirements for the memo on the website. Most students had the webpage window open and referred to it frequently. They emailed their memos to Carol and she assured them she would respond before their next class period. She also explained that students could email her questions as they worked on their revision plan.

Carol's enthusiasm for teaching with technology was noticeable not only in her classroom but in the interview. She spoke animatedly of designing her websites and expressed interest in learning more about how to integrate technology in her daily activities in class. She also spoke of feeling "a bit silly when something goes wrong in the tech department." It was obvious that Carol had spent a great deal of time thinking about her pedagogy and technology. When I asked interview question 2, "How do you see the computerized classroom in the context of your teaching," Carol nodded before she answered.

"I think my style of teaching works well in the computer classroom, much better, in fact, than in...uhh... a more traditional classroom. I don't like students' backs being to me, though. That's why I start class with all of us, not in a circle, really... more like, a, uhhhh, I don't know, a chaotic square of chairs maybe. It's unstructured. I like to shake things up in class. I hate the boring, ummm, let's stare at screens and have information overload, ya know? I want students to feel free to explore information but not at their own expense, not without a, you know, critical way to look at things. So I guess, hmmm. I don't feel like I'm answering your question, but I feel like the computerized classroom

supports and is sort of, I don't know, embedded in my teaching philosophy. I liked that I'm not always the center of things, that students can read and explore at their own pace. That's definitely a plus of the computerized class. Students can move between daily activities easily, and work ahead or behind, even. And I can be free to help each student, to uhhh... meet their specific needs or answer their particular questions."

Then I asked Carol to if the structure of the computerized classroom affected her teaching on a daily basis. "It has to, doesn't it? I mean, the space I'm in affects how I stand, sit or move around. That's my opinion, anyway, it's like the colors of the walls can affect moods, you know? It's the same with other spaces. You have to make an effort in computer classrooms. You have to plan and decide what you're gonna do with the space. It forces you to deal with it. I mean I have my entire class online. But I still don't want students only plugged in to the screen. I force them to interact. Like when you observed, I had them talk to one another about revision. I do that a lot. I break up the structure of the class and try to fill it with conversations and connections. It's the only way you can create a good collaborative community. You gotta talk to each other."

Carol made a conscious effort to integrate technology in her classroom. She relied heavily on her website to provide students with information while at the same time, appeared accessible if the information was confusing or needed clarification. The students seemed comfortable with this setup, checking the course website often and before raising questions. Carol uses various technologies, email, websites, multiple functions in MS *Word*, Stevenson folders and the Internet. She "deals with" technology and seems well aware of how and why she uses technology the way she does. Mary, on the other hand, feels it difficult to understand "which technology I should be using,"

proclaiming, “there’s too many choices.”

Mary

Mary told me during her interview that question 5 on the survey was incredibly difficult. She said she deleted it and rewrote her response several times. Eventually, she ended up responding with the following: “I use technology in that I have a syllabus and assignments online. The Stevenson folders contain most of what I do on a daily basis, but it seemed that everyone else had a website, so I tried it, too even though I didn’t know what I was doing. I used a template and think it worked out okay. At least students can find the information they need. The Stevenson folders make it really easy, though. I can save everything in *Word* format and the students can access it that way in class and well outside of class too, I think. If they have, that remote client or whatever it’s called. Recently, I used the TV and DVD player and I’ve brought in music before. Maybe I use more technology than I realized.”

Mary’s website is basic but attractive. Information is clearly accessible and she uses shapes and lines as graphics, which are not visually distracting. Since she used a template, there is a lot of text on each page. Her syllabi discuss technology but not to the extent that Carol’s did. Mary addresses technology with the following statements: “Computers are useful tools for writing and sharing drafts, both of which you will be expected to use. However, computers don’t always work the way we want them to. It’s an unfortunate fact of life. You are ultimately responsible for your work, even if the computer fails. Don’t give me excuses like ‘My disk broke; I couldn’t get online; I swear I e-mailed it to you or any other technological failures.” On subsequent pages on the

website, Mary provided links to the Computer Help Desk and a section of computer terminology such as mapping, network drives, and others. Mary is new to Illinois State University and her previous institution taught composition only in paper-based classrooms. She had access to a media cart but rarely used it, relying instead on overheads, handouts and the whiteboard. She noted a difference in the way she taught before and the way she teaches now. During my first observation, it was obvious that Mary made a great deal of effort to find various ways to connect with students and for students to engage in the rhetorical process.

Class began with a video. Students had moved their chairs so they could see by the time I entered the classroom. We watched a segment of a popular TV show. Students were asked to pay attention to the different forms of research the character used and discussed. Mary explained that these references might be brief so they'd have to pay close attention.

Once the video was finished, Mary began class discussion. Students responded enthusiastically, trying to find each reference to research. Mary then moved the TV cart out of the way and listed the research forms on the white board. She introduced primary and secondary research and asked students to think of how and when each one would be useful. The students talked about various ways of collecting primary research including interviews and surveys. Mary asked the students which research they might be considering for the projects they were drafting. She had students return to their computers and free write a journal entry on the day's discussion. While they worked, Mary wrote a homework reminder on the board and then stopped by each student's workstation to discuss possible research and to get an update on their project progress.

The second observation was quite interesting because Mary had posted links to

resources on her website that she wanted to share with the students and the links weren't working on neither the website nor the Stevenson Folders. She kept repeating, "It worked from home when I checked it." One of the students offered his help. While he examined the source code, Mary had the students, in their peer response groups, discuss and make lists of the problems they were facing as they approached portfolio revision. The students immediately opened *Word* and began the activity, though Mary did not specify a particular format in which she wanted the lists. Mary's class was talkative but I noticed that one person spoke while one person typed and the other person interjected suggestions and/or similar experiences. Meanwhile, the helpful student figured out why the links didn't work. Mary had created links relative only to her document. The student explained that Mary could write out the URLs and everyone could visit them as individual pages instead of links. Mary wrote the links on the board while the student joined his peer group and finished the activity.

After completing the peer group activity students faced Mary for further instructions. Most of them remained in their groups though some returned their usual places in front of the computers. Mary explained that she wanted the students to visit one of the groups of web sites, grouped by subject and notice how each one addressed a specific audience. For example, one group of websites dealt with the extinction of the dinosaurs and ranged from a kindergarten teacher's website to pages from an archaeology journal and a geology textbook. Students were asked to think about how each site addressed its audience's needs from the layout of the webpage to the actual text and analyze the sites. The students worked in their groups though Mary had not suggested nor discouraged their doing so. I left before the activity ended, but during the instructions

Mary explained there would be class discussion on how they might use what they learned in their revision for the portfolio.

In the interview Mary discussed what she called “the problem and benefit of technology.” She explained her reliance on her students when I asked her how she viewed the computer classroom in the context of her teaching philosophy. “I think the computer classroom forces me to have a less structured idea of what it means to teach. It isn’t difficult to be a student and teacher, you know, in the computer classroom, which is an important part of my teaching style, now. A lot of technological glitches happen. And umm... there are a lot of things I just don’t know, so students have to teach me and often one another when something is outside my knowledge base, which is as you saw quite um, quite a lot. I am much more prepared when I enter the classroom; we never get to everything I have planned usually because I don’t realize, I guess, ummm, how much, you know, time using technology takes. You set students loose in front of screens and you have to really structure what you ask them to do or you they’re gone.”

I asked her to talk more about students who volunteer to help like the one student did when I observed. “Does that happen a lot, that someone volunteers?” I wondered. She replied, “Every time something isn’t quite right and I’m not sure what to do, one of the students, usually Mark because his major is something uhh computer related, volunteers. I never have to ask a student for help. It definitely moves the balance of the class around. I admitted on the first day, that I was new to learning technology and my students have been really helpful but I definitely feel like they teach me, too. So, umm, the authority, uh.. you know in the class shifts sometimes, but I mean, that’s to be expected.”

Based on her response I asked interview question 3 concerning the affect of the computerized classroom on her teaching. “Well, authority is affected, like I said, but I guess that’s more from the fact that I use the computers and not the structure ummm do you mean like the way it’s set up like furniture wise?” I encouraged her to talk about the physical set up. “Well, you saw how we begin each class usually as a circle. I have to tell some students to gather ‘round but by now they pretty much know the drill. And I ask that students move around in their peer groups instead of picking someone close as their partner. And since my students aren’t at bulky desks I can sit beside them as they work and quickly skim some of their drafts. I like that when they have questions, I can see the draft on the screen and provide better feedback in the context of their paper. But I don’t like that no matter where I stand or move, it seems like my back is always to someone and yet, I, well, you know, I don’t want to just stand at the front and lecture.”

Compensating for Technology

Based on the observations, it was clear that each participant was conscious of the space of the classroom and on how their use of technology affected that space. Even John who insisted he didn’t consider technology in his pedagogy made moves to compensate for it by having students rearrange the physical space. John frequently employed group work and rarely had one student sitting in front of one screen. One thing I made note of during my observations of John was how little direction he gave in terms of how to use technology. Mary used multimedia in the classroom and included activities that involved Internet searching and visiting websites, with specific instructions. Mary’s students seemed to automatically open and use *Word* to make lists and complete activities while students in John’s class only used technology when he sanctioned its use. Carol’s

students were continually logged on to their computers. Even the day they drew pictures, there was a requirement to email Carol a revision plan. More than the other participants Carol embraces technology. Carol explained both on her website and in class the day I observed the importance of autosave, of saving often and in more than one place. She even suggested a particular kind of storage in the USB memory device she mentioned on her syllabi. In addition, Carol reminded students of the track changes and insert comment functions in MS *Word*. Carol acknowledged technology, its occasional unreliability, but also its benefits. She knows students want to check their email and she gives them the space to do that before and after class but once class begins, she wants their attention. Neither John nor Mary invite students to check their email or use the computer for anything except class work.

All three participants compensated for the computerized classroom by beginning class with the students facing them in one way or another. Carol sat among her students; Mary stood in the middle of the room or to one side of the front of the room and John stood in the back of the room with his students' chairs turned toward him.

Carol mentioned in her interview that she structured peer review activities specifically to get students to talk to one another. She has students both converse and write revision questions. She considers this essential to creating a collaborative community. Without the conversation, students could read one another's drafts and comment on them, through the comment function or by writing a paragraph at the end of the paper, without ever having to talk to one another.

While electronic comments often provide more feedback, (my own responses to peers are much more extensive if I'm typing them), than that typical handwritten

comments, they also provide more room for misunderstandings. By having students first discuss what they want their peers to respond to, Carol attempts to foster an understanding between the peers. Besides, revision questions are often difficult for students to write and respond to; students in Carol's class have a chance to frame their work for their peers. This is another way Carol compensates for technology.

Mary plans ahead. She said to me during the observations, "I expect technology to go wrong." And when it did, Mary moved quickly to a peer review activity as if that had been the plan all along. In the interview, Mary discussed how much time using technology takes. She mentions that she always more than one plan and that she sees herself has more prepared now when she enters the classroom. Technology is a consideration for each of the participants in different ways.

Conclusions and Recommendations

The way the participants use technology, how much or how little they rely on it, discuss it, critique it, and how they acknowledge its affect on their classroom is reflected in their descriptions of their pedagogy as well as they ways in which they enact their pedagogy. Technology is considered in each participant's pedagogy whether they make a conscious effort to include or not. Hawisher and Pemberton suggest "technological resources and pedagogical principles are no longer mutually exclusive and independent" (Myers 37). Michael Joyce wrote that we do have choices relative to technology and that, as long as we recognize this and maintain our flexibility and creativity with it, we are in an exciting and constantly changing place as teachers and students:

We have been talking for so long about a new age, a technological age, an information age, etc., that we are apt to forget that it is we who fashion it, we who discover and recover it, we who shape it, we who literally give it form. How we use ourselves and on what is how we

understand the order among things themselves and the end for which our systems are made (9).

Since technological resources and pedagogical principles seem inextricably linked and interdependent, more research is needed not only to determine how teaching assistants are using technologies but why? Are they using technology based on academic and societal pressure like Mary suggested, “Everyone else had a website...” Is technology being used simply because it’s there? Or are teaching assistants attempting to encourage critical technological literacy? Based on what I’ve seen so far, the answers would be varied and depend on the particular teaching assistants level of comfort with technology as well as other factors like knowledge base, age, gender and social class. These factors are ones worth pursuing in further studies and need to be taken into account.

Since this particular project was a pilot project, I was unable to gather more demographic data or ask detailed questions about participants’ backgrounds. However, this kind of analysis would be the next logical step in this research, a step I hope to be able to take as I continue this research project. In addition, I would like to share my own experience using technologies and perhaps invite colleagues to observe my teaching and then compare that observation to my own teaching journal. There are many possibilities for a larger project with more participants.

I began with one research question and ended up with something unexpected and intriguing. Though the physical space of the computerized classroom seemed to be a factor in participants’ pedagogy, the way technology functioned within their pedagogy became much more interesting to me. As I analyzed the data, technology use kept appearing. I realized I’d made meticulous and copious notes about each participant’s relationship with technology. Perhaps technology use became more apparent because John, Carol and Mary involved technology in their classes in such wide-ranging ways.

The combination of observations and interviews to compare their responses on the

surveys provided extremely fruitful data. So much so that I hope to extend this project into a larger research project, which examines how technology functions in graduate student teaching assistants' pedagogy. It would be interesting to see what would happen if I began with the research question, how do graduate student teaching assistants use technology and how does that use reflect their pedagogical beliefs?

All of my participants are products of ISU's Writing Program and therefore on some level share pedagogical beliefs. It would be quite fascinating to conduct research from various graduate student teaching assistants across the country. A larger study on this scale is needed to reflect the attitudes of TA's at this specific time.

Graduate student teaching assistants occupy a specific place within university structures. Because of this, their pedagogical beliefs may shift and change over time and as they progress through their careers. This population is under-researched, in my opinion. We don't, in composition studies, hear enough of graduate students' voices. Studying technology among graduate students yielded interesting results. I was pleased to get a range of technology use among participants.

However, a future study on tenured faculty's technology use would add a great deal to the research I've started here. There are many possibilities to build on what I've researched thus far. I hope other voices will be added to these here and create an important dialogue about technology, space and the computerized classroom.

References

- Aronowitz, Stanley. "Looking Out: The Impact of Computers on the Lives of Professionals." *Literacy Online: The Promise (and Peril) of Reading and Writing with Computers*. Ed. Myron C. Tuman. Pittsburgh: U of Pittsburgh P, 1992. 119-37.
- Connors, Robert and Cheryl Glenn. *The New St. Martin's Guide to Teaching Writing*. Boston: Bedford/St. Martin's, 1999.
- Hawisher, Gaile E. and Cynthia L. Selfe. "The Rhetoric of Technology and the Electronic Writing Class" College Composition and Communication 42 (February 1991): 55-65.
- Joyce, Michael. "New teaching: Toward a pedagogy for a new cosmology." Computers and Composition, 1992, 9(2), 7-16.
- Myers, Linda. . *Approaches to Computer Writing Classrooms: Learning from Practical Experience*. New York: State U of New York P, 1993.
- Nagelhout Ed and Carol Rutz, "Introduction: The Spaces of the Classroom," *Classroom Spaces and Writing Instruction*, eds. Ed Nagelhout and Carol Rutz, (Cresskill, NJ: Hampton Press, Inc., 2004), 7-8

Appendix A:
LETTER OF CONSENT FOR ADULTS

Dear Graduate Student Teaching Assistants:

I am a graduate student under the direction of Professor Bob Broad in the Department of English at Illinois State University. I am conducting a research study to explore the ways in which the structure of the computerized classroom impacts pedagogy. I am requesting your participation, which will involve observations of your teaching, on one interviews and focus group discussions over the course of the next 6 weeks. Your participation in this study is voluntary. If you choose not to participate or to withdraw from the study at any time, there will be no penalty. The results of the research study may be published, but your name will not be used.

Although there may be no direct benefit to you, the possible benefit of your participation is that you will have an opportunity to discuss and discover how pedagogy is affected by the computerized classroom. You may discover new strategies which they can apply to their pedagogy by observing my classroom and participating in focus groups and interviews.

If you have any questions concerning the research study, please call me at (309)750-0205 or Bob Broad at (309)438-7704

Sincerely,
Devon C. Fitzgerald

I consent to participating in the above study, which includes audiotaping my interview and discussion in the focus group.

Signature

Date

If you have any questions about your rights as a subject/participant in this research, or if you feel you have been placed at risk, you can contact the Research Ethics & Compliance Office at Illinois State University at (309) 438-8451

Appendix B: Email to Graduate Student Listserv

English Graduate Student Teaching Assistants

I am writing to ask if you would be interested in helping/participating in a research project/pilot study for English 497 course. I am, as most of you know, intrigued by the ways in which technology impacts our ideas of what it means to compose texts. I have also become increasingly interested in how using technology in the writing classroom impacts our pedagogy. Specifically, I am interested in how the structure of the computerized classes influences the way you teach. I would like to research through observations, surveys and interviews the ways that you feel the computerized classroom has affected your teaching philosophy. If you are interested please let me know as soon as possible. I will also be asking some of you to observe my teaching, specifically focusing on the use of technology. I think this is an exciting project and would love for you to be part of it. I know how busy our lives as grad students are and while you would have to devote a limited amount of time to the project, I will understand if you are unable to participate. Thank you for your consideration.

Devon C. Fitzgerald
rhetoricjunkie@gmail.com
(309) 750-0205

Appendix C: Survey

Devon Fitzgerald

Survey Questions for Research Project on Pedagogy in the Computerized Classroom

Please respond to the following questions or prompts.

1) Describe your teaching philosophy.

2) Has your teaching philosophy changed since teaching at ISU? If so, how?

3) Have you taught in paper based classrooms before? If so, please answer question 4. If not continue to question 5.

4) Describe your teaching philosophy in the paper based classroom.

5) Describe your use of the technology available to you as a teacher at ISU.

Appendix D: Interview Questions

Devon Fitzgerald

Interview Questions

Research Project on Pedagogy in the Computerized Classroom

Please respond to the following questions or prompts

1) Describe your pedagogy or teaching philosophy.

2) How do you see the computerized classroom in the context of your teaching philosophy?

3) Does the structure of the computerized classroom affect your teaching on a daily basis? Why? or Why not?