CONNECTING PLACES: WRITING WITH AND ABOUT *PORTAL*

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Abstract

Shannon Carter's pedagogy of rhetorical dexterity involves students using a familiar literacy at a meta-level to make sense out of an unfamiliar one. I used her pedagogy, as well as insights from James Paul Gee and John Dewey, in designing a 213x course on writing technologies. The writing prompt for the second unit asked students to write about their inquiry into the game space and reflect on how their experiences met up with research about video games in American society in general. The unit was sequenced with the intention that students would look at their own familiar literacies, understand them on a meta-level, before inquiry into *Portal*. To understand one thing in terms of another is a metaphorical, conceptual understanding. Therefore, I use George Lakoff and Mark Johnson's theories on metaphorical language to analyze student writing. The second unit project involved students navigating multiple digital contexts: Google Drive, WordPress, class discussions, and the video game *Portal*. My research investigates: How did students understand *Portal*? What role did *Portal* play in identity construction in my class?

Dedication:

To Brian John Rogers Hull

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Introduction

The gaming industry is increasingly becoming a part of U.S. American culture. Within video game communities, some games, including Valve's *Portal*, have garnered a cult-like status. People have made their own short movies about *Portal* on YouTube starring their friends; fans have been known to show up to events like Comic-Con dressed as characters from the game. Outside of these communities, a phrase from the game, "the cake is a lie," has been memed. Yet, even with *Portal's* popular recurrence within and outside popular culture, I still found myself writing a letter seeking permission to teach *Portal* as a required text for my English 211x course—Academic Writing about Literature. I should have recognized that if I had to get Departmental permission, perhaps my students would need some reasons for playing the game in the classroom also.

"Bad at Video Games"

I received departmental permission to teach *Portal* as a literary text in Fall 2013. Having played *Portal* myself, I found the character GLaDOS (Genetic Lifeform and Disk Operating System) a perfect fit for the course theme about U.S. society's concerns with technology as depicted through science fiction. For the second unit of the course, GLaDOS would join the company of HAL from *2001: A Space Odyssey* and Deirdre from C.L. Moore's "No Woman Born" as starting points in discussions as to why the genre of science fiction is preoccupied with power dynamics between humans and their intelligent machinery. I chose these three texts to create a space for discussions concerning how students related to a variety of storytelling technologies, but media in storytelling was a side issue for me. All three texts were placed during the second unit to be interpreted literarily, despite differences in media. I wanted students to

analyze *Portal* as a text, in the same way students critically interact with a novel like George Orwell's *1984*.

The Fall 2013 course focused on relationships with technology as seen in science fiction. *Portal* is a great game for these discussions because of the unusual way the game design influences player decisions through space constraints, while simultaneously necessitating rebellion against a machine for the story line. There is much to say about the player character, Chell, and GLaDOS' fight for authority and power. For example, how the game is unique in that its main characters are female, and the backstage/front stage of the game mirrors the psychology of the artificial intelligence GLaDOS. At the time, I thought that even those students with little to no experience with playing games could still navigate the game space well enough to talk about the characters and story. To a gamer, the controls are straightforward and easy to manage. My plan was for students to play the game so to experience first the characters and story, then to reflect later about how the interaction between themselves and the design space informed their interpretations of the game, story, and characters. In other words, I asked students to interpret the video game in the same way I had required them to interact with short stories and the novel. For those students who may have difficulties with playing *Portal*, I had a variety of resources in mind such as their fellow classmates, the Wiki entries about the game, the multiple YouTube "let's play" videos, and of course, me.

However, despite these goals and plans, I was not prepared for how quickly the class divided itself into factions based on divergent attitudes about digital technolgies. Even before the digitally-driven second unit, I required students to upload their weekly assignments and their first major project to a Google Drive class folder. As I read student writings, I noticed about half of the class was thrilled with any digital portions of the course, while the other half seemed

completely ill at ease. Students from the portion of the class that distanced themselves from digital writing technologies made themselves known, and quickly through their writing assignments, class conversations, and direct questions to me. For example, students asked for alternative ways to turn in their assignments, like by hand. I discovered that these students were unfamiliar with the digital spaces I was using for the course and felt uncomfortable turning in their work in new ways. While these students owned computers and had Internet access, they preferred not to use these tools for my course. One student asked to use Blackboard instead, even though I did not set it up to receive assignments for the class, and another told me, to my surprise, that he would be turning in his assignments through email. My response to all of these students was consistent, responding that to get a grade they needed to turn in the assignments like the rest of the class; however, these instances, and others like them, are telling, as they prompted me to pay closer attention to my students' orientation toward digital technology in the writing classroom.

With this class dynamic, I found that about half of my 211x class resisted even stepping foot into the digital space of *Portal*. As we went deeper into the *Portal* unit I also discovered that some students were completely at a loss both about how to play video games as well as approach them critically, despite after they had demonstrated critical reading skills when interacting with print-based texts in my course. Furthermore, I found that a select few students held onto their unfamiliarity with digital spaces with pride. I recall three women from that course in particular who requested, each at various times throughout the semester, to receive alternative assignments and texts rather than play *Portal*. These students confessed they were "bad at video games." Again, they could access the game fine. In my previous experience teaching, I never before had students approach me and ask me if they could have an alternate assignment because they were

bad at poetry or drama, yet here I was confronted by students who wanted other assignments for this very reason. I saw being unfamiliar or not good at something as part of the learning process, so I never thought a student would ask to decline an assignment for these reasons. Nevertheless, I told these students they could write about their distaste for the video game as long as it was in relation to the course theme and prompt. And, so they did; they wrote about their hatred, happily.

In student writing, where students examined their distaste, I discovered that student digital literacy backgrounds, or lack thereof, were obstructions to their reading of the game as literature. Many wrote about their problems handling the controls. Others stated they muted GLaDOS as she gave instructions so they could concentrate on how to complete the level, not realizing how she was giving hints on how to proceed or, as many of those players more familiar with video games caught onto, how these short voice-overs had a lot to do with the storyline and character development. I read colorful reports of students fumbling ineffectually with the controls only to find, after they could steer the player, that they also had trouble reading the game space well enough to know how to respond appropriately in further levels. Notable points in *Portal*, such as how the game scaffolds learning about manipulating the abstract concept of using portals to solve puzzles, were lost on individuals who did not have the confidence or willingness to identify themselves as players of the game. Such students were too wrapped up in their inabilities to navigate the game space before any attempts at a deep reading of the game, or literary interpretation of the story, were possible.

The experience left me reflecting on student issues involving digital literacies. Yet, I did not look at literacy first. This was in part because of my own familiarity with digital literacies, and I overlooked the necessity that before a literary analysis could be done on any text, at reader must be somewhat literate in how to critically think, read, and respond with effectiveness to that

environment and its expectations. Despite our course conversations about relationships with technology, students were not taking an additional step to examine their own conceptions about writing technologies in the classroom, or question resistances to certain digital spaces. Students treated their assumptions about digital spaces as "givens" with which to proceed in their thinking, rather than looking at their own beliefs. This may have been because of how the unit was framed as an examination of machine characters and how they embody societal fears about control over technologies. I asked students to analyze the text thinking that it would get them thinking about their own stance regarding relationships with technology. However, many students stopped short; they examined the text without reflecting on how these texts may complicate their previously held positions. Some students would cite their own unfamiliarity with digital literacies as proof that these areas were not worth exploring or writing about as literature. After teaching *Portal*, and recognizing that half of the classroom clearly was uncomfortable with playing the game and writing about the game using multimodal authoring for their capstone project, and because I was not going to stop assigning video games in the classroom, digital literacy was an issue worth examining.

Thinking about these insights, gleaned from student writing, led me to another variant of the 211x course. The following semester I was asked to teach the course as a 213x. This meant adjusting my plans to suit the course titled, Writing about the Social and Natural Sciences, instead. This shift in emphasis meant that I could still assign *Portal* in the classroom, but the course focus helped me frame *Portal* with society and digital literacy in the forefront. In the 213x class I thought by placing an emphasis on students relationship with digital literacies, and how they saw themselves interacting with digital spaces in relation to the course readings, students would practice navigating multiple digital environments and question their own

relationships with reading and writing technologies. Furthermore, the emphasis would be a relevant way to talk about the various literacies students were proficient in, discover how students chose to convey their identities to write with authority, and analyze how students talk about making connections to digital spaces.

Reflecting between courses taught in Fall 2013 and Spring 2014, I found compelling reasons for what I have now termed *Portal Pedagogy*. More than validating video games as a worthwhile literary text for analysis, I also began to consider the literacy practices connected to digital texts and where these practices occur. For many people, reading and writing in digital spaces is becoming more of a norm for than writing for paper and ink material contexts. Unfamiliar with digital rhetorical situations, students are at a disadvantage in modern academic and social contexts when so much communication is increasingly digitally-driven. At UAF, for example, a student will be asked to navigate multiple digital contexts throughout their academic career. They may be required to write on Blackboard for one course, post responses on a public WordPress page for another, interact within Google Drive for many others, and design a website as a final project. Each discipline offers its own digital route for enhancing student learning, and each piece of software has its own design requirements for student response. Outside academia, people compose online through words and images to voice their positions on national issues, offer information to make the world aware of a local problem, or collaborate with others across the country for a common purpose. Web 2.0 democratized information, and people can now "talk back" to news, events, politics, and ideas to a degree unprecedented in history. When students are unfamiliar and unwilling to learn different, what James Paul Gee refers to as "design grammars," for digital contexts to make their voices heard, they may be too overwhelmed by

their collection of differences to act. The consequences are estrangement between student and academia as well as citizen and community.

And yet, instead of thinking of writing rhetorically, students seem used to being asked to write to their imagined standard. I found during the 211x course students entering the writing classroom were smart but stuck in certain attitudes concerning learning and writing. These students enter writing classes with certain entrenched habits. These habits did not account for video games in the classroom nor much writing with digital technologies. Approaching the writing classroom with certain favored formulas about writing, students were prepared to read a material book or article and writing a five-paragraph essay in response. Some were so attached to their models that they requested alternative assignments so they could repeat their habits of literacy rather than acquire new ones. I saw students attempting to shoe-horn a five-paragraph essay format for their multimodal project, even after it was clear that that model was not the best solution for the prompt. The models I witnessed students refer to in class were not how I was experiencing how people read, write, and engage with information outside the writing classroom—a clear disconnect. What I find troubling is not that students argued against playing a video game in the classroom, writing on Google Drive, or finding visuals for their multimodal blog project. Rather, the protests were against my expectation that they negotiate different rhetorical contexts for critical thinking, reading, and writing. Too often, students made the case to practice their known habits of literacy rather than attempt to learn different ones.

I believe it is vital that 21st century students navigate multiple digital spaces to critically read, make sense of, write, and produce information within them. Therefore, it was important to me that students have some kind of exposure to digital technologies in the humanities—especially in required writing courses. I decided to try and sponsor this kind of learning and

writing for UAF students as I designed the second unit for the Writing for the Social and Natural Sciences course. The *Portal* unit in the classroom altered emphasis, as I moved the focus from literature to literacy.

Three Theorists and Flexibility in Learning

For the M.A. thesis, I wanted to study how students understood their relationship to their preferred literacy practices and how those relationships influence learning. To do so, I focused on pedagogical-research and scholarship which helped me think more about these ingrained habits in thinking and writing I was noticing in my classroom. Three theorists in particular helped shape my thinking about how to organize and present the *Portal* unit as I changed the design focus from literature to literacy: James Paul Gee, Shannon Carter, and John Dewey.

Literacy, for Gee, is not an act of merely decoding text. Instead, he defines literacy as multiple, socially situated, and dynamic. In Gee's *What Video Games Have to Teach Us about Learning and Literacy*, he theorizes video games as a semiotic domain, or a system of signs a group of people use to make meaning to inform their practices (18-20). Playing a video game is the act of interpreting a particular semiotic domain and requires a different reading of design grammars than people use with traditional print based materials. When he examines video games in this way he does so to uncover how people learn, make meaning, and respond in varying social practices in general (20). Once an individual is literate within a semiotic domain he or she can look at the design grammars of an environment, hypothesize over interpreting the design, and test theories through action. Through navigating the known design grammars of a context, an individual can respond with etiquette, which marks him or her as an "insider." When a player engages with a video game, she reads the environment and plans a strategy to proceed. She may then apply successful strategies learned in one level to later parts of the game, mixing and

matching what worked and applying what she learned in order to proceed. She may also take things learned from one video game into another, albeit different, video game. Gee believes that in this way players participate in active, critical learning styles which are not only appropriate for video games but also for transferring their learning to other situations.

Gee's theories about video games and learning influenced Carter's own definition of literacy, which is a key idea in her construction of the pedagogy of rhetorical dexterity. She cites Gee a great deal in her book *The Way Literacy Lives* as she positions her definitions of rhetorical dexterity, literacy, and learning in a writing classroom. Literacy, for Carter, is socially negotiated, contextual, and continually changing (19). Rhetorical dexterity offers her a solution to get students maneuvering and responding to whatever writing contexts they come across. Her pedagogy is a blend of New Literacy Studies, activity theory, and critical literacy. To teach students to write with rhetorical dexterity, she highlights that communities of practice each have their own rules for discourse which mark insiders from outsiders. Often times her students are placed within her basic writing courses because they could not navigate academic discourses successfully enough to pass placement tests. These students often display frustration in navigating and writing for academia. To address this issue, she has students look at the literacies they are familiar with such as video game literacies, work literacies, and the like and has students analyze them on a meta-level. She asks her students to examine the discourses of their familiar community of practice, to look into what marks insiders and outsiders of these groups and look at unwritten rules for this distinction, and then take their understanding to make connections between their familiar literacy and an unfamiliar one. The practice in navigating, connecting, and writing within multiple rhetorical contexts successfully is what she terms "rhetorical dexterity." Examining familiar discourses to make connections to unfamiliar ones by looking at how groups

make meaning helps her students get a better handle over their own choices in writing. Rhetorical dexterity is a way for students to approach writing by examining the meta-level structures of whatever rhetorical situation they come across in life, even those outside academia or those which have not yet emerged—to critically think, read, and write within varying situations.

When I came across the term "rhetorical dexterity," I liked it instantly. It put in my mind the idea of students being able to navigate and write in multiple rhetorical contexts, presenting a pedagogical answer to the fixed attitudes I noticed. Even though Shannon Carter works with students labeled basic writers, and formed rhetorical dexterity as a response to issues in her context, as I read about her students' struggles, I recognized similar attitudes toward writing in my own students, albeit from a different angle. Her students felt locked out of academic discourses while the students in my own classes often excelled in these discourses to the point they did not want to let them go. My students were good at practicing a Standard English in their writing, but it still limited them. They locked themselves out of thinking about writing rhetorically. So while the basic writing students had trouble writing according to the rules of academia, my students were trying to apply their rules to every context, even when it was clearly not working. The second unit in the 211x and 213x course requires students to write for a public audience, so students are meant to practice writing rhetorically for these classes. Many showed uncertainty on how to proceed, especially when I asked them to write for a real public audience through their multimodal blog project. My students could not practice rhetorical dexterity any better than Carter's basic writing students.

To get students moving in their thinking and learning, I used Carter's rhetorical dexterity as a model for how to practice getting students flexible in their writing habits and chose Dewey's

course of reflective thought for theorizing my teaching goal. His theories of reflective thinking work well with Carter's rhetorical dexterity and Gee's conception of looking at design grammars. All of these theorists stress the importance of movement in learning and thinking from the familiar to the unfamiliar. In Dewey's theory of the course of reflective thought, the thinker first will come across a problem or difficulty to be addressed. As the thinker inquires into the issue, he or she uses familiar areas of knowledge to make sense out of the unfamiliar, much like Carter asks her students to analyze a familiar literacy to connect to an unfamiliar one. The thinker makes meaning and understanding through language to distinguish the vague. The strange is sorted out and the learner makes sense out of perplexity through theorizing and testing. Placing meaning into words fixes the new meaning in the mind. Learned information can then be organized within a preconceived system, generalized, and stored to bridge to other problems. The course of learning in this way is active and critical. As a thinker examines and defines different problems, new issues will present themselves to be negotiated. In this way, reflective thinking becomes a habit of mind.

As I was thinking of my literacy-based digital unit design, I knew I wanted to teach *Portal* again as a way for students to practice reflective thinking and writing in the way Dewey, Carter, and Gee discuss. My overall goal was no longer video game literary analysis, but instead, active, participation in multiple rhetorical contexts. For the 213x video game unit, I told my students about rhetorical dexterity in the classroom to see what kinds of connections would be made as students negotiated various rhetorical situations in the class. These situations included the responses to the course readings, the multimodal blog project design, class discussion participation, and playing the video game *Portal*. I was interested in analyzing how students related to their own communities of practice and how they chose to write about their positions as

authors in making sense out of digital environments. I was curious to know: what were students referring to as a familiar jumping off point to make sense out of the unfamiliar? What problems would they uncover and examine over the unit? In other words, I wanted to know how students would use rhetorical dexterity outside a basic writing class with an emphasis on digital technologies.

Reading and applying scholarship to my teaching helped me form a vocabulary for noticing how identities and academic authority influenced students who were required to write about and in digital spaces. During the 211x course, students identified themselves, in different terms, as technophobic or technophillic in writing and class discussion. I later nicknamed these groups the cyborgs and the Davy Crocketts. Both groups would talk past one another and neither side tried to make connections to the other. Making connections to unfamiliar spaces is vital to reading, writing, and creating information in digital contexts which are continually emerging, being innovated and changing. I thought in designing a digital unit for 213x would spark thinking into how literacy is multiple, socially situated, and reflective. I would also invite students to talk with one another about their writing and their own digital narratives.

In my own experience, there is still a significant portion of the student population who resists writing courses that require movement between rhetorical contexts, especially digital ones. I see a need to place the power of reading, writing, and thinking with technology in the hands of as diverse a population as possible because digital spaces are only as diverse as their designers and users. I highlighted literacy over literature in the second iteration of the *Portal* unit to research how a random assortment of students approached learning, thinking, and writing in varying contexts. One of my concerns was to get students who are well versed in technology and those who are not so adept at digital discourses communicating with one another and write

rhetorically for a public audience. *Portal* is a game about self-reliance, quick thinking, testing hypotheses, and questioning authority. It is also a game about making connections in unexpected places.

My Own Digital Literacy Narrative

My own digital literacy influenced why I thought teaching *Portal* in an Academic Writing about Literature course was worth doing. Overall my experiences with digital technologies have been empowering and positive, so it was only natural I would want to share this kind of thinking with others. For the first class I taught a video game in, I framed it as a text to be interpreted along the same lines as a book or movie. I asked for student interpretations of the video game *Portal* as a text like the others in the class, not realizing there would be a push against bringing something so normal, for me, as a video game into the classroom.

Due to my own familiarity with video games, I did not consider that students would find playing a video game all that remarkable, especially in a twenty-first century classroom. I suppose now, looking back, I did not recognize how my own experiences with digital contexts were exceptional and how my exceptionalism had to do with sponsorship of digital literacy that many of my students did not have. Deborah Brandt in her book *Literacy in American Lives* defines her idea of sponsors as "the agents, local or distant, concrete or abstract, who enable, support, teach and model, as well as recruit, regulate, suppress, or withhold literacy" (19). Sponsors are the people who provide resources and support for another's literacy learning. Often these are parents, grandparents, teachers, community members, and the like. Sponsors and their sponsorship are often ideologically or economically influenced; some people have better access to certain resources than others. Sponsorship has been well documented on more traditional types

of literacy, Brandt's empirical research records many instances, but I also see this idea at work within my classroom. How could I sponsor digital literacy as a writing teacher?

Looking back, I count myself as lucky at being able to consider so many people and institutions as sponsors for my own digital literacies. In the late nineteen-eighties, I went to a school in the Cherry Creek School District around Denver, Colorado. If I remember correctly, Apple had donated a number of computers to the school. There was a computer lab with enough computers for each student. I learned to type using one of these computers. I remember the green print on the boxy screens. We had giant floppy discs on which we saved the stories we typed for English. These stories were later compiled into a spiral-bound book that each student received at the end of the year. I thought it was super neat. We also played some games—the ones I remember were *Oregon Trail* and *SimEarth*. Therefore, I count Cherry Creek School District and Apple Computers as sponsoring some of my computer literacy.

The computer literacy I was exposed to early in my educational experience matched that I was receiving at home. I saw how computer literacy improved my family's economic status. Even though Dad did not step foot in a college, he was able to move from a blue-collar to a white-collar job because of his know-how with computers. His problem solving skills with computers and software became an asset in an increasingly computerized workplace. He brought his passion for computers and technology home with him. I recall having a PC in the house since about elementary school—never the latest and greatest models but a decent machine to play games and work on. While many girls kept diaries in pink books with little locks on them, my diary was on our home PC and password protected. Owning a computer at home was a great benefit to my computer literacy, especially as we moved from Colorado to Texas when I was fourteen. The Keller School District did not value a computer lab enough to spend resources on a

computer lab at that time. So, in middle school and high school I was mostly sponsored in my computer literacy at home.

After my family and I moved to Texas, we connected to the Internet. My dad and I created a web page shortly thereafter. It was only one page. I don't remember what it was about, but I do remember picking the background color—a loud pink. He also taught me how to troubleshoot problems and how to use DOS to find files. A friend of my dad's gave us a handful of games he downloaded onto a 3.5 floppy disc. There were some text based games and point and click adventure games. I remember taking out grid paper and drawing out maps with my dad and sisters for the dungeons in *The Bard's Tale*. Computer games were a social activity at my house.

My dad not only enjoyed PC games, but console games as well. I have been playing video games since I could hold a controller. We owned an Atari even before a PC. I have owned one system from each generation of consoles ever since. My dad, my sisters, and I all played around the TV working together to complete levels, solve puzzles, and beat bosses. We would pass the controller around and had house rules for who got to play next. Some of the story lines from these games are as dear to me as some of my favorite works of literature. *Final Fantasy III* and *Chrono Trigger* on Super Nintendo, for example, showed me how video games can involve a player-reader into a story with complex characters and surprising plot lines as well as any book. Plus, I played these games with my sisters so we all got to experience these narratives together and talk about them as they occurred. These discussions over a character's motivations or fears are extremely similar to those I experienced in my undergraduate English classes.

I have always had a sponsor with digital literacy, whether at home or school. I learned to compose written works on a computer at an early age and still continue my preference for typing

instead of writing with pen. The software I originally used for writing looks nothing like the word processors of today, and likewise with video game technologies. Working and playing in digital contexts have taught me, not how to work with such-and-such a program, but how to read a system to make sense of it, act, and write in it. I have worked with many computers, computer games, and systems, and I have little doubt that computer spaces will continue to evolve and change.

My love of video games and computers has transformed into a desire to create my own software. Currently I am learning Java and have made a handful of apps for Android devices. Working with my husband, we have made a couple of little video games using free software like GameMaker and Unity. I do not consider myself an expert, but the sponsorship I received has very much impacted my relationship with computers, software, and technological devices. There came a point when I no longer wanted just to play games and apps, but to create my own. I am currently working on an app to help a user distinguish various plants of the boreal forest. I noticed there was a local desire for this kind of hands-on information, and feel empowered to be able to respond to a need in this way. I wish to give others the know-how to respond to similar issues they experience in the world.

Sponsoring Video Games as Literacy Practices in the Classroom

In the first chapter, I outline theories which have informed my research direction. I explain in further detail Carter's pedagogy of rhetorical dexterity, a pedagogy I chose to implement in my own classroom. I then go into more detail with Gee's theories of video games as literacy, bringing in Ian Bogost, to demonstrate how video game theories influenced my choice in using *Portal* for student learning and discussions on literacy. Next, I outline Dewey's course of reflective thought from his book *How We Think* and discuss the relationship between

reflective thinking and learning. Synthesizing all of these theories for my own course design, I explain how I collected student writing and analyzed it. For this purpose, I drew on conceptual metaphor theory as developed by George Lakoff and Mark Johnson to analyze how my students were conceptualizing digital spaces in their learning. I also write more about the course context, the students who were in my class, and how I made the research as ethically sound as possible. The second chapter is an analysis of Spring 2014 English 213x student writings. I examine student blog projects and the metaphors students use to navigate and make meaning in the abstract space of the video game. Finally, the last chapter discusses my research findings, surprises, and places for further study.

Chapter 1 Making Connections

The first time I assigned the video game *Portal* in my classroom, I assigned it alongside other fictional texts. Many in-class conversations involved how students would position themselves in relationship to technology. The class quickly divided into antithetical groups. Some students loved the technological benefits society provides—to the point they would be fine embracing any novel technology. The other half of the class, defining themselves as Alaskan-outdoor types, professed the other extreme in the debate and argued people should get back to knowing how to live without technology. Students continued using their favored philosophic framework in their analysis of *Portal*, and applied the well-worn narratives about their pre-conceived position to their projects. The class reading of the video game in the context of our course themes was predictable. I had a feeling that the class was much more diverse in opinion than they let on to one another, but once they had situated themselves to their classmates, identities were stuck.

I was not about to quit assigning video games in the classroom, or stop requiring students to practice multimodal authoring. I think it is important for students in a twenty-first century writing classroom to engage with digital texts, talk about their choices in these kind of writings, and, even more importantly, practice making connections to varied rhetorical spaces. Furthermore, there are stories within video games worth discussing and writing about in the classroom. *Papers Please* and *Gone Home* deal with issues of border control and homosexuality, respectively. *Portal* handles issues concerning authority and rebellion with aplomb; as the player character gains control over her environment, GLaDOS loses her position of power. There is a closeness between player and her character in the telling of the story which is unlike those experienced in books or film. The player must make choices with the character to drive the

action. It is a way of storytelling worth talking about. When students are only coming to the classroom to repeat known writing practices involving paper and ink contexts, they are missing out on empowering conversations about larger issues in a remarkably intimate way.

After teaching *Portal* the first time, I discovered the need for a new plan to feel confident in continuing to teach video games in the classroom, and *Portal* in particular. To this end, I decided to look into how I could get students to be more flexible in their approach to thinking and writing habits in the classroom. In this chapter, I will discuss the theories which influenced my thinking as I designed the revised version of the *Portal* unit. I borrowed heavily from Carter's pedagogy of rhetorical dexterity. Gee informed how I could frame reflective thinking, learning, and literacy. Both of these theorists aligned with how I understood reflective thinking as theorized by Dewey, which was especially relevant to my own concerns in the classroom. I reference other thinkers and writers as well, but these theorists influenced my unit design the most. To analyze reflective thinking, writing, and rhetorical dexterity, I use George Lakoff and Mark Johnson's conceptual metaphor theory. All of these theorists informed my decisions about sequencing the unit with an emphasis on digital writing.

1.1 Rhetorical Dexterity

Carter in her book *The Way Literacy Lives* stresses the importance of her pedagogy of rhetorical dexterity in a modern classroom. She constructed her pedagogy of rhetorical dexterity to confront problems she was repeatedly finding in her basic writing classroom. Students who entered her classes were very literate in communities of practice outside the university, but they had trouble writing for academic discourses. She did not believe it was ethical to think of academic literacy as somehow "better than" the other literacies students brought with them into the classroom. She writes that preferences of one literacy over others perpetrates problematic

social hierarchies and relationships of power. Nevertheless, one major goal she is charged with by her university is to get students' writing to be understood throughout their academic careers. One concern was how to do so when academic discourses rarely agree in across the disciplines. In addition, writing technologies and environments are continually transforming, and discourses which are now appropriate may no longer be so in the future. Carter wants to teach students to not only navigate and negotiate rhetorical situations in the here and now, but also to assess and respond to whatever situations they need to read, write, and make sense of in the future. "Even the most conservative readings of literacy," she writes, "have to accept that literacy itself has changed and, as the world moves from a print-based culture to a digital one, it will only continue to change" (13). Through her model, students are charged with examining the meta-level structures of discourse, learn the etiquette therein, and respond to be understood within that community of practice.

When I read Carter, I saw that these skills were needed beyond the basic writing classroom. Too often students in my 200 level courses were holding onto a monolithic model of literacy which was limiting to them, albeit in a different way than Carter describes with her students. Both sets of students show a need for writing classrooms to "represent literacy differently," that is, as social and transformative (15). After all, the "primary objective of rhetorical dexterity is to enable writers to make use of an ideological model of literacy as they negotiate ever-changing rhetorical situations rather than continue to force different rhetorical situations to conform to the autonomous model of traditional literacy education has trained them to accept" (19). I see a need for both basic writing students, and those who came into my own courses, to disrupt literacy models from a singular, rigid concept of literacy to a rhetorical model, which requires knowing how to connect with multiple literacies.

Before asking her students to write within and for academia, Carter first requires her students to analyze their own familiar literacies. She has them dissect their known communities of practice through a number of personal reflections. She prompts students to ask about who has the power to speak in a community and how they got that power; how information is produced; what sorts of language outsiders may find strange or confusing (121). In exploring and writing responses to these questions, Carter believes that students begin to experience how literacies are socially situated and negotiated. Once a student's own literacy is analyzed, she asks students to look at their literacy at a meta-level, to find structures and patterns the discourses follow. She cites Gee in calling the meta-level knowledge an understanding of the external design grammar of a literacy (135). When a student understands the parts of how a literacy functions—the participants, setting, and practices surrounding the literacy—these students may find these parts within a target community in which they would like to participate (act or write).

After students complete an examination and understanding of a design grammar, students can take this knowledge and begin to make connections to other, less familiar literacies. Students search for where and how "cultural and linguistic codes" are employed within participants inside that community, and search for similarities between the new literacy and their own. The bridging between a target literacy and a familiar one Carter terms as "points of contact" (80). Points of contact between a familiar literacy and an unfamiliar one are necessary for students to make sense of the target literacy.

Students should be encouraged to find connections instead of being overwhelmed by "*points of dissonance*… those points of *difference* between two different communities of practice—points that confuse or disorient literacy learners" (22). In step with Carter, I recognized two kinds of points of dissonance. The first is when a student finds him or herself at a

complete loss with a text, wondering how to proceed. Students comparing two literacies may find more differences than commonalities, and may feel confused about how to make sense of the target literacy. The confusion results in frustration with the object at hand. There will be differences between various literacies, and noting them is useful in distinguishing how to navigate them. However, there should be enough commonalities at a meta-level among all literacies, that they are social, dynamic, and situated, whereby a student should be able to make some kind of connection between the spaces. A student having difficulties should be encouraged not to give up in her practice of rhetorical dexterity because she is overly fixated on differences. The second sort of attitude issue concerning points of dissonance is when a student believes her familiar literacy the only one worth knowing. A student may resist knowing a literacy that they cannot fathom applying usefully to their lives. Thus, teachers must be aware of how points of dissonance may be taken up by students as they navigate multiple literacies.

The practice of rhetorical dexterity requires that a student "carry over those strategies from his familiar literacies that seem most appropriate, abandoning others, and, where necessary, developing new strategies all together" (93). Rhetorical dexterity requires critical and active learning habits in students which will serve them in negotiating multiple rhetorical contexts. As Carter states, "what [students] do gain from a pedagogy of rhetorical dexterity…is a new understanding of the way literacy actually lives—a meta-cognitive ability to negotiate multiple literacies by understanding that 'literacy is not literacy is not literacy'" (Carter 142, Hull 9). This knowledge is useful as students negotiate multiple academic disciplines and an ever-changing work environment.

1.2 Video Games, Learning, and Literacy

I set up the second unit writing prompt to emphasize investigative processes involved in navigating multiple rhetorical contexts. To get students making the kind of connections Carter discusses in her work, I used Gee's four step process, as outlined in his book *What Video Games Have to Teach Us about Learning and Literacy*, that players use to navigate video games. By separating and distinguishing steps to interact with the game, student learners grasp how to interact with the digital environment. First, "the player must *probe* the virtual world" (88). Probing the world involves observation of the surroundings and how things like the player controls affect the environment. Next, "based on reflection during and after probing, the player must form a hypothesis about something… might mean in a situated way" (88). A player, while interacting with the virtual world, observes a perplexity or problem to solve. There may be a strange button or other anomaly worth looking into. The player must quickly reason out various ideas and choose a plan to proceed. Once one is selected, "the player *reprobes* the world with that hypothesis in mind, seeing what effect he or she gets" (88). The player tests her hypothesis to note the results. Finally, "the player treats this effect as feedback from the world and accepts or *rethinks* his or her original hypothesis" (88). Gee writes that the four step process is necessary in understanding and navigating the game space, but also necessary for learning in general (88).

Video games design is built for active investigation practices and testing. To be literate in the semiotic domain of video games means to anticipate how the game design is set up so that players perform particular actions. For example, the environment of a video game must be read in such a way that the player can make guesses as to how to proceed. The player character tests her thinking actively and there are consequences, even if they are low-risk. The player learns actively and experientially whether her actions have a desired effect and her reflections on

decisions inform future actions. Players outside the game space discuss these experiences in their communities, making meaning about the game and their choices in their discourses.

Gee writes that students may be aware of the design grammars of a space but do not take the additional step to understand and interact with these "at a meta-level" (31-32). Active learning is when someone can read and respond to situations, transferring what is learned to future contexts for problem solving. Gee's goal is to get learners thinking about and engaging with the meta-level understanding of the choices behind the way the space is organized and designed. He calls this "critical learning," which he prefers to "active learning." "Critical learning" he writes, "involves learning to think of semiotic domains as design spaces that manipulate… us in certain ways and that we can manipulate in certain ways" (36). There is more to literacy for Gee than just reading and responding to a particular text; it is noticing how the text is designed to influence player choices and using that knowledge in reflection and decision-making. There is a discourse between player and programmer, similar to that between author and reader. These interactions are socially and historically situated, which then influences action. Literacy for Gee is tied to social practices.

Beyond reading and interpreting a video game environment, or even engaging with the game on a meta-level, players respond to the game space in another way. Players co-author their own story. The game facilitates their narrative, adjusting to a player's particular play style and reflexes in the game space. What I mean by co-authoring the game is that the player has control over at least one character within the game and that story of the playthrough may be markedly different from player to player. The control a player has in the game universe is one reason Gee believes games structure learning well. He states that video games have what he refers to as an "insider principle" (209). Rather than a learner feeling like an outsider to the video game space,

even if it is completely foreign, players are presented with the opportunity to identify themselves as insiders: “video games allow players to be not just passive consumers…. The game designer is not an insider and the player is not an outsider…. Rather, game designers and game players are both insiders and producers” (209). The player-as-producer makes choices which influence how the player-character interacts with the world. No two players will read and respond to the environment precisely the same way, as each player makes different choices in his or her play. Each player relies on a different set of experiences to draw upon to make sense of the unfamiliar place of the video game world. Video game programmers may not guess all the ways players will solve their puzzles, and that is expected. Interpretation of a text is always subject to multiple readings, which is the case with movies and novels as well. Unlike a film or novel, however, in which the plot and story line of the characters are set by the author, the player of a video game can kill off a character whenever she likes, or she may never find a side-quest and miss out on a storyline. As the player investigates the video game environment, they will create their own interpretation and understanding of that space and respond accordingly.

Not only does the player create their own narrative of her play, her learning may also be more personalized. If a player does not solve a puzzle right away, she can always pick up the game and try again. Multiple lives in video games show that learners are not always even expected to perform well the first time. Failure is an inherent part of video games because each video game presents an unfamiliar rule system. Testing that system will result in some kind of failure. Players co-produce their video game experience, in ways Gee suggests, by maneuvering through a designed environment by experimentation. The experimentation spawns the narrative formed by constraint. Ian Bogost, in his article “Rhetoric of Video Games,” discusses design constraints and possibility spaces. The navigation between these two points influences how

players interact with the game space. The guidelines that programmers, writers, and designers place within the game make up a system of allowances and rules. In other words, these rules are created by people with ideologies. Bogost argues that even in games without an overt political agenda, there is still a rhetoric in video games. There are writers, audiences, materials, and situations involved with video games just as any other text. Therefore, players interact with a rhetorical context when they play. He labels the kind of rhetoric found in video games "procedural rhetoric," explaining that it is more or less unique to video game spaces (122). When players experience procedural rhetoric, they are placed in a virtual rule system that makes claims about the game world. Through a player's interactions within a constructed place, and experiencing the consequences of their choices, the game uses procedure to tell a story, make a point, or communicate chosen cultural values to players. The player must entertain these other worlds, ideas, and stories to proceed in the game. Video games offer the opportunity to "step into" cases that necessitate solutions that the player may have never considered through other rhetorical situations.

The mechanics of *Portal* have a player use a portal gun, a device which shoots circles into walls, so that when the player walks through one portal she leave through the other one, thus connecting places otherwise impossible to reach. The game uses Newtonian physics to solve problems, and yet students must learn how to navigate a portal gun inside an environment very different from any in reality. Players must read the environmental cues and respond to proceed. It is a cleverly written "what if" game with a loveable but crazed artificial intelligence. *Portal* is constructed so that players use what they learn in prior levels in different ways and combinations to continue with multiple solutions to every puzzle. Also, the story line in the game leaves a lot of blanks for guesswork on the part of the player. I was curious to see how students made

connections in the game and how they went about solving the puzzles, both with portals in the game and the choices in their writing. I wanted to know how students created meaning out of the environment, puzzles, and story. Through their language and connections, I could trace how they were making meaning and learning how to navigate multiple rhetorical situations.

The interactivity involved in examining the rhetorical context of video games is an understandable way to get students thinking about design grammars in literacy. The game space is a three dimensional, exploratory environment for student analysis of design choices. Student writing is an act of making meaning in the spaces, in this way they translate their experience from one rhetorical situation, the video game environment, to another, the blog. In such a way students practice navigating and responding in multiple rhetorical situations. Thus, students experience rhetorical dexterity as "a pedagogical approach that develops in students the ability to effectively read, understand, manipulate, and negotiate the cultural and linguistic codes of a new community of practice based on a relatively accurate assessment of another, more familiar one" (*Literacy Lives* 14). While not drawing on Deweyian theory explicitly, Carter's pedagogy shares Dewey's theories of reflective thinking. These two theories map on to one another so well, that I believe that Carter's pedagogy is a way to practice the reflective thinking habits Dewey proposes.

1.3 The Course of Reflective Thought

When Carter writes that to teach rhetorical dexterity, "the trick is helping these writers figure out how to use what they already know to learn what they don't yet know" (13), she is using a theory of learning very similar to those articulated by Dewey. Dewey, in his book *How We Think*, discusses the course of reflective thought, the most useful habit of mind when problem posing and problem solving. The course of reflective thought uses what is known to

make sense out of the unknown. Reflective thinking done with experimentation and testing. A thinker hypothesizes, reasons, and tests a problem before making it a belief, rather than relying on old adages, elder's wisdom, or traditional thought. It is scientific in nature but not necessarily tied to the sciences exclusively; reflective thinking habits are more about active inquiry and discovery. Three parts of reflective thought from his book are of special interest: "attitudes of anticipation," how meaning and language are connected, and how reflective thinkers use what is concrete in their minds to make sense out of the abstract (128). These align with rhetorical dexterity so well that, for me, practicing rhetorical dexterity produces reflective thought.

Attitudes of anticipation are used when a thinker approaches something unfamiliar. The thinker will try to search her memory for similar cases or likeness in order to comprehend the perplexing subject. Likewise, a student may approach a writing classroom with certain attitudes of anticipation in mind about how to act and what would be expected of her. Attitudes of anticipation occur when a familiar meaning is employed to foretell the qualities of something strange. When the anticipation proves correct, it forms a stronger web of relationships. When the attitude proves faulty, "experimentation is fulfilled and refuted by results, [the thinker's] conceptions get body and clearness" (129). The new object is understood in a different way as it is juxtaposed with the unfamiliar object. The store of meanings a thinker has at his or her disposal becomes clearer and more specific.

Although attitudes of anticipation may be helpful when approaching perplexing situations, Dewey warns against reliance on "ready-made ideas" to solve problems (39, 59, 62, 128). He writes that "inertness causes individuals to accept ideas that have currency about them without personal inquiry and testing. A man uses thought, perhaps, to find out what others believe then stops" (177). I took his warning to heart when I was designing the video game unit.

I know students brought to class their own ideologies inherited from their various communities. Many came with the belief that video games were inherently good, while others felt video games were an unquestioned negative in American society. Many students come into the classroom with an autonomous model of literacy. Too often students would latch onto the theorists read in the class that aligned with their chosen philosophy rather than question their beliefs. I designed the video game unit as an attempt to get students following the model of reflective thought and to disrupt overt ready-made arguments students may bring with them. The digital unit requires them to navigate multiple literacies in order to spark inquiry in their analysis and flexibility in negotiating various contexts. The prompt I created was influenced by the model of reflective thought Dewey outlines, which I thought went remarkably well with Carter's pedagogy of rhetorical dexterity.

From my prompt, I intended the students to then choose which concepts would work best in discovering and "translating" the unfamiliar by using concrete concepts to grasp what is abstract (136-137). I assumed this movement would be different from applying a ready-made idea to a problem and then moving on since the movement in reflective thought requires active positioning of meanings and testing beliefs. Since recitation is necessary in my learning how students would choose their language in making meaning out of abstract spaces, I required students to show how they put these meanings, and their learning, into language. Thinkers use their capital funds of meaning to follow the steps of reflective thinking, that is, recognizing an issue; coming up with possible solutions; tracing out these suggestions to their logical conclusions; weighing which suggestion is best and then creating a hypothesis; finally testing a hypothesis before solidifying belief. Active, critical learning bridges and tests the familiar to make sense out of the perplexing.

1.4 Why Metaphor Theory?

Lakoff and Johnson discuss how metaphors are more than a poetic, rhetorical turn of phrase. Rather, as they make the argument in *Metaphors We Live By*, metaphors and metaphorical language affects an individual's conceptual structure. Metaphors frame how people interpret and interact with the world. "The essence of metaphor," they write, "is *understanding* and *experiencing* one thing in terms of another" (5, emphasis my own). The similarities drawn between domains influence how these concepts are organized in the mind. As one example, the authors unpack the metaphor ARGUMENTS ARE WAR in various ways throughout their book. People begin to understand argument in terms of how they understand war, and the entailments of this understanding affect the choices people make when engaging in the act of argument. In a culture which discusses argument in terms of war, people in an argument approach the act in terms like defending their position and fighting to win (4-5). People will argue in terms of attack and defense, and try to hold their position. In this way, the metaphors people use impact their conceptual understandings and influence action. Throughout the research, I indicate metaphorical concepts as Lakoff and Johnson did in their book, by using all capital letters in the presentation of the gestalt concept used.

Metaphors are linked on both sides by the verbs "is" or "are," but that does not make both words of the metaphor equivocal. Lakoff and Johnson point out that metaphors only make sense in one direction. TIME IS MONEY works as a metaphorical, conceptual system that people use and understand, while MONEY IS TIME does not. Reversing metaphors results in awkward meanings. The authors describe why this is by stating that, "we have explained the asymmetry in the following way: the less clearly delineated (and usually less concrete concepts), are partially understood in terms of the more clearly delineated (and usually more concrete) concepts, which

are directly grounded in our experience" (109). In other words, the concrete is used to grasp what is abstract. Concrete definitions develop from everyday, familiar experiences. Many concrete concepts used in metaphorical language come from how we understand our bodies, interactions with the material world, and how people are brought up to engage with their culture (117). How people experience the world influences language, which in turn shapes the way people organize their reality. As Lakoff and Johnson state, "the kind of conceptual system we have is a product of the kind of beings we are and the way we interact with the world" (119). Through experience and interactions with the world, people collect understandings that are used to connect to less delineated, abstract concepts. Therefore, people discuss these less distinguishable ideas metaphorically to more easily grasp such ideas, and are often only referred to using multiple metaphorical structures. How individuals use metaphors indicate the way these language users relate to their cultural systems and environments (119).

Creating new metaphors, therefore, creates new understandings. When one thing is understood in terms of another, only parts of the target domain are highlighted. The concrete domain of metaphor places in the forefront similarities in the target domain. Doing so, however, hides certain features of the abstract concept. Understanding words as containers of meaning highlights how meaning is exchanged in words but hides the fact there are speakers and a context of those words which assist in the production of meaning (11). When new metaphors are constructed, different parts of the target domain are highlighted and hidden. Metaphorical coherence between domains of a new metaphor results in novel entailments of those metaphors. Lakoff and Johnson put it this way: "new metaphors have the power to create a new reality…. If a new metaphor enters the conceptual system that we base our actions on, it will alter that conceptual system and the perceptions and action that the system gives rise to" (145). New

metaphors people employ, therefore, transform how they conceptualize a target domain which in turn influences action. The similarities between domains are drawn in novel ways with new metaphors, opening up different ways of understanding the target domain.

Because so many metaphors are crafted from experientially based concrete concepts to grasp target domains, I wondered how digital experiences would be written by students. What features from their material reality would they bring with them to organize, act in, and understand the digital space of *Portal*? Since new metaphors highlight different aspects of a target domain, I questioned whether a new space would inspire new metaphors or if students would apply well-known language to talk about new spaces. Furthermore, I was curious to discover in what ways students related their cultural, material experiences to create understanding in an abstract digital space. If "new metaphors, like conventional metaphors, have the power to define reality," my plan was to read and analyze student projects to find out how students were defining their reality in the digital space of *Portal* (157). Finally, I knew that metaphorical concepts affected action and attitudes. Reading how students wrote about their experiences in digital spaces would be a window into how they interpreted the space in relation to their own identities and communities. I was certain students would use metaphorical concepts to communicate their understanding and relationship with technological spaces in their investigations.

1.5 Why *Portal*

As I stated before, the first time I taught *Portal* the emphasis was on the game as a text. The characters in the game were to be discussed alongside other science fiction figures as a platform to discuss the frequency of malfunctioning machines in the genre. The second time I taught *Portal*, I became interested in student literacy with digital spaces. I noticed not many

students had the kind of sponsorship in digital literacy I grew up with, and about half of the class struggled with occupying or engaging the space of the game to write about their experience. I chose to teach *Portal* for both classes, even though the function of the game in the classroom served different purposes. I believe that the game is suited well for teaching video games in the classroom because it fits well with classroom constraints, it complicates assumptions many people make about video games, and the player must be alert when playing to solve the puzzles and piece together the story.

Portal is a relatively short game. The first time I played the game, I completed it in four hours, but students were finishing the game in anywhere from two to six hours. Not only is the game not very taxing on a student's busy schedule, it is also reasonably priced. Usually the game is sold for around ten dollars, but through the digital distributer Steam, the game will often go on sale and cost as little as two dollars. Through Steam, the game may be accessed on many different computers, as long as the user remembers her login information. Because the game was released in 2007, older computers and laptops are able to run the game. I was able to run the game on my Windows laptop, which is not set up for games. The game ran smoothly on my computer nevertheless and I was able to connect the laptop to the projector easily. Students proficient with the game gladly volunteered in class to demonstrate how to complete the end boss, GLaDOS, or showed the class where to find particular hidden points that added to the storyline. The cost, the time, and the portability are part of why I chose this game for the classroom.

Another benefit of teaching *Portal* was how the game scaffolds learning concepts. The game designers tested their game on a large number of beta testers and the programmers took that information to craft a game that influences player learning through design. Often subtle

lighting will indicate the goal of the level, or glass walls will attempt to influence a players pacing so she stops to look around a bit before acting. The designers beta tested the game so much because *Portal* teaches a concept not feasible in reality. There is a portal gun presented to the player. An orange portal is shot onto a wall, ceiling, or other surface area. A blue portal is shot near the player. The player can walk through one portal and out the other. So, if there is a portal on the ceiling and one on the wall, the player will walk through the wall portal and fall from the ceiling portal. Positioning portals in specific problem solving ways is how players complete levels. The player learns to manipulate the portal gun through obstacles presented on each level. The different levels are structured so that the early levels teach player learns certain properties of the portal gun, while later levels are only solvable with a combination of skills learned on earlier levels. Rather than mowing down waves of bad guys with increasingly powerful weapons, *Portal* gives the player one device to be used in multiple ways. There is no leveling up; instead the player becomes more proficient at the game as part of the reward for playing.

Portal goes against many perceptions many people have about video games. First, I do not consider the game violent. In discussions about video games in my classes, issues of violence and its negative effects have been brought up every time. *Portal* emphasizes the story and puzzle solving elements. There are moments which may be considered mildly violent. There are turrets that shoot the player character and the player must disable GLaDOS at the end of the game by incinerating her robotic cores. The game does not require the player to kill or harm living beings, only disable robots. The focus is not on how harmful the player can be in the gaming environment, but how clever she can maneuver through the game. The game also breaks conventions regarding gender in video games. There is a video game trope about a male

protagonist setting out to save or rescue a female in distress. In *Portal*, the player character is Chell, a woman protagonist, who is charged with saving herself from Aperture Science, a scientific facility hosted by an AI obsessed with cake and testing. The game opens animated discussions about gaming conventions and how and why such conventions exist.

At the outset of the gameplay, the game setting is a testing facility and GLaDOS guides the player. The storyline also gives clues as to how to play the game. GLaDOS often provides hints to how to manipulate the environment to solve puzzles. It becomes fairly clear early on, however, that GLaDOS should not be trusted entirely—she flat out says she lies at one point. So while the player is maneuvering through the levels, learning to use the portal gun in various scenarios, a story unfolds simultaneously. There is almost no information given about the player character, and much of the story about the facility is given through level design or slips in speech from GLaDOS. A player must be very aware of and engaged with her surroundings to catch and make sense out of all the clues designers placed in the game environment to tell a story.

1.6 Course Design

The 211/213x class is designed with an emphasis on argument and audience. Students learn to analyze their writing situations with rhetorical awareness. The practice they do inside these classes teaches them techniques in writing transferable to other courses and contexts. Students do not learn how to write in particular situations or for a particular future course; rather, they learn how to make sense of and respond to whatever contexts they need to write in and make their voices understood, both in academia and in their communities. Students practice habits of reading, writing, and researching that will benefit their writing in multiple situations. I feel an additional responsibility to teach the benefits of thinking of writing rhetorically in the

211/213x course because it may be the last English course in which some of these students enroll.

Keeping the chosen theorists in mind, I constructed a five week long unit with the goal for students to investigate their own communities of practice, play the game *Portal*, and compose a multimodal blog. The semester was roughly sixteen weeks long, and was made up of two major units. The first unit was focused on writing for an academic audience, the second unit where I placed *Portal* was writing for a public audience. The third unit was up to the instructor's discretion—my own class we examined genres relating to business, such as resume writing. The course as a whole was structured by the English department so that students would practice writing in multiple contexts throughout the semester. I chose the second unit for study because a great deal of public discourse is currently occurring in digital and online spaces. I began the unit on the Monday after spring break.

The prompt for the second unit was heavily influenced by Carter and Gee. I created the prompt with the idea that students would navigate multiple digital contexts and engage in inquiry based learning. First, students would read the various assigned materials for class. Reflecting on what they read and after class discussions, students were assigned to use their analyzed readings as a platform into an inquiry about the game. I set up the prompt as an investigation. Once they hypothesized about their relationship to video games as a whole, I had them research other scholarly theorists and juxtapose their findings with their beliefs, before playing *Portal* as a particular case. I then asked them if their experience in the game matched up with their hypothesis about video game. To spark their thinking for the assignment, I asked them questions such as what parts of the game surprised them, what met up with their expectations, and their interpretation of the game. I also summarized Gee's four part process for probing a game space

for new learners. In this way, I was looking for how students made sense of the video game, how they wrote about their experiences in a multimodal environment, and how they presented their findings, citing readings and investigations, to a public audience.

The first week was set up to orient students to digital literacies. On the first day, we as a class would talk about conventions for writing online, how most online spaces mix text and images, and students would also be introduced to the three blog sites they could use for their second major project. I posted three different blog sites, WordPress, Blogger, and Tumblr, on the course website. I chose these three because one of those may be more intuitive for some to navigate than others. During the rest of the week, I planned for the class to read excerpts from Gee about semiotic domains and affinity spaces (what he calls communities of practice) to start conversations about rhetorically-based discourse and digital literacies. The weekly micro-writing piece asked them to examine their discourse communities, what sorts of language they use that would be strange to an outsider to their community, how to recognize insiders, and who has the authority to proliferate information. The weekly assignment was Carter-inspired to get students thinking about their literacies on a meta-level.

Once students start thinking and writing about their own familiar language practices, the second week introduces them to the community of practice of video gaming. During this week, I planned to assign different positions to whether video games are a positive or negative influence on American culture. For this week, I juxtaposed Chuck Klosterman's "Billy Sim" and Bogost's *How to Do Things with Video Games*. These writers argue very different stances on how people should relate to video games. The weekly assignment is the student's response to these theorists, and an initial hypothesis about video games as a whole. I also set out to go over how to

download the game *Portal* to take care of any issues students may be having with accessing the game.

Students begin to play the game *Portal* the third week. This week also contains further readings from Bogost as well as activities about visual rhetoric. Since video games involve multimedia components to convey a story, a week was devoted to discussing how and why visual elements are chosen to make a point is necessary. The Bogost chapters discuss advertising and political posters in video games, and how certain video games are made for organizations such as companies or political parties. For the activities this week, students printed off news articles from the Internet to pass around class, talked about the decisions made to place the image with the news article, and what was communicated through the image which could not be done through text alone. Their weekly assignment this week was to conduct a similar analysis on a chosen advertisement. I required them to begin *Portal* this week and bring any questions they have about the game to class.

The fourth week begins the Erving Goffman *Presentation of Self in Everyday Life* chapters. We would discuss how spaces influence performance, and how Goffman's dramaturgical assessment applies to digital spaces and *Portal* in particular. This is the week when students come to a computer lab to play the game with one another, or compose their blog. The computer lab day is placed so that if students have questions about any of these digital spaces they can refer to one another as a resource or ask me.

The final, fifth week of the unit was only two days long because of UAF's Spring Fest. The project was due on a Wednesday. Monday I planned to spend with any other questions about the investigation and discussions surrounding *Portal*. I also would request volunteers to play the game for class, with the idea that not every student would get to the end. This way, students who

were not able to complete the game for whatever reason could still see the surprise ending, and talk about the game as a text. In addition, students who could play well would have the opportunity to communicate with the class about their decision making process as they went through the game.

1.7 Research Context

To see how students were making connections to the abstract video game space, I examined their multimedia projects. I examined both textual and visual elements in student composition. Throughout the duration of the second unit, I also kept a teacher's journal of our class discussions and conferences with the students. To gather their class projects, I created a Google Drive document that contains links to their websites.

In preparation for the study, I sent a proposal for the research to the UAF Institutional Review Board (IRB) required of all research on human subjects. I also completed the requisite modules through CITI Education Program through UAF and passed the ethics tests. I had my students sign an IRB-approved consent form in order to be research participants. Two students declined to be a part of the research and they were not included. The student writing I have used is on my Google Drive folder, available only to me, and through printed copies of their work in my file cabinet at home. I also keep my teacher's journal in the same filing cabinet. I have taken these steps to ensure that the research is as ethical, reliable, and credible as possible.

I chose to look at the metaphorical concepts students used in their writing about *Portal* to see how they were making connections to the abstract digital space of the video game. Through metaphor theory and analyzing the metaphors students use, I could map the range of ways students were investigating the game space with reflective thinking practices. In looking at student choices in their descriptions and images in their multimedia authoring, and examining the

metaphorical concepts students use to articulate their experience, my expectation was to see how students performed rhetorical dexterity and communicated their understanding through their multimedia projects. Student metaphorical choices indicate how students conceptualize abstract concepts and make sense of them.

The capstone project for the second unit required students to investigate the game world of *Portal* to see whether it complicated their expectations about video games. Their writing about their experience with the game will indicate whether they were challenged, if they found the kind of tension for inquiry Carter discusses, how students went about problem solving, and to what extent they read the constraints and freedoms of the game and their response to them, "authoring" their own version of the game as they play. I designed the second unit so that students would practice rhetorical dexterity to engage in their classroom conversations, their video game playing, and their multimedia authoring for a public audience. They needed to critically think, read, and respond in multiple contexts both off and online. Participation was required so that students experienced the game space first hand to write about their choices with authority.

1.8 The Evolution of the Course

I crafted the unit to make a mess of students' preconceived notions about their own relationship with technology and writing. I placed into the forefront conversations about digital literacies and their own relationships with writing technologies. To this end, I chose the second unit of the 213x course to talk about writing rhetorically, and why this writing is important when considering a public audience. Most public audiences will not appreciate a five paragraph essay argument, for example. Since much of what students, and I, read comes from online, I thought a good public audience would be those found on various blog sites. However, I wanted to push

their thinking about reading and writing even in online spaces, in case they would just take their practiced habits online. So, I designed the second unit whereby students would play the video game *Portal* and investigate its game-space.

Students are not just learning how to use portals in *Portal*, but they are learning the kind of thinking behind navigating the game successfully, which is key to reading and responding to multiple rhetorical contexts. The aims of *Portal*, in a smaller sense, are the same aims I have for the course. In learning to interact with the game space, students also engage in procedural rhetoric, and can compare the rhetorical situation of the video game to others discussed throughout the course.

In the second chapter I will be looking for how students identify with what they find familiar to make sense out of the unfamiliar in their writing, how they frame what is concrete areas of knowledge to them to convey the abstract, where the areas of their attitudes of anticipation lay and if they were surprised, whether they enlarged their "capital funds of meaning," and, finally, whether the unit surrounding *Portal* did in fact get students thinking and writing with rhetorical dexterity. Language and meaning are tied, and the metaphors people use structure the way they think and organize concepts in the mind. New metaphors make new understandings. I was curious to examine what metaphors emerge when students engage with the digital environment of *Portal*, which could never exist in reality. Evidence of rhetorical dexterity should be discoverable in student writing, that is in the language and visuals chosen by students selected for their compositions.

Even with these intentions, I still had students from the 213x class request alternate assignments. Both Hannah and Justin were skeptical about the multimodal authoring project and the video game particularly. I told them to write about their skepticism and test their hypotheses

by playing the game. By assigning the entire class to play, I was looking for the kinds of connections students of various digital literacies would select for their compositions, and whether any ready-made assumptions about video games and literacy would be reconsidered. Moreover, in analyzing how students created meaning in the world of *Portal* through their words, and how they would translate their experience into writing, I could discover useful information to influence future course design. I thought the project was an insight to experience their world through their words. I was interested in seeing how they made sense of the abstract area of the video game using what was familiar to them. In looking for these parts in student writing, I had an eye out for the kind of reflective thinking and rhetorical dexterity the theorists who informed my research discussed. My analysis to see where student use their metaphorical conceptions in their learning is taken from their blog projects. I also use a little from my teacher journal to talk about their backgrounds or conversations which took place as they were writing their projects. Through writing the familiar to make sense out of the unfamiliar, students writing reflects how students conceptualize digital spaces. I read through student writing to answer the questions: How did students understand *Portal*? What role did *Portal* play in identity construction in my class?

Chapter 2 Thinking with Portals

After reading the set of student projects for my 213x course, I found four major categories of metaphorical frameworks students used to talk about their investigations into the game space. Students wrote about their experiences by framing their relationship to the video game in the following ways: VIDEO GAMES ARE FORCES, VIDEO GAMES ARE MIRRORS, VIDEO GAMES ARE OPPONENTS, and VIDEO GAMES ARE A MALLEABLE MATERIAL. Students were tasked with composing a multimodal project about their inquiry and navigation of the game space. The metaphors they use influence how they conceptualize the unfamiliar space, and in turn, how they position themselves in their papers.

2.1 VIDEO GAMES ARE FORCES (The Game Changes the Player)

> At the beginning *my mind wasn't working right*, and I had a tough time wrapping my head around the physics, but through patience, practice, and prodding by glados *I learned to bend my way of thought*, and use what is really there for me.
>
> –Rachel

> Exploring *Portal* really *opened the flood gates for thoughts*. *They began to flood my mind*.
>
> –Hannah

> When I first came to the game itself, I think I *lacked the correct mindset* which I may or may not be beginning to have. Starting out, it was a completely foreign concept that I could shoot a portal at the ceiling and end up somewhere completely different…. Slowly *I improved*… combining all of the movements was definitely tough, and I currently possess the gracefulness of a newborn fawn.
>
> –Randi

Rachel, Hannah, and Randi all discussed their experiences with the video game in transformative terms, and yet, a closer look reveals a uni-directionality in regards to gender. They write about how the game changed their thinking. Each uses metaphors that tell of how their thinking habits were changed by their interactions with the game. They came up with hypotheses about the video game through their research and assigned course texts, and their

writings about how the game was different than they thought. This group of students wrote that they were not as bad as they thought they would be with the game, one or two even stating they enjoyed it when they were certain they would not. However, it surprised me how they wrote about the game as a solid system that manipulated them more than they manipulated the game. I was not expecting students to write themselves as passive recipients of a text that changes them, instead of active co-producers and participants of creating meaning through language. In Rachel's example, she states that her mind did not work right and through the game she learned to "bend her way of thought." She is using the metaphor of thinking as a kind of river that changes course. Hannah's metaphor of flooding her mind indicates how her regular definitions for thinking were erased. The flooded mind shows no categories but chaos. Finally, Randi writes that she did not have the right mindset, but that she improved, although her description of herself as fawn-like undermines her own accomplishments. In their writing, all three students position themselves in their writing as being affected by the text as though learning was something that happened to them rather than a participatory act.

These students also write about other people in their projects. Hannah and Rachel both place images of their boyfriends in their blogs. Hannah makes mention of hers while talking about the kind of fun she has outside, skiing and on her snow machine. She uses an image of them both on top of a snow-capped mountain. Rachel's boyfriend owned the game and let her play his copy. An image of them both is at the bottom of her post, smiling and giving the camera a "hang loose" gesture. Randi does not have an image of her boyfriend on her site, nor does she present an image of her sister, who loaned her a copy of *Portal*. Yet, she reports that her sister was there with her as Randi maneuvered through the game. Both Rachel and Randi seemed to have a better time with the game than they anticipated, perhaps because of this social interaction

while they played. All three mentioned other people as they discussed their experience with the game, sponsoring their activities in the game space and outside it. For me, it demonstrated how they were thinking about these activities as a social situation. Through metaphor, it appears to me that these students did not feel confident enough in their own words and meaning making to position themselves as authorities in these activities. Instead, they characterized these other people as propping them up in their experiences.

All three of these students also identify themselves as being more comfortable outdoors and use this identification as they discuss digital spaces. Rachel begins her project with a description of how the snow is melting and urges her audience to go outside. Hannah writes passionately about her need to escape the everyday in her outdoor adventures throughout Alaska and shares her love of winter sports with her audience. Rachel talks about her childhood spent "climbing trees" instead of learning to play video games. I think the positioning of themselves as preferring the outdoors indicates another metaphorical positioning against digital spaces, which they associate with indoor activity. In my interactions with these students I know that only some of their activities and identities involve the outdoors, so the contrast between indoor/outdoor may be a rhetorical move to show how they feel outsiders to digital spaces. On their blogs, these students are more authoritative when talking about their outdoor activities than how they negotiate meaning in examining and writing in digital spaces. These digital spaces are a force they confront that changes them, but they do not feel they have the power or authority to change these spaces in return. I was surprised with the way these students positioned themselves through their metaphorical concepts because it illuminated the fact these students did not feel they had the authority to respond to these spaces or to question the possibilities and constraints therein. What was startling to me was that the group of students took up this metaphor were all women.

The game could make its mark on them, but they were not making their marks on the game. In other words, I saw their writing about the unit as only a partial success in relation to my original goal. They were moving out of their rigid habits of mind, but they were also not feeling as though they were empowered to respond and affect the game space in turn.

2.2 VIDEO GAMES ARE MIRRORS (The Game Reflects the Player)

> There have been times when playing basketball in the video game have benefited my basketball skills in real life. For example, in the video game I would use a lot of behind the back dribble moves, spin moves, and crossover dribbles which were effective at getting past defenders in the video game so I started using those dribble moves more in real life and they worked…. Another benefit from playing *NBA 2K14* before playing basketball in real life was that I would play the video game and it would get me right in the basketball mind set.
>
> –Joe

> I could relate to SimCity so much that I even tried to build cities that I previously lived in. I was so fascinated by this game that at one time I wanted to be an architect. Laying out cities and building in video games inspired me to be an architect in real life.
>
> –Ben

> This thought process [in the game] reminded me very much of my math and engineering classes, where every skill learned was a building block for another skill…. Both *Portal* and Math share the same intuitive learning processes, which was very interesting to me, and gave me a different perspective on video games in general.
>
> –Josie

Joe and Ben also identified as Alaskans, but they did not position these identities in contrast to playing video games. Joe writes, "In my Koyukon Athabascan culture, living off the land by trapping, fishing, and hunting are all traditional practices," but he argues for balance between working and gaming rather than contrasting the two as opposing forces. To articulate his point, he presents his brother-in-law as a role model: "He has since grown a love for the subsistence lifestyle… my brother has also successfully found a way to balance playing video games and surviving by working hard in providing necessities for his family first, and then later,

playing video games for fun." Joe also strives for this balance in his own life between school, his other responsibilities, and video games. The images he chose to depict the kind of balance he argues for include his friends hanging out in the video game section of Wal-Mart and his snow machine. The figures below highlight the juxtaposition (see fig. 1 and 2 below).

Figure 1. Joe at Walmart

Figure 2. Snowmachine

As he states above, his time with video games is important because he sees himself in these games, bringing what he learns to his real-life activities. He likes the basketball game because it brings out a certain frame of mind for him. About his interaction with *Portal*, he writes that,

> I began running through the portals like a chicken with its head cut off, trying to beat the game as fast as possible and I got stuck on a difficult part and only then did I realize that in order to beat the game, I would have to think outside the box….I was interested in the thinking part of the game because I feel that I can use a little more complex thinking in my life.

The thinking he does inside the game he applies to his thinking outside the game as well. The boundary between the activities inside and outside the digital spaces affects one another.

Video games influenced Ben as well, as demonstrated in his paragraph about *SimCity*. He writes that "as I was growing up, I would move down to Gustavus, Alaska every summer to live with my dad. Summers were great, as I spent my time fishing, hunting for squirrels, and playing video games." One video game in particular was *Golf Challenge Pebble Beach* and his dad "played this game so much and he read so many golf books that he decided he wanted to build his own course. He had the financial backing and the land to build the course on so he did. Mt. Fairweather golf course is a nine hole, thirty-six par golf course that opened in 1998." Ben clearly had the kind of sponsorship that made video games a familiar community of practice, yet he still had problems with *Portal*. Although he had grown up around video games, he had not played a game since he was in high school. The last ten years he had worked at Prudhoe Bay, and the only media he was really exposed to was a television in a communal lounge area. He could see himself somehow in other video games he played—he had a history surrounding them. With *Portal*, on the other hand, the science-fiction world of Aperture Science was just too

strange for him to see much of himself in the game. He eventually found himself liking the game, after the day class was conducted in one of the campus computer labs, when he found that "it was entertaining to hear the student reactions while playing the game." He appreciated the fact that people were getting together to talk about how they solved the puzzles, but it still seemed like unless he could connect the video game to his own experiences and perception of self he was otherwise not engaged.

Unlike the previous examples of student writing, Josie did not write about her identity as an Alaskan when writing about her relationship with technology. Instead, she positioned herself as and took on the role of a Petroleum Engineering student and a mathematician. With almost little to no knowledge about video games since the mid-1990s, she compared communities of practice she was familiar with—mathematics and physics—to get a grasp on the unfamiliar one of the video game: "I believe that a game such as *Portal* contributes to the type of learning that is required in order to be successful at Math and Engineering," she writes. The game was a surprise for her as she did not expect to like it at all or have much to say about it. In her project, she ended up going a bit over the word limit, demonstrating that she had more to say than she anticipated when I initially handed her the prompt. In the project, she outlines how the learning process in *Portal* was similar to building knowledge in Mathematics. She uses this image (fig. 3) to illustrate her point:

$$\frac{d^2y}{dt^2}+2\cdot\frac{dy}{dt}+101y=0,\text{ and } y(0)=10,\left.\frac{dy}{dt}\right|_{t=0}=240. \quad (100)$$

$$\therefore \lambda^2+2\lambda+101=(\lambda+1)^2+10^2=0. \quad (101)$$

$$\therefore y_C(t)=e^{-t}\left[A\cdot\cos(10t)+B\cdot\sin(10t)\right] \quad (102)$$

$$y_C(0)=A=10.$$

$$\frac{dy_C}{dt}=-e^{-t}\left[A\cdot\cos(10t)+B\cdot\sin(10t)\right]-10\cdot e^{-t}\left[A\cdot\sin(10t)-B\cdot\cos(10t)\right]$$

$$\left.\frac{dy_C}{dt}\right|_{t=0}=-A+10B=240. \quad \therefore 10B=240+A=250. \quad \therefore B=25$$

$$\therefore y_C(t)=e^{-t}\left[10\cdot\cos(10t)+25\cdot\sin(10t)\right]\text{for } t\geq 0. \quad (102)$$

Figure 3. Equation

The caption below the image reads, “One does not instinctively know how to solve a problem like this one, it’s something that comes from thousands of hours of skill development, similar to video games.” In her analysis, she notes how the lessons learned in *Portal* build and complicate one another, and she uses her finding to reflect upon her own education with math and science. She proudly identifies herself as a Petroleum Engineering major, and uses this identity as a lens to understand the puzzle arrangements and plot of *Portal*. She ended up beating the game, but remarks that she was surprised that GLaDOS tried to kill her, and that the robot was not her friend, which shows that her reading of cues in the game still needed practice.

I saw all three of these students using the metaphorical concept of VIDEO GAMES AS MIRROR to grasp the abstract domain of *Portal*. They first looked at themselves and what they were familiar with to see if they could see themselves in an abstract area of knowledge. They used their conceptions of themselves to make sense of the unfamiliar, then generalized that information to further their own understanding about themselves and their habits. Although *Portal* was not labeled as a new favorite game by any of these students, writing about the game showed how students were using the game to reflect upon their own identities. They would then use their reflection in their writing about the game.

2.3 VIDEO GAMES ARE OPPONENTS (The Game is Against the Player)

> I would enter into the new chamber of the next level, listen to GLaDOS tell me all of the things that would or wouldn't happen while I was on this level, I then go around the corner and I am being SHOT AT. This crazy four legged egg shaped robot is shooting at me. GLaDOS gave me NO warning of this, which was very untrustworthy but let's face it, I could never trust her with anything anyway…. This game frustrated me, there were times I was ready to literally throw my laptop across the room (then I remembered how expensive it was) and there was a time that I actually did throw my mouse across the room, luckily, it still works.
>
> –Shirlie

Figure 4. Smashed Computer

> This is how I'm feeling right now. I want to break my computer and run it over with my truck! I can't get past level 17 and it is making me furious! The drones are making me mad and GLaDOS is making me want to slap her for all of her rude comments!
>
> —Samantha (see fig. 4)

> I died one too many times from things I did not know I could even die from. I found myself constantly getting trapped in a room. I could not figure out how to prevent myself from continuously getting trapped and it began to make a little sense when I noticed it was an extreme puzzle.
>
> —Justin

The narrative arc articulated in this set of papers illustrates that students used the metaphorical concept of the video game as a kind of opponent they fought against. Their frustration with the game is communicated through images or words of violence. Like in the previous set of projects, the writers who set up the video game as an opponent would set up the video games against their own written identities. While in the previous set of metaphorical

concepts students write the game as a kind of force that can alter their thinking, in this set of metaphors students prepare themselves for a struggle. They write both about their video game experience (using words and images to define and understand their experience) and their own communities of practice in contrast. These writings tell a great deal about how these students are constructing their identities through their writing. Connections to the digital space are made—but begrudgingly or with a fight. The students were able to navigate the game space but the narrative is usually a harrowing one. There is little room for responding to or shaping the rhetorical space when the goal is survival.

In Samantha's project, she uses all her own images. Some are her own screen shots of the game, which she learned how to do from a classmate, and some shots taken with her camera. She uses her blog to continue some of her inquiry taken up by the first assignment about her own attitude toward technology. She shares what she loves about fishing, posing with her own boat and writing,

> I can't stand sitting on my butt looking at a T.V. screen pushing buttons on a little controller. I need something more productive to do with my hands; like mending a hole in a net, or tying up gear, or baiting up that gear to go out on the open ocean to fish for Black Cod. I need a place where there is nothing in sight, nothing but the wide open ocean with the occasional Albatross swooping over the 10 foot plus waves with its 7 foot long wing span. Or the feeling the waves rock the boat back and forth, getting that feeling that the boat is going to flip over with every wave and knowing that if it does there is over 500 fathoms (3000 ft) of unexplored water below. This feeling fuels my love for the ocean. That is pure freedom.

Figure 5. Samantha and her Fishing Boat

Figure 6. Samantha's Screenshot

There is such a stark difference between the images she chooses to identify herself and her screen shots of her video game play that reinforces how strange the game world is for her (see fig. 5 and 6).

I was curious as to how someone who frequently articulated her stance against games during class discussion could be motivated to spend enough time with the game to make it nearly to the end. "I usually HATE video games and everything they stand for," she writes, "but this one is different. *Portal* is more of a puzzle and brain teaser than an actual game." The connection she makes to the game space is to redefines the act of engaging with *Portal*, casting the game as not a game at all. She even makes it to level eighteen, completing the level that frustrated her so

much in the above quote. She believes she is not good at games, but knows she is good at puzzles, so redefining the game as a puzzle makes it accessible to her.

Both Shirlie and Justin also identified themselves as Alaskans who prefer the outdoors to video games. Shirlie writes, “I am not a gamer. Never have been and probably never will be. I understand this is a way for some people, mostly males, to have some fun ‘bro time’ or to just chill and hang out but I don’t understand it.” From the outset of her project, she is setting herself up as an outsider to not only the game but how she perceives the gaming community. Through our conversations and class discussions, I knew she was passionate about helping people in need, which was one of the reasons why she wanted to go into nursing. She worked at the local nursing home as a caretaker, and called her favorite patient “grandpa.” She had shared these bits of her identity with the class, but I had no idea that she even cared about outdoor activities until her project. She takes the position that there are so many other activities to engage in besides video games,

> Even in the winter time there are so many options. There is cross country skiing, ice climbing (yes, on mountains) dog sledding, and so much more. If I had to choose between anything (almost) and playing a video game I would always choose the other option. I would much rather be out on a boat catching halibut, on a 4-wheeler riding up a mountain or camping than sitting inside playing a video game.

She defines herself at another point in her blog as “a girl from Kodiak, Alaska” and speaks directly to her public audience in the following way: “I hope you stick around as I have almost beat the game and am ready to express to you all the frustration, excitement, and relief I experienced.” She writes as someone who was confronted with a challenge although disadvantaged because of her background identity and habits but who overcame these

adversities. Through this narrative, Shirlie found some measure of success with navigating the game.

Justin also sets up the narrative of her project as though she were fighting with the game. When I handed out the prompt, she told me after class she did not know what to write about because she hated video games. I told her that the goal was not for her to like the game, but to test her belief using this particular game and position her argument using her investigations along with course readings. Justin was more than happy to write about her hatred of video games. At the outset of her project, she presents these images of her hunting and dog mushing (fig. 7 and 8). The caption reads, “Growing up there was plenty of time spent not playing video games.”

Figure 7. Justin Dog Mushing

Figure 8. Justin Hunting

Her investigation was full of struggle and fighting against the constraints of the game. She was able to make connections to *Portal* by reflecting on the other video games she played, *Grand Theft Auto* and *NBA 2K13.* In her writing, there is a small narrative of her sponsorship to digital literacy, "Although I am a competitive person, video games did not spark any interest for a long period of time. Those six games I played were because of my curiosity of why my brothers spent a majority of their time playing." She did not keep playing games with them for the same reason she eventually quit *Portal*. The game became too difficult and she gave up.

Each of these students sets up their Alaskan lifestyles and habits as an ideological counter to how they construct the game and gaming community of practice. They use the metaphor of games as opponent in their approach to the game space in making sense of it. They approach the game as an environment to tackle. The metaphorical concept they use already shapes the kind of attitude they have and the meaning they create when encountering the game space. The metaphorical concept of fighting as they interact with the game shows their resistance to affecting and being deeply affected by the game environment. They write themselves as tough,

Alaskan ladies who can handle themselves well in the outdoors and surprise themselves with how capably they handle themselves within the game space. Their conceptualizing of the game only saw the constraints and not the possibilities within that space.

2.4 VIDEO GAMES ARE A MALLEABLE MATERIAL (The Player Changes the Game)

The last set of students, seven in total, all talked about their experience with the text *Portal* as active agents in the game. This last group of students did not discuss the game world as a force that changed them, or an antagonist to fight against, or even as a way to look at and understand themselves, but instead write about actively discovering and pushing the boundaries of play in their environment. They read the game and write about how they made their decisions to act within the game. They actively took part in how they were shaping the game through their piecing together of the story, their discoveries, or their breaking the constraints of the game by hacking. I saw, in their writing about their play an interaction with the game as active co-producers of content. Rather than discuss how all seven papers in how they interacted with *Portal*, I am going to discuss two projects, which I think are representative of the kind of reading and responses that I saw in this group.

Matt begins his project with describing his approach to games in general: “I always try to explore everywhere, get all the achievements, and max my characters with the best skills, weapons, and armor.” In his playing of *Portal*, after negotiating his own position from the course texts and conversations, he tasks himself with hunting down all the “Easter Eggs” to piece together the story of the game. He uses a mix of images he finds online and his own screen shots of the game to show details that were not overtly explained. He uses the texts as evidence of his point. Some players would pass by images on the wall as background to create ambiance, but Matt analyzes these pieces of the game and writes about how they support a history of the

organization Aperture Science. His analysis leads him to conclude that "the clip boards show performance tests with a subject number and a skeletal figure of the subject, but the two clip boards actually differ…. These clip boards seem to indicate that tests were conducted on other creatures besides humans and based off of the subject numbers, many tests have been conducted." *Portal* leaves a great deal of blanks in its storytelling. There is an overt narrative about the player character thwarting the plans of the robot GLaDOS, but much of the story's background remains vague unless the player investigates further. Matt eagerly snaps up each clue to piece them into a backstory to illuminate more about the game. He muses over the possibilities a slide show left on in a side room could tell about Aperture (see fig. 10).

Figure 9. Matt Analyzes Background Information

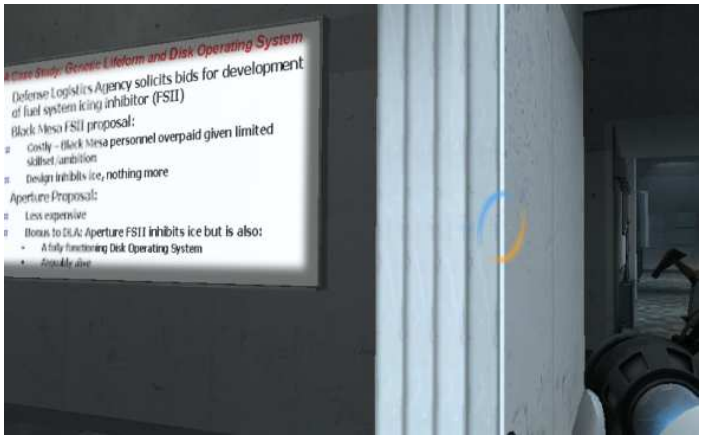

Figure 10. Matt Examines Hidden Rooms

He pieces together the fragments he finds around the testing chambers and the Easter Eggs in the following conclusion:

> Based off the fact that a robot dragged the player away at the end of the game, I think maybe a robot of the same type captured and abducted the player character and brought them to Aperture; that's how Aperture conducts their tests, since they didn't receive the necessary funding, they simply captured their test subjects.

Matt played through the game and was left with more questions so he chose to investigate the game in more detail. He took the overt information given in the game to uncover and piece together the less obvious portions of the story. He mades his own narrative history about the game character, the company Aperture science, and the character GLaDOS through his investigations. He, and the other students who also inquired into the game in this way, took an active, participatory role in the story telling of the game in their writing. They took the found pieces in the game, organized them, rearranged them, and filled in the blanks, to make their own story and experience.

Another proficient video gamer, Lucas, had already played through the game before, multiple times. I was worried that he would be bored with the project, but instead he found his own questions to investigate. His analysis of the game places a focus on the many ways he sees the game communicating the feeling of captivity (he uses fig. 11 to illustrate his point),

> All you have is a jail cell with glass instead of the bars. With the voice talking over the intercom, the feeling of being imprisoned intensifies because you have no idea who has you contained, or why you are contained. In fact, you don't even know who you are. After the portal shows up, you get a chance to see your

character. You are a female wearing an orange jumpsuit (ooh look, more imprisonment).

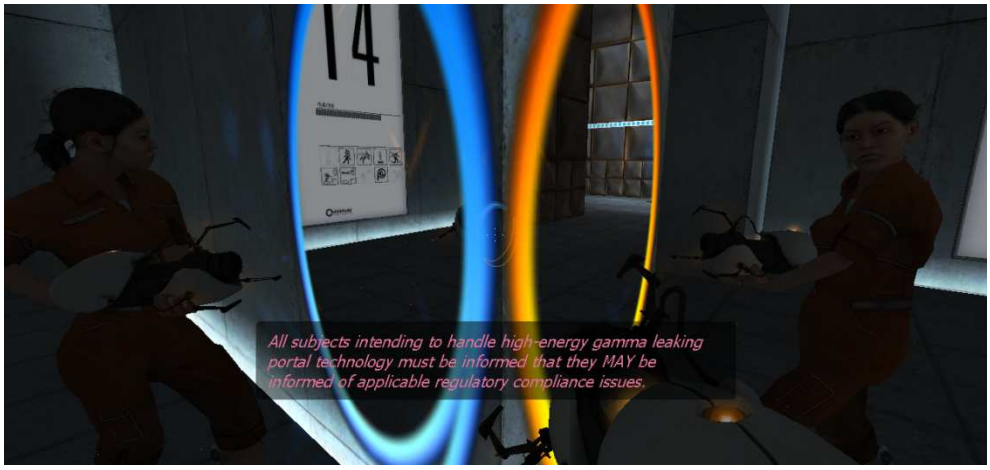

Figure 11. Lucas Takes a Photo of the Player Character

He also points out to the reader the cameras on the walls, and encourages people to use the portal gun to knock them down, he is writing to persuade his audience to rebel in small ways.

One of the jokes that the game maintains is about how obsessed GLaDOS is with promising the player cake. If the player is looking hard enough, they will come across a hidden room with the words “the cake is a lie” scrawled on the wall. The player is not supposed to ever find the cake. Lucas finds a game hack to enter the room with the cake in it, which appears in the end credits (see fig. 12). He does not draw a lot of attention to his accomplishment, even though the hack is hard to do. At the end of his post, there is an image with the caption, “P.S. You can actually get the cake.”

Figure 12. The Hacked Room

Lucas takes his knowledge of the game and builds on that understanding to learn how to redefine the constraints of the game. He uses the game design for an unintended purpose. Through glitches and hacking, the game constraints can be changed to allow for different combinations of play. The video game influences the player's feeling of imprisonment, and in turn he breaks the game itself. He does not see the boundaries of the video game as fixed, but pliable and negotiable to suit his own ends.

Curiously, this last set of projects had little information about the players as identifying as something other than players of the game. They did not rely on their identities as Alaskans or students in their descriptions. They took on the identity of a gamer to speak and write about their discoveries and used their experience within the game to position themselves in the course conversation about technology. Some of them enjoyed the game, some of them did not, but they all wrote about the game with a voice of authority in their investigations, testings, and conclusions.

2.5 Initial Reflections

I wanted students to not only position themselves in the course conversation in relation to the texts we read in class, but to draw upon their own experience as well. I designed the course to mirror the kind of investigative practices Dewey discusses, which match how Gee describes players navigating and responding to video game spaces. I was curious to see how students made sense of the abstract spaces of digital rhetorical situations, both in the game and in how they wrote their multimedia projects. My thinking was that through their experiential based inquiries they would write with authority about how they made meanings and understandings through texts and images.

I discovered that the students who used the metaphors VIDEO GAMES ARE FORCES, VIDEO GAMES ARE OPPONENTS, and VIDEO GAMES ARE MIRRORS were almost all female, with the exception of Ben (an older student) and Joe (an Alaskan Native). One woman did not ever turn in her assignment, although I saw her working on it during the computer lab class period. Those who saw the text as malleable were white, traditional-aged, male students. I thought this showed more about which students entering the classroom feel more comfortable in engaging in digital contexts than others. Some received more sponsorship with digital literacies in their lives than others. Who had received sponsors in their life for digital literacies, video games, or other digital contexts, and began to participate with digital literacies, and who had not was neatly divided along gender lines.

I was glad to introduce the unit as I did in the classroom to be another sponsor in their digital literacy. After discovering that those who were resisting digital spaces the most were all women, I thought of how, in a Digital Storytelling course I took, our professor had us read theorists who were all white men. I was frustrated because these texts discussed how the internet

was bringing more voices together but this was not reflected in the readings. In looking at what I assigned for the readings in my course about technology after examining the course projects, I noticed that I had also selected all white-male authors. This is even after I carefully selected *Portal* for being an unusual example of a game full of female characters. In the composition classroom, if a larger diverse group of researchers, writers, and designers are introduced to digital texts such as video games and online writing, the more familiar such a population will be to feel empowered to participate in digital discourses. Writing in paper and ink contexts are not enough to be proficient with when so much discourse is occurring in online spaces. To engage with digital spaces, it is not enough to code and decode texts, but take an active role in the discourse. With digital design, those who can manipulate the template of these discourses have extreme power over the tone and direction of speaking and writing. So many of the students in my classes were consumers of computer information rather than producers. When certain voices feel as though they do not have the authority to speak about these rhetorical contexts, or unfamiliar with how to respond, the individual author and the community lose out.

In looking over the student projects, women in the course often reference masculine spaces or figures in their writing and they often asked the males in the class for help during the computer lab day. Only the men volunteered to play *Portal* in the classroom to demonstrate how to complete the game, even though many of the women in class beat the game as well. When I only showed them masculine discourses surrounding digital spaces there is little wonder they did this.

Many of the students from the 213x class stated that they were not well versed in the community of practice of video gaming, and wrote about their other, concrete areas of knowledge when making sense of their experience of the game, generalizing what they learned

and categorizing it with their other experiences. To me, it makes sense that so many of these students organized and reflected on their identities in communities they were familiar with in order to try to grasp the unfamiliar. Some students were more successful than others, but for future classes I will have more awareness of how students are talking about and framing digital areas of knowledge because it affects their attitudes and understandings of these spaces.

Chapter 3 Reflections

Originally, I was charmed by the idea of teaching *Portal* in the classroom like any other work of fiction. However, I quickly became aware of the fact that a large portion of the students who entered my 211x class were not proficient enough with digital literacy to read, write, and make sense of the digital space of the video game. Moreover, this half of the class resisted the project, partly because these students classified a writing classroom as an interaction with paper and ink materials. Somehow, many students entering the classroom defined literacy as autonomous rather than rhetorical. After teaching the 211x class, I noticed a need for a disruption of student perceptions and definitions of a writing classroom.

For the 213x course, I brought conversations about digital literacy to the forefront of the unit. I intended to frame the digital unit as a practice and performance in rhetorical dexterity. Instead of talking about the game as literature, class conversations were focused on video games as a rhetorical situation and gamers as a community of practice. I required students to create a multimodal project whereby students manipulated both text and image in their compositions. They wrote about how their investigation into the game space of *Portal* reinforced, surprised, or overturned their perceptions about video games.

My own inquiry was to discover how students positioned themselves in relation to the digital space of the game through language using metaphors. Carter's pedagogy of rhetorical dexterity asks students to take their known literacy, look at it on a meta-level, and make connections to a perplexing one. When I read her definitions of rhetorical dexterity, they immediately brought to my mind the definition of metaphorical concepts, that is, to understand one thing in terms of another. Nevertheless, meta-level knowledge or not, the act of rhetorical

dexterity still strikes me as consciously manipulating metaphorical connections to create understanding rather than an unconscious application.

It was important to me that students receive sponsorship in digital literacy in the writing classroom. For my research I wanted to see what metaphorical connections students were making in their learning. I was interested in how they framed their learning and understanding in the abstract domain of *Portal* through their chosen language. My initial thinking was that students would take their familiar experiences to conceptualize the unfamiliar literacies of digital spaces. Attitudes, identity, and ideology influence what students used as familiar to make sense out of the unfamiliar. Through the sequencing of the digital unit, students would learn not only how to navigate through the digital spaces assigned in class, but feel confident in negotiating and occupying other unfamiliar rhetorical situations they may come across in the future.

3.1 Findings

Before the digital unit for my 213x class, I suspected that each student might use different metaphorical structures to discuss their interactions with the video game, each using her own unique experiences to draw on to make connections. One concern I had going into the research was that those students who were proficient in video game literacy would not find much in the project to investigate, as they may felt as though they knew everything about the game. I believed by requiring students to occupy digital spaces firsthand, they would write with authority and feel they were adding to the discourse about gaming as much as the theorists we read in class. Finally, I strove to make learning social and dispersed, with an emphasis on writing rhetorically rather than to a standard.

What I found through multiple readings of student projects was that unlike my initial suppositions about each student producing a different metaphor, groups of students used similar

metaphorical concepts when discussing their relationship to navigating the game. As shown in the second chapter, students were easily classified by their metaphorical choices. I chose the best examples of these metaphors to represent the kinds of language and images students used in their projects. I was looking for how students discussed the digital space using metaphors to find how they were framing and understanding the game space for a public audience. Their language demonstrates their belief and reality about how they relate to video games and *Portal* in particular.

There is a noticeable contrast in student writing between those who were familiar with video games and those who were not. In searching for the kinds of connections students made to digital spaces, I discovered that students who mentioned of outdoors situated themselves and their experiences outside a computer. Those groups categorized as VIDEO GAMES ARE OPPONENTS and VIDEO GAMES ARE FORCES, were made up of students who self-identified as not familiar with the video game, but capable of navigating outdoor activities. The difference between these two sets of students is that the former remained skeptical about the video game space, even after fighting with it, while the latter group slightly shifted their relationship to video games. In either case, both groups wrote about their experiences with the game by first identifying themselves as Alaskan, outdoor-loving individuals.

Their metaphorical conceptions demonstrated a tension in student thought. While grasping how to conceptualize the digital space of *Portal*, the chosen metaphorical concepts, were connecting student positions to an abstract space. Students who framed their experience in terms of battling an opponent were able to still relate to the space, writing their experience as a narrative of confronting and conquering an adversary, as though they were able to understand the space and navigate *Portal* despite their difficulties. Still, these students situated themselves as

outsiders, thus framing the digital space as somewhat alien. Their positioning of themselves by describing how they prefer the outdoors is a rhetorical move that indicates resistance and uncertainty about inquiry into digital spaces. These students write not as "insiders" to the community of practice, but as "outsiders." They were able to read their familiar communities of practice on a meta-level and make sense out of the unfamiliar community of practice of gaming well enough to play through a substantial amount of content, some even to completion, but resisted identifying themselves as capable of making an argument within the community of gaming. I set up my scaffolding for the unit so that after reading about video games theoretically, hypothesizing about games themselves, playing *Portal*, and then writing about games, students would have the confidence to speak with authority about digital spaces and video games in particular. Their projects show how they prefer to speak about video games as skiers, hikers, fishers, and other kinds of outdoor Alaskans more so than as players.

No one from the VIDEO GAMES ARE MIRRORS group had played the particular game *Portal* before, but they had little problem writing with authority. Each of these students argues for balance between occupying digital and physical spaces. They did not see conflict between the two but write about the various communities of practice they are involved in as influencing and enhancing one another. For example, Joe writes about how his basketball game in real life benefited from his basketball video game; likewise he felt *Portal* helped him "think outside the box" to solve problems. These students could write themselves in the game identifying as a player. Josie writes a paragraph about how she, personally, felt betrayed by GLaDOS when it became overly apparent that the AI is against the player character. Ben probably got the least out of his experience with *Portal* only because he tried to see himself as a certain identity in the game. All the other games he had played he could see himself as an architect in *SimCity* or as a

golfer in various golf games, but he could not see himself in the strange science fiction testing facility of *Portal*. Eventually, as he writes in his project, during the computer lab day he was able to see how others were approaching the game—not as Chell but as a puzzle solver. Still, the way this group of students connected to *Portal* was through identifying themselves in the game space. Had they not been able to do this, perhaps they would have framed the game as the previous two groups mentioned had done.

Finally, the group VIDEO GAMES ARE MALLEABLE MATERIAL came to the class identifying as members of the community of practice of gamers. My concern that this group would find little or nothing to write about was proven false quickly; this group was the most enthusiastic about the project. As John Dewey mentions in his articulation of the course of reflective thought, once a problem is solved often times a thinker will begin to investigate other problems the solution brings to light. Likewise, many of the students from this group had played and completed the game before, so for the play-through this time around they set themselves up with new challenges. Most of them chose to find every secret in the game, or to complete the various achievements the game offers. Once they had done so for their writing, they began to speculate on what these secrets meant about the video game's story line and characters in relation to the Valve universe. Others, like Lucas, tried to hack the game. He started a bit of a trend when he told people how he found "the cake room"—others began to try to get to it too. While the other groups placed their identities as wilderness loving Alaskans in the forefront, or balanced their digital and real life personas, this group identified themselves as gamers first and foremost. They wrote with confidence and authority, even in matters of storyline speculation.

If the main focus of the digitally driven unit was getting students to practice rhetorical dexterity, I thought that the last set of students were at a bit of a disadvantage. They were already

familiar with the community of practice of gaming, so they did not have to make connections from their known literacy to an unknown one. To try to combat this situation, I asked students who were familiar with digital literacies to think rhetorically about their projects. Rather than asking them to write within the community of practice of video gamers, I asked them to write for a broader public audience. It was important to me that in their learning they connect to other students in the class who did not consider themselves as part of the community. Those proficient with digital literacy offered to demonstrate how they beat levels by volunteering themselves to play *Portal* during designated class time. This group was more than happy to help out their fellow students during the computer lab day, making the video game experience more enjoyable for people like Samm. Through these activities, this group of students rhetorically situated their love of video games to a skeptical audience. Students could receive sponsorship in digital literacy from their peers as well as through the course requirements. I asked that these students keep their fellow students in mind as a public audience while they wrote for their projects.

The 213x version of the unit got students talking to one another in ways the previous 211x class did not. Taking a lesson from Gee, I emphasized the concept of distributed knowledge. The idea is that students should not necessarily memorize every detail about a subject, but instead know how to use resources to problem solve. Some of these resources are social, such as their fellow students in the classroom. I was thrilled that the class was social and voiced their positions despite their differences, and that students were finding ways to connect to digital spaces even while skeptical at the prospect. I saw that they would use distributed learning through asking their fellow students questions or referring to online resources such as a YouTube video about *Portal*. It was only later, after the class was over and I reviewed student writing, that

I noticed a disturbing trend. Digital literacy proficiency lined up with gender divisions in the classroom.

As I was sorting through notes and student writings from the 213x course, I noticed that unintentionally I had classified most of the men in the class as proficient with digital literacies and the women did not identify as such. Students were helping one another navigate the constraints of multimodal authoring and helping one another solve *Portal* puzzles. In reflecting later over my notes from that day, I saw that nearly all the helpers were men and all those being assisted were women. This was not my intention and made me extremely uncomfortable. While I was trying to get students confident in their own abilities to speak with authority about digital spaces, a dynamic unfolded whereby male students were instructing their female peers. During the computer lab day, the men in the classroom were often standing over the women who sat at their computers as they asked for help. When I offered to share the front of the class with those people who wanted to demonstrate a particular scene in the game for discussion, it was always the men who got up and volunteered. Therefore, the power dynamics I witnessed were not as participatory as I initially believed. I thought the second unit would be a great opportunity for students to be co-teachers and co-learners, but what happened instead was that most of the men taught while the females followed their direction. The power dynamics I witnessed about who has the ability to speak about and produce information in digital spaces may have inadvertently reinforced the idea that video games and technology are coded as a male-dominated space.

As someone who identifies as a twenty-first century feminist, I was extremely struck by my reflections over these discoveries. I was concerned even more about the class dynamics once I began reading over the student projects with gender in mind. The metaphors students used to conceptualize the abstract space of *Portal* are gendered. The women in the class all used VIDEO

GAMES ARE AN OPPONENT and VIDEO GAMES ARE A FORCE metaphors. Josie was the only woman who conceptualized the game using the VIDEO GAMES ARE MIRRORS metaphor. They were interacting with the game as though they had little to no effect on the game space, but the game space certainly had an effect on them as players. Rather than going into a rhetorical context and feeling empowered to know how to read, write, and manipulate the space to make their responses known, their metaphors indicate they continued to feel disempowered. The frequency with which students referred to the spaces they did feel confident in navigating—like fishing, skiing, even mathematics—made more sense in the light that perhaps they felt as though they belonged in these spaces more than others. All of the VIDEO GAMES AS MALLEABLE MATERIAL group were men who readily spoke with authority during their investigations.

Part of why I wanted to teach rhetorical dexterity in a 213x classroom was to subvert traditional power dynamics. Carter teaches how to navigate multiple literacies to her basic writing students, but I saw a need for those who were considered competent literacy users in Standard English to look at literacy as multiple and multiplying as well. I thought it was important to illustrate that reinforcing Standard English in a digital age puts these students at a disadvantage when they have to learn to maneuver multiple digital design spaces for work, community, and academia. What I saw was that most of the male students were already capable of and confident about articulating their position in these spaces, and even pushing the boundaries of affecting digital environments, while the women in the class were the ones who articulated resistance.

In future iterations of the class, I think it is important to examine more closely how gender and identity influence how students approach digital spaces. Why do women, specifically, seem to be positioning themselves as metaphorical outsiders even while they are

successfully navigating and occupying digital environments? I cannot help but remember a *New York Times* article which reported that out of all the writers who place information onto Wikipedia, less than fifteen percent are women. To me this means that although women have the tools to produce information, they censor themselves for some unknown reason. I am also conscious of the current gamer-gate debate occurring right now, and aware that women video game developers and critics are receiving threats because of their work. I will continue to offer a unit on digital literacies in my own courses, knowing that women are volunteering to remain silent in collaborative spaces or suffer the possibility of harassment when they produce for digital spaces. I do not believe that either of these issues influence why students are writing in digital spaces as outsiders, but they may be indicative of a deeper issue. In future inquiry into digital literacies, there is room to research why the students who remain hesitant or resistant in writing about and with *Portal* seem to be mostly women.

My own sponsoring history blinded me as a researcher to the fact that gender may have even been an issue in the classroom when it came to digital literacies. I grew up with exceptional access to digital spaces which I maintained, as well as my income allowed, as an adult. I married someone who is in IT and built my computer. I continue to receive sponsorship for my digital literacy through his support, but also through support of the university to study my area of interest. I took for granted that students would also have some kind of digital literacy sponsorship, because I had always been around communities where digital literacy was a valued priority. What I found was that students may have resources available to them, such as the Internet, computers, a home personal computer, video game consoles, etc., and yet not feel welcome to use them for writing, responding, or creating things with them. I had anticipated students not having access to computers due to economic reasons, but I had not anticipated

students being unfamiliar with digital spaces because of a seeming lack of interest. Many students seem to value their knowledge of the outdoors and show a preference for paper and ink literacy more than show interest in how to navigate digital spaces. As I noted in Chapter Two, some students wrote about other people who let them play their versions of the game. Rachel played her boyfriend's version while Randi played her sister's copy. To me, this means that many students have access to video games and other forms of digital literacy, but they are not receiving the same level of sponsorship I received, or feel no incentive to interact with digital contexts. There should be a push for these students to take these tools up, to read, write, and respond with them, so that these spaces feel like their own.

I would like to emphasize the need for sponsoring digital literacies in the writing classroom, not to overshadow or take the place of more traditional habits of learning, but to welcome students to the power of writing and designing in other environments. Students need to be aware of how to manipulate and recognize how they are influenced by multiple rhetorical situations. My intention is to design a course emphasizing navigation with multiple rhetorical situations, not in preferencing a digital literacy as the new Standard. Digital literacies show that literacies are continually changing and new technological spaces are invented, upgraded, or transformed. Situations and participants influence meaning within communities and shape discourse; the more people write with a worldwide audience, the more diverse and representative information on places like the Internet will be. As an educator and researcher, I feel it is vital that students receive positive sponsorship in digital literacy, if not from home or their communities, then from writing courses. I strive to be the kind of sponsor for my students that I had gotten from my own school and family experiences. By placing a digitally driven unit with *Portal* in the writing classroom that emphasizes rhetorical dexterity—and requires students to manipulate,

read, write, and produce information digitally—my goal is to create a platform for students to be involved in their own digital literacy learning.

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Appendix A: Consent Form

Consent Form for the Participation in Research Study.

Researcher: Victoria Avery, Department of English, University of Alaska Fairbanks.

Title of Research Study: Analyzing Metaphors of Digital Environments

I am studying what metaphors students use when discussing digital spaces to make meaning in understanding these abstract environments. In metaphor theory, language users draw from the language of their own experiences to better interpret what is less familiar.

I am doing this research because I would like to analyze your language choices to see what kinds of experiences you draw from in making connections in your critical thinking. I am interested in the conceptual framework involved in your writing choices. I would also like to see what your metaphors are highlighting or hiding anything in your attitudes toward technology.

By agreeing to participate, you are agreeing to allow me to read your writing both in the process drafts and final polished copies of your paper to inform my research. I will also take notes during class discussions to analyze how you use metaphor to frame abstract information in communicating with one another. I keep these forms and the information gathered in class where others cannot access it, and I will be the only one analyzing this data.

The results of this study will appear in my thesis. If I use your information, I will ask how you prefer to be identified.

I do not foresee any risks in this study. It will not affect your grade in any way. You may choose to change your mind in participating at any time—notify me and I will remove your information from the study. My contact email is vlaveryalaska.edu.

By signing yes on this form, I am agreeing to voluntarily enter this study. I understand that, by signing this document, I do not waive any of my legal rights. I have had a chance to read this consent form, and it was explained to me in a language which I use and understand. I have had the opportunity to ask questions and have received satisfactory answers. A copy of this Informed Consent Form has been given to me.

YES, I agree to participate in this study:

_____ _____

Signature Date

_____

Printed Name

Appendix B: Sample Unit Sequence

March 24 Multimodal Writing: Lecture on Creating a Blog Major Project 2 Assigned	March 26 Discussion: James Paul Gee *What Does Literacy….* Chapter 2: Semiotic Domains	March 28 Group Work Day James Paul Gee *What Does Literacy…* Chapter 3: Identity Assignment 6 Due on Google Drive
March 31 Discussion: Chuck Klosterman "Billy Sim" Go over downloading *Portal*	April 2 Discussion: Ian Bogost *How to Do Things with Video Games* Introduction, Chapter 1 (Art) Continue Discussion on Visual Rhetoric	April 4 Group Work Day Ian Bogost *How to Do Things with Video Games* Chapter 2 (Empathy), Chapter 4 (Music) Assignment 7 Due on Google Drive
April 7 Discussion: Ian Bogost *How to Do Things with Video Games* Chapter 6 (Transit), Chapter 7 (Branding) Play *Portal*	April 9 Discussion: Ian Bogost *How to Do Things with Video Games* Chapter 8 (Electioneering) Video Games as Rhetoric Watch and discuss video of *Papers Please*	April 11 Group Work Day Ian Bogost *How to Do Things with Video Games* Chapter 17 (Work), Conclusion How is the video game playing going? Assignment 8 Due on Google Drive
April 14 Continue playing *Portal* Erving Goffman *Presentation of Self in Everyday Life* Discussion on "Performance" excerpts How do we compose ourselves in relation to various physical spaces (home, gym, school, and so on)? Digital spaces?	April 16 Computer Lab Day! Continue *Portal* or Work on Blogs!	April 18 Discussion Erving Goffman *Presentation of Self in Everyday Life* Regions and Region Behavior excerpts Work on your projects!
April 21 Any remaining questions or concerns about your projects? I will need a volunteer or two to play *Portal* in class. Discussion over game and course readings.	April 23 Major Project 2 DUE! Share your investigations with the class.	April 25 No Classes—Spring Fest

Appendix C: Institutional Review Board Letter

Institutional Review Board

909 N Koyukuk Dr. Suite 212, P.O. Box 757270, Fairbanks, Alaska 99775-7270

January 29, 2014

To:	Sarah Stanley Principal Investigator
From:	University of Alaska Fairbanks IRB
Re:	[559635-1] Exploring Metaphorical Language in Engaging with Digital Environments.

Thank you for submitting the New Project referenced below. The submission was handled by Exempt Review. The Office of Research Integrity has determined that the proposed research qualifies for exemption from the requirements of 45 CFR 46. This exemption does not waive the researchers' responsibility to adhere to basic ethical principles for the responsible conduct of research and discipline specific professional standards.

Title:	Exploring Metaphorical Language in Engaging with Digital Environments.
Received:	January 21, 2014
Exemption Category:	*1*
Effective Date:	January 29, 2014

This action is included on the February 5, 2014 IRB Agenda.

Prior to making substantive changes to the scope of research, research tools, or personnel involved on the project, please contact the Office of Research Integrity to determine whether or not additional review is required. Additional review is not required for small editorial changes to improve the clarity or readability of the research tools or other documents.