The Rhetoric of Space in the Design of Academic Writing Locations

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THE RHETORIC OF SPACE IN THE DESIGN OF ACADEMIC COMPUTER WRITING LOCATIONS

by

Amanda Nicole Metz Bemer

A dissertation submitted in partial fulfillment
Of the requirements for the degree

of

DOCTOR OF PHILOSOPHY

in

Theory and Practice of Professional Communication

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UTAH STATE UNIVERSITY
Logan, Utah

2010
ABSTRACT

The Rhetoric of Space in The Design of Academic Computer Writing Locations

by

Amanda Nicole Metz Bemer, Doctor of Philosophy
Utah State University, 2010

Major Professor: Dr. Keith E. Gibson
Department: English

This dissertation explores the rhetoric of space as it relates to academic computer writing locations—specifically, computer labs, computer classrooms, and writing centers. Using observation, surveys, interviews, and textual analysis, the author discusses seven rhetorical principles of design for these spaces, including designing for specific audiences, attention, clarity, enthymematic flexibility, identification, pathos, and shared ethos. Ultimately, applying a rhetorical gaze to these areas can help us to design more effective computer spaces in academia.

(217 pages)
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CHAPTER 1
INTRODUCTION

Space is an important, if easily overlooked, aspect of almost everything we do. The shape of a yard influences the way it can be landscaped, the slope of the hill dictates how fast we can ski down it, and the position of branches on a tree determines if we can climb it. We are so used to considering the effect of these kinds of spaces that we often do not give them a lot of conscious thought, but their impact is no less real. Space is an important factor in the way we teach writing, as well. Teaching writing is certainly an intellectual exercise, but it often takes place in some kind of physical space: a classroom, a computer lab, a teacher’s office, or a writing center. This space, whether we notice it or not, influences the way we teach writing, and it influences the way our students learn to write. Hadfield, Kinkead, Peterson, Ray, and Preston (2003) argue that “the environment where interaction between and among people occurs is crucial as it affects the way people feel and, therefore, the way people interact” yet the scholarly writing community has only lightly touched on the influence of space on our pedagogy (p. 175).

This dissertation explores the rhetoric of space in academic computer writing spaces. In the following sections of this chapter I discuss the issue of space in visual rhetoric and professional communication, justify it as a valid point of study, introduce the relevant literature related to academic computer
writing spaces and space in general, and pose research questions that I explore in the upcoming chapters. I conclude by outlining the remainder of the dissertation.

**Describing the Issue**

The notion of space itself, when referred to in the fields of rhetoric, professional communication, or even composition, is commonly used to mean one of two things: a physical space, such as a building, or a conceptual space, such as the mental place a writer goes to write. Physical space has been analyzed by a number of education and writing scholars as they have sought to understand the relationship between the places we learn and the ways we learn. Oblinger (2006) describes space as a “change agent,” arguing that it can “bring people together; it can encourage exploration, collaboration, and discussion. Or, space can carry an unspoken message of silence and disconnectedness” (p. 1.1). We have all felt the change in our behavior as we enter a large, open, quiet space, such as a church or a library. Conversely, walking into a loud basketball stadium can change our behavior in the opposite direction. Writing spaces can have similar effects on our composing processes, encouraging or discouraging certain types of habits.

Professional communication scholars have also examined the effect of space on our writing. Geoffrey Cross discusses the concept of space in his *Collaboration and Conflict* (1994). In this ethnographic analysis of an organization’s
writing practices, Cross notices that power hierarchies can cause poor stylistic choices in collaborative writing (p. 131). In relation to space, he notes that these power hierarchies are physically represented by office location within the building, with the important, well-paid CEOs and managers residing in upper-level offices and other writers and workers in bullpen-like cubicle areas on lower floors. As such, he uses space in the physical sense, though, since it is not the point of his work, he does not explore it thoroughly.

There is a slightly different type of space that relates to writing: the virtual, online spaces in which an increasing amount of writing instruction is taking place. For my purposes in this dissertation I choose to categorize that as a part of physical space; we interact with online spaces in a physical way, and we can see them. The words on a screen are much like the words on a page, we put them there physically, but we can’t hold them without their medium. Hence, they are both physical. This idea will be further explored in chapter 5.

The other main use of space is a more ephemeral, abstract meaning: the space that a thought takes up in the mind. In the collection Locations of Composition, Brooke and McIntosh discuss the composing space that student writers inhabit (2007). These authors’ use of space is purely conceptual, a non-physical thought space or place that others cannot see nor touch nor even know for sure exists. The notion of a “writing space” is a common one for many critical pedagogy scholars, such as James Berlin, Lester Faigley, Donna LeCourt, and Jay David Bolter. This place in the mind that helps student writers determine what
sort of concepts they know about and can thus write about is an important concept for composition scholars to explore.

My research takes place in an intersection of these two types of space. I argue that the physical and conceptual spaces for writers are closely connected, and the effects they have on each other need to be thoroughly explored. This concept is especially true as our pedagogical writing spaces become more computerized and more virtual; the lines between physical and conceptual spaces become increasingly blurred, and an effective pedagogical approach will require specific rhetorical analysis. This dissertation will help provide that analysis.

One area of scholarly investigation which can serve as a starting point for my research is document design. Professional communication scholars have worked extensively in this field, and many of the concepts they have described will serve as the foundation for my work. Document design draws heavily on visual rhetoric, an arena of study that can be seen as overlapping that of professional communication as both fields study many of the same types of documents and each influences how we think about space. With concepts such as proximity and contrast that can be applied to any sort of design, from a page layout to a room layout, it follows that document design is the foundation of a professional communicator’s study of space.
Justifying the Issue

Complicating the study of space in document design and professional communication is the fact that both are somewhat youthful fields of academia. Hence, though studying physical space in a rhetorical fashion is a valid and logical step after studying the space on a page, visual rhetoric has simply not yet studied this area extensively. The field of rhetoric has been around for thousands of years; most anthologies of rhetoric begin a recounting of rhetoric’s history with classical Greek rhetoricians like Plato. In contrast, visual rhetoric is amazingly young—with scholarly works on the topic generally dating to the 1980s at the earliest. Before the 1980s many rhetoricians consciously chose not to view the visual as worthy of analysis because they believed that classical rhetoric overlooked them for a reason. According to Kenney (2002):

Neo-classical critics, following what they believed to be Aristotle’s lead, disregarded many manifestations of symbolic meaning that were nonverbal and non-oral as being irrelevant to their concerns, and they further disregarded those oral modes of discourse that did not appear to exhibit patterns of “rational” reasoning. Beginning in 1970, however, the scope of rhetoric criticism was expanded to include nondiscursive subjects. (p. 55)

Thus, visual rhetoric has not had long to establish its area of study. In effect, the rhetoric of space has not been thoroughly examined by rhetoricians.
Birdsell and Groarke’s “Toward a Theory of Visual Argument,” and Blair’s “The Possibility and Actuality of Visual Arguments,” both of which were published in 1996, are among the first articles to definitively argue for the visual as a valid area of study in rhetoric. These two articles posit that visual arguments are just as worthy and capable of study and interpretation as verbal arguments. Because we can decipher meaning from visuals (and this meaning can be seen as intentional), it is possible and meaningful to study the rhetoric of visuals. Therefore, visual arguments are just as valid as verbal arguments; they are, according to Blair (1996), “not distinct in essence” from verbal arguments (p. 38). Indeed, Arnheim’s *Visual Thinking* convinces us that because we perceive the world visually, our thinking is centered on visual elements (2004). Arnheim argues that to perceive is to think. Because we perceive the world in images, not words, it follows that we then think in images as well—language does not necessarily precede perception. According to Arnheim, images are “the very flesh and blood of thinking itself” (p. 134). Thus, we interpret even verbal arguments in a visual manner, an inherent argument for the validity of studying visual rhetoric and in extension, the rhetoric of space.

Just as any verbal argument is made with intent and purpose (see Burke, 1950), so are visual arguments. It is easy to see that print grocery advertisements are intended to persuade us to purchase items from the supermarket, movie posters are supposed to entice us to see films, and flyers are intended to convince us to attend events. With this same idea of intent and argument in mind, we can
see that rooms themselves carry inherent rhetorical arguments for their intended function. Because all rhetorical arguments are a function of the context in which they are presented (see Richards, 1990), we cannot see these posters and flyers without a consideration of the space in which they exist. As perceivers of information, we will notice that a flyer for an STC event, for instance, is partially obscured on a bulletin board by a notice for a game of Ultimate Frisbee and that the bulletin board itself is in a back hallway with poor lighting and overflowing trash cans. All of these factors argue for the relevance and importance (or lack thereof) of the flyer and the flyer’s argument. We would interpret this flyer differently were it placed prominently in the center of a bulletin board in a lobby with other flyers placed at least two inches from its perimeter. Therefore, the space in which this flyer exists matters and makes its own rhetorical argument. Dondis (1973) agrees that we can find intent, particularly intended functionality, in visual argument and visual information, which includes space:

Between the general meaning, mood, or ambience of visual information and a specific, defined message lies yet another area of visual meaning, functionality, in the objects that are designed, made, and manufactured to serve a purpose. While it would seem that the messages of such works is secondary to their viability, the facts prove otherwise. Clothes, houses, public buildings, even the whittling and scrimshaw of amateur craftsmen tell us an enormous amount about the people who designed and chose
them. And our understanding of a culture depends on our study of the world they build and the tools and artifacts and art they created. (p. 20-21)

Hence, meaning exists in visuals and the way our surroundings are designed, even when the main purpose of a space is its function; intended function has meaning.

McLuhan (1994) would also agree with this “space matters” sentiment— in his 1964 seminal treatise, *Understanding Media: The Extensions of Man*, he states quite plainly that “the medium is the message” (p. 7). In saying this, he asks scholars to reconsider the idea of context that Richards stated years earlier. In short, he tells us we need to consider medium as a part of context. To McLuhan, medium was perhaps a broader term than many might interpret it, but his looseness of the term’s use is beneficial in our sense. In his book, he discusses media as obvious as the printed word to those as obscure as the electric light bulb. Both media communicate in some way: the light bulb, for example, through providing light with which we can physically see the printed word. In this sense, the room, or space, is a medium itself. Because no medium works in isolation from other mediums, it is important that we consider space as a function of interpretation in the analysis of messages (Bolter & Grusin, 2000). Ultimately, we communicate through the design and use of our spaces, much like we communicate through the written or oral word.

Though there are many types of space that have rhetorical implications, my dissertation will deal specifically with academic computer writing spaces and
the meanings communicated through design in these spaces. Academic space is significantly different from other types of spaces in that it has different intended purposes and different actualities concerning its use—in a sense, the genres of academic spaces are different from the genres of other types of spaces. Academic spaces, are still, however, built with intention. These different actualities deal with constraints of the space; for example, when we work within academic spaces, we are often constrained by cost—probably much more so than we would be in corporate America. Cost-constraint is especially true in university writing departments. This constraint makes the study of academic space more important, as we must more carefully consider changes to spaces that we will not be able to easily redesign for many years. Ultimately, academics are given few resources with which to design their space, so they must approach their space more cautiously in designing. This cautiousness can be summed up with Thackara’s idea of “design mindfulness” (2005, p. 7). When designing spaces and objects, Thackara argues for sustainability—in essence, eliminating waste. We need to consider that every object we make for use today will one day fill a landfill when its technology becomes obsolete. In a sense, the ability of an academic department to use and reuse, and design and redesign, objects and spaces fulfills this desire for design mindfulness (though it does so out of constraint, not in an intentional way). Despite this mindfulness of design, academic spaces are similar to other spaces in their artificiality; as Simon (1969)
reminds us, our surroundings are almost completely man-made, meaning they are full of explicit and implicit messages for their users.

When students walk into a classroom, they think little about the way the room is set up beyond where they can park themselves for the duration of the class. The teacher, however, has generally put more thought into her surroundings. This thought and analysis can be seen in the different methods we often use to arrange our classroom space, like in pods, rows, and circles (see, for example, Handa, 1993). It can also be seen in the ways we work with, or subvert the spaces we’re given (Walls, Schopieray, & DeVoss, 2009). Less thought is put towards the actual walls of the classroom and things that cannot be moved because we simply have no control over them besides a consideration of how to deal with them. For instance, I once taught in a computer classroom that contained three large pillars in the center of the room. Inconvenient, yes. Impossible to move, yes. Impossible to work around, no. Students liked to hide behind those pillars, so I found myself moving around the space much more consciously. I thoughtfully analyzed the space at hand and maximized my use of the space within its constraints. Teachers everyday use their spaces in these conscious ways. Through my research, I hope to show that academic space is a rhetorical and valuable commodity whose design should be shaped and heavily influenced by those who use the space, as they come to know the space best. In addition, we need to reconsider the ways we design these spaces in order to
better fit the changing needs of those in academia today in relationship with the changing computer landscapes.

Besides articles on arranging classroom space and those that compare bricks and mortar classroom space to virtual classroom space, research (specifically research on rhetorical uses) on academic spaces has largely been left to interior design departments and libraries. More specifically, research on computer writing spaces has not been a heavily scrutinized area since the late 1980s and early 1990s, around the time that computers were first introduced into the writing classroom (see Handa, 1993; Hawisher, LeBlanc, Moran, & Selfe, 1996).

**Stating the Questions**

Revisiting this issue of the rhetoric of academic computer writing spaces, particularly at this point in time (as mobile computers are becoming ubiquitous on campuses throughout the world) will help us to develop more usable, more adaptable, and more sustainable computer writing spaces—particularly computer classrooms, labs, and writing centers, which are the focus of this dissertation.

Using ideas from document design, including concepts like proximity, we can design spaces that create new concepts of computer writing spaces for students. For instance, using the notion of proximity, we can place two chairs
near one computer, thus creating the perception that two people are allowed to use one computer. My work furthers the work of document designers by broadening the view of what counts as a document—we can analyze space, so space counts as text. Though we may navigate space in the world differently than space on a page, we can adopt many concepts from document design with which to describe the former, like the aforementioned proximity, as well as white space, which is empty space. Like in document design, empty space in a room creates a buffer and draws attention to the objects surrounding the space. This type of terminology, born from document design, can readily be applied to the rhetoric of space.

Applying a professional communicator’s rhetorical gaze to computer writing space design and use allows us to answer questions about computer writing spaces in different ways than those in fields such as instructional technology, information architecture, or interior design. In addition, my research focuses on writing activities in these spaces, which is generally not a major concern in other fields.

Therefore, my dissertation research will tackle the following main questions:

1. How does the physical design of computer labs affect the ways writing students use them? How can we rhetorically design these spaces in ways that will encourage the types of writing activities we want students to engage in, such as collaboration?
2. What kinds of teaching take place in computer classrooms? How can we design these classrooms so the pedagogy can lead the technology, rather than the other way around? How do we rhetorically design computer classrooms that can meet the needs of multiple writing faculty and students?

3. What are the main points of interaction for students with writing centers? How can we rhetorically design the sites of these interactions to encourage and facilitate student use of these centers?

My dissertation will provide a first look at these questions through an exploratory study of computer writing spaces at Utah State University and a number of other college campuses. Though my work will not be exhaustive, it will provide the scholarly community with an idea of the type of results we can expect in further study, and it will help us sharpen our research tools in future research.

**Methodology**

To successfully answer these questions, I employ rhetorical theory in concert with a variety of survey, interview, and observational research. In my investigation of computer labs, I combine observational work with a qualitative examination of student users of computer labs on the Utah State University campus. To explore the current design of these spaces, I have visited various computer writing spaces on Utah State University’s campus to gain an
understanding of their general layout. I have interviewed students and student workers who work in these spaces to gain an understanding of how these spaces are used and how this use is monitored and/or enforced (if at all). I also surveyed students on their preferences concerning the use of these computer writing spaces.

In my examination of computer classrooms, I research the literature on pedagogy in computer classrooms and make connections between classroom design and the pedagogical styles they encourage. I observed several different computer classrooms in the English Department to see how different teaching styles are accommodated by these designs, and I interviewed faculty members concerning their pedagogy and use of technology.

In my investigation of the writing centers, I begin with a survey of 40 writing center websites. These sites provide the first interaction between a student and the writing center, and I conduct a textual analysis of these sites to determine the influence these websites will have on students. I also conduct a visual analysis of the way various writing centers appear and the rhetorical effect the design of the rooms will have on apprehensive users. Finally, I spoke with several writing center directors and visited numerous writing centers to obtain varying perspectives on the uses of computers in the writing centers and the way these computers influence student perception of text ownership.

At each point in my research, I will be conducting rhetorical analyses of the spaces and texts. My contention is that each of these spaces has a rhetorical
effect on the users of the spaces, and my main contribution to the scholarly
conversation is a more specific, intentional understanding of how these spaces
shape our interactions in them. To this end, I will employ a variety of rhetorical
theories, from Aristotle to Kenneth Burke to Richard Lanham. Just as our writing
is always rhetorical, so is the design of our writing spaces. We can build more
effective spaces if we understand the rhetorical effects they have on our students,
and we can work within our existing spaces more efficiently as well.

As a body of research, my work will make a significant contribution to the
fields of rhetoric, composition, professional communication, and document
design, as well as the relatively new field of visual rhetoric. The combination of
methods I have used has given me new and unique insights into the ways we
have efficiently designed spaces in the past and can more efficiently design them
in the future. I believe that by not focusing on a single type of research, I
combined a number of perspectives in a way that gives my conclusions a
sophistication they would otherwise lack. I am confident in the product of my
research, and I am certain my colleagues will benefit from it.

Dissertation Outline

The remainder of my dissertation is divided into five chapters, which will
cover the following topics:
Chapter 2: Reviewing the Literature

This chapter discusses the concept of space and outlines the major works related to academic computer spaces. Topics that are discussed in this chapter include the definition of space itself and how it relates to professional communication and visual rhetoric and an overview of computer writing spaces and issues surrounding them in academia.

Chapter 3: Creating Collaborative Computer Labs

This chapter discusses three design principles uncovered through researching the Suite Lab as a collaborative space that help to make it successful. Using observation, surveys, and interviews as researched evidence, I discuss three principles (designing for specific audience, attention, and clarity) that help make a computer space usable for student collaboration. I present the Suite Lab in contrast to fixed, desktop oriented labs as an example of this model in action.

Chapter 4: Conceiving Enthymematically Flexible Computer Classrooms

This chapter will discuss ways to build computer classrooms that will be useful for the multitude of pedagogical styles found in English departments. Hence, it discusses making spaces that can reach their maximum potential for the greatest number of faculty possible.

I again use the methods of observation, surveys, and interviews to discuss the Suite Lab classroom in comparison to other computer classrooms and how it is designed for enthymematic flexibility to be of use for multiple pedagogical
styles, primarily through mobility and dedicated lab staff in addition to a sense of freedom of use (or familiarity) with the lab space that comes with departmental ownership.

Chapter 5: Designing Effective Writing Center Spaces

This chapter will focus on writing centers as computer spaces. It will discuss ways to build computer spaces that encompass the qualities and values writing centers hope to express, such as student equality and ownership of one’s writing. Through interviews of multiple Writing Center directors, I discuss making writing center spaces more effective through designing for identification, pathos, and shared ethos.

Chapter 6: Conclusion

Chapter 6 concludes the dissertation, summing up major ways we can change our views on academic computer spaces in order to make them more effective for three writing types of academic writing spaces: computer labs, computer classrooms, and writing centers. These spaces have different purposes: collaboration, pedagogy, and writing tutoring, though I will discuss the overlaps in design principles and how we can improve our spaces overall, in addition to the implications of my research. I conclude with some possible directions for future research for me and others in the fields I have addressed.
A man, viewed as a behaving system, is quite simple. The apparent complexity of his behavior over time is largely a reflection of the complexity of the environment in which he finds himself. Herbert Simon

Everywhere we go we are surrounded by space; we are affected by space everywhere we go. When we go to the grocery store, we tend to have specific items in mind to purchase. However, we often find ourselves arriving home with much more than intended; we see the special deals they place right at the entrance, for example. Because of the proximity of these items to the entrance, more people see them. Because we see them, we are more likely to purchase them. Hence, we are affected by the arrangement of these items in space.

Simon, in his 1969 treatise Sciences of the Artificial, argues that man is adaptive; as such, we are extremely affected by the environments around us. We adapt to the spaces we find ourselves in. Hence, we need to explore the rhetoric of this space to further examine how we are affected by it.

Space has been a topic of study for scholars in various fields. Interior design has examined the relationship of space and the state of mind of its inhabitants, but much of the focus has been on personal, rather than educational spaces. Roderick Lawrence (2006) notes that the ways we arrange our possessions inside the spaces in our homes “are mediums enabling people to articulate their interpretation of their identity, how they relate to others in the same household and to friends and strangers” (p. 185). Mark Kingwell (2006)
argues that our furniture “structures space, making what is otherwise undifferentiated into something meaningful” (p. 177); though he is referring to our homes, surely this meaning-making applies to educational spaces as well. Pearson and Richards (2006) describe what they call a “space syntax,” a theory for understanding the way objects work in a room to create meaning, in the same way words work together in a sentence (p. 250). Ardener (1971) notes that when people occupy a space, they will quickly determine the “contextually defined logical relations among themselves in space” (p. xiii); we are instinctively looking for meaning in the spaces and our positions in them. With so much importance in the way we perceive space and our place in it, it is natural that we should take a rhetorical view of space and its design.

The rhetoric of space traces its intellectual roots to three sources: rhetoric, professional communication, and document design. In this chapter, I will describe the literature from each of these disciplines and I will show how contemporary work in the rhetoric of space is a logical extension of them. Finally, I will show how my research builds on and expands the work that has come before. However, first I will discuss my use of the term “space” in order to situate my work.

The term “space” is broad enough that any researcher discussing it needs to narrow her focus. Across most disciplines there exists work on “space.” In composition, for instance, Cross (1994) discusses how power hierarchies in a corporation are laid out visually in the company’s building, with higher ranks
receiving offices that are higher in the building. This is a discussion of physical space, though Cross merely notes this as an aside in his work. Other composition scholars talk about space that is not physical—for example, the space that thought-process takes up in the mind. Brooke and McIntosh talk about this virtual space in their work on how student writers determine what they know and can write about (2007). We can see from these two examples in composition that the term space is somewhat vague and applicable to a wide range of areas, even in the same English discipline. My definition of space is physical; it builds on document design, a research area falling within professional communication and visual rhetoric. Document design discusses space primarily as it relates to the page or screen using concepts such as Gestalt psychology, which includes principles like proximity and figure-ground.

Schriver (1997) discusses Gestalt psychology’s relationship to how we interpret pages. In relationship to text documents “people tend to impose meaning and structure on things they see” (p. 306). This reasoning can be extended beyond the page to include everything we see. Hence, we look up from the page and see the room in which we are present—this is where I start the study of space in professional communication. My definition of the rhetoric of space builds on Schriver’s definition of document design. She states “document design is the field concerned with creating texts (broadly defined) that integrate words and pictures in ways that help people to achieve their specific goals” (p. 10). In my definition of the rhetoric of space, physical space is a type of text that
integrates our surroundings into a place that helps people to achieve specific
goals. Design, according to Simon (1969), is concerned “with how things ought to
be, with devising artifacts to attain goals” (p. 59). Space design (and the rhetoric
of space) is concerned with designing spaces to meet certain functional needs
and deliver particular, intended messages. This functional purpose for space also
builds off the functional purpose of document design; on the page or screen,
organizational and visual design (when done well) enhances navigation to make
documents more useful (Jackson, 2000). Of course, aesthetics is also important to
a document—we must, for instance, persuade readers to read documents (see
Redish, 1993). Like this, we must persuade people to use spaces (particularly if
we want them to use spaces for specific functions). To clarify, the rhetoric of
space is the persuasive effect of space on its users, encouraging or discouraging
specific uses. As with document design, physical spaces have these effects
whether they are designed intentionally or not, and these effects are so important
that we would do well to consider their design carefully, especially in academic
settings. We can look at rhetoric, professional communication, and document
design to see how the rhetoric of space, in this interpretation, is a logical study
that extends from these fields.
According to many contemporary rhetoricians, visual rhetoric is nowhere to be found in ancient rhetorical theory. Corbett’s influential *Classical Rhetoric for the Modern Student* (1971) does not mention visual rhetoric a single time. Kenney (2002) explains that Aristotle’s rhetorical theory, for instance, was focused on the oral to the exclusion of the visual since rhetoric of the day was “viewed as a battle of words” (p. 54). Murphy and Katula (2003), in their *Synoptic History of Classical Rhetoric*, include only one reference to visual images, and that is only as a way for speakers to remember long, complicated speeches via visual association (p. 156). Similarly, Golden, Berquist, Coleman, and Sproule (2007) describe rhetoric first becoming visual with “the flowering of film in the 1920s and television in the 1950s” (p. 364). This absence of specific discussion of visual rhetoric anciently has led many in the field to believe that visual rhetoric is an entirely new field.

I argue that, though the term “visual rhetoric” was not used until recently, the concepts are clearly present in much ancient rhetorical theory. A broader conception of spatial and visual rhetoric can help us see the roots of this topic of study. In his discussion of metaphor, Aristotle (1991) argues that effective figures of speech will paint for the hearer “verbal beauty,” and this can best be accomplished by basing the metaphor on “the beautiful either in sound or in effect or in visualization” (p. 225). The notion that an audience will respond to a beautiful image, even if imagined, is a clear sign that the rhetorical consequences of visuals was on the minds of ancient rhetoricians.
An even more important connection to visual rhetoric can be found in the concept of kairos. Isocrates was among the first to establish that a sense of kairos is essential for successful rhetoric and perhaps the most important part of a rhetorical appeal (Bizzell and Herzberg, 1990, p. 44). Isocrates (1968) refers to those who handle kairos well as "those who manage well the circumstances which they encounter day by day" (p. 30). In other words, kairos has to do with making a particular argument at a particular time. Circumstances, a key term in Isocrates’ statement, is further explained by Smith (2002), who states that kairos is about locating the appropriate time and space for an argument; it is about timing an argument to take place at a moment when it will be most effective, according to the circumstances. Smith explains that kairos deals with finding “the most appropriate discourse for the circumstances of time, place, the speaker, and the audience” (p. 48, emphasis added). In short, kairos deals with the circumstances affecting the delivery and reception of an argument—one of which is the physical space an argument takes place within. For example, an argument about how a university needs more funding may be better received and understood were it to take place in a classroom clearly lacking equipment and maintenance rather than a fancy marble concert hall that is obviously well-funded.

Hence, the effect of space is a rhetorical consideration that is tied to kairos—a concept that some ancient Greek rhetoricians deemed the most important. In fact, Kinneavy argues that the concept of kairos is at the heart of
much ancient rhetorical theory: not just Isocreatean rhetoric, but also Platonian, Aristotelian, and Ciceronian rhetoric in a sense (2002). The fundamental nature of kairos in effective rhetorical appeals acts to place the consideration of space at the center of these appeals as well.

Kairos is about finding the right time for making a particular argument. This sense of the right time is affected by ethereal aspects like audience and what is on their mind as well as physical aspects like space. Quintillian also mentions space, or rather “place,” as he discusses the nature of rhetoric. He uses the phrase “time and place” in a way we interpret similarly to kairos when he states “most rules are liable to be altered by the nature of the case, circumstances of time and place, and by hard necessity itself” (1990, p. 316). Quintillian thus seems to use the idea of time and place interchangeably with the term kairos in this context. The idea of a better space for an argument suggests that space itself is important in argumentation—space affects the rhetoric that takes place within it, or rather, it affects the actions of those within it. As with my earlier example of arguing for funds in an obviously underfunded location instead of an expensive, well-kept one, an audience absorbs the space around them while they listen to or view an argument. This space then has an effect on the argument’s reception—it can work towards or against the argument.

Burke would agree that space is important in argumentation; he looks at “scene” in his exploration of dramatism in a similar way to kairos. In his *Grammar of Motives*, Burke (1950) asserts that human motives can be understood
by breaking them into their constituent parts. Specifically, he invokes five principles: act, scene, agent, agency, and purpose, that must be considered and analyzed. For Burke, scene refers to “the background of the act, the situation in which it occurred” (p. xv). As he notes, every act contains a scene and its influence must be considered to come to the root of motive. For example, according to urban legend, legendary bank robber Willie Sutton, when asked why he robbed banks, allegedly stated that he robbed banks “because that’s where the money is.” Hence, Sutton’s motive can be determined through an examination of scene. In this way, scene, or space, affects communication and analyses of communication.

Today, rhetoricians refer to this space as part of the rhetorical situation—a consideration of audience, purpose, and context. Bitzer, in his seminal 1968 article “The Rhetorical Situation,” laid the groundwork for consideration of situation by rhetoricians (1990). Before Bitzer, rhetoricians tended to ignore the rhetorical situation in favor of rhetorical discourse itself, or only indirectly referred to the rhetorical situation. Bitzer argues that without a rhetorical situation, there can be no rhetorical discourse; indeed, “it is the situation which calls the discourse into existence” (p. 218). Hence, a consideration of situation is absolutely necessary in any examination of rhetorical discourse. He defines the rhetorical situation as “a natural context of persons, events, objects, relations, and an exigence which strongly invites utterances; this invited utterance participates naturally in the situation, is in many instances necessary to the completion of
situational activity, and by means of its participation with situation obtains its meaning and its rhetorical character” (p. 219). In this way, situation is inherent in any rhetorical discourse and thus the analysis of said discourse. Because the rhetorical situation, as presented by Bitzer, involves objects, it makes sense to include space as a part of the rhetorical situation.

Building on Bitzer’s rhetorical situation, Mountford (2001) was among the first to suggest that the rhetorical situation could be made more useful for rhetoricians if it was applied to the “effect of physical spaces on a communicative event” (p. 42). Specifically, she explores the pulpit’s effect as a rhetorical space. She argues that space itself has been overlooked by rhetorical theorists, especially since it certainly affects communication; in the example of the pulpit, it creates a status hierarchy. She argues “rhetorical space has both material and cultural dimensions” (p. 50). We can physically see the space, hence its materiality. Then, we can see that the space has history—acts have occurred there, people have feelings towards the space—hence, “rhetorical spaces carry the residue of history upon them” and are “a physical representation of relationships and ideas” (p. 42). We push cultural associations onto spaces, and these, as well as the material realities of a space, affect the people in the space and actions that occur there.

Henri Lefebvre, in his book, The Production of Space (1984), explains that “any space implies, contains, and dissimulates social relationships” (pp. 82-83). Indeed, the actions within a space dictate a space as much as the space itself dictates the actions within. “The space of a room, bedroom, house or garden may
be cut off in a sense from social space by barriers and walls, by all the signs of private property, yet still remain fundamentally apart of that space. Nor can such spaces be considered empty ‘mediums’, in the sense of containers distinct from their contents” (p. 87). Hence, in order to understand how we write, we need to understand the spaces in which we write. In order to make a space a better place for writing, teaching, or tutoring, we need to consider how the space rhetorically affects the activities therein. Thus, rhetoricians have established a firm basis for the study of the rhetoric of space—it is at the heart of rhetoric as part of the rhetorical situation. We find the consideration of space as a part of context. Rhetoric goes further to place space as part of the circumstances of kairos as well. Exploring the impact of the design of a space and how it affects communication is an essential and obvious addition to the work of rhetoricians.

**Professional Communication**

Though I argue that space, though an aspect at the heart of effective rhetoric, is an oft-overlooked area of visual rhetoric and professional communication, this is not to say that it is entirely unexplored in technical and professional communication. This symbiotic relationship between people and their spaces is explored in the study of new media by scholars such as Bolter and Grusin in *Remediation: Understanding New Media* (2000). Their chapter on mediated spaces, which focuses on places like Disneyland (and the ways in
which they are “narrative space(s)”), argues strongly for the intentional design of spaces to make specific arguments (p. 171). In Disneyland’s case, the argument is that a visit will be an authentic, “heartwarming” experience, particularly for those of us with children (p. 173). The rhetoric of the space shifts based upon its inhabitants—inhabitants who also become the space’s audience. Bolter and Grusin (as well as scholars such as McLuhan, 1994; and Manovich, 2002) examine mediated spaces that are special in some way; Disneyland is certainly an exceptional example of a space. They also cover areas that obviously make arguments, such as shopping malls—few fail to realize that store displays are designed to persuade us to purchase goods.

Though it is not explicitly touched on in new media’s studies of mediated space, we cannot understand a space without an understanding of the people (or their activities) who inhabit that space; these inhabitants have a profound effect on the space itself, and vice versa. A space without people is not subject to interpretation—once we try to interpret it, we, as people, affect that space and are part of its interpretation. According to DeCerteau (2002), space is “a practiced place” (p. 87). The difference between *space* and *place* deals with people—people acting within a place transform that place into a space that becomes meaningful. People’s actions, then, create a culture within that space (Leach, 2005). This sense of culture allows people to use a space to create a sense of identity—a sense of belonging springs from this identity. According to Leach, belonging “privileges the idea not of reading the environment, as though its meaning were simply
there and waiting to be deciphered, but rather of giving meaning to the environment by collective or individual behavior...and out of that belonging a sense of identity might be forged.” (p. 130). Hence, space does not exist in a vacuum—people work within a space to give it meaning as they actively interpret the space. Ultimately, space itself (created by humans, at least) communicates—according to Glassie, “architecture shapes relations between people. It is a kind of communication...realized in materials” (2000, p. 22). Spaces tell stories—buildings can reflect values and ideals. Indeed, they are rhetorical because they are a form of communication, and all rhetoric has motive (see Burke, 1950).

The active interpreters of a space, as well as the more passive interpreters, can be viewed as that space’s audience. In this way, we can relate the overall idea of space to the smaller and more professional communication-focused space of text, or, document design. The page is clearly a space because it is a place (as it exists in a physical dimension and can be seen and there is content or matter in it) that people take action in (they see the text and then read it, or actively interpret it). It is through this connection with document design that we can see the relationship of the rhetoric of space with visual rhetoric. Indeed, because much of the study of visual rhetoric deals with document design, we can look to the spatial metaphors that dictate document design and how we ‘navigate’ texts to see an inherent connection between rhetoric and composition and space.
According to Reynolds (1998), “many of our metaphors in writing and composition studies involve or depend on imaginary conceptions of space. From bound texts to pages to paragraphs, sentences, and words, we read and write in distinctly spatial ways” (p. 14). These metaphors, and our use of them, connect document design of the page and the physical space in which we exist. Bolter (2001), in Writing Space: Computers, hypertext, and the remediation of space, explores spatial metaphors and convinces us that we cannot discuss texts without them. Text is “located” in books; even on the Internet, we “visit” websites, for example (p. 12). “To read is to follow one path from among those suggested by the layout of the text” (p. 100).

The implications of space throughout the act and description of writing extend to research practices as well, and many indirectly argue that it is a necessary consideration for critical research. Scholars in professional communication should engage in critical research practices, argue Sullivan and Porter (1997). They explore the situated nature of research, and how every aspect of a study, from the research question itself to the methods used, can affect the outcome. This need for consideration of all aspects of the act of research leads one to the conclusion that the space in which the research is conducted is worthy itself of research as well. Sullivan and Porter present this claim:

Researchers in computers and composition who work from rhetorical premises examine the text not merely as an autonomous structure but also
as a stage in an overall process of action involving the writer and the
audience, as well as numerous other discourses. Rhetoric complicates
discourse study in computers and composition by involving matters
related to situation and process—the setting for discourse as well as the
means by which it is produced and received. (p. 28, emphasis added)

This consideration of setting relates to where text is found. Though in this
instance, the authors are referring to the computer itself as the setting in which
text is found, the use of the term “setting” implies that text can be found in
virtually any place—from page, to print, to room itself. Indeed, spatial metaphor
is at the heart of rhetoric and professional communication; it is a consideration in
all argument we engage in as professional communicators and rhetoricians. We
can also see the consideration of space in information architecture and usability,
areas overlapping with professional communication and studied by professional
communication scholars (as professional communication is an interdisciplinary
area of study (see Ecker, 1995).

Information architecture deals with the accessibility of information, a goal
also found in professional communication. Professional communication is a field
that, despite a lack of an agreed-upon definition, is generally viewed as dealing
with the articulation of information (Slack, Miller, & Doak, 1993; see Bemer, 2006
for exploration of professional communication’s definition or lack thereof). Salvo
(2004) posits a relationship between professional communication and
information architecture when he states that professional communicators are
“information architects who practice a rhetorical craft necessary to build solutions that address the contextual needs of users” (p. 40). In this way, we can see a similar goal of information usability shared by the two fields, albeit these fields have different job titles and language usage.

According to Dumas and Redish (1999), usability’s goal is for people to be able to use a product “quickly and easily to accomplish their own tasks” (p. 4). Thus, usability deals with how well an audience can use a product; said product may be a document, which makes usability’s goals similar to professional communication and information architecture’s. Building on information architecture, usability, and professional communication is document design, which deals with designing documents to make them easily usable for those seeking information from them. Through document design, we can see even more clearly the consideration of space.

**Document Design**

Connections between document design and the rhetoric of space can be most easily seen through terminology associated with the study of document design. As Bolter and Grusin argue, we cannot easily discuss document design without spatial metaphors. We can see this played out through the Gestalt terminology that is preferred by many scholars writing about document design. Kostelnick and Roberts (1997) explain that “Gestalt principles of perception can
help us understand how readers see images in context—that is, in relation to a whole visual field” (p. 53). Many texts in the field rely on Gestalt principles to discuss the fundamentals of design and how “people tend to impose meaning and structure on things they see” (Schriver, 1997, p. 306), which implies that document designers need to take every aspect of design into account because it will be used by the audience to create meaning. More specifically, Wertheimer, one of the developers of Gestalt theory, posited that “there are wholes, the behavior of which is not determined by that of their individual elements, but where the part-processes are themselves determined by the intrinsic nature of the whole” (as cited in Moore & Fitz, 1993). In other words, people tend to perceive individual objects as part of one larger object, like the individual furniture in a room makes up the room as a whole.

Schriver explains the principles of Gestalt psychology and how these principles affect document design. Four of these principles deal specifically with space:

- People organize what they see into figure and ground. This means that people see a focus in a text (and place it in the forefront), then the background. Spatially, this means that we tend to see the figure as closer and the ground as farther away. The “figure” is the focal point of the image. For example, if we see a
computer sitting on a desk, we interpret the computer as the figure and the desk as the ground (and not the focal point).

• How people group figures depends on the visual properties of the figures. People see patterns that emerge in a space and tend to group things that are alike in some way. Hence, when people see similar things, like five chairs that are blue and two chairs that are different colors, they group the blue chairs mentally.

• How people group figures depends on “good continuation.” According to Schriver, “graphic elements that suggest a continued visual line will be grouped together” (p. 313). Figure 2.1 shows four lines that, despite lacking meeting corners, suggest the shape of a rectangle due to good continuity of the lines. In relation to space, this means that people will fill in a blank space perceptually if the space around it suggests that they should. This also means that the blue chairs don’t necessarily need to be next to each other to be grouped together mentally.

• How a figure looks depends on its surroundings. Everything in a person’s visual field affects the way they perceive the other things in the visual field. For example, a 13-inch laptop screen looks much smaller when placed next to a 20-inch monitor than when it sits alone, though it remains the same size.
The figure/ground concept is the simplest example of spatial metaphor used to describe the visual field. The figure represents the object/image closest to the viewer and the ground is whatever is behind that figure. In addition, we perceive based on the space surrounding an object—we view objects as part of a complete spatial field, in the context of everything surrounding it. With these principles, we can see that we interpret meaning through spatial metaphors, making space a part of rhetorical analysis. Gestalt principles are often used for the teaching of document design—many textbooks rely on these principles. They’re used to create terminology that students can directly apply to document design. One example (of many) is Williams’ *The Non-Designer’s Design Book*. Based on the Gestalt principles, she states four document design principles that help designers create easily interpreted documents—contrast, repetition, alignment, and proximity. Applying the principle of contrast might mean using colors that are easily distinguishable from one another in order to see each better. For example, this means that black text is easy to distinguish from a white background. The two objects occupying similar space need to be very different in order to be interpreted correctly on the page. Repetition implies that similar elements should be re-used throughout a design to create unity, or that when viewed in a complete visual field, things that are supposed to go together should be similar in order to be grouped correctly. Alignment works similarly; objects should be aligned in order to create visual clarity and dispel possible chaos in an image. Finally, proximity suggests that items that are supposed to go together
should be physically grouped together for clarity. These spatial terms help student designers to better rhetorically design documents and help their meanings come across more easily. These terms, based on the Gestalt principles, are simply easier to understand because they are mostly spatial in nature.

In addition to Gestalt-derived principles that rely on spatial metaphors to describe visual perception, some document design scholars have proposed other types of terminology. Among the first to propose a terminology other than Gestalt principles were Kress and van Leeuwen, who, in *Reading Images: The Grammar of Visual Design*, theorize that we can interpret visual design in much the same way we interpret texts—by looking for commonalities and developing a sense of the grammar of the visual (1996). By using the word “grammar,” they present a method of describing the visual. Specifically, they pay attention to “the meanings of regularities in the way image elements are used” (p. 1). One such point of interpretation that is tied to the grammar of composition, is the idea of given/new (p. 225). From a composition standpoint, given/new refers to sequence—we cannot understand how to interpret part of a message unless there is part of it we already know. According to Kress and van Leeuwen, in visual rhetoric, given/new also refers to sequence, but it is the sequence of how viewers see things—in Western cultures, we first look to the left than draw our eyes to the right. Generally things that are ‘given’ are on the left (like a reporter on a news program) and things that are ‘new’ are on the right (like a guest being interviewed by that reporter). While Kress and van Leeuwen certainly present a
valid method for looking at visual rhetoric that can be applied to space (in Western cultures we likely ‘read’ a room from left to right), their terminology may not be easily understood or used by those unfamiliar with document design (for instance, first-year composition students) because it does not use spatial metaphors.

We can further see the effectiveness and necessity for spatial metaphors for the visual when we examine terminology that isn’t spatially based. Kenney (2002) suggests terminology for visual rhetoric based upon classical rhetoric terminology. For example, it is easy to see how the concept of delivery, originally meant to depict how a speech was given (such as voice tone and inflection) could be transferred to mean medium in document design (or the design of space). For instance, the delivery of a salutation may be in the form of an email—hence, the email is the delivery. Or, an argument could be made with a photograph, and the photograph would be the method of delivery (p. 64). Identification can also be easily seen in a visual image—Kenney uses the example of a political ad in which the audience is supposed to identify with the candidate because the candidate is standing in front of an American flag and his opponent is behind it (p. 67). Though borrowing terminology from rhetoric can lend credence to visual rhetoric analyses, Kenny stops short of offering a multitude of terminology we can use to analyze the visual. His terms focus mainly on the analysis of photographs and depictions of people. To be more useful, further work on borrowing rhetorical terminology for the analysis of visuals is needed,
particularly in relation to concepts that do not easily cross from verbal to visual arguments, such as memory. The lack of spatial metaphors in this terminology may be to blame for its confusing aspects.

Through this look at just two attempts to create a language for visual rhetoric, it can be argued “visual literacy cannot ever be a clear-cut system similar to language” (Dondis, 1973, p. 12). Dondis suggests that we need a complex language in order to fully discuss visual arguments. Hence, much more work is needed in document design before conclusive terminology is accepted amongst scholars. Until then, Gestalt principles and their terminology seem to be accepted by most, though these terms are not necessarily rhetorical—though space itself can be. In fact, these spatial principles may be more effective than other more abstract terms such as the aforementioned terminology borrowed from ancient rhetoric. Objects or visuals discussed in concrete, visual terms have more presence than those discussed using abstract terms (p. 119). This presence makes the object more real to us, which makes it easier to analyze and discuss. According to Perelman and Olbrechts-Tyteca (1990), “if judgments of reality are to provide an indisputable object of common understanding, the terms they contain must be free of all ambiguity” (p. 1071). Hence, it is best to stick to terms that are as concrete as possible to make document design as easy to understand as possible.

Document design methodologies have varying emphases on space. The importance of space is implicit in the cultural view of document design, which
suggests that different designs/imagery is necessary for different cultures because visual rhetoric/document design is physically situated in the culture of certain places. Hence, “visual language requires sensitivity to context” and the space in which a document is presented affects the rhetoric therein (Kostelnick, 1995, p. 183). Opposing this view is the universal theory of design, which suggests that some aspects of design are true and will mean the same thing for all people. This view holds that design can “bridge barriers of language and culture” (Horton, 1993, p. 682). According to Kress and van Leeuwen, “The ‘universal’ aspect of meaning lies in semiotic principles and processes, the culture-specific aspect lies in their application over history, and in specific instances of use” (p. 4). Most document designers hold to the cultural theory rather than the universal theory—we can see this in the way different versions of instructions and warnings are used in different cultures. For example, different cultures often read text in different directions, arguing for a need for different organization for documents across cultures (Horton, 1993) Thus, the space of the document design (or professional communication, or rhetoric) affects its argument—this is an example of kairos and the circumstance of place.

Hill (2004) argues that whether we are perceiving ‘reality’ (something physically before us in real life, such as a cow in a pasture) or a visual image, our perceptions are always mediated (and thus everything we see that is an artificial construction is rhetorical and has an argument).
Because we cannot possibly process all of the visual information that bombards us on a continual basis, we actively filter and prioritize the visual information we are exposed to, and this filtering and prioritizing process is driven by our own preconceptions, desires, biases, and value judgments. (p. 113)

This filtering process suggests that it is worthwhile to examine the visual effects of “real” images (the tableaus of our lives, or concrete objects) as well as created ones (representations of these concrete images). Because we actively interpret the spaces we see as well as the representations we see, both spaces have inherent rhetoric and should be subjected to analysis.

Additionally, space is an aspect of the rhetorical situation. Space is a part of the context for communication. Rhetoricians analyze audience, purpose, and context to determine the most effective and persuasive argument for a situation—space is inherent in this analysis, though it has not always been singled out for analysis in the way that we have singled out audience, for example. With the way we use spatial metaphors to talk about both written and design arguments in print or on the screen, we must wonder why we haven’t devoted much time to the study of space itself outside of when the space itself strikes us as unusual, such as an e.e. cummings poem with unusual line breaks and shapes. We clearly perceive communication in terms of space, yet we overlook space often as a consideration in argumentation or see it as merely an
obstacle to overcome (such as when a teacher is presented with a classroom with bolted down chairs and must work around this issue for group work activities).

**Academic Computer Writing Spaces**

My research focuses on the rhetoric of academic computer spaces used for writing activities. In academic space, the classroom has been the site of some research regarding space use. Since computers were first introduced into the writing classroom, writing teachers have discussed the pedagogical implications of these machines and the rooms they inhabit. Instructors of writing have long realized that student interaction is affected by the physical space of a room as well as by the teacher or the technology present. We see this realization when instructors have students arrange their desks in a circle, or when they ask students not to sit in the far back of the classroom. However, teachers very often have little control over the physical space of the classroom. For instance, Palmquist, Kiefer, Hartvigsen, and Goodlew (1998) point out that “most teachers quickly discover that lectures are difficult to deliver and listen to in the computer classroom” and most have to develop different methods of teaching to overcome this hurdle (p. 6). The spaces we teach in do not always support our preferred styles of teaching. In response to this lack of control, writing instructors have a long tradition of overcoming classroom design problems by asking their students to meet outside of classroom spaces, arrange their desks in circles or in groups,
or to extend their conversations about writing into online spaces. In essence, writing instructors have affected classroom design as much as possible.

According to Hawisher et al. (1996), the writing lab was borne during a paradigm shift—as teachers of writing became more focused on process than on product. Prior to computer classrooms, students in many classrooms had individual desks so they could work alone, but those desks could be rearranged into small circles for group work and activities such as peer review (p. 28-29).

Hawisher et al. note that this style of classroom resembles the newspaper bullpen, where students have individual workspace but may confer with others when appropriate. Above all, this classroom design remains teacher-centered.

This paradigm shift from product to process theories of writing coincides with the distribution of an affordable microcomputer by Macintosh; and soon, there was a plethora of choices for the consumer (Hawisher et al., 1996, p. 74). Writing faculty were enthusiastic, for the most part, about the inclusion of computers in the writing process and research in the area mirrored this enthusiasm, evolving into special interest groups and journals. During the introduction of computers into the writing classroom, teachers themselves were often asked to choose technologies—scholarly articles at the time produced many (widely differing) pedagogically oriented arguments for particular software or technologies, though these were not necessarily used in the quest to choose technologies (Hawisher et al., 1996, p. 110). By 1989, these scholarly discussions began to examine the economics of computer use; specifically, these discussions
began to question the investments in time and money needed for teachers to learn each technology and to teach those technologies to students, interfering with the actual pedagogical goals of a writing course (p. 200). Indeed, many believed that with computers would come new pedagogical styles. According to Hawisher et al., teachers’ pedagogical styles and those privileged by the technology interfered with one another: too often, computers were introduced into classrooms without considering the pedagogical implications of the technology nor the design of the space first, providing teachers with classrooms that were more of a hindrance than an aid (p. 202). One aspect of room design that instructors at times have control over is how the desks are arranged. Three layouts that have been used and modified since computers were introduced to the writing classroom: rows, pods, and circles.

**Collaboration in Rows, Pods, and Circles**

Handa (1993) discussed the first two layouts, rows and pods, as demonstrating elements of both teacher-centered and student-centered ideologies. Rows exhibit slightly more teacher-centered elements, involving a fixed teacher station (usually at the front of the room) and computers lined up in rows, whether facing the teacher station or perpendicular to it. This type of layout favors hierarchical teaching styles (Handa, 1993, p. 106) and reinforces the “sage on the stage” style of teaching in which a professor stands at a lectern and
transmits to students his knowledge of a topic. Thomas (1993) referred to this teacher-centered design as a lab design—a statement that brings with it the implication of rows of computers—instead of a classroom design. While the term “lab,” for some, may bring to mind the types of experimentation and hands-on learning that takes place in science labs, for writing scholars the term is much more likely to reference a computer lab than a biology lab. (The term “writing lab,” for instance, is often used to refer to a computer lab.) Zoeteway (2004) further complicated this idea by arguing that the name of a room serves as a metaphor indicating the room’s function (i.e., lab versus classroom). The term “classroom” suggests a space whose occupants are an instructor and students wherein the main activity is the instructor teaching these students. These students may engage in instructor-assigned, class-related group activities as well. In contrast, the term “lab” suggests only student occupants whose main activity is working on (probably) individual homework without the assistance of an instructor. Hence, when we call a space a “classroom,” students may assume they cannot use the space without the presence of an instructor. When we call a room a “lab” students realize they can work on their own projects there. Even something as benign as arrangement of the room or what we call the space can affect students’ perception of the activities that take place in the space. Overall, open-access computer labs arranged in rows provide a different reality for students than that same arrangement in a computer classroom, perhaps because of the different types of activities and users of the spaces. Hence, when students
perceive rows as a “lab” design, they believe their activities in that space (despite it being a classroom) are more individualized and they can really spend their time doing whatever they want (for example, checking their email) instead of participating in class.

The pod layout demonstrates slightly more student-centered elements by locating the instructor station among the students’ stations—this location serves to dissolve the hierarchical pedagogy of teacher-versus-student somewhat. The student computers are arranged in pods (desks arranged in multiple, small inward-facing circles) around the room, similar to the “bullpen” style discussed by Boiarsky (1990) and Hawisher and Pemberton (1993). Handa (1993) argues that pods encourage student interaction and a teacher-as-writer atmosphere. The logic goes something like this: because students face one another, there is a greater chance they will confer with one another throughout the class time. Because the teacher does not have a physically separated station, the pod design places her quite literally at the same level as her students. Of course, the pod layout is not a utopian ideal. The computers, unless they are mounted low in the pods, can create line-of-sight problems during large group discussions (Handa, 1993). Teachers can have students move their chairs into the center of the room for discussion, but they cannot use the computers at all during this time.

In addition to rows and pods, the circle is another common lab layout. The circle layout arranges computers around the perimeter of the room facing the outside walls. This leaves the center of the room open for a large conference table
or space for class discussion. The circle layout incorporates elements of both teacher-centered pedagogies and student-centered pedagogies, since the teacher may still command the students’ attention from an instructor’s station, but class discussion is also facilitated easily by coming together in the center of the room. However, when working on the computers, students face a wall as they write and may only easily interact with the one or two people beside them. The net effect of turning away from the rest of the class to write is that students essentially cut themselves off from the rest of the class (Palmquist et al., 1998). This isolation could affect the quality of class discussion because of fewer participating students and ultimately how engaged a student feels in the class.

In academia today, as technology becomes more ubiquitous and less expensive, it becomes important to make knowledgeable decisions instead of educated guesses about pedagogical needs in lab settings. For instance, in “The Inertia of Classroom Furniture,” Ruth Mirtz (2004) discusses how the design of classroom furniture affected students during peer-review groups in first-year composition classes; from that study, she made three recommendations for designing classrooms:

- The physical environment should not determine the relationships among teachers and students or among ideas and reality.
- Relationships should remain in flux and nimble, able to reflect more than the will of the teacher or the will of a few students.
• Teachers and students should be pushed to think past the traditional or the nontraditional, to get away from static arrangements and static learning, and to rethink classroom space as more than mental space. (p. 26)

In essence, Mirtz urges us in this article to take control over the classroom space by being conscious of it and how we relate to it. Moreover, as Lanham (2006) suggested, these spaces are the material manifestations of how we think about the activities that take place within them (p. 18). That is, the physical spaces we design for students to work in say a lot about the activities we think should take place in them.

**Conclusion**

My examination of the rhetoric of space (specifically computer labs, computer classrooms, and writing centers) helps us to become more aware of the spaces we work in and ask our students to work in. Simply asking questions about these spaces helps us to more closely examine and think about the issues surrounding our design and use of these writing spaces. This examination will help us to become better teachers and our students to become better writers by exploring how we can improve our spaces for the activities of writing. The practice of applying rhetorical thinking to the spaces we use can transfer to the writing we produce; this act can also help us become better teachers of rhetoric.
and communication through not only the improvement of our spaces but the examples these spaces provide for us.

My exploration of academic computer spaces begins with a look at a computer lab located in an English department. In this chapter, I look at ways we can rhetorically create a space that suggests a particular goal for the space, as Lanham (2006) suggests is possible. In this instance, the space is meant to encourage student collaboration; I explore aspects of the physical space’s design that students have found to be collaboration-friendly in comparison with other computer labs on the same campus.

Next, I explore an computer classrooms and how mobile design of these spaces can work to accommodate different pedagogical styles across a writing faculty. The adaptively mobile nature of these spaces works towards Mirtz’s (2006) argument of encouraging instructors and students to actively think about their classroom space and use it to their advantage.

Finally, I delve into the design of writing centers and how they use multiple spaces to attract students. Using a rhetorical gaze, I look at various methods writing centers do and could use to better serve their clientele.
Learning is a social process. Often the most memorable college experiences involve connections with others, whether students or faculty. All indications point to the importance of learning spaces that facilitate connections.

Cyprien Lomas and Diana G. Oblinger

Since as long ago as the 12th century, stained glass windows have been an important feature of Catholic cathedrals. These windows form an important part of any tourist’s experience today, but they were designed for much more than simply inspiring awe. The stained glass windows in each church were designed specifically for the illiterate congregants: the pictures in the window helped tell particular Bible stories, focusing the attention of the members to help clarify religious principles. These windows accomplished these purposes despite being under strict architectural constraints (the size was limited to ensure the walls were strong enough to support the ceiling) and even though they had to simultaneously perform a practical function (they were the main source of light for the building). Indeed, the stained glass windows are a marvel of thoughtful, rhetorical design, and they provide inspiration to the way we ought to think about designing one of our most common writing spaces: the computer lab.

Like the cathedral windows, university computer labs are built with strict architectural and budgetary constraints, and they must perform a specific practical function for the student body. But, as with the windows, these limitations do not mean we have no control over how these spaces are designed,
nor does it mean the only function can be the most basic one. The way we rhetorically design computer labs will influence greatly how they are used. Students draw conclusions on how to act in these spaces based upon how they look—these campus spaces “impart a feeling of the campus culture to students” (Lomas & Oblinger, 2006, p. 5.1). The design of these spaces affects student perceptions of the institution and the specific space and gives them cues on how they're supposed to act. Indeed, spaces don’t come with instructions on how to use them. Environmental cues and personal experience are all we have with which to navigate these spaces. Computer labs are spaces intended for student use, but students might not enter a space they don’t understand, or that they don’t think suits their needs. They get this information from the rhetorical cues of the space's design. Hence, we need to carefully design these environments with students in mind. Taking the stained glass windows as a guide, I will argue that we need to design computer labs for specific audiences in a way that clarifies the potential uses of the space and draws attention to the uses that may otherwise be overlooked. Overall, we need to intentionally and rhetorically design these spaces to persuade students that the spaces can and should be used in certain ways—be it collaborative or individual use. The computer lab will be the first site at which I explore the possibilities of a rhetorical view of design. My central claim is that academic computer writing spaces will be more effective if we intentionally design them according to rhetorical principles, and the Utah State University Suite Lab is the first step in this exploratory study.
Methodology

In order to determine student attitudes and activities about computer labs, I distributed surveys to students at the Suite Lab and in numerous buildings on Utah State University's main Logan campus. Speaking to and surveying the students who use these spaces is really the best way to learn about how the spaces are used and how they are influenced by the design of these spaces.

Student use of spaces and technology can easily be misunderstood when viewed from a nonstudent perspective. For example, faculty or administrators might consider lounge seating in a library to be distracting, while students find it the best way to study. Students will likely spend more time in campus learning spaces than anyone else. Learners have a legitimate perspective on what works—and what doesn’t. (Lomas & Oblinger, 2006, p. 5.10)

Because students use these spaces the most (they are the main audience for computer labs on campus), they are the experts on these computer lab spaces. The intent of the survey was to discern student activities in different computer labs on this campus. Questions included what labs they used, the types of activities they observed students doing in these labs, their top three lab activities, and their collaboration activities related to computer labs on campus. See Appendix A for a copy of the survey.
In addition to the survey, I conducted three follow-up interviews to garner more specific feedback on the spaces. These interviews were with a graduate student in English, an undergraduate in English, and a lab consultant (undergraduate student) who works in the Suite Lab. I’ve also spent time (a minimum of three hours each) observing four labs on campus: the Suite Lab, TSC, Library, and Family Life, in order to observe what students do in these labs.

Then, I conclude my research by looking specifically at the Suite Lab, the departmental lab for English Department students. I will rhetorically analyze this lab to determine three principles from which to make other computer labs friendlier for collaboration.

**Survey Demographic Information**

Eighty-two students responded to the survey; of the respondents, 42 were female and 38 were male (one student did not identify sex on the survey). Respondents ranged in age from 18-44. The survey respondents make up a variety of the majors on campus. Statistically, a majority of respondents were English majors. For the purposes of this research, this high number is appropriate because of the focus on writing activities in computer labs on campus. In addition, these students would be more familiar with the Suite Lab, a Department of English computer lab space designated for use by students in English courses. Because this research focuses on the successful development of
the Suite Lab as a collaborative, community space compared to less effective lab spaces, this respondent base is appropriate.

Table 3.1 identifies students' majors. When students listed multiple majors, I counted each major separately.

<table>
<thead>
<tr>
<th>Major</th>
<th>Number of students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting</td>
<td>1</td>
</tr>
<tr>
<td>Art</td>
<td>2</td>
</tr>
<tr>
<td>Art History</td>
<td>1</td>
</tr>
<tr>
<td>Business</td>
<td>1</td>
</tr>
<tr>
<td>Business Administration</td>
<td>1</td>
</tr>
<tr>
<td>Communication Disorders</td>
<td>1</td>
</tr>
<tr>
<td>Computer Science</td>
<td>2</td>
</tr>
<tr>
<td>Elementary Education</td>
<td>10</td>
</tr>
<tr>
<td>English (graduate)</td>
<td>10</td>
</tr>
<tr>
<td>English (technical and professional writing)</td>
<td>11</td>
</tr>
<tr>
<td>English (emphasis not specified)</td>
<td>10</td>
</tr>
<tr>
<td>English (education)</td>
<td>1</td>
</tr>
<tr>
<td>English (literary studies)</td>
<td>2</td>
</tr>
<tr>
<td>FCHD (find out what this is)</td>
<td>2</td>
</tr>
<tr>
<td>Finance</td>
<td>3</td>
</tr>
<tr>
<td>History (teaching)</td>
<td>1</td>
</tr>
<tr>
<td>Human Dimensions in Ecosystem Science and Management (graduate)</td>
<td>1</td>
</tr>
<tr>
<td>Human Resource Management</td>
<td>1</td>
</tr>
<tr>
<td>Instructional Technology (graduate)</td>
<td>1</td>
</tr>
<tr>
<td>Interdisciplinary Studies</td>
<td>1</td>
</tr>
<tr>
<td>International Business</td>
<td>2</td>
</tr>
<tr>
<td>Journalism</td>
<td>2</td>
</tr>
<tr>
<td>Management Information Systems</td>
<td>1</td>
</tr>
<tr>
<td>Marketing</td>
<td>1</td>
</tr>
<tr>
<td>Political Science</td>
<td>3</td>
</tr>
<tr>
<td>Public Relations</td>
<td>2</td>
</tr>
<tr>
<td>Social Studies Composite Teaching</td>
<td>1</td>
</tr>
<tr>
<td>Social Work</td>
<td>1</td>
</tr>
<tr>
<td>Sociology</td>
<td>2</td>
</tr>
<tr>
<td>Spanish</td>
<td>1</td>
</tr>
</tbody>
</table>
Table 3.2 delineates respondents by year in college. The majority of respondents were juniors, followed by seniors, graduate students, and then sophomores. No freshmen responded to the survey.

<table>
<thead>
<tr>
<th>Year in School of Survey</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>0</td>
</tr>
<tr>
<td>Sophomore</td>
<td>7</td>
</tr>
<tr>
<td>Junior</td>
<td>42</td>
</tr>
<tr>
<td>Senior</td>
<td>21</td>
</tr>
<tr>
<td>Graduate</td>
<td>12</td>
</tr>
</tbody>
</table>

Ultimately, the rhetorical design of computer labs is an important thing to consider because students will perform actions in the lab that they think are "right" according to how they interpret the space. For instance, a desk sitting right next to a lab worker's work area might seem out of bounds for students, either because working next to a lab worker might make them uncomfortable or because they may assume it's an official lab worker space due to its proximity to the lab worker. Of course, the simple answer to designing labs so people will act a certain way in them seems to be posting signs. And signs do exist in these spaces--they make commands like "no food or drink" or "no pornography on computers," for example. So, yes, we post signs often and expect students to obey the messages therein. However, students don’t always notice signs. For instance,
though in most labs on USU’s campus each computer has a notice about not viewing pornography, only a few (roughly 3%) mentioned noticing this sign when responding to a survey question that specifically asked them about the signs they see in computer labs. Overall, about 70% report seeing signs in the labs, though many did not specifically state what the signs were about despite being asked to on the survey. Signage is a way to send a message in a space, but it's not the only way. Through effective rhetorical design of these spaces, we can try to eliminate possible confusion so signs are less necessary. (Of course, there will probably always be a need for signs, if for no other reasons than possible legal repercussions.)

**Student Use**

In order to better design rooms for student uses, we need to consider actual student uses of computer spaces on campus. Most labs on campus are designed in order to give as many students as possible access to a computer. We can see that rhetorically played out in the way the rooms are often designed—with multiple rows of computers placed closely together. See Figure 3.5. Notice how the computers in this room are close together and how all the tables face the same direction. There is little space in this room that is not being used for either computers or seating. The rows are very close together and would likely be hard for a student to walk through. In the university, it makes sense to fill a computer
lab with as many computers as possible. It is, after all, a place the university provides for student computer use. In the case of the Ag 119 computer lab in Figure 3.5, this computer use is clearly intended to be individual use.

The problem with filling a room with as many computers as possible, though, is the rhetorical effect the design has on the users of the lab. When computers are packed together in rows, the room gives the distinct impression of being a series of individual work stations and, indeed, that is exactly how computer labs are typically perceived: in my survey, only 22% selected “Work with other students” as one of their top three uses of the lab. The vast majority of respondents, therefore, see computer labs as individualized spaces to such a degree that collaboration is nowhere on the list of reasons to go to the lab.

Figure 3.1 details the results of this survey question. Printing was reported by respondents as their most common/frequent computer lab activity, with 73%. Next, students are most likely to write in computer labs, with 68%. Checking email comes in third with 59%, then research at 46%. Working with others in the computer labs is reported by 22% of respondents, while meeting with professors comes in last with only 1% of respondents reporting this activity. Note that overall, 65% of respondents reported collaborating in labs on campus, but only 22% ranked this activity as one of their top three most common activities.

When we look at the design of most of the fourteen computer labs students report working in (see Figure 3.2 for a list of these labs and their relative usage by respondents), these most common activities make sense. It is easy to
print, write, and check email in these labs—because the labs are set up and intended for individual use by students.

Because these rooms are designed to be best for individual computer use, students use them most commonly for individual computing purposes. It makes sense: a bathroom is designed to be the best place in one's home to bathe, but it is not the only place bathing is possible. Thus, people bathe most frequently in their bathrooms—this does not mean they do not also perform other activities there as well.
The design of these labs rhetorically argues for their individual uses. The library’s main computer lab has curved desks that feature just enough space for one person to sit at a computer and easily see the screen. The TSC lab has rows upon rows of desktops, like Ag 119 (see Figure 3.5). Hence, the individual activities of printing, writing, and checking email are very easy to perform in these spaces. And, when students need to do these things, they think of these labs as good places to get these activities done— they can sit by themselves, with partitioned walls blocking the view of their computer screen from others so they

Figure 3.2
Year in school of survey respondents

Overall Labs used by Respondents

- Merrill Cazier Library
- Suite Lab
- TSC
- Business
- Old Main
- YETC
- Family Life
- Education
- Engineering
- AgSci
- Jcom
- CIL
- NR Quinney
- Graphic Design Mac Lab
have a sense of privacy. Because of the sheer number of people working alone in the space, the atmosphere is probably quiet and conducive to writing. The labs on campus, for the most part, are not designed with collaboration in mind. Hence, collaboration doesn't happen in the spaces, though this is not necessarily because students don't need computer spaces to collaborate in.

When students want to collaborate, they go to particular labs to do so. Respondents report collaborating in seven of the labs on campus. See Figure 3.3.

Figure 3.3
Labs used by student respondents
for a list of these labs and the relative amount of collaborative activity reported in each. Of the students who report collaborating in university computer labs, 41% report collaborating in the Suite Lab and 44% in the library. These numbers seem to reflect a roughly equivalent view of the two labs as collaborative spaces, but this first question does not take into account the much larger numbers of people who use the library for everything. Indeed, further analysis of the data indicates that 73% of the users of the Suite Lab use it to work with other students, while only 57% of the library users do so. The library numbers are further complicated by the presence of the library “study rooms”; these rooms are set aside as group work spaces, but are not computer labs. Despite this, 25% of the students who reported using the library to collaborate specifically mentioned these study rooms, and it is reasonable to believe that some of the others may have been referring to these rooms as well. Taken together, these survey results indicate that the Suite Lab in the English Department is viewed much more clearly as a collaborative work space by Utah State University students than any other computer lab on campus. As such, the remainder of this chapter will be an analysis of the design of the Suite Lab and the rhetorical principles guiding that design.

Description of the Suite Lab
The Suite Lab is a computer lab designed and run by the Department of English at Utah State University (USU). The computer lab in the Department of English was established in 1983 by a State of Utah teacher training initiative. In 1990, the lab moved from the Merrill library (the home of the English Department at USU until 1990) to the Ray B. West building, where the department currently resides. At this time, designers of the room had very little choice about this design because of the size constraints of the space. According to Christine Hult, who was a professor of English at that time and author of a series of grants that funded the lab space, the lab was situated in a very small room on the fourth floor and was “was set up with desks around the perimeter just because that was the only way to use the space” (personal communication, 7/27/2010). After obtaining a second and third grant for the space in 1995 (this time from the State of Utah technology initiative), the department expanded the lab and moved it to the basement, where it is located currently. According to Hult:

We then configured room 101 so that students could work together in "pods." We wanted the students to be able to see the teacher but we also wanted them to be able to collaborate with each other. We rejected a design of desks in rows mainly for that reason. We also didn't want the computers facing the walls around the perimeter, which had been our default design on the fourth floor.
Thus, we can see that collaboration has (when possible) always been a motive in the design of the English department’s computer lab space.

Redesigned again in 2007 (through an internal university grant), the lab was rechristened “the Suite Lab.” The Suite Lab is now made up of 26 laptops and 13 desktop computers. The desktop computers are situated on various tables throughout the room (see Figure 3.6), mainly in two pods at the center and around the outer edge. Various empty tables exist for laptop use. Both wheeled computer chairs and couch-like chairs are available for seating. The walls are painted orange and green, with complementary colors in the chairs. See Figure 3.4 for an image of the Suite Lab. This iteration of the department’s computer lab was again motivated by a desire for student collaboration (Bemer, Moeller, & Ball, 2009).

The Suite Lab works as a collaborative space--we know this because students report collaborating in the space and returning to collaborate there again. Also, Bemer et al. (2009) conducted a usability study on the Suite Lab to determine the success the design’s collaborative goals, and these findings indicate that the space works in this way. In the study, students agreed that “the layout of the furniture, the available equipment, the mobility of that equipment, the ambiance of the space, and the activities those items allow” worked to encourage and facilitate collaboration in the newest redesign of the space (p. 143).
Using this lab space as a starting point, I explore three main rhetorical design principles that seem to work together to make an obviously collaboration-friendly computer lab space. First, it’s a space designed for a specific audience. Second, it uses the principle of attention. And third, the space has clarity, which makes it easy to see how it can be used.

Figure 3.4
The Suite Lab

Designing for Specific Audiences
The Suite Lab is dedicated lab space; it has a very specific audience of students in English classes, mostly English majors. Audience is an important aspect of rhetoric, and an important consideration in any rhetorical design. Audience is important because “the success of communication depends solely on how the reader receives it” (Trimble, 1975, p. 15). Thus, if we want to communicate the idea of collaboration to students in a lab space, we must know who our audience is and how to design for them. Many computer labs are designed for general student use; this is too broad of an audience for an effective, collaborative space design. Instead, I suggest focusing on one group of students — like writing for a specific audience, designing for a specific audience makes it easier to meet goals for the space because we can more easily look at the audience rhetorically and examine their beliefs.

We can see the specific audience principle's success through the dedicated space of the Suite Lab. Students are aware of this dedicated aspect of the space through the fact that they see the same students over and over again, and that they themselves use the space over and over again. This recognition of others and continued use creates a sense of familiarity with the people (the specific audience) and the space that makes them comfortable. Students feel that is the Suite Lab is a space with a “sense of community” (Kelsha Bundy, personal communication, 4/21/2009). They feel comfortable speaking aloud with others in that space, and asking questions because of this community that is created through specificity of audience.
In addition, the specific audience's familiarity and repeated use creates a sense of ownership for students—the lab is their department’s space. This sense of ownership is also present in the library study rooms because students reserve the spaces with their names—they’re their spaces for the duration. Students often feel that university space and furniture is beyond their personal control—they show this through overall reluctance to move furniture, for instance (Gifford, 1976). Through continued use and increasing familiarity of lab patrons with one another, students gradually feel more ownership over the pace, which leads to more willingness to collaborate in the space.

Also aiding with community is size of the space. Students noted that the Suite Lab is significantly smaller than many public labs on campus. Hence, they feel in general that they have more community with others in the lab—they aren’t as afraid to talk to others because there simply aren’t as many people in the room (twenty-odd students versus hundreds). Once again, this smaller number of students (caused by space size as well as the specific audience of users of the space) helps students feel familiarity and community, which leads to ownership and freedom in and with the space. This freedom, then, leads to a willingness to speak with others and collaborate within the space. And students, in general, don't feel they should speak much with others in most computer labs.

1The specific audience of the library's study rooms is broader than the Suite Lab's; they are targeted towards students who want to complete collaborative projects. Thus, it's not targeted at a discipline, but at a type of work. It seems to show how nice you are to others.
In my survey, I found that 66 percent of respondents, when asked "how do students behave or act in computer labs" used the word “quietly” or implied that students behaved quietly through synonyms. Students also used the term "orderly" or referred to talkers as "inconsiderate." They said "some forget they are in a public place." Students seem to think that being quiet meant they were respecting others. 22% of respondents equated quietness in the lab environment to how much these people respected others.

Rhetorical design suggests to students when quietness is a spatial norm. Some designs indicate this preferred action more obviously than others. Significantly, one respondent noted that in "cubicle labs - people are quiet. [In] collaborative labs - people are welcome to talk." This statement suggests that we are imposing “no talking” rules on students in some labs through design. We know this supposed rule is being communicated through design alone because no respondents noted any signs indicating that quietness was explicitly being demanded in these spaces (when asked specifically about signs they saw in computer labs). Indeed, overall, only one sign, noted by one respondent, had anything to do with noise—and that was a “no cell phones” sign. Hence, students are taking other cues from their environment that indicate that they shouldn’t be talking and thus shouldn’t collaborate in labs. The cubicle aspect (meaning partitioned individual spaces, see Figure 3.5 of the Ag 119 lab) is the qualifying variable in this statement; hence, it indicates the quiet space in this
description. Cubicle spaces provide a rhetorical argument for quiet behavior; partitions are a rhetorical design cue indicating quietness is preferred.

Dominant parts of “quiet” visual cues are the partitions between computers and the large desktop computers on desks themselves, all of which discourage students from even looking at one another. These visual cues make sense for a space that is individualized because students from all over a campus are working in it—the computer engineering student probably does not care what the art student is doing on the computer next to her. They have little reason to

Figure 3.5
Image of Ag 119 computer lab (Utah State University, 2006)
converse, and because of this, the partitions work to combat collaborative activity.

The specific audience dedicated department lab space works against this supposed computer lab norm of quietness. When a few people in the lab start talking, it is easier for others in a smaller group to follow this example, according to a lab consultant who spends many hours in the Suite Lab each week (Ben Siler, personal communication, 4/20/2009). I also noticed this in my observations. The lab consultant attributed this to the fact that there is less “social anxiety” because of the smaller numbers of people. Hence, creating the lab in a small space makes a sense of community easier to build and maintain visually. Because of the smaller amount of students who will use a dedicated lab space (because of the limited numbers of majors), this sense of community is created through familiarity—though students might not know each other, they recognize repeat lab users. This makes the atmosphere more comfortable overall for student activities. I’ve personally had several people I don’t know talk to me in the lab space—be it for casual conversation or my opinion on their work. This familiarity simply isn’t fostered by huge public labs used by the entire university, a very general audience.

We can also see this community at work through the actual work students do in the Suite Lab compared to other labs on campus. The lab consultant noted that students in the Suite Lab seem to do more actual work than they do in other labs (though this is an anecdotal observation, of course), where they’re more apt
to be on Facebook, for example. He attributed this to the community aspect of the lab, and the fact that the students have a personal reputation at stake in the dedicated lab space and community it breeds—they want others to see them accomplishing actual work, perhaps so they’ll consider them as good group partners in their classes in the future.

Hence, the specific audience dedicated lab space creates a community of students through drawing a smaller amount of students in just a few majors within one department. The social aspect of community is important to the learning process because “learning is a social process. Often the most memorable college experiences involve connections with others, whether students or faculty. All indications point to the importance of learning spaces that facilitate connections” (Lomas & Oblinger, 2006, p. 5.7). A sense of community is integral to a successful collegiate experience. This lab space lowers social anxiety through familiarity, which makes students more likely to be willing to speak with others and collaborate in the space. They are not as worried about how others will perceive the act of talking in this space because the other lab patrons aren’t complete strangers. In addition, this familiarity might help students to get more work done because they want to be seen by others as being a good worker. In a sense, the dedicated space takes the lab norm of quiet atmosphere and shifts it to one of good working atmosphere. Overall, the dedicated space is important because just putting people in the same classes in close proximity to one another outside of class time encourages collaboration (Lomas & Oblinger, 2006)—it
builds a sense of community that then helps them learn more easily. Also, students will choose the spaces in which they feel “empowered” and “comfortable” to return to time and time again (Cattier, 2006, p. 8.3).

Designing for Attention

Richard Lanham describes a new information economy in which style is just as important as “stuff” (2006). He suggested that these spaces are the material manifestations of how we think about the writing that they will do within them (p. 18). He explains that the new economy of attention focuses on what we think about this “stuff.” In the sense of lab design, stuff refers to the lab space itself. Style, then, refers to how it looks. The second rhetorical principle of computer lab design is attention. In the sense of the Suite Lab, attention refers almost primarily to color.

In her 2006 chapter on computer classroom and lab design, Chism notes “human beings yearn for color” (Chism, 2006, p. 2.7). Put simply, humans want to be in aesthetically-pleasing places; we like pretty things, and color generally makes objects more attractive. Thus, the second design principle for collaborative computer lab spaces is attention, which we can achieve through the incorporation of color—color not only makes a space attractive, colored walls (specifically, not white or gray) make a computer lab stand out as different from
typical (white-walled) computer labs. Color helps to draw attention to the collaborative aspects of the space.

The Suite Lab has color; specifically, the walls are painted a color that is not institutional (i.e., white or gray). Instead, the space uses orange, greens, and yellows on its walls. Burke states that all rhetoric has motive, and uncovering that motive helps us to understand the communication and rhetor's intent better (1950). The use of bright colors in design suggests a motive that is different than the use of institutional color; institutional color on a wall rhetorically mandates institutional quietness. We can see the idea of institutional quietness in the neutral colors of many institutions' walls—for instance, doctor's office waiting rooms and courtrooms. The walls in these spaces are somewhat drab and neutral, and this reinforces a sense of institutional respect. Earlier, we saw that students often equate quietness in public places with respect. This could, at least partially, be because of the wall color of these public places—boring, unremarkable white.

Bright colors in public spaces stand out as being different than the norm. In the Suite Lab, according to one student, “the bright colors seem to lift people’s moods and make the lab more comfortable as opposed to the dreary white labs that make me feel like I’m in some sort of computer lab prison” (Kelsha Bundy, personal communication, 4/20/2009). On the survey, when describing the Suite Lab, another noted that just the act of consciously choosing a color for the walls that is not the default shows students that the Suite Lab is different from other
labs on campus—which makes students approach their work in the lab in a different way and act differently. “Students are afraid of doing things out of the ordinary,” so it makes sense to present them with a space that is out of the ordinary in order to encourage behavior that they may not feel is appropriate for a public computer lab space (Kelsha Bundy, personal communication, 4/20/2009). Hence, students are more open to collaboration in the Suite Lab, even though in other labs they feel discouraged from collaborating. Thus, to make a space more freely collaborative for students, we need to incorporate non-institutional color into the space in a way that attracts attention to the space's differentness, its collaborative aspects.

In addition to the walls, it's important to put color in the room in other ways as well, like through furniture. In the Suite Lab, the lab consultant interviewed noted, for instance, that the furniture in the room was different than the institutional waiting room chairs that other labs used. However, unbeknownst to him, those couch-like chairs in the Suite Lab are the same chairs as waiting room chairs, they are just different colors than the waiting room chair norm (which tends to be blue or gray). Hence, these visual cues are very important—and color is important. Simply choosing lime green instead of dark blue gives students an entirely different impression of a computer lab than that of an institutional, usual computer space.

Choosing color is not necessarily simple, but I hesitate to prescribe certain colors to create certain effects. I suggest simply choosing a color palette for the
walls—it doesn’t necessarily matter what these colors are so long as they are not white and gray. Others are more prescriptive. For instance, in his 1987 guide for designing learning spaces, Knirk summarizes various studies concerning the use of paint and color in classroom. He concludes:

The selection of paint for classroom walls or the color of paper for texts influences learner attitudes and ability. If arousal or activity or discussion is desired, select bright hues in active colors such as red, yellow, orange, or rust. For calming students or inducing them to reflect or integrate information, use dull shades or quieting colors such as blues, greens, gray, or beige. (p. 32)

The Suite Lab uses a combination of active and quieting colors (orange, yellow, and green), though not with these purposes in mind. It's difficult to say whether the colors actually have these specific effects on student audiences; the colors do however, have the rhetorical effect of looking different than other work spaces on campus, thus causing students to reflect on why it is different. In this way, the principle of attention works rhetorically in computer lab design.

Designing for Clarity
The third rhetorical design principle for collaborative student use is designing for clarity. We want students when they enter a collaborative lab space to easily, and as quickly as possible, understand how the space should be used. When students don't understand a space, they are likely to exit the room instead of working to figure it out—there are, after all, many computer labs on a university campus. We need to make an argument that is easy to understand for collaborative use. We can achieve this clarity of design through zoning. In effect, zoning is about taking a huge space (like an entire classroom or computer lab) and breaking it up into multiple smaller spaces visually. These smaller spaces are important in order to meet the multiple student purposes and uses for the overall lab space.

In most labs, as many computers as possible are crammed into the room, causing computers to be set up in rows. (See Figure 3.5.) The designers of this space chose to place partitions (some larger than others) between the desktops. Each of these aspects encourages individual work. According to one student, the partitions “are a suggestion that students shouldn’t talk to one another” in the space; and they work pretty well to enforce this assumption—you can’t even easily sit with another person at one of these computers. You’ll notice that none of the students in this picture of Ag 119 are looking at one another. Above all, you’ll notice that this whole room is zoned for individual work within individual work stations. Figure 3.6 (not to scale) shows that there are about five different zones in the Suite Lab.
The first zone is the two tables with desktops in the center of the room. These spaces could be individual or group spaces. They work well for individual work because of the space between desktops—students have significant personal area for their belongings. Of course, this amount of space can also lend itself to sitting next to group members comfortably, which could encourage collaboration.

Figure 3.6
Zones in the Suite Lab
in the space. In the upper right is a couch area where students can use laptops or just chat. The desktop in the lower right is separated from the rest of the room and would work well for individual work because of this seclusion. The two desktops by the door work for individual use (primarily for printing, because they are high tables intended for students to stand when using). Finally, there are the two tables at the left, which can also be used as desired by students. There is other furniture in the room as well that can be moved into one of these zones are used to create a new zone within the larger space. The key to creating these zones, really, is having enough space visually between the smaller zones for the illusion (or student interpretation) of privacy in the space. The amount of space necessary for this interpretation varies and is best determined through trial and error. The key to making the zones work is for them to be clear—students need to be able to easily interpret the space's purposes. Ultimately, the student audience will (rhetorically) analyze the space to decide how its attributes can help them (or not help them) accomplish their purposes.

For both ease of use and clarity, the zoning in the Suite Lab has been adapted through trial and error. For instance, the desktop area in the center of the room used to have four desktops per table. Students complained that they felt too close to other students in the space and were uncomfortable; they especially felt that they needed more leg space. This led to moving two of the desktops from each center table onto tables around the outside wall. Students like the change a lot, though it is interesting to note that they are still just as close
to the person across the table from them as before, and they still touch legs occasionally. However, students perceive more personal space because they do not see people sitting on their perimeter on the right and left sides of the table. The visual illusion of space on the desktop area seems to have placated students and convinced them that they have more overall space so they feel less crowded. This might be because they cannot see the face of the other person using the table as well. Hence, the visual illusion of having more space to oneself makes it seem like an individualized zoned space. Students do not have much more actual physical space, but they interpret their personal space as being larger because of the rhetorical positioning of objects in the space.

In addition, students used to think that there were only desktops in the Suite Lab because the laptops were kept in a locking laptop case (for security reasons) until they were needed; they weren't visually obvious. Posting signs about laptop use did not solve this problem; placing a few laptops out on desks (and cablelocking them to these desks for security purposes) did. When students could actually see the lab-provided laptops sitting on a table (even when they were in use by another individual), they (rightly) interpreted that the lab had laptops for student use. Hence, designing for clarity is not always easy and requires attaining feedback from students on what works and what doesn't work. Without this feedback, we cannot know for certain how our audience is interpreting our rhetorical design messages.
Some people may worry that because of the space devoted to visually dividing the room, there aren't enough computers in the lab for student use. Overall, including laptops, there are roughly the same amount of computers in 102 (the computer lab portion of the Suite Lab) for users as before the redesign—when we include the laptops from 101 (which can be brought into the lab and used by students, 101 is the computer classroom portion of the Suite Lab), the number increases significantly. Because of the use of laptops, then, there are just as many if not more computers in the space now than there were before.

The space used to visually divide the room into zones is important enough to warrant having fewer desktops or computers overall, though this is not the case. These in between spaces work to create the zones so that students can fit their whole group in a space comfortably. One student noted:

In other labs the atmosphere is very impersonal and people generally do not talk to each other. I think this is because of the way the computers are generally set up too close to each other or completely away from each other. It is awkward when complete strangers have to share a tight space. In the Suite Lab the computers are arranged with enough room that visitors do not have to feel crowded or awkward.

And, as I described before, we've had to evolve the Suite Lab (using student feedback and observation) to the point where it is now so that students don’t feel awkward.
Because of this zoning, students can work together without crowding others, both students in and not in their group of workers. In a sense, they have control of their boundaries, though these boundaries are visual and not really physical. This same design principle is at work in the library in the small study rooms. The rooms have glass walls so others can see in, and not all of them have doors. Hence, others can see and hear the people in the room, but it creates an illusion of a boundary so students feel more isolated and thus more free to collaborate and talk (see Bemer et al., 2009).

In addition, the Suite Lab has spaces without computers (like the couch area on the south side). This lack of computers visually suggests that the space has more possible uses than simply working individually like in a normal computer lab. It is also clear, because of the lack of computers and presence of comfortable seating, that the space can be used for purposes other than writing. For example, students noted that this area has become a hub for more casual conversation, though class-related talk also happens there. Overall, one student noted that “the way the furniture is arranged, everyone is secluded enough to get their work done, but close enough to talk to others if they want to,” in the Suite Lab. The visual separation of zones rhetorically creates a belief in users that they are in a private space where they are not interrupting people. The visual separation also creates a clear argument for multiple uses of the space—because there are multiple types of arrangement of these spaces. Of course, these spaces are not actually private—others can still hear what they are talking about
and see what they are doing. The zones also add to the community aspect in that
more people can see what you are working on (because of the open space around
the desktops)—which, as I discussed earlier, may lead to more actual work
getting done in the lab through a sort of community reputation students feel the
need to uphold. Because of the spaciousness between computers, screens are
more visible and students may want others to see them working instead of just
goofing off. Hence, the clarity of the zones works in combination with the
specific audience dedicated lab space to make a space where not only
collaborative work might take place, but more productive work overall might
take place.

Conclusion

"The physical spaces we design for students to work in say a lot about
what we think of the activities that take place within them" (Bemer et al., 2009).
Hence, if we as English scholars believe that writing is a social endeavor, we
must provide spaces that students are free to collaborate in. The three rhetorical
design principles in this chapter—designing for specific audience, attention, and
clarity—contribute to the success of the Suite Lab, a large part of which comes
from students’ willingness to collaborate there. Indeed, my research indicates
that the space in the Suite Lab makes a rhetorical argument for student
collaboration. These principles make the space seem casual—and, as a lab
consultant noted, if you want students to talk to one another, creating a less formal space is a must. Huge, formal spaces can be intimidating and thus silence students, something that we in the English department especially don’t want to have happen. The environmental, visual cues that a computer lab space presents to students ultimately affects what happens in that space. Students who enter a lab crowded with computers and lacking personal space (see Figure 3.5) are going to end up working individually or browsing the web, also an individual activity. Even if they want or need to collaborate, it’s strongly discouraged by partitions, institutional colors, and the lack of an actual visually “easy” place to collaborate. The space in a lab filled with rows of desktop computers with dividing partitions actively discourages collaboration by making it physically uncomfortable.

In contrast, the Suite Lab causes students to approach the space itself differently because it is not set up individually. Through designing for clarity with zoning, the space visually has more options for use and because of the familiarity of the dedicated space and its specific audience of occupants, as well as the unconventional colors, students seem more apt to take advantage of what the space offers. Hence, creating a space that explicitly and clearly shows students their work options (and having a space that actually offers these options) is perhaps more important than having one computer per student. Not all work that takes place at a university involves one person and one computer,
so it doesn’t make sense to design all student computer spaces with this assumption in mind.

We need to design spaces that allow students to take control of their learning like we as professors hope they will in our classes. The Suite Lab, as a multi-purpose computer space for students, suggests a step in this direction. If we believe collaboration is important for our students, we must design spaces for them to collaborate in. If we want to attract students to our campuses, we need to rhetorically design these spaces for student use and make these intended uses obvious visually through designing for specific audience, attention, and clarity. Just as the Catholic Church designed their cathedrals to both awe and inspire as well as teach its congregants, we need to rhetorically design our computer labs to serve multiple purposes as well. In the case of the churches, they managed to both teach and awe (while providing necessary light as well) through the inclusion of beautiful stained glass windows. In the case of the computer lab, through the use of these rhetorical principles, we can use and place computers and furniture in ways that both visually encourage and allow for collaboration through use of color (and the rhetorical principle of attention) and zoning (the rhetorical principle of clarity), for instance. Computer labs are designated as computer labs largely because they contain computers for student use. Churches are designated as churches because they are places of worship for a congregation. Catholic churches, with their stained glass windows, are strikingly different than other types of churches, Latter-Day Saints’ meeting houses that (in
general) don’t contain stained glass windows, and as such, present a different rhetorical message to their audiences. It is my hope that we can and will design computer labs that produce specific, intended rhetorical messages as well. My research in this chapter has given us a direction in which we can pursue more study, helping us better understand the relationship between design and student behavior and allowing us to more effectively design collaborative computer writing spaces.
CHAPTER 4
CREATING ENTHYMEMATICALLY FLEXIBLE
COMPUTER CLASSROOM SPACES

The PC-filled room, though it may be with us in some places for some time, is a stage in our evolution as writing teachers. When and if most of our students have access to computers in dormitory room or home settings, the computer-equipped classroom will seem much less necessary than it now does to writing programs.

Charles Moran

In the late ’90s and early ’00s, computer classrooms, while certainly in use, were not seen as a permanent fixture in writing programs. As quickly as they were introduced, some surmised, they could be pushed aside for the next trend in writing technology. Or, as computers become more affordable, more students will have their own computers and it will not be necessary for writing programs to supply computers in the classroom (Moran, 2001). And yes, today, personal computers are much more affordable and have become ubiquitous amongst our students. This has not, however, spelled the demise of the computer classroom, and it won’t for at least two reasons.

First, the affordability of computers has made writing with technology an act that is so commonplace that some students do not even take handwritten notes in their classes, preferring to type instead. Yes, students are bringing laptops to their classes and many more have computers at home. Computers are seemingly everywhere. This brings us to point two: the affordability (commonness) of computers has influenced writing teachers as well as students. Teachers have evolved their writing assignments to the point that research on the
Internet is frequent and they frequently show and share online examples in class. Some teachers also require electronic copies of student documents, some because digital copies of papers make it easier to check against plagiarism, and others because certain assignments (like writing for and designing websites) are inherently digital and make little sense contextually when printed out.

But, if students have computers themselves, even if assignments are digital, the university would not necessarily need to supply computers in the classroom, right? However, the software students use when they write has advanced to the point that, while many have computers, they don’t all have the software they need to complete their website for a writing on the web course, or to manipulate images and charts they want to include in a research paper. And because of these reasons, writing programs still have computer classrooms. Perhaps because the computer classroom was not seen as a permanent part of writing programs, the design of these spaces still limits our pedagogy. Perhaps these spaces are just difficult to design (and they are). Whatever the case is, we are still working on designing computer classrooms to make them useful, usable spaces for instructors across a writing program. Computer classrooms are not going anywhere. We still have a need for them, and we will continue to have a need for them—which gives us a need to conscientiously and intentionally design these spaces to fit our needs as writing faculty. Again, as with computer labs, we need to intentionally and rhetorically design computer classrooms to be spaces that are easily interpreted by and work for their users.
Successful computer classroom design is often thought of as design that accommodates technology. As instructors, however, we should instead focus on design that accommodates pedagogy. If pedagogy is supposed to lead technology (see Cargile Cook, 2005), it follows that pedagogy should be more important than technology itself in the design of a classroom. Hence, we need to stop building these computer classrooms ‘around’ the technology and instead focus on incorporating technology into our pedagogy-focused classroom designs. Overall, we use computer classrooms (or any classroom, for that matter) as places of learning—we must have spaces that are conducive to this goal.

And, when it comes to learning, the physical environment in which learning takes place matters. According to White (1972), “general estimates indicate that while about seventy-five percent of learning is accounted for by motivation, meaningfulness, and memory, the remaining twenty-five percent of learning is dependent upon the effects of the physical environment” (p. 4). Despite this estimation of physical space’s importance, classroom design has not been given much attention in the scholarly community. One problem is that overall, we as scholars and teachers don’t necessarily agree on what constitutes good or effective pedagogy. These differences of opinion over pedagogy lead naturally to disagreements over classroom design, making the job of designing classrooms for a diverse department exceedingly difficult.

As for students, they seem to take classroom design at face value. Intriguingly, students are apt to merely accept poor classroom design. Though
this lack of contention or hostility over poor design choices seems like a good thing, minor irritation over time may lead to a negative feeling (and negative evaluations) towards the class and instructor overall. In a 1976 study, Gifford discovered that students are more likely to simply tolerate and work around in hospitably designed classroom environments than to move furniture or try to adjust their surroundings. And when they did attempt to move furniture, it was because they could not physically fit through a space. He recounts “all the observers noted student efforts to avoid moving the furniture, such as grunts, swiveling of hips, and willingness to line up for passage through a tight squeeze” (p. 7). He notes that the furniture remained “magically immobile” through 238 attempts of people to pass through the space. When, a week later, students were asked about the experience, only one recalled the problem. While discussing it, one student suggested “that perhaps the tables were ‘supposed’ to be that way” as reasoning for why they didn’t move the furniture to make it easier to maneuver around (p. 7). Gifford goes on to posit that discomfort caused by classroom furniture, over time, can be detrimental to learning. He suggests that when students are disgruntled with the furniture arrangement in a classroom, they’ll “ascribe [this disgruntlement] to whatever is most handy—the teacher, the school, their classmates” (p. 7).

Poorly designed classroom spaces, then, make for irritated students. Why won’t students just move the furniture in the first place, one might ask? This simple act might clear up a lot of classroom dynamic issues, after all. In an effort
to explain the phenomenon of the “magically immobile” furniture, Gifford hypothesized that “in student perception, institutionally owned furniture is not a part of the student’s personal area of control” (p. 7). Thus, students don’t necessarily feel they have control in classroom situations—it is, after all, the teacher’s place to instruct students; it makes sense that they would feel this person, or the institution she represents, has physical control over the space as well.

Students are not the only ones who feel powerless over the design of the classroom; many instructors do as well. Despite student perceptions of instructor control of the space, many instructors actually feel they have to subvert the space in order to use it. Walls et al. (2009) use hacking as a metaphor for how instructors rework “the spaces in which we teach, which are often less than ideal and often do not complement our pedagogical approaches” (p. 270). They describe institutional computer classrooms and labs as designed for “efficiency” with rows upon rows of computers crammed into a room (p. 270). Of course, in this same article the authors describe a way of hacking the room to truly be changing your teaching style to accommodate the room, which seems to not actually subvert the design at all.¹ Suggestions that we should simply “work with” (p. 283) a room seem to suggest that we should let the room itself dictate our pedagogy. I disagree. As teachers of writing, our pedagogy must be supported by the space surrounding us or it will be less effective.
If we are not to let technology dictate our pedagogy, we shouldn’t let the space we teach in dictate our pedagogy. For years, the space constraints of technology have limited our pedagogy (particularly the pedagogy concerning technology). However, we have reached a point in our creation of technology in which the technology itself is less cumbersome (e.g., laptops now have as much processing speed as desktops, and are more portable than ever before). We have reached a point in which we can ‘take back the room’ and control the space.

And, as I argue throughout this dissertation, the space does matter. Studies suggest that people have “commonalities in responses that make the physical environment a matter for attention” (Fulton, 1990, p. 8). Similarities in audience response to spaces indicate that space is rhetorical and can be an argument. However, different teachers want their classrooms to evoke different responses from students; a particular classroom design may support one instructor’s pedagogy while it silences another’s pedagogy. We need to intentionally and rhetorically create spaces that can work for as many pedagogy styles as possible to take back control of our teaching. end, I will first discuss the role of the enthymeme in classroom design. Then, I will outline three common

1I argue with this use of the word hacking. Hacking implies changing something. If you actually work around the room, you are not changing the room. Instead, the room is changing your pedagogy. In essence, the room is hacking your teaching style.
computer classroom designs and the pedagogy they each support. Finally, I will discuss how we can design enthymematically flexible rooms to support multiple pedagogies across a writing department and take back the computer classroom.
The Role of the Enthymeme in Classroom Design

The enthymeme has long been a useful rhetorical concept, going back to the writings of Aristotle. He (1984) first described it in the Prior Analytics as “a deduction starting from probabilities” (p.112), and in the Rhetoric, he (1991) notes that it is “a sort of syllogism” (p. 33). Kennedy, the work’s translator, explains that the difference between a syllogism and enthymeme lies in the premises: “A valid syllogism in the technical sense is a logical certainty... [but] ‘few’ of the premises are necessarily true... [but instead] only probable” (p. 33n). Thus, while the syllogism leads us to certain, logical truths, the enthymeme is the tool for investigating probable knowledge. There are two aspects of an enthymeme that make it a useful rhetorical principle to guide our analysis of classroom design. First, as opposed to the syllogism’s inescapable logical conclusions, the enthymeme is the rhetorical route to probable knowledge. No matter how much investigation we do into the topic, classroom design will always be in the realm of probable knowledge: different teachers with different pedagogical styles will want different classroom designs, and each person will be right in their desires. Designing a room for multiple teachers will never be a situation in which we find the “right” answer; we will always be dealing with probable knowledge.

Second, the enthymeme, as Gage (1984) described, is a place where the rhetor brings the audience into the argument: “the premises which go into making it are derived from, or contributed by, an audience which does not
already share the conclusion” (p. 157). As noted above, classroom design is not a place where there can be a single conclusion: rows, pods, or one big circle are all right answers depending on the teacher in question. If we, as designers, can use this rhetorical principle, we can create a classroom where we work with the individual professors, allowing them to contribute to the design of the classroom, helping us find the right conclusions for each pedagogical situation. Indeed, I argue we should view design as an opportunity for enthymematic flexibility. This enthymematic design will bring each member of the department into the design process, giving us classrooms that can be built around each teacher’s pedagogy. In the remainder of this chapter, I will describe the most common pedagogies and the classroom designs that accommodate them; I will also explain how we can implement a flexible, enthymematic design that will allow for all of them in a single room.

Traditional Computer Writing Classroom Layouts

When computers were first introduced into the writing classroom, many believed that new pedagogical styles would be developed according to these
technologies. Soon after, as explained by Hawisher et al. (1996), instructors learned that the pedagogy privileged by the technology generally interfered with that of the instructors. This conflict was largely created because technology was introduced into the classroom without consideration of design of the space or teacher pedagogy (p. 202). In fact, "the majority [of universities] have simply bolted new technologies onto an existing set of physical facilities, a faculty already in place, and an unaltered conception of classroom instruction" (Twigg, 2003, p. 24). Hence, though we were changing classrooms by putting technology into them, we did not always actually change their design and their pedagogical possibilities for the better.

Over time, computer writing classrooms have come to have three traditional layouts: rows, the circle, and pods (see Boiarsky, 1990; Handa, 1993; Hawisher and Pemberton, 1993; and Palmquist, et al., 1998).

**Rows**

In essence, the row design (see Figure 4.1) is a hierarchical, teacher-centered design (Handa, 1993, p. 106). It reinforces the “sage on the stage” style of teaching in which a professor stands at a lectern and espouses knowledge of a topic. When students are sitting in rows, they are all facing the instructor. This arrangement is useful for teachers who often lecture or want students to follow their actions on the screen.
The row style has an economical reasoning behind it; it can simply fit more desktop computers into a classroom due to the arrangement of the rows, a purpose that is easily recognized and appreciated by both instructors and students (Walls et al., 2009). It is useful and financially efficient to have as many computers as possible in the space (especially for individual work).

In essence, the row style reflects the habit of putting technology in a space without significant pedagogical forethought (Twigg, 2003). The drawbacks for instructors who don’t lecture often are numerous. When tables are arranged in rows, instructors and students can have difficulty moving around the classroom (Gifford, 1976; Walls et al., 2009). This difficulty is exacerbated by desktop computers that are placed underneath tables and connected to monitors via cables and by students who simply like to lean back in their chairs, taking up valuable walking area. Instructors are also unable to actively monitor students’ computer use in this setup; though instructors are easily visible by students, students are not easily visible by instructors. Thomas (1993) referred to this teacher-centered design as a lab design—a statement that brings with it the implication of rows of computers—instead of a classroom design—suggesting, perhaps, that it is best suited to individual rather than group work and that it does not encourage interaction between instructor and student, or even student and student.
Figure 4.1
Computer classroom row formation

The peninsula design (see Figure 4.2) is an offshoot of the row design—computers are still laid out on long tables, but they are perpendicular to the
instructor and are placed on both sides of the table. Students are not directly facing the instructor, but it is slightly easier for her to walk around the room. Computer desktops are placed back to back on the table in a way that still favors individual work (because computers are close enough that multiple people can’t easily fit in one computer space). A computer classroom might be designed in this way to accommodate the instructor’s desire to move physically throughout the space. Unlike horizontal rows, these vertical (to her vantage point) rows allow her to see some of what the students are doing on their computers. In rooms that are not square, this formation may work more easily than rows. In addition, cables are not directly exposed to the room because all computers are backed against either a wall or another computer. This hidden cable aspect creates a sense of safety so far as threats of easily disconnected cables are concerned.

Circle

The next traditional layout is the circle design (see Figure 4.3); computers are lined up around the perimeter of the room facing outward. This design allows for freedom of movement for students and the instructor; the instructor can easily walk around the room to interact with students individually (Gifford, 1976). However, students cannot look at their screens and watch the teacher simultaneously – students are forced to choose one or the other and in an
Peninsula formation environment where students might try to multitask (say by taking notes on the computer and looking up research or, perhaps more likely, checking their email.
while the instructor is talking, student attention is likely totally lost—this can make it a poor design for lecture-based classes. When students turn towards their computers they turn away from the class, essentially cutting themselves off students from the rest of the class (Palmquist, Kiefer, Hartvigsen, & Goodlew, 1998). This isolation can be mediated by having students not use their computers and turn towards the center of the room, but this action means students cannot use the computers at all during class discussion.

Where the circle design is effective is with process pedagogy. Process pedagogy, as its name suggests, views writing as a process. Flower and Hayes suggest that writing is “a problem-solving, cognitive process” that doesn’t work the same for every individual (1980). This process might include free-writing, brainstorming, and multiple drafts, for instance. When much of a class is focused on the student writing and eliciting responses on that writing from others, as is the case with process pedagogy, it makes sense to have the students face outward. Then, the instructor can easily move around to speak with students and can easily see their monitors. “Process pedagogies…devote most class time to responses to students’ works-in-progress…and to writing exercises” with less time to class discussion (Tobin, 2001, p. 15-16). And, when this class discussion happens, it will be centered on writing prompts that don’t require computer research to discuss—making it useful for students to not be facing their computers at this time.
Figure 4.3
Circle formation
A variation on this design calls for the computers to face inward, with the desks outlining the room, but not up against the wall. There’s a large center space for the teacher to walk in and students can see one another, though desktops would of course still block their view. When in the center of the class, the teacher cannot monitor student computer use. She is also prohibited from assisting students with their computer-based work because she can’t see their screens from the center of the room.

Pods

The third traditional layout is the pod design (see Figure 4.4), in which computers are situated around tables (facing inward). These tables might be circular or rectangular. The pod layout exhibits student-centered elements by generally situating the instructor station among the students’ stations—this location dissolves the hierarchical pedagogy of teacher-versus-student somewhat. The small inward-facing circles associated with pods are similar to the newsroom “bullpen” style discussed by Boiarsky (1990) and Hawisher and Pemberton (1993) in which people on computers often interact with others in the room. Handa (1993) argued that pods encourage student interaction and a teacher-as-writer atmosphere. This layout could be considered conducive to group work as students are physically zoned into specific groups (see Chapter 3 of this dissertation). However, depending upon the style of the teacher (for
instance, whether she frequently walks around the room or stands by a lectern or computer) some students will not face her and they also may have general line-of-sight issues during class discussions (Handa, 1993).

Collaborative pedagogy can be supported through the pod design. Collaborative pedagogy is based on the idea that knowledge is constructed socially; students work together to construct this knowledge and learn (Bruffee, 1984). In a wider sense, collaborative pedagogy has some basis in social construction theory, which theorizes “entities we normally call reality, knowledge, thought, facts, texts, selves, and so on are constructs generated by communities” (Bruffee, 1986). Hence, collaborative pedagogy emphasizes group activities.

Small group pedagogy is one aspect of collaborative pedagogy. According to Howard, “one of the guiding principles of small-group pedagogy is for the teacher to relinquish control” (Howard, 2001, p. 59). With the pod design, it is easy for the teacher to sit amongst students and decentralize her figure in the hierarchy of the classroom. In essence, with collaborative pedagogy, she becomes a “facilitator” (Howard, 2001 p. 59). With students sitting in pods, they are already physically grouped, which gets past student reluctance to move, as discussed earlier. Assuming the use of laptops, which I will discuss later in this chapter, students can make eye contact with others in their group and easily see and hear them. In addition, with larger, longer assignments that span a length of time, having students sit with their groups in pods encourages them (and allows
Figure 4.4
Pod formation
them to easily) check up on group progress and discuss the project often, particularly with hierarchical collaboration in which work is divided amongst the group (Howard, 2001, p. 65). With dialogic collaboration, where students work together on all parts of a project, the physical proximity provided by pods is a necessity. Though students can still sit next to one another in rows or the larger circle, the desk space is inconvenient for all students to use, which may dictate having one student in charge of a computer while the others merely watch—a practice that (while necessary and appropriate at times) can be counterintuitive to collaborative pedagogy.

Advantages of Rows, Circles, and Pods

Overall, each of these designs has its advantages. Rows allow for easy line-of-sight between students and the instructor. Peninsulas allow computer cables to be safely hidden out of sight. The circle formation lets the instructor walk freely to each computer station and see what is on each monitor at all times. The inward circle also allows freedom of movement, though without the ability to see monitors as easily. Finally, the pod formation helps students to easily form groups for class assignments. Of course, any of these designs may or may not be ADA-compliant depending on room size and desk size, an important issue to consider so that all instructors and students can use the space.
Circles (of the inward-facing variety) are often used by instructors of discussion-based literature and composition courses. Dr. Brian McCuskey, associate professor of English at Utah State University, uses the circle method so that students can see each other in class when they are having a discussion. In his experience, class discussions are aided by the class actually being able to see one another—this allows for back and forth discussion and acknowledgement of ideas. In his literature courses, the teacher does not need to be able to see the technology because the students do not use technology—its presence in his courses is unnecessary and distracting (McCuskey, personal communication, 3/18/2010).

Smaller group discussions and collaboration also call for students to physically see each other, but in a closer way than the large group circle—generally, pods work for this purpose. For example, technical writing classes often have collaborative writing projects. In these instances, pods are seen as useful for student grouping. Laura Vernon, a graduate instructor who teaches professional and technical writing, likes to arrange her classroom in this formation. “You can put students in pods and they can work in groups,” she states. She has found that these formations of tables work especially well with laptops because “desktops would get in the way of effective group interaction; so the combination of the movable tables [in pods] and having the laptops really facilitates social interaction…I don’t lecture; we talk.” Vernon has found that inward-facing circle formations are useful for class discussions, but her classes
tend to be dominated by smaller group discussions and projects, which makes
the pod formation one of her most favored (Vernon, personal communication, 3/13/2010).

The Permanence of Design, or, Desktop Design

These classroom designs are made more obvious (and permanent) by the
placement of desktops on the tables. The size of desktops makes certain choices
more viable than others—for instance, the circle design gets the desktops out of
the way of traffic and does not hurt line-of-sight. And there is a decided bias
towards desktop computers in computer classrooms, be it intentional or not.
Niemeyer, the man credited with coining the term “smart classroom,” describes
multiple types of computer classroom layouts based upon his years of experience
consulting on the topic (2003). Of the computer classroom² layouts Niemeyer
specifically discusses in his book, five out of the six involve university-supplied

²I make an important distinction here between university-supplied computers
and student-owned computers. A computer writing classroom, in order to be
termed a ‘computer’ writing classroom, should have computers for all students.
In a non-computer writing classroom, some students may bring their own
laptops to class—I distinguish the computer writing classroom as the former
because it is a computer space that has been deemed a computer space by the
university, hence, it is an intentional computer writing space, or computer
writing classroom.

desktop computers and involve reasoning as to how to arrange the room to get
rid of line-of-sight issues with these computers (for instance, in one case he
suggests using risers to see over the computers) (2003, p. 70-73).
With desktop computers, designers must choose one of these designs and hope for the best—that it will accommodate instructor pedagogy and help to enhance her teaching style and the learning of students. After all, that has been a goal in incorporating computers into writing classrooms (see Hawisher et al.). However, this goal has not been achieved consistently. According to Twigg (2003), "comparative research studies show that, instead of improving quality, most technology-based courses produce learning outcomes that are only "as good as" their traditional counterparts—what has come to be known as the "no significant difference" phenomenon. By and large, colleges and universities have not yet begun to realize the promise of technology to improve the quality of student learning" (p. 24).

While design of the classroom is not the only problem that has stood in the way of achieving this goal, it is one hurdle. Instructors have little control over these spaces, and as such they may have problems incorporating the technology and design into their teaching styles.

In many traditional classrooms, teachers can ask students to move desks (though obviously not in all classrooms—sometimes the desks are bolted down). In a computer writing classroom with desktops, this is not possible. While tables might be movable, the large computers sitting on them, wired to the wall, are not. In addition, the act of wiring the computer to the outlet itself might suggest a sense of ownership by the school that students respect and defer to in placement of furniture and technology.
When this is combined with the overall lack of desire students have to move the furniture (for whatever reason), students will work around a space and simply complain about it (see Bemer et al., 2009; Gifford, 1976). While instructors sympathize with their students’ plight, they are often just doing the best they can with what they’ve been provided.

Many universities are making attempts to design more flexible classroom spaces. Some, called “Scale-Up” classrooms, have some common features:

- tables to facilitate group interactions (usually round, 6' or 7' in diameter)
- white boards around the room and/or for each group
- teacher station near the center of the room
- networked laptop computers (Chism, 2006)

These classrooms are fairly successful. For enthymematic flexibility, I discourage the use of round tables over rectangular or square tables so that the tables can be arranged in a way that everyone is facing the front of the room if so desired.

**Enthymematically Flexible Design**
There is a considerably large movement within professional communication, as well as rhetoric and composition, to allow pedagogy to guide technology use. The obtrusive nature of technology in the classroom makes this action difficult, if not impossible. Technology in today’s computer classroom cannot be avoided—it is simply there, right in front of us, sometimes blocking our view. Technology guides pedagogy in this way—when we have to work around a room or change our plans to work with a room, as Walls et al. (2009) suggest as a way to “hack” the space, we are allowing technology to guide pedagogy (p. 283). In essence, deciding “not to fight the space you’re in but rather to use it” is the same as letting the room designers tell you how to teach your class (Walls et al., 2009, p. 283). We enter a room that has a predetermined arrangement, be it rows, pods, or a circle and we have to deal with this arrangement. We modify our plans to make it work. If we want students to collaborate, for instance, and we’re in a row-based room, we may make our groups smaller and force students to all work on one computer and see this as a viable compromise (see Walls et al., 2009, p. 283).

Computer classroom administrators, who design and run the space, understand this difficulty teachers have because, in general, they are teachers as well. However, when it comes down to ordering technology and designing the room, they tend to favor practical fiscal concerns over ideal pedagogical aims (Williams, 2002). In a survey conducted of computer classroom administrators in writing programs, “respondents almost unanimously stated that pedagogy is,
ideally, the most important thing, while in practice it isn’t nearly so important, as almost half the responses barely consider pedagogy a concern at all” (Williams, 2002, p. 348). Hence, we all know what we should be doing, the problem comes with the practicality of actually doing it.

To allow for the concerns of the administrators and the goals of the teachers, I propose that with the current state of computer technology—laptops are more advanced (capable of running more programs at the same speed as desktops) and are fiscally responsible—that laptops provide a new avenue towards reaching our ideal pedagogical aims for computer classrooms. The best way to accommodate as many instructors’ pedagogy styles as possible is with an enthymematically flexible computer writing classroom. Following the principle of Aristotle and Gage’s enthymeme, we design a computer classroom in such a way that each teacher has the ability to redesign the room for her own pedagogical style. Just as an argument needs to be flexible and a rhetor must adapt to the audience in each case, so must our classrooms have the flexibility to change with each teacher and each class. There is no one-size-fits-all argument, and there is no one-size-fits-all classroom.

In essence, an enthymematically flexible computer writing classroom consists of movable (wheeled) tables and chairs, as well as laptops in the place of desktop computers. In Blackett and Stanfield’s Planner’s Guide to Tomorrow’s Classrooms (1994), they suggest three principles from which to design classrooms: (1) plan for the full range of teaching methods, (2) plan for change and flexibility,
and (3) focus on the exchange of ideas and acquisition of knowledge. These three principles are repeated in various forms throughout literature on computer classrooms as vital aspects; these principles are certainly important for a computer writing classroom. The enthymematically flexible, laptop classroom allows for a full range of teaching methods, flexible and changeable design, and can focus on the exchange of ideas and knowledge (as opposed to a focus on obtrusive technology when it is not needed).

Of course, enthymematically flexible design is not a perfect answer to the difficulties instructors with different pedagogies face when entering a classroom. Students are still disinclined to move the furniture, though it is not impossible to convince them. In a recent study of a computer lab with movable furniture, students were reluctant to move furniture in the room at first despite encouragement and modeling by lab consultants (Bemer et al., 2009). However, over time students took ownership of the space and became more willing to move the furniture. The increased familiarity that comes only through repeated use “allowed students to embrace the mobility of the space” (p.161). Thus, with the passage of time, students became more familiar with the new space and understood the difference in attitudes regarding moving furniture, lessening resistance. It follows, then, that over time this new space will be more actively used by students and instructors. However, changing the layout of a flexible room takes time. Hiring and using lab consultants to arrange the classroom between classes and hand out laptop computers is one way to lessen time loss. In
addition, this way students and instructors are not ‘put out’ by having to move furniture—instead, someone who is paid will do it. In addition, having students working in the space for the university may make other students able to more easily picture themselves moving the furniture, and thus be more willing to do so.

With the enthymematically flexible design, the incorporation of technology itself remains the same hurdle it has always been. Instructors will need to continue to thoughtfully incorporate it into their pedagogy as they see fit. However, instructors will have more time to do this incorporation when they no longer have to take time to work around the room’s physical space. Technology will also be less of a physical hurdle. It will also be less of a necessity—though technology is present in this room, it does not have to be used or even seen. Like pencil and paper, laptops can be put away out of sight if the lesson does not call for their use or they can be physically closed so that students are not distracted by the screen.

Enthymematically flexible design and the use of laptops allows for easier change in the future. As computers change, new laptops (or their new equivalent) can be purchased and easily brought into the computer writing classroom, particularly since they will not need to be physically installed (though they will need some sort of case for storage, like the laptops). The use of netbooks is encouraged as a point of future research here; at this time, netbooks are relatively inexpensive and can accommodate most writing activities. They are
also even smaller than laptops, which makes them one of the least visually obtrusive technology of all at this time—of course, smart phones are even smaller. Though some balk at the small size of the screens, it is possible to dock the netbook (like a laptop) to a larger monitor for viewing. The furniture, because it is movable, should still be useful and usable in the future (unless there are major innovations in tables and chairs that warrant change). Overall, through the use of mobile technology we can disconnect the technology from the furniture, which allows us to update one without changing the other—this ability allows for flexibility and the incorporation of new technology without a complete redesign of a room.

Some argue, however, that designing flexible computer classrooms is financially impractical. According to Niemeyer (2003), an expert on designing computer classrooms, “flexibility is one of the primary considerations when designing classrooms, but it would be prohibitively expensive to create every classroom to meet every possible need. A practical and frequently employed alternative to having every classroom be totally rearrangeable for each class is to create a variety of different types of classrooms” (p. 9). I argue this point. In 2003, the year Niemeyer was writing, this design may have been financially impractical. However, seven years later, the English Department at Utah State University has achieved this goal. If it were financially impractical, the Suite Lab would simply not exist. When comparing equipment and furniture costs, the flexible, mobile space was financially comparable to a fixed desktop design. In
essence, it is quite simply computer spaces themselves that are expensive, not necessarily flexible or fixed ones in particular.

We must find a way to allow pedagogy to lead technology, not just in principle, but in practice as well. Since there is not a single pedagogy that will be the best for everyone, our design must be able to accommodate a variety of teaching styles; it can best do this by being flexible. My rhetorical analysis of the computer classrooms at Utah State indicates that an enthymematically flexible design can meet the needs of three common teaching styles; a more thorough investigation involving a wider variety of classrooms and more teachers can demonstrate the most appropriate range of flexibility that can be achieved in a reasonable time and budget.

My exploratory research has put us on the path to effective computer classrooms. Smaller, faster, more powerful laptop computers have given us the technology to build cost-effective, flexible computer classrooms, and my research offers us a sound rhetorical foundation on which to build our arguments for administrators. The implementation of the enthymematically flexible classroom will provide our teachers and our students a much more satisfying experience as we all work toward a more successful merging of pedagogy and technology. Looking at the computer classroom space as a rhetorical space allows us to design these rooms in ways that can work for our pedagogy styles.

CHAPTER 5

DESIGNING EFFECTIVE
The physical environment is especially important in peer tutoring.

Leslie Hadfield, Joyce Kinkead, et al.

Every four years, the people of the United States come together in one space with a shared purpose: electing a president. This shared space is the polling booth. Closed off from the world with a curtain, the walls of this space are blank; the sparse nature keeps voters from being swayed—they bring their opinions with them. Each voter gains anonymity in this space, and that anonymity conveys a message. Every voter is the same, and every vote is equal. Each person emerges from this space with a sense of their shared ethos with every other voter.

Equality can be a difficult concept to convey rhetorically through design; nearly every room one enters indicates the power the occupant has over the visitor. A judge sitting above the lawyers, the teacher sitting at the front of the room, or even a receptionist sitting behind an imposing desk: all these positions indicate a certain amount of knowledge or authority that a visitor does not have. Sometimes, though, we want the visitors to a space to feel equal with those who regularly occupy it; a writing center is one of those spaces. It is not necessarily easy to design a space to give this impression, though, and it will certainly not happen by accident. In this chapter, I will analyze the uses of writing centers, and I will offer three specific suggestions on how we might rhetorically and intentionally design these spaces to more effectively appeal to the student users.
Like computer labs, writing centers have, since their inception in 1930 (North, 1984), been places for “collaborative learning,” where the students are not “subordinate to the teacher” (Dugger, 1976, p. 30). Ultimately, the center began as a place without the authority structure of the classroom, where students wouldn’t feel the intense pressure of the classroom and being watched and then graded by a teacher. In turn, the tutors also become better writers from teaching the skill (Dugger, 1976). The role of the tutor can be summed up well by a statement on Michigan Technological University’s Writing Center website: “We look for coaches who exhibit approachability, sensitivity, openness, and empathy” (2010). A tutor is supposed to be a friendly person to talk with about writing, someone who isn’t an authority figure so that tutor and student are on fairly even ground in the center. This sense of even ground, or lack of authority, is an ideal of the writing center that is supposed to help with collaborative learning.

The physical design of the writing center can rhetorically enhance or diminish this desired interpretation of equality. In addition, the design of the writing center (physical and virtual) can affect the perception of the center’s purpose, both by students and faculty. In 1984, Stephen North lamented that “misconceptions are rife” of this space, most markedly by fellow English department scholars and faculty. For instance, he noted that faculty often believe that the writing center is only for remedial writing students so they don’t recommend it to most of their students. All in all, according to North, writing
centers have an image problem. They are not only hard to figure out, they’re also “sometimes physically hard to find” (Leahy, 1990). Through rhetorical design, we can work to diminish these image problems.

The writing center is a physical place on a university or college’s campus—it generally also has a virtual presence online. Most colleges have a writing center in some form, though they appear in different places: sometimes the library, or the English Department, or as a part of an academic services area. For centers that are a part of other larger entities, it is perhaps easy to see how they might be overlooked, misinterpreted, or lost in the wide expanse of a university. However, a large number of these centers are fairly independent entities with their own websites.

Increasingly, we are examining writing centers (and other types of academic service places) as spaces that work rhetorically. In 2004, Church examined the Information Commons (including the Writing Center) at UNLV, and how it worked physically as a space. This analysis examined how the Commons grew to encompass the entire library, and how they organized the space to work for two types (student and community) of patrons.

A large part of the narrative about space in the writing center has been centered on computer use, be it using computers in the center or putting the writing center completely online through an online writing lab. The computer has been a part of the writing education landscape since the early nineteen-eighties, when its acceptance first became common. Scholars wrote about the
effort it took to include computers in Writing Centers so that students could learn to word process when other computers on campus were intended solely for programming use (Harris, 1993, p. 17). At this time, scholars were asking whether to use computers in writing instruction (Hawisher et al., 1996). However, by 1990, Neileub and Scharton report that their Writing Center tutors assumed that everyone used a computer to write or compose text—particularly since all of their institution’s (Illinois State University) writing courses were taught in computer labs (p. 52). Since then, much of the literature surrounding computer use in writing centers has historically revolved around how to use computers in writing instruction, particularly allowing pedagogy to guide technology use—the initial plea for which was issued in 1983 by Kinkead and Ugan and has since been echoed by countless others (p. 5–6.). Scholars further researched this issue by largely looking at different software programs to facilitate the writing process. For example, in the late-eighties Kinkead first reported the use of email in the writing center to facilitate tutoring (1987).

In the midst of this fervor surrounding computer use in writing pedagogy came the concern that all this emphasis on technology was dehumanizing the writing process. Palmquist (2003) notes that in 1995, there was an urging to “foreground the human in an increasingly technological space” (p. 404). George (1995), in particular, stated:

We cannot simply add computers to a writing center any more than we can simply add tutoring to a writing lab. Without a theory of the nature of
electronic communication that elucidates our practice of teaching writing, we are on the road to wonder. (p. 334)

This warning, and others like these, brought forth discussion involving software and hardware that’s appropriate for writing centers. Increasingly, this literature centers on online writing centers or labs, also known as OWLS.

In 1998, Carino echoed Kinkead’s call to let pedagogy drive technology when he asked writing center staff to develop pedagogy that responds to the ways technology changes the world and to, perhaps more importantly, take an active stance with technology use. This call has largely been met through examinations of online writing labs, or OWLS, and how they can be used to meet student needs. DeVoss (2002) heeded this call when she wrote about the Internet Writing Consultancy at Michigan State University, which trains writing center consultants on technology use so they can answer students’ technology questions—from the basic (how to make a web page) to the more writing-focused (how to make a web page that targets a specific audience, for example).

Incorporating active computer use into writing centers is more important today than it has ever been before because of the influence technology has had on the work teachers now ask students to do—like contributing to discussions online or using the Internet to research. DeVoss (2002) notes at least three reasons that strongly argue for the use of computers in the center. First, a goal DeVoss proposes for writing centers is “enabling students to do effective and appropriate research” (p. 180). Including computers (and a tutor for guidance) in the writing
center allows students to access the library research databases and the Internet. Much research is done on the Internet today, including computers in the writing center helps tutors to assist students with this research. Next, she notes that many writing assignments are not print assignments—students may be asked to write for a web site, for example. The inclusion of computers and Internet access contributes to tutor and student discussions and analyses of these types of assignments as well as implementation. Third, she also notes that in the classroom today, discussions may “extend beyond the walls of the classroom” (p. 179), meaning that students may be asked to post in an online discussion forum, for example. Tutors should be able to assist with this writing and the brainstorming process behind just as well as more traditional essays. Ultimately, the way we teach writing is changing, and writing centers need computers in tutoring sessions to negotiate this change. “It is crucial for the writing center to develop pedagogy to respond to the changes that technology generates,” (DeVoss, p. 185) and these changes require the use of computers in writing centers. This need for writing centers to “continually relocate themselves within writing’s changing and expanding world” in order to remain relevant within institutions (Nelson & Wambeam, 1995) will of course not stop at computers, but will continue on as technology changes and the way we write changes.

In 1995, Nelson and Wambeam posited that the concept of placing computers into the writing process was challenging because it was an unknown, but they noted that just because we are not absolutely certain about computer
use and its benefits or constraints, does not mean we should immediately rule it out. They state:

Fear of incorporating an unknown into a pedagogy is again understandable, and caution is sometimes wise. However, pedagogy must keep up with the students’ and institution’s changing needs. We must begin to incorporate technology if for no other reason than our students will force us to change. Students are composing on this contemporary tool using different writing processes, researching in new forums, and connecting critical thoughts in visionary new ways. (p. 140)

Fifteen years later, computer use in the writing process is no longer seen as an unknown—it’s seen as a default choice (at least for students, if not instructors of writing). If students prefer to compose almost entirely upon the computer, who are we to tell them that in the writing center they must go back to writing on paper?

A question that has not been thoroughly explored, however, is the rhetorical effect of having a computer present in the writing center. Since computers have become ubiquitous in the lives of students, scholars seem to have stopped asking questions about the use and presence of computers in physically-situated writing centers, focusing more on the questions surrounding writing centers located in virtual space, or online writing centers. But since “the physical environment is especially important in peer tutoring,” we need to
examine this physical space and how computers fit into this space (Hadfield et al., 2003).

Overall, the rhetorical design of writing centers needs to focus on being a friendly experience for student-clients. The writing center is a rhetorical space—students who go to the writing center need to be persuaded to do so, especially because a majority of writing center clients are first-year composition students, not English majors who like writing. The student experience in a writing center is defined by three moments: before the session, when students first encounter the center and make an appointment; at the beginning of the session, when they first meet the tutor and sit down to discuss their work; and during the session, as they talk with the tutors about revising, reshaping, and ultimately controlling the text. Each one of these moments must be handled thoughtfully if the writing center experience is to be a positive one for the students, and there are opportunities for design at each of these steps.

As with the other computer writing spaces described previously, the design of the writing center will significantly shape student behavior in the space. Therefore, in this chapter, I will posit three rhetorical design principles that can help us more effectively design the writing center (in both its physical and virtual forms) for these three parts of the student experience. Students gain an impression of writing centers before the session, beginning of the session, and at the end of the session. These chronological parts of a writing center session help us to organize three rhetorical principles of design for writing centers. These
three principles can help writing centers to attract and retain student clientele. 
First is the principle of identification. Students need to see that writing centers 
meet their needs and will help them succeed. The second principle is pathos— 
writing centers need to be designed so that students feel comfortable and wanted 
in the center. Finally, writing centers need to employ shared ethos—they need to 
give the student a sense of authority that will enable her to retain ownership of 
her text.

Designing for Identification

The first opportunity for more effectively and rhetorically designing the 
writing center is in the moment students first contact the center to find 
information and make an appointment. An increasing percentage of writing 
centers now have an online presence, and many of our students will get their 
first impression of the writing center from the center’s web site. In Burkean 
terms, this is their first and best chance to identify with our students, to cause 
“the audience to identify itself with the speaker’s interest” (1969, p. 46). It is at 
this moment, when students first encounter the center’s website, that writing 
centers have their best chance to identify with them. Burke has argued that 
identification is the key to rhetoric; our audience needs to see how their interests 
can be matched up with our cause. If no such match is apparent, any other 
attempt to persuade the students that the writing center is a worthwhile part of
the writing process will almost certainly fail. The interests of the students in this situation are pretty clear: to fulfill a requirement given by their instructor and to improve the grade they get on their essay. The cause of the writing center is likewise pretty straightforward: to be seen as a valuable part of the writing process by providing useful advice. The question for this section, then, is how (if at all) do writing center websites align these causes and interests? Students need to see that the cause of the writing center corresponds with their interest in order for them to be interested in using them. Students need to identify with the writing center. Burke argues that people have a need to identify with things because people are inherently separate from one another (1969). This need to identify provides a rich resource for writing centers, particularly through their websites and use of computers.

To get an idea of how writing centers are using their websites to identify with their students, I analyzed forty college and university writing center websites. The writing centers were chosen to give a representative cross-section of different parts of the country, public and private institutions, and undergraduate (including community colleges) and graduate schools. For a complete list of schools surveyed, see Appendix B.

This rhetorical design principle of identification can be implemented through a writing center’s website in a few ways, the easiest and most obvious being the number of ways to schedule appointments (as well as ease of finding this information and/or scheduling the actual appointment). Next is the
availability of online tutoring. Finally, there is whether the student has the choice of bringing a digital or hard copy draft to a session.

Scheduling

The very first encounter a student has with a writing center is generally through the center’s website. From the website, students will discern writing center hours, location, and how to make an appointment. There are three main ways students can schedule appointments in writing centers (as indicated by this survey): scheduling in-person by physically coming to the writing center, calling the center, and scheduling online (either through the website or email). In order to be most approachable to students, and to attract the most student clients, it behooves centers to offer as many approaches to scheduling as possible. While many might assume online scheduling is the easiest for students, we can’t make this assumption for all students (for instance, students may need to schedule an appointment when they don’t have a computer handy, or students might be visually impaired and unable to view a scheduling website well).

Only eight of the forty schools (20%) offered students all options. In contrast, eighteen schools (45%) offered only one method for scheduling; I counted only one option when the website explicitly discussed only one method of scheduling (e.g., “To schedule appointment…”). Three schools required
students to call, while fifteen required online scheduling. See Table 5.1. The highlighted schools have three methods of scheduling available for students.

**Table 5.1**
List of Schools and Scheduling Methods

<table>
<thead>
<tr>
<th>School</th>
<th>Ways to schedule</th>
<th>Online scheduling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harvard University</td>
<td>Online. Have drop-in hours.</td>
<td>Yes</td>
</tr>
<tr>
<td>Missouri State University</td>
<td>Online. Can drop-in.</td>
<td>Yes</td>
</tr>
<tr>
<td>New York University</td>
<td>Online. Can drop-in.</td>
<td>Yes</td>
</tr>
<tr>
<td>Northwestern University</td>
<td>Online.</td>
<td>Yes</td>
</tr>
<tr>
<td>Amherst College</td>
<td>Online.</td>
<td>Yes</td>
</tr>
<tr>
<td>Boise State University</td>
<td>Online.</td>
<td>Yes</td>
</tr>
<tr>
<td>Massachusetts Institute of Technology</td>
<td>Online.</td>
<td>Yes</td>
</tr>
<tr>
<td>New Mexico State University</td>
<td>Online.</td>
<td>Yes</td>
</tr>
<tr>
<td>Pepperdine University</td>
<td>Online.</td>
<td>Yes</td>
</tr>
<tr>
<td>Portland State University</td>
<td>Online.</td>
<td>Yes</td>
</tr>
<tr>
<td>Southwest Minnesota State University</td>
<td>Online.</td>
<td>Yes</td>
</tr>
<tr>
<td>Texas State University</td>
<td>Online.</td>
<td>Yes</td>
</tr>
<tr>
<td>University of Iowa</td>
<td>Online.</td>
<td>Yes</td>
</tr>
<tr>
<td>University of Kansas</td>
<td>Online.</td>
<td>Yes</td>
</tr>
<tr>
<td>Brown University</td>
<td>Online via email.</td>
<td>Yes (via email)</td>
</tr>
<tr>
<td>School</td>
<td>Ways to schedule</td>
<td>Online scheduling</td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>------------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>University of Colorado-Boulder</td>
<td>Online or in-person.</td>
<td>Yes</td>
</tr>
<tr>
<td>Colorado State University</td>
<td>Drop-in only. No appointments.</td>
<td>No</td>
</tr>
<tr>
<td>Mott Community College</td>
<td>Drop-in only. No appointments.</td>
<td>No</td>
</tr>
<tr>
<td>North Seattle Community College</td>
<td>Drop-in only. No appointments.</td>
<td>No</td>
</tr>
<tr>
<td>University of California, Santa Barbara</td>
<td>Drop-in only. No appointments.</td>
<td>No</td>
</tr>
<tr>
<td>Temple University</td>
<td>Call. Can drop-in.</td>
<td>No</td>
</tr>
<tr>
<td>Tidewater Community College</td>
<td>Call. Can drop-in.</td>
<td>No</td>
</tr>
<tr>
<td>Capital Community College</td>
<td>Call.</td>
<td>No</td>
</tr>
<tr>
<td>Michigan Technological University</td>
<td>Call.</td>
<td>No</td>
</tr>
<tr>
<td>Texas Tech University</td>
<td>Call.</td>
<td>No</td>
</tr>
<tr>
<td>Bryn Mawr</td>
<td>Call, online, or in-person.</td>
<td>Yes (via email)</td>
</tr>
<tr>
<td>Clemson University</td>
<td>Call, online, or in-person.</td>
<td>Yes</td>
</tr>
<tr>
<td>University of Central Florida</td>
<td>Call, online, or in-person.</td>
<td>Yes</td>
</tr>
<tr>
<td>University of Kentucky</td>
<td>Call, online, or in-person.</td>
<td>Yes</td>
</tr>
<tr>
<td>University of Missouri</td>
<td>Call, online, or in-person.</td>
<td>Yes</td>
</tr>
<tr>
<td>Collin College</td>
<td>Call, in-person, email.</td>
<td>No</td>
</tr>
<tr>
<td>Iowa State University</td>
<td>Call, in-person, email.</td>
<td>Yes (via email)</td>
</tr>
<tr>
<td>Monroe County Community College</td>
<td>Call, in-person, email.</td>
<td>No</td>
</tr>
<tr>
<td>Binghamton University</td>
<td>Call or in-person.</td>
<td>No</td>
</tr>
<tr>
<td>Brigham Young University</td>
<td>Call or in-person.</td>
<td>No</td>
</tr>
<tr>
<td>North Idaho College</td>
<td>Call or in-person.</td>
<td>No</td>
</tr>
<tr>
<td>Institution</td>
<td>Schedule Method</td>
<td>Online Requirement</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>-------------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>Purdue University</td>
<td>Call or in-person.</td>
<td>No</td>
</tr>
<tr>
<td>Scottsdale Community College</td>
<td>Call or in-person.</td>
<td>No</td>
</tr>
<tr>
<td>Swarthmore College</td>
<td>Call or in-person.</td>
<td>No</td>
</tr>
<tr>
<td>University of Wisconsin-Madison</td>
<td>Call or in-person.</td>
<td>No</td>
</tr>
</tbody>
</table>

Of all the schools, 55% allowed students to schedule online in some fashion (most used scheduling websites, a few used email). Of these schools, 15 of the 22 require students to schedule their appointment online (68% of the schools with online option, 37.5% overall). While allowing students to schedule online makes them seem approachable (students who are used to using computers will likely find it easy to schedule online), forcing students to do their scheduling online does not. Some schools that only explicitly allowed students to schedule online also listed a phone number; these schools may be amenable to scheduling over the phone for students. Other schools very explicitly require the online scheduling. The Massachusetts Institute of Technology (Writing and Communication Center: Writing and Humanistic Studies, n.d.), for instance, requires students to both schedule and cancel appointments online, and states that before dropping in, students should also check the online schedule to see if tutors will have time to meet with students.

Overall, writing centers can identify with the most students by offering a variety of ways to schedule appointments. Universities and colleges have a range
of students with a multitude of varying needs and preferences; one method of scheduling, for instance, online scheduling, will not appeal to everyone. A blind student, for instance, may prefer to schedule over the phone because of vision difficulties with websites whereas a deaf student may prefer the online option. Students with free time in the middle of their day who are on campus might prefer to just drop-in. Writing centers need to make it as easy as possible to make appointments; students don’t want to go the extra mile to do something they feel unsure about in the first place—and since many students come to the writing center (at least at first) because it’s a requirement, they likely feel some apprehension at this new experience that they did not actively seek out by themselves. In essence, writing centers need to make their center easy to use, and scheduling is one way of doing this.

When centers give the option of online scheduling, the ease of this scheduling varies across sites—few were as simple as students would probably desire. Nearly all sites require students to click through two links before they could login to see scheduling data (like times available). Nine require more clicks than two. One site stood out as being particularly easy to use for scheduling: Clemson University. Clemson’s site allows you to view scheduling information (times, etc.) before logging in or registering. This might encourage more students to make appointments because they can see what they will be getting before they
go through the trouble of registering. Of course, their site is not perfect. As you can see in Figure 5.1, Clemson’s site uses a vague icon for scheduling. Some students may not realize that it is a button for scheduling. However, the scheduling page can be found through other links as well.

Online Tutoring
Only ten of the centers offering online scheduling also offered online tutoring; sixteen centers overall offered online tutoring in some form (through synchronous chat or email, for example). I had expected these numbers to be the same—that centers using computers and the web for one purpose (online scheduling) would also use it for another purpose (online tutoring). This continuity in narrative of computer use would be easiest for students to interpret and understand (that a center is welcoming of computer use). I am more surprised, however, that there are schools that offer online tutoring that do not offer online scheduling (six, or 37.5%). From a student’s perspective, this is at odds with the principle of identification and possibly confusing. Students want their writing center session to be as painless for them as possible. If students are already on the computer to schedule an appointment, allowing them to remain on the computer for their session could be easiest for them and would jive with the relationship the center has begun to build with the student through online scheduling. Online tutoring can be easier for students to schedule as sessions may take place in the evening instead of during the day—Utah State University, for instance, schedules many online tutoring sessions in the evening hours. For distance students especially, the convenience of not needing to travel to the writing center is a plus and could make-or-break their use of the center in the first place.

The types of online tutoring offered by the schools surveyed varied. Many used synchronous-chat-type programs to go over papers with students. This
method is very similar to how the discussion of a paper may go in a face-to-face session, with back and forth discussion between tutor and student. Having the paper constantly in front of the student during the discussion may increase focus, as well. Other schools used email, where tutors would comment on a paper and email those comments and recommendations back to the student. Schedule-wise, this method would be most convenient for students because they could look at the recommendations when they had time to work on their paper. However, students might not get the type of advice they would receive in a back-and-forth discussion because students are mostly required to ask their questions up front so tutors know what to respond to. Hence, it could be difficult to get feedback on multiple areas without numerous sessions on one paper. Of course, tutors can use their discretion to determine what areas require the most focus in a paper and can narrow their advice in that way. Both of these methods will identify with different students according to their scheduling needs— asynchronous chat is the most akin to a face-to-face meeting, while email is the easiest to fit in a student’s schedule.

Design-wise, I suggest being consistent with computer use throughout the writing center website in order to connect best with students. When allowing online scheduling (or requiring it) I would suggest also providing online tutoring. Scheduling online can create an expectation of continued computer use throughout a tutoring session. If online tutoring is too time-consuming for a center to maintain, I suggest maintaining the use of computers throughout a face-
to-face writing center session to help students identify with the center and see how it meets their interests. In addition, being consistent about computer use could make the center’s friendly intentions easier for students to interpret and identify with.

**Computer Use**

Despite the prevalence of online scheduling and online tutoring, when it comes to physically having sessions with computers in the writing center, the issue gets more complicated.

The survey suggests that most writing centers contain computers in some form, be it a computer for the office assistant, computers for students, computers for use during tutoring sessions, or for tutors to use to record the happenings of the session afterwards. When computers are not discussed directly on their websites, they can be found in the images of the centers themselves. For example, Texas State University’s Writing Center website does not directly mention computers, but this image shows a tutor during a consultation with a student (see Figure 5.2). They are sitting in a room that has a computer that is turned on; it is physically present, but not necessarily in active use. Eight centers (36%) that allow online scheduling require students to bring printed, hard copy drafts to
their tutoring sessions (in some instances, the center explicitly states to bring a hard copy; in other instances, it implies hard copy through specifying bringing ‘two copies’). This is at odds with the initial presentation of using computers for scheduling, which creates an assumption that the center is computer-friendly. See Table 5.2. The highlighted schools’ writing centers make it clear on their websites that students can bring in digital drafts and/or multimedia assignments.
### Table 5.2
List of Schools and Online Scheduling with Document Type Requirements

<table>
<thead>
<tr>
<th>School</th>
<th>Online scheduling</th>
<th>Hard copy required</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of Kansas</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Harvard University</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Portland State University</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>University of Colorado-Boulder</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Brigham Young University</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Brown University</td>
<td>Yes (via email)</td>
<td>Yes</td>
</tr>
<tr>
<td>Massachusetts Institute of Technology</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Monroe County Community College</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>New York University</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Swarthmore College</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Binghamton University</td>
<td>No</td>
<td>Not specified</td>
</tr>
<tr>
<td>Boise State University</td>
<td>Yes</td>
<td>Not specified</td>
</tr>
<tr>
<td>Capital Community College</td>
<td>No</td>
<td>Not specified</td>
</tr>
<tr>
<td>Clemson University</td>
<td>Yes</td>
<td>Not specified</td>
</tr>
<tr>
<td>Collin College</td>
<td>No</td>
<td>Not specified</td>
</tr>
<tr>
<td>Colorado State University</td>
<td>No</td>
<td>Not specified</td>
</tr>
<tr>
<td>Missouri State University</td>
<td>Yes</td>
<td>Not specified</td>
</tr>
<tr>
<td>New Mexico State University</td>
<td>Yes</td>
<td>Not specified</td>
</tr>
<tr>
<td>North Idaho College</td>
<td>No</td>
<td>Not specified</td>
</tr>
<tr>
<td>North Seattle Community College</td>
<td>No</td>
<td>Not specified</td>
</tr>
<tr>
<td>Northwestern University</td>
<td>Yes</td>
<td>Not specified</td>
</tr>
<tr>
<td>Pepperdine University</td>
<td>Yes</td>
<td>Not specified</td>
</tr>
<tr>
<td>Scottsdale Community College</td>
<td>No</td>
<td>Not specified</td>
</tr>
<tr>
<td>Southwest Minnesota State University</td>
<td>Yes</td>
<td>Not specified</td>
</tr>
<tr>
<td>School</td>
<td>Online scheduling</td>
<td>Hard copy required</td>
</tr>
<tr>
<td>--------------------------------------------</td>
<td>-------------------</td>
<td>--------------------</td>
</tr>
<tr>
<td>Temple University</td>
<td>No</td>
<td>Not specified</td>
</tr>
<tr>
<td>Texas State University</td>
<td>Yes</td>
<td>Not specified</td>
</tr>
<tr>
<td>Texas Tech University</td>
<td>No</td>
<td>Not specified</td>
</tr>
<tr>
<td>Tidewater Community College</td>
<td>No</td>
<td>Not specified</td>
</tr>
<tr>
<td>University of California, Santa Barbara</td>
<td>No</td>
<td>Not specified</td>
</tr>
<tr>
<td>University of Central Florida</td>
<td>Yes</td>
<td>Not specified</td>
</tr>
<tr>
<td>University of Iowa</td>
<td>Yes</td>
<td>Not specified</td>
</tr>
<tr>
<td>University of Kentucky</td>
<td>Yes</td>
<td>Not specified</td>
</tr>
<tr>
<td>University of Missouri</td>
<td>Yes</td>
<td>Not specified</td>
</tr>
<tr>
<td>University of Wisconsin-Madison</td>
<td>No</td>
<td>Not specified</td>
</tr>
<tr>
<td>Iowa State University</td>
<td>Yes (via email)</td>
<td>No</td>
</tr>
<tr>
<td>Michigan Technological University</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Mott Community College</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Purdue University</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Amherst College</td>
<td>Yes</td>
<td>Maybe - Says &quot;copies&quot; of papers, but wants two copies, so probably hard copy.</td>
</tr>
<tr>
<td>Bryn Mawr</td>
<td>Yes (via email)</td>
<td>Maybe - Doesn't specify, but has a policy that they won't write on students' papers, which implies having a hard copy.</td>
</tr>
</tbody>
</table>

This number suggests one of two things: (1) that there is a bias towards facilitating students’ desire for computer use to a point, but centers see face-to-face tutoring and writing as an inherently hard copy act, as not requiring computers; or (2) that computer use is so ubiquitous they don’t feel a need to
mention it on their websites in the description of their centers. Supporting the second argument is the fact that many of the sites don’t explicitly mention computer use, but have images that show computers either in use during a session (for example, a computer that is turned on within proximity of use to a tutor and a student during what is presumed to be a tutoring session – see Figure 5.2) or computers that are present in the center (see Figure 5.3). Only four sites (Purdue University, Michigan Technological University, Monroe Community College, and Iowa State University) explicitly discuss the use of computers during tutoring sessions. The Purdue Writing Lab states “we are happy to work with students on a wide variety of assignments including PowerPoint presentations, audio files, and other multi-media projects” (Purdue Writing Lab, 2010). Monroe Community College’s site talks about using tutoring sessions for help researching on the Internet. Other sites imply use of computers during sessions. Iowa State University’s Writing and Media Center (whose very name implies computer use) discusses students bringing in electronic documents. Many more sites show images of their centers that include computers. See Figures 5.2, 5.3, and 5.4 for website images that include computers.

Some schools require students to bring a hard copy of their draft to a writing center consultation. This requirement implies that there will be no computer for use during a session—or at least that no writing will take place on said computer during the session. Other centers are less specific, requiring only a “copy” of the draft. This lack of specificity may mean that the draft could be
digital, but students unfamiliar with the writing center and wary of using it are likely to try to guess the appropriate format. This vagueness actually works against identification; it prevents easy understanding of the writing center process—this confusion might make a student feel inhibited about visiting the center. In more effective instances, the center’s site specifically discusses types of assignments that would require computer use during a tutoring session. For instance, Michigan Technological University’s Writing Center lists types of assignments. This list contains “designing visual arguments,” a task most likely performed (and critiqued) on the computer (Michigan Technological University Writing Center, 2010).
Overall, writing centers can more effectively identify with their students by offering them options. On their websites, these options would include multiple methods of scheduling—like online (via email or a scheduling program), over the phone, or in-person. Allowing for people to drop-in would also meet some students’ needs. In addition, providing multiple methods for tutoring sessions can help with identification—some students will want, and even require, that tutoring take place online. The ease of use associated with online tutoring will cause students to seek it out and see how the writing center can meet their needs. Finally, writing centers need to be specific on their websites about what students should bring to their sessions, particularly if they need to bring a hard copy of their draft or if computers will be available for use. Without this knowledge, students will have trouble identifying if the center can even help them with their assignment, especially if it’s a multimedia assignment, like a PowerPoint presentation or website. Overall, being consistent (textually and visually) about computer use will help students to more easily interpret and identify with their writing center.

Designing for Pathos
After rhetorically designing the writing center for identification in order to get students to come to the center, we need to think about the rhetorical design principle of pathos, which will make the beginning of sessions easier for students. Pathos refers to a sense of ease with a writing center tutorial session. Writing center visits are about discussing writing—not all students are comfortable with this type of discussion, particularly those who feel like weak writers. Hence, we need to design the space to add comfort to the situation. First, I’ll discuss the size of a writing center and their general layout and how this can affect student perceptions. Next, I’ll talk about the presence of computers in the space. Finally, I’ll discuss the ability/choice to use something other than paper copies of drafts.

How should one design a writing center space for student (and tutor) comfort? Student comfort means students feel self-confident in a situation. Creating a comfortable situation for tutors and students can be done through designing for one thing: choice.

Many writing centers are set up to either have separate rooms for tutoring (like Utah State University) or one big open space (see Purdue – Figure 5.4). There are advantages and disadvantages to each of these designs. In separate room situations, there’s often an open-door policy, meaning tutors don’t close the doors to their tutoring room. This is largely for safety. Ultimately, when you put two people in a situation alone, especially a situation that could be somewhat confrontational (for instance, if a student doesn’t like to talk about his writing or
feels the session is negative in some way), it is impossible to predict what could happen.

Despite this safety concern, separate room situations do allow students and tutors to focus on the writing at hand—there are few distractions. Open room situations don’t have the same safety concern—everyone can see everyone else, safety is less of an issue. However, focus can be difficult because of the noise in a crowded room.

Figure 5.4
The Purdue Writing Lab tells students to bring in their multimedia work, yet this image only shows a computer in the distant background.
An ideal writing center would combine the best of these two designs: It would an open room with spaces partitioned off with low cubicle-walls. This design works into the principle of clarity through zoning, which I discuss in chapter 3 in regards to computer lab spaces. Zoning creates different types of spaces for different activities, or, in this case, different people. In a sense, it creates choice—students and tutors can choose which type of space they want to work in. Some will prefer the open space, some the partitioned space. Having options will put the tutor at ease. In addition, being able to see other people in the writing center at all times will put the student more at ease. Ideally, the presence of other people getting help with their writing would make the student feel less singled out. This feeling would make the meeting less confrontational, and more comfortable for everyone involved. The low walls allow a standing person to see others in the room and a sitting person to retain focus through the blocking of some of the noise and line-of-sight distractions. Hence, choice creates a feeling of comfort, which would ultimately lead to a better tutorial for both parties. No one feels cornered, in any way. In addition, the idea of choice (especially if the student chooses the space) makes the student feel more in-control of the session, which may help with issues of text ownership (which I discuss later).

This ideal writing center also uses computers—because, as Star Coul Brooke, Writing Center Director at Utah State University notes, students expect to see computers in the writing center since their writing involves
computer use (Star Coulbrooke, personal communication, 2/10/2010). At least partially, rhetorically designing for pathos and student comfort means designing to meet some sort of client expectations. Of course, these expectations can be mitigated through being very clear on a writing center website. My survey of these sites suggests, however, that most sites are not very explicit when it comes to certain aspects of the tutorial experience, like computer use. This survey suggests that writing centers are using computers, and many are using them not only to maintain their operations (with online scheduling), but in the center itself for tutoring. However, this computer use is not evident textually in an analysis of the websites, only pictorially. In order to rhetorically create a sense of comfort through accurate student expectations, writing center websites need to be clear and explicit with the narratives they create about the tutoring experience through their websites.

One narrative centers create online is about computer use. For example, when students schedule their appointments via computer, there is a reasonable expectation of technology use in the center. The center creates a narrative of being technological through using online scheduling; this narrative is reinforced through the availability of online tutoring. In order to be complete, the center would then offer the use of technology in their writing center space. Thus, the center would meet students’ expectations, making students feel more confident because their interpretation of the center was correct.
Ideally, a writing center would have both laptops and desktops, again, for choice. Much of the controversy surrounding computer use is the use of computers in tutoring sessions—a major argument against computer use in tutoring sessions is that computers are distracting and get in the way of the human interaction between tutor and student. It is difficult to argue that they are not distracting, considering the possibilities that come with the presence of a computer—games and fun websites abound online, and even the screen might be shiny enough to attract attention for a particularly tech-savvy individual.

However, in a way, nearly everything in a room can be viewed as a distraction. Hadfield et al. (2003) describe their ideal writing center as having “simple fabric designs” to “eliminate distractions….and make it easier for students to focus on their papers during a conference” (p. 174). When we consider the sheer number of distracting elements present in nearly any situation, we realize that we can’t choose to prohibit computers in the writing center for this reason. Instead, especially because computers may be necessary tools for some writing students, we need to actively work to overcome this possible distraction. In fact, in Hadfield and colleagues’ design, they intentionally design the space to “accommodate tutorials based on hard copy or computer screen copy,” suggesting, perhaps, that computers are not as distracting as some may think (2003, p. 174). This accommodation of multiple methods also suggests that choice is an important aspect of their ideal writing center design as well.
Once students schedule their appointment and actually come to the writing center, what do students expect from a writing center concerning computer use? Ideally, students come to the center for help with writing, not to use a computer—and ultimately, the question of computer use is about making technology a tool for writing centers and not a tool that defines writing centers.

Star Coulbrooke, USU Writing Center director, believes that students expect to see a computer present in the Writing Center because they write on computers—their writing process is largely computer-based. In essence, students are more comfortable discussing their writing when there is a computer present. They expect there to be a computer present since they write on computers, and the writing center, is, of course, a place for writing (personal communication, 2/10/2010). This higher level of student comfort makes having technology an issue of pathos.

However, there are problems with the physical presence of computers in centers. According to Chelsi Linderman, director of the Dixie State College writing center, student use of computers in the center is a problem. She states “my gripe about having the computers there is that (due to the layout of our writing center - something I cannot change until we move to a new building next year) is that we often have students come to use the computers who do not want help from a tutor - and often are not using them for writing purposes” (personal communication, 2/25/2010). Hence, computers in the writing center need to be seen as computers for writing. Centers need to be able to control how the
computers (and computer use) are viewed and interpreted by students. In a way, they need to limit access for certain functions. This limiting of access might discourage students from mistakenly assuming they can print or use computers for certain functions without requiring explicit signs or discouragement from writing center employees.

In addition, writing centers are also faced with space constraints. Rarely is a writing center built intentionally. Instead, it is placed into a building that already exists, generally into space that was built for another purpose. Many writing centers populate spaces that were initially offices, or they share space with other services. For instance, Utah State University’s Brigham City campus Writing Center shares space with the campus’ general tutoring center. Dixie State College, in southern Utah, has a writing center that shares space with the math tutoring center. With these constraints limiting the availability of tutoring space in the first place, it would be extremely difficult to fit a desktop computer into the tutoring space (or even the lobby of a tutoring area).

One method of making the computer a tool for the center and not a tool that defines the center is choosing a type of computer that is flexible—in essence, a laptop. Laptops provide choice in a way that desktops do not. Desktops suggest a permanence to their presence through the relative difficulty in moving them and their sheer size, especially as other types of computers (tablets, netbooks, laptops) are getting smaller and smaller. The wires associated with the desktop also prove difficult to move—in the early nineties’, such wires dictated
the way USU’s English Computer Lab was set up—so that the computers would not become accidentally unhooked with wires catching on backpacks. As long ago as 1993, an eon in computer years, laptops were being suggested as a possible answer to the problem of space issues and inflexibility (even the enticing large monitor’s screensaver being a distraction) associated with desktop computers (Crump, 1993). Hence, incorporating laptop use into writing centers is not a new idea; it is, however, a more viable idea than ever before due to lower prices and more efficient batteries. They’ve also become much smaller, which makes them more flexible and movable.

The incorporation of laptops instead of desktops into the writing center allows us to avoid two issues facing computers in centers. First, because laptops can be taken out and put away, center directors can limit access to writing purposes. This limited access could prevent student confusion concerning computer use for gaming, for instance. Second, laptops help with the space constraints of writing centers. Writing centers are already crammed into any available space in a university; rarely, if ever, are writing centers the intended use of a space when it was designed. The laptop computer can be carried around to different tutoring areas when needed. It doesn’t require designated desk space, and this flexibility makes its use easier than desktop use in writing centers. Even when Writing Center directors are satisfied with their spaces, there’s still discussion surrounding how best to design the space—some argue for closed-off tutoring spaces (Hadfield et al., 2003) while others prefer spaces
that are “open, with no partitions anywhere, to encourage a sense of community and interaction” (Harris, 1993, p. 4). (See Figure 5.5 for an example of a writing center with partitions as well as open space.) The use of laptops allows proponents of either space design to actively use computers during sessions because computer use wouldn’t be limited to spaces against the wall (laptops can easily be moved to a table in the center of a room due to lack of cables).

Figure 5.5
The Writing Center and tutoring area at Penn State University utilizes partitions as well as open spaces.

In addition, the use of laptops can help writing center directors avoid the annoyance that comes with having desktops just sitting around, looking like they
are available for student use. Through the use of laptops, these computers would not appear so readily available and the idea of using them might not present itself so easily to students. Out of sight, out of mind. Putting away laptops, and then having to physically take them out and set them up for use, may discourage idle use of the computers for non-writing purposes. In essence, it keeps the writing center a center for student writing instead of a place for student computer use (which would more accurately be termed a computer lab). Hence, it is possible to use computers in the writing center without straining the physical space of the center or redefining the center’s purpose.

However, once we have free reign of the space regarding computer use, the physical presence of computers becomes less of an issue. Then we need to consider the actual space itself. And there are ways to overcome the distraction of computers. In regard to overcoming possible distraction by computers, DeVoss talks about the physical aspect of technology in the writing center as well (2002). Because the students using the writing center in her study were coming to the center with digital assignments, such as creating web pages for a writing class, computers were absolutely necessary for use during tutoring sessions. She discusses the decision to start out these sessions with students sitting at a table that does not have a computer because “the machine would often interfere with the session’s focus” (p. 174). To combat this (yet still use the computer), tutors began sessions by creating maps laying out a focus for the session before moving to the computer. Regarding technology use in the writing center, it wasn’t often
the focus of their discussions. “We found that the technologies themselves weren’t as important as the context in which they were used” (p. 178). According to DeVoss, “computer technologies should not reshape the writing center or its goals but should instead create a different ecology in which the multiple and complex literacies students bring and are required to have may develop” (p. 179). Actively working to maintain student focus in a writing center session is critical, and though some may view this focus as difficult to maintain with a computer present, this possible distraction does not have to negate the use of the computer altogether.

In the past, some viewed technology as being the answer to any problem writing centers might encounter. In his chapter in Wiring the Writing Center, Carino (1998) looks at the scholarly history of computers in writing centers, and notes that much of this scholarship was about the “success story”: “Essays in this genre began by raising concerns about technology, usually to ease humanist anxieties, and then move on to an ameliorative narrative of successful pedagogical implementation” (p. 179). Intriguingly, in the past computers were sometimes cited as helping the social situation of writing by breaking down barriers (like class and race) through common interest (Carino, 1998). Nowadays, however, writing center directors worry that computers get in the way of human interaction (Star Coulbrooke, personal communication, 2/10/2010) and some insist upon using hardcopy in the Writing Center to dissuade distraction and aid interaction and the human factor in tutoring sessions.
**Hard Copy vs. Digital Copy**

During my survey of writing centers and their policies I discovered that many centers have policies that prohibit the use of computers during sessions. At least twelve (or 30 percent) of the writing center policies I looked at online state that students coming to a particular writing center should bring a hardcopy or printout of their paper with them to their appointment. This suggests that computer use is discouraged for writing center tutors and students during sessions. The University of Colorado at Boulder asks students to “Bring your printed draft” to sessions. The Writing Center at Harvard asks students to bring a “printed copy of anything you want us to read” (Home: Harvard College Writing Center, 2010). The New York University Writing Center is less specific, but still implies hard copy use when they state “If you are working on a draft, bring two copies of it, one for you and one for the consultant” (Writing Center, n.d.). This statement suggests hard copy use since a digital version would not have a separate copy. These centers do realize that bringing a hard copy may seem like an antiquated notion for some students. Brigham Young University’s Writing Center, for instance, states “While papers on laptops are acceptable, most writing tutors are old fashioned and prefer paper copies” (BYU Writing Center, n.d.). Hence, BYU tutors will read your paper on your laptop, but they really don’t want to do so. And BYU won’t provide a computer for you. When writing centers allow digital copies to be used, they generally state so in their
policies online. The University of Kansas, for example, states “Bring a hard copy of your essay or a first draft on disk” (KU Writing Center, n.d.). Centers that allow electronic copies also allow hard copies. In these places, it is the student’s choice. Lindeman, for instance, allows WC attendees to determine whether tutoring take place with digital versions of their papers or hard copies. She speculates that the split is about even. At Auburn University, Dr. Isabelle Thompson allows students to bring their own laptops, but is quite adamant about students not printing out drafts in the writing center because they simply don’t have the resources to support that use of the computers (personal communication, 2/25/2010). The issue of printing in the writing center is a heated one, and requires future research, particularly since, as one director noted, the presence of computers suggests the capability to print papers, and students are often disappointed when this is not the case due to funding (Lindeman, personal communication, 2/15/2010).

Of course, when computers are not readily apparent (or, are not the focal point of the room due to their size and placement) to writing center users, the printing question may become less of a sticking point for students. Hence, we need to fully consider the implications that the presence of computers suggests—be it free Internet use (not focused on writing) or the capacity to print. By actively mapping out sessions, as DeVoss (2002) promotes, we can help to avoid the distraction of the computer. With the inclusion of laptops, tutoring sessions won’t have to move from place to place in order to avoid the computer
distraction during this mapping—the laptop can simply be closed at that. This point seems particularly important because while computers are distracting, so is changing physical locations in the middle of a writing center tutoring sessions. Overall, many aspects of a writing center session might be distracting to a student—for instance, meeting a new person (the tutor) who will help you with your writing. As a composition instructor, I’ve heard many stories from my students about their sessions in the writing center—at times, these stories are not actually focused on what they learned about writing, but what they learned about their tutor. Overall, sessions very rarely focus only on writing—generally, there are some pleasantries discussed at the beginning, after all. The point is to reduce the distractions we can control; clear mapping of a session helps to create obvious focus, and the mere presence of a computer (especially a closed laptop) is probably not more distracting than the (perhaps new) experience of going to the writing center is in and of itself.

More importantly, computers are important for the comfort level of the student—some students simply prefer writing digitally, and these students may be more apt to actually revise their writing if it’s digital rather than hard copy. We need to design centers around the rhetorical principle of pathos through student comfort so that sessions will go well and students will return. Finally, we come to the issue of text ownership and rhetorical principle of designing for shared ethos.
Designing for Shared Ethos

The design of a space is one of the first cues we have about the power relationships that exist there. Think of visiting someone else’s office: they sit behind a large, imposing desk in a big, comfortable chair, while you place yourself in a smaller, much less comfortable seat. Lawrence (2006) argues that the pieces of furniture in personal spaces like offices or homes “are a means of self-expression, of role relationships, and also of the unequal power of individuals” (p. 185). Representing unequal power is so common that it has become a default setting for many professional settings, including educational spaces like teachers’ offices. This default setting, however, can have problematic consequences in a writing center.

In a writing center, student authority is often one of the goals, but it is not easily accomplished. On the other hand, the writing center does not want to completely give over its authority; we are often striving for a sense of joint authority or shared ethos. And if the design of a space can indicate unequal power relationships, I will argue that we can design the writing center for this idea of shared ethos, so that students retain their personal authority in addition to the ethos of the writing center. Writing center ethos is about the writing center having credibility — ultimately, the student has to believe that the writing center can help her. Student authority or ethos directly relates to ownership of texts. Ownership of text (and the avoidance of the appearance of plagiarism) is an issue
oft-discussed in writing center pedagogy. As noted by Clark and Healy (1996), writing centers in the past have been viewed with suspicion because of the level of help they offer students (which professors don’t always understand). To sidestep this suspicion, there’s been a lot of focus on pedagogical styles that are noninterventionist—to the point of the tutor not writing one word on a student’s paper so as not to be accused of writing it for him. We can see this noninterventionist approach in a statement by Brooks (1991), for instance. He states “the student, not the tutor, should ‘own’ the paper and take full responsibility for it. The tutor should take on a secondary role, serving mainly to keep the student focused on his own writing” (p. 2) and “if at the end of the session, a paper is improved, it should be because the student did all the work” (p. 4).

However, scholars have since argued that by adhering to this noninterventionist style writing centers aren’t necessarily helping students become better writers. Instead, they need to focus on helping students take charge of their writing and negotiate the conflicts in writing in academia (Grimm, 1996). Writing centers take great care to give students an active role in their writing center visits—this active role is a way they give student writers a sense of personal ethos and ownership of their texts. Harris (1992) stresses the difference between collaborative writing and collaboratively learning about writing—“collaborative writing thus refers to products of multiple authors while collaboratively learning about writing involves interaction between writer and
reader to help the writer improve her own abilities and produce her own text” (p. 370). And, she makes clear, writing center tutoring sessions fall into the latter group. Writing center tutors are trained to tutor in this way, at least partially because with academic writing many students feel so out of place that they don’t take charge. We can see this lack of personal authority paralleled in their use of classroom furniture.

In his study of computer labs and classrooms, Gifford (1976) noticed that students did not like to move furniture in any way, no matter how inconvenienced they were by the furniture’s placement. In an effort to explain student reluctance to move classroom furniture, Gifford hypothesized that “in student perception, institutionally owned furniture is not a part of the student’s personal area of control” (p. 7). In a sense, all things in a writing center, then, are property of the writing center. Students tend to not touch these things or move them. Students in the writing center are not likely to move a desk or chairs to make the space more comfortable for themselves, for instance. This tendency to not take ownership of the writing center space may exacerbate the problem of student text ownership that many worry about in the writing center. Directors and tutors worry that students will essentially hand over their papers to the tutors, or allow changes they are not comfortable with because they are in a foreign space. This lack of ownership and personal authority could be particularly worrisome when talking about a paper on a desktop computer in which it is so easy to hit “delete” and erase a student’s words.
The idea that students don’t feel they have the right to move institution furniture lends itself as well to institution computers, in particular, the desktop. The desktop computer differs from laptops in that they have the appearance of permanence. They are hard to move due to weight and wires. With their wires, they are visually chained to the walls of the writing center. In this way, it is easy to see that a desktop computer is the property of the writing center, and to extend this idea to the work that is being presented on said computer. This lack of ownership is exacerbated by (some) student willingness to hand over their papers. Despite the fact that centers are very clear when they state that they do not proofread or edit papers for students, they help the students improve their own papers and ideas. My survey of writing center websites indicates every writing center site has a statement of some sort about this issue, suggesting that writing center editing is a common student assumption. Most centers state “writing center instructors will not edit or proofread your papers for you. Nor will they do your reading or thinking or writing for you” (UW Madison Writing Center, 2009). The act of editing suggests a co-ownership in the paper between the tutor and student because editing is an individual, not a group activity. Editing, as an activity, is less focused on helping students to become better writers, a goal for writing centers. Hence, student ownership of their text can be seen as a critical issue in centers—particularly since students (sometimes) seem so willing to hand over their papers to be improved in their desire for editing. Having this work on a computer can make it much easier to edit easily.
In 1990, Neuleib and Scharton noted that three-quarters of their tutors preferred using hard copies in tutoring sessions, and attributed this to the tutors’ worry that they would “appropriate” the text when “the copy was so vulnerable to alteration” on the computer and noted that the tutors “itched” to have the writer completely re-write their text (p. 55). Of course, their tutors also mentioned that they felt tutoring at the computer terminal hurt efficiency and made it hard to communicate, perhaps because the computer itself was a distracting presence in its size. Both of these issues, ownership of text and the distraction of the computer, could be at least somewhat resolved rhetorically with the use of smaller laptops that can be passed back and forth. The physical passing of the computer mimics the passing of a paper back and forth between student and tutor, and this action may help keep tutors from “appropriating” student text and changing it because the student could easily change the text herself instead of the tutor. In a sense, the student would then have to think through the changes to make before making them, which essentially causes her to rewrite her paper herself. This act gives her the ethos (and power) in her writing situation.

In contrast to this passing of the laptop (simulating the passing of a paper), in group situations involving desktop computers, only one person is likely to be in charge of input to the computer (see Bemer et al., 2009 for example). With the power hierarchy a student may feel is in place in the writing center (with the tutor being the authority and holding all the ethos), the person in
control of input would be the tutor. This makes the student a passive observer in the writing process. With laptop computers, it is much easier to have multiple contributors to a document because of the ease with which the laptop can be handed back and forth. Thus, even if a tutor does make a change or note something on the paper (or show the student how to use a function in a word processing program), the laptop (and paper) can then be handed back to the student. This helps a student to retain ownership of her paper because she can retain physical ownership of the computer itself to input suggestions and revisions. This physical situation helps keep the tutor and student on the same level of authority and gives them a sense of shared ethos—one person is not in charge of the situation, or in charge of the computer. The use of a laptop breaks down the power hierarchy of the situation in a physical sense. The laptop has less of a physical situatedness in the writing center and less of an ominous sense of writing center possessiveness—the work that is presented on a laptop, therefore, remains in the ownership of the student in their perception (it is, of course, always in their ownership in reality).

Overall, because laptop passing simulates paper passing, the use of laptops creates a situation in which the student retains ownership of their paper and a sense of ethos in their writing situation despite the paper being on a computer. Going further, tutors might suggest making a digital copy of a paper and the student inputting changes on the copy instead of the original so students can compare their changes with the original and possibly go back to their
original text if they so decide. This action would then give even more authority to the student because it would be easy to compare drafts and revisions (instead of just saving over an old draft with the new version). Overall, the question of student ownership of their text is difficult—with the desktop being so situated in the writing center, the text on it seems particularly vulnerable to being co-opted by a well-intentioned tutor. By using a laptop, the student retains input over the text, which helps them retain ownership of it physically and in spirit. This confidence of ownership helps writing center tutors to work collaboratively with students to teach them skills for better writing and help them learn to improve their writing themselves. Ultimately, using laptops can help us rhetorically design writing center spaces to be a place of shared ethos—where writing tutors have credibility and student writers have personal authority and ethos over their own writing.

Conclusion

My initial research suggests we focus on three rhetorical principles when designing writing centers: identification, pathos, and shared ethos. Designing for these principles (both online and in the center itself) helps to attract students, retain them, and teach them. Giving students options (such as scheduling in multiple ways, sitting in differently styled sections of a room, or using technology or not) helps centers to be approachable and comfortable. Ultimately,
giving students these choices helps them to be more confident, which can aid a collaborative situation in which a tutor is trying to help a student take responsibility for improving her writing.

And, above all, writing centers should address the needs of their students. According to Greene (1993), “a writing center that addresses the diverse needs of a broad range of students, as well as the competing epistemologies of a faculty, must by its very nature be designed to be flexible enough to serve the needs of its constituents” (pp. 32-33). Giving students choices of methods of scheduling, digital or hard copy drafts, types of seating arrangements, and over use of technology makes centers more flexible and able to meet student needs through helping students to identify with the center, feel comfortable in the center, and retain a sense of ethos over their writing in the center. For example, giving students the choice of digital or hard copy versions of their papers also gives students power (which leads to text ownership) in the tutoring situation. When students are given choices, they may be more secure about the session in total—they have a sense of control, even if they feel they are awful writers. They may be less likely to tell the tutor to “fix” their paper.

Writing centers are places where students are aided by other students in their work to become better writers. In these types of environments, it can be easy to take over someone else’s texts in an innocent effort to improve it. It can also be easy for the student to feel subservient to the tutor and take whatever they suggest to be the only answer to their writing woes. In these ways,
ownership of text becomes an issue—laptops can help students remain in control of their texts because the laptop can be physically handed back and forth so that no one person is in control of input to the paper. In addition, laptops are by their very nature flexible—they are small and easily movable. They can be docked to a larger monitor if necessary. And perhaps most importantly, they can be put away and not used. The presence of computers in the center makes students more at ease because they expect to see computers as a part of the writing process (Coulbrooke, personal communication, 3/20/2010).

Incorporating technology in writing centers is also an issue of giving students (and tutors) choices. At Utah State University, the Writing Center is adjacent to the English Department Computer Lab, which has laptops and desktops. The Writing Center has a desktop computer in each of its tutoring rooms, but tutors still sometimes choose to come get a laptop from the lab for sessions, or even to hold a session in the lab itself. According to Coulbrooke, the computers (both desktops and laptops) really give tutors choices—it allows them to use what works for them in a tutoring session. Some tutors prefer to only use the desktops; others prefer laptops. Some prefer to not use computers at all if possible. Ultimately, giving tutors and students these choices helps to make the tutoring process more comfortable for students.

We make many choices as designers of writing centers, and these design choices influence the success of the writing center more than we realize. My research suggests three principles that can help us design more effective centers.
Further research will help us focus our understanding of the ways in which design shapes the student experience, and the positive or negative feelings of students after a writing center visit are important. Coming to a writing center is a new experience for students, especially first-year composition students. These students might be afraid that, in the words of one of my first-year composition students, the tutor will “rip apart” their text. Others might be overly willing to have the tutor rewrite their text, and not be very happy when they learn this is not the case. Giving tutors and students choices and designing for identification, pathos, and shared ethos can help to make the overall situation more comfortable and in turn successful, and will hopefully keep students coming back to centers and improving as writers throughout the semester and their college careers.

Overall, the voting booth and the writing center have similar purposes—they each strive to promote a sense of equality. The voting booth achieves this through stripping outside influences as much as possible to create as total a sense of privacy as possible. The writing center can perhaps achieve this goal through understanding and applying identification, pathos, and shared ethos. Writing centers and voting booths are inherently different beasts, however—writing centers are places full of human interaction whereas voting booths are intended to be void of this interaction. As such, we need to design writing centers with these rhetorical principles in order to improve how students perceive these points of interaction (these interaction points being scheduling, arriving at the writing center, and having the session). Though acts such as looking at a website
don’t automatically suggest human interaction, students, at this point, are
perceiving who the tutors at the writing center are based upon what they see
online. Hence, we need to be very deliberate about our design of these rhetorical
messages in order to best portray what we desire to students to keep them
coming to writing centers.
CHAPTER 6
CONCLUSION

My research has given me an in-depth look at how we design computer writing spaces in academia and how we can improve them. Through looking at computer classrooms, computer labs, and writing centers I’ve determined that these spaces have much more in common than I first believed. These spaces work best when they are designed to meet the needs of students; as student use changes, so must these spaces evolve. Our work at designing computer writing spaces will never truly be finished because of changes in technology and in the ways our students interact with this technology. The rhetorical design principles I explore in this dissertation are somewhat independent of technology in a way that may allow them to stand the test of time. It is these principles that I will focus on in this chapter and these principles that are the major outcome of this dissertation.

Computer Labs

My research has uncovered three design principles that could help us construct computer labs in which students are willing and able to collaborate. First, we should consider designing computer labs for specific audiences through having dedicated departmental lab spaces. This specific audience dedicated space can work to build relationships among returning lab patrons. These
relationships will make the space more comfortable for these users, and they may then be more willing to freely talk and work in the space, as well as return to use the space.

Next, we need to consider applying the rhetorical principle of attention through adding color to these spaces. Through the use of colors that are non-institutional (read: not white, gray, or dark blue) we may be able to combat the rhetorical argument for quietness that a public space exudes. Using color helps to show users of the lab space that it is a different type of space than other labs. Seeing this different rhetorical argument may cause users to reexamine their acts within the space and see that they don’t necessarily need to be quiet and isolated within the computer lab.

Finally, we need to consider designing with the rhetorical principle of clarity through creating a space with multiple zones. Zoning means creating smaller spaces within the larger computer lab space that are visually separate and can accommodate different types of activities, from collaboration, to chatting, to working individually on a project. Providing obvious space for multiple activities may help students to understand that they can use the space for these activities. This understanding is a critical first step to creating a space that attracts particular uses.
Computer Classrooms

Computer classrooms have historically had three main designs: rows, circles, and pods. Each of these layouts favors particular pedagogical styles and activities. I claim the much-echoed call for pedagogy to lead technology use extends to classroom design, and the only way we can accommodate multiple pedagogies in a single space is likely through movable technology and movable furniture. This movability creates the enthymematic flexibility described above in two ways. First, the technology can be taken out or put away, used individually or shared, and its presence needn’t dictate classroom activities. Movable furniture is also flexible; it can accommodate rows, circles, or pods given time and ability to move the furniture (for instance, willing students or facility workers). Some scholars advocate working within the spaces we are provided (Walls et al., 2009). I advocate working the space itself to make it work for you—while we will always have some space constraints (for instance, poor lighting, small rooms, drafty windows), flexible furniture could allow us to make the room into space that works for us. It gives us choices within the space that are not as constrained by the space. Also, furniture is not native to the room—it can be purchased and brought into the space long after a building is built. This ability to bring in flexibility may mean we can change spaces and gain control—we must, as educators, apply this control so we can be effective teachers.
Writing Centers

Writing center designers, to create effective centers, should consider designing rhetorically for identification, pathos, and shared ethos. Students who use writing centers primarily have first contact with the space through its website. Centers need to make their ease of use and ability to meet students’ needs very obvious online through constructing cohesive narratives of use. My textual analysis shows that most of these websites are vague when it comes to what to bring to a session (digital or hard copy drafts). They are also inconsistent with computer use overall—some demand that students schedule online, but then don’t allow online tutoring, for instance. Consistency is truly key for helping students identify with a writing center and understand how to use the space. If they don’t understand what the center can do for them and what’s required of them, they probably won’t use the center.

Next, we need to think about designing for pathos. Designing for pathos builds off the initial contact with the writing center into the actual session. Centers need to create spaces in which students can be comfortable; spaces that are not completely private so they will feel safe, but spaces that are zoned to seem private enough for them to focus. In addition, providing technology for student use meets student expectations of writing with technology and might create more positive feelings about the center.
Finally, centers need consider designing for shared ethos. Shared ethos means that students, though they are being aided by a tutor, still have ownership of their writing. This aspect of design might be met through allowing students to use a laptop for their own input of their writing and retaining control of the laptop throughout the session. It also means allowing students choices about their sessions so they retain a sense of control over the whole experience. This control may allow them to retain personal authority and ethos encompassing the entire writing situation.

Applied Principles

Using these rhetorical principles of design may help us to make our computer writing spaces more effective for students. Through my examination of these three computer writing spaces in universities I’ve explored principles of design specific to each one. Upon further analysis, however, the principles taken from each of the three spaces have some application to the others. In this section, I will discuss these principles and apply them to each space: writing centers, computer labs, and computer classrooms. Through examining the design principles for these spaces, I will make connections between the shared design methods we can apply to each of these three writing spaces.
Designing for identification

First, designing for identification could help a writing center, computer lab, or computer classroom show that it meets student (and faculty) needs—students actively seek out the places on campus that will help them achieve their goals, so these spaces need to make their uses obvious to students. For writing centers, this may largely mean creating websites that are easy to use and clearly state how they help students. For computer labs, this could mean visually creating spaces that make their rhetorical purpose obvious to students. For example, when creating spaces for students to collaborate in, we might create zones for different types of work through providing tables without computers for discussion, couch areas for use with laptops, and desktops as well. Providing enough space in between these zones for may make students feel comfortable. For computer classrooms, we would likely need the spaces to be identifiable to both faculty and students. This identification means that faculty should be able to see the opportunity for pedagogical choices in a space, pedagogical choices, for instance, that flexible furniture supplies. Students, then, need to see how they might be able to bring their technology (note-taking, for instance) into the classroom and use it through having desk space for a laptop or palm device.

Designing for Pathos
Next, we have the rhetorical design principle of pathos. For writing centers and computer labs, this once again may mean zoning—creating multiple types of spaces for students so they will have choices about where to work and the type of work they want to complete in the space. Different students have different needs—some require more silence to focus, so provide low cubicle walls in a writing center. Some need to use digital copies for screen reading capabilities, so provide technology for student use. Designing for pathos could mean being explicit in online narratives about the types of drafts (digital or hard copy) students can bring to a writing center session. This rhetorical design principle may help students to feel more comfortable. Telling students online what software a computer lab provides and the types of working areas it has may help as well—this way, students don’t trek across campus only to be disappointed.

**Designing for Shared Ethos**

Next, we have the rhetorical design principle of shared ethos. For writing centers, this principle means that we need to remember that students have authority over their work. In writing centers, this might mean giving students a choice of draft method (digital or hard copy, again) and providing laptops that can be passed back and for like a paper. In computer labs, this may mean creating a rhetorical space that can be clearly interpreted by students so they can
act appropriately and don’t feel awkward. It could mean creating dedicated
departmental lab spaces so that students can build community and gain
ownership over a space. In computer classrooms, this shared ethos implies that
both instructors and students have ownership over the space. Instructors should
feel that they can control the furniture in the room, and students should feel
comfortable in the space—for instance, disabled students should be able to view
monitors clearly and those in wheelchairs should be able to use a desk/table like
other students.

**Designing for Specific Audiences**

In the computer lab chapter, I explore how community may be most easily
fostered in spaces that are designed for specific audiences, or dedicated
departmental spaces. I use the Suite Lab as an example of a space with a specific
audience that has grown this type of community through repeated use by fewer
users, which promotes familiarity for these users of both the space itself and
other users. Designing a space for a specific group of users is a rhetorical
principle that could easily apply to computer classrooms and writing centers.
These two spaces are just as likely as computer labs to be shared between
departments. Dedicating space within a department, however, may give users of
the space more ownership of that space. In a computer classroom, faculty might
be reluctant to move furniture if the space is used by everyone else in the
university. Faculty members then won’t have as much knowledge about the capabilities of the space, either, than they would if their department built and owned it. In addition, technology needs for a particular department might be different than other departments; courses in, for instance English and Biology would have different foci and would likely require different classroom equipment or software. Having a dedicated classroom space could allow a room to have the software all users of the space need. For instance, professional writing students may need to use Camtasia, a screen-recording software, in order to make video tutorials, but science and engineering students might have little use for this software. At a land-grant institution like Utah State, a university-wide computer lab would need to serve many more science and engineering students than professional communication students, and software like Camtasia would probably not be seen as a purchasing priority; a dedicated English lab space, however, would view the software as a priority for its students and provide it. In addition, having a dedicated space might allow more English courses to be taught in that computer classroom. Of course, the department would need to determine financial solutions for upkeep and staffing of the space, but the ultimate pedagogical payoff may be worth it for faculty and students.

Writing centers may also stand to profit from having a dedicated space for a specific audience. Many writing centers are a part of academic success centers or other university-wide tutoring centers; they share space with math tutoring, science tutoring, and academic tutoring services in general. This shared space
creates a major space constraint for writing centers—more concerning, however, may be the lack of focus on the use of the space. Students looking for the writing center might not realize it’s a part of a larger academic success center and then not be able to locate it. Or, writing centers that are a small part of a bigger service may not have much control over the way they are run or the technology they have available. Because writing center directors are the most knowledgeable about writing center needs, it makes sense to have a dedicated space run by a dedicated writing professional. This person would likely be more able to ensure the needs of tutors and students are being met than a general academic success worker who oversees a variety of tutoring programs. Also, a dedicated writing center space would likely have less distractions from other types of tutoring—they’d be able to design their spaces so they work best for their type of tutoring. Though I hesitate to compare writing tutoring with math tutoring, these two types of tutoring interactions would probably have different spatial and technological needs. Having dedicated space for the specific audience of Writing Center tutees may allow these needs to be met.

Designing for Attention
Designing for attention is an important rhetorical principle of design that could be applied to nearly any space to make it either more casual or more formal depending on the space’s needs. In terms of computer lab space, designing for attention through adding color may help students to view the space differently than an average computer lab. It could help them to interpret and then use the space differently — in the Suite Lab’s case, this means that students are likely more easily able to interpret the space as encouraging collaborative activity. For computer classrooms, this same rhetorical motive might be used. Using bright colors could make the classroom space less institutional, which may make students feel less anxiety about contributing to class discussions because it’s less of an “official” space. This principle also works in writing centers. In Hadfield and colleagues’ ideal writing center (2003), they frequently discuss trying to make the place seem approachable. They talk about adding plants, for instance, to make the space feel homey and having food available for students to make them feel wanted. Incorporating non-institutional colors may also make the space seem more attractive to students because, after all, students are human, and humans like color (Chism, 2006). To make the space more appealing, we then use non-institutional colors. This color use may also help students with their sense of shared ethos in the space — if the space is less institutional, they’ll feel more personal authority within the space. This will help with text ownership because students feel like they have something valuable
(their writing and personal expertise on the topic, for instance) to bring to the table.

**Designing for Clarity**

Next, designing for the rhetorical principle of clarity through utilizing zones within each of these larger writing spaces may be useful. In the computer lab, this means providing obvious spaces with and without computers, and most importantly, providing enough empty space between these zones to make them seem private and like separated spaces with different purposes. This illusion of privacy may be useful in writing centers as well. Creating clear zones within a larger room for tutoring could solve the safety issue that comes with having separate, closed-off tutoring rooms. Also, students might feel that the tutoring session is less confrontational if they can see others being tutored (and tutoring) as well.

In the computer classroom, zones could be created on-the-fly with the movable furniture—these zones would be particularly useful for group work, though students may desire to work on their writing in relative privacy as well during a workshop time. These zones would be most easily created with small, rectangular tables that can be pushed together to make bigger, group tables or separated to be smaller, individual tables. And when the instructor is lecturing,
the tables can all face front (with students facing front) to become a sort of audience zone.

**Designing Enthymematically Flexible Spaces**

Designing our spaces (especially computer classrooms) to be enthymematically flexible may make them more useful across a faculty. This rhetorical principle is not necessarily exclusive to classroom space, however. Through the use of laptops and movable furniture, we can work enthymematically with our spaces to achieve zoning for computer labs and create classrooms that can adapt to multiple pedagogical styles through becoming zoned in different ways. Writing centers might use laptops and movable furniture to help with their space constraints while still meeting student expectations for facility use. Indeed, being enthymematically flexible is a rhetorical design principle that could apply across the board to writing spaces—and flexible technology and furniture can help make this a reality.

Overall, it might be most important for us as designers and teachers to remember to stay flexible—as technology and students evolve and change, we need to remember to continually reexamine our practices and spaces to assure we are meeting student and faculty needs. Today we use computers to write; yesterday we were using paper and pen. The future of writing technology is uncertain at this point, and our practices and spaces will need to be reevaluated
often because of this uncertainty. The university itself would not exist without its faculty and students; meeting their needs and evolving with them is integral to its survival and continued relevance. As people who design and use these spaces, we need to avoid stagnancy.

**Implications**

Though this dissertation is written primarily for an audience of professional communication scholars, it has much wider implications. There are many groups who have a vested interest in the design of academic computer writing spaces, including interior designers, information technologists, university administrators, and librarians. These are the people who design these spaces, construct and support the technology in these spaces, manage these spaces, and create learning environments in these spaces. These are also the people to whom the arguments about redesigning campus buildings and rooms will be made. University administrators, for instance, work to attract and keep students at their universities; building spaces that attract and support this student base is ultimately in their best interest. And if we can make arguments to them that incorporate sound rhetorical principles, we are much more likely to be successful.

The rhetorical inquiry I conduct throughout this dissertation on these three spaces reveals that we need to take control of these spaces. This control
does not necessarily mean we must be the designers of these spaces. Instead, we need to work with designers to help them understand the needs of the spaces.

**Pedagogy**

The analysis of this space also provides parallels to space design and document design. Aspects such as identification and attention apply to each; students of rhetoric and professional communication would perhaps benefit from examining these parallels and taking their studies of document design further into the physical world around them. Scholarly work that exists in rhetoric and professional communication on physical design thus far is focused primarily in new media (see, for instance, Bolter and Grusin, 2000; McLuhan, 1994). While this is certainly a worthwhile place for the study to begin, I see the parallels of document design and space design as making a more overlapping study with professional communication and rhetoric than its position in new media might suggest. Ultimately, the rhetoric of space is difficult to classify as its definition is so flexible; professional communication scholars would be wise to adopt it as a part of their studies and apply this knowledge to workplace writing and design, for instance.
Further Research

Practically speaking, designing usable spaces through designing for these principles may help us to create spaces that better represent our writing pedagogy. As such, professional communication scholars would be wise to continue investigating these topics in some or all of these areas. Indeed, I hope this exploratory study provides the field with a number of avenues for future research. The theories and rhetorical principles examined here will be most useful if they serve as the foundation for more quantitative studies that can give us a more definitive understanding of the relationship between the design of computer writing spaces and our use of them. As such, this dissertation is not the end of the conversation; it is, in fact, only the beginning. Specifically, I suggest we pursue this research in three new directions.

As a profession, we need to conduct more in-depth student response surveys in relation to the spaces we provide in academia. As technologies evolve and our students change, we need to continue to make spaces that will accommodate them and our pedagogy. Because it is students who most often use this space, they are a valuable source of information on the quality of these spaces and how we can improve them.

In addition, as space constraints at universities become tighter, we need to think of new ways to make these spaces flexible for multiple uses. As the population increases, so will student enrollment. Universities, for the most part,
have limited areas for physical expansion. Even where space exists, construction of new buildings is expensive. Many older buildings cannot be legally torn down and replaced because they are historical landmarks. Instead of just tearing down the old and starting over from scratch completely (which is prohibitively expensive and somewhat wasteful environmentally), we need to focus on remixing the spaces we currently have to serve new and multiple purposes. For instance, a computer classroom may turn into a computer lab in the evening when classes are not taking place. As for writing centers, at this time it might make the most sense to have dedicated spaces for them—however, as we work with movable furniture and smaller technology, these spaces might be able to be to serve more students at the same time. And before we can change our spaces to make them adapt to our evolving needs, we need to more fully understand them. In this dissertation, I have attempted to expand our rhetorical understanding of these spaces.

As spaces become increasingly digital, we can extend the study of the rhetoric of space and design into more digital spaces as well as physical. Many physical spaces have coinciding digital partners—for instance, the writing center websites explored in chapter 5. In this chapter, I discussed how the center’s virtual space works as an extension of its physical space. Other physical spaces have similar counterparts, such as retail stores that have brick and mortar as well as digital locations. Further research can help us learn how to match these spaces
with branding, and how one space can work to support the other—for instance, how digital spaces can be used to attract customers to the physical store location.

**Conclusion**

Though we view computer classrooms, labs, and writing centers as inherently different, they share a similar purpose: fostering quality writing. In each of these spaces, this writing can be either individual or collaborative, even a combination of each. Ultimately, we need to continually work to improve these spaces just as we continually work to improve our work within them. Through applying a rhetorical gaze to the design of these spaces, we can work to continually reevaluate these spaces’ effectiveness.
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APPENDICES
Appendix A: Computer Lab Surveys
Computer Lab Survey

Year in school ______________________ Major ______________________

Gender   M / F Age ______________

What computer labs on campus do you use the most?

Which of the following best describes your use of computer labs on campus? Please choose up to 3 your most common activities.

☐ Writing  ☐ Printing  ☐ Checking email/browsing web
☐ Research  ☐ Working with other students  ☐ Meeting with professors

How usable do you find the computer labs on campus for your purposes?

Please rank from 1 – 4, 4 is most usable.  

1  2  3  4

What would you change about the design of the computer labs if you could?

Do you ever collaborate in the computer labs on campus? Y / N

If yes, which computer labs have you collaborated in?

If not, why don’t you collaborate in the computer labs? If not in a computer lab, where do you collaborate and why do you collaborate there?
Computer Lab Survey

Year in school ____________________ Major ____________________

Gender  M / F  Age ______________

What computer labs on campus do you use the most?

Which of the following best describes your use of computer labs on campus? Please choose up to 3 of your most common activities.

☐ Writing  ☐ Printing  ☐ Checking email/browsing web  ☐ Research  ☐ Working with other students  ☐ Meeting with professors

How usable do you find the computer labs on campus for your purposes? Please rank from 1 – 4, 4 is most usable.  
1  2  3  4

How do students behave or act in computer labs?

What do students most commonly do in computer labs?

Do you recall seeing signs in the computer labs you’ve visited? Y / N

If yes, what were they about? Where were they in the room? Why did you notice them?
Appendix B: Writing Center Websites
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Curriculum Vitae

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*Designing collaborative learning spaces: Where material culture meets mobile writing process.*


**PRESENTATIONS**


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Professional Writing
Instruct professional and technical writing majors on writing for specific genres, working in teams, and creating print portfolios.

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Document Design
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