

Re-Seeing Composition: Object Oriented Reflective Teaching Practice

by

Steven Wayne Hopkins

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Graduate Supervisory Committee:

Shirley Rose, Chair  
Maureen Goggin  
Patricia Boyd

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## ABSTRACT

This dissertation presents reflective teaching practices that draw from an object-oriented rhetorical framework. In it, practices are offered that prompt teachers and students to account for the interdependent relationships between objects and writers. These practices aid in re-envisioning writing as materially situated and leads to more thoughtful collaborations between writers and objects.

Through these practices, students gain a more sophisticated understanding of their own writing processes, teachers gain a more nuanced understanding of the outcomes of their pedagogical choices, and administrators gain a clearer vision of how the classroom itself affects curriculum design and implementation. This argument is pursued in several chapters, each presenting a different method for inciting reflection through the consideration of human/object interaction.

The first chapter reviews the literature of object oriented rhetorical theory and reflective teaching practice. The second chapter adapts a methodology from the field of Organizational Science called Narrative Network Analysis (NNA) and leads students through a process of identifying and describing human/object interaction within narratives and asks students to represent these relationships visually. As students undertake this task they can more objectively examine their own writing processes. In the third chapter, video ethnographic methodologies are used to observe object oriented rhetoric theory in practice through the interactions of humans and objects in the writing classroom. Through three video essays, clips of footage taken of a writing classroom and its writing objects are selected and juxtaposed to highlight the agency and influence of objects. In chapter four, a tool developed using freely available cloud-based web applications is presented which is termed the “Fitness Tracker for Teaching.” This tool is used to regularly collect, store, and analyze data that students self-report through a daily

class survey about their work efforts, their work environment, and their feelings of confidence, productivity, and self-efficacy. The data gathered through this tool provides a more complete understanding of student effort and affect than could be provided by the teacher's and students' own memories or perceptions. Together these chapters provide a set of reflective practices that reinforce teaching writing as a process that is affective and embodied and acknowledges and accounts for the rhetorical agency of objects.

## DEDICATION

This dissertation is dedicated first and foremost to my strong, brave, beautiful wife. Also, I would be remiss not to express my gratitude for keyboards with a good clack sound, headphones, Spotify, 750words.com, Google Drive, mynoise.net, the Tron: Legacy soundtrack, chairs without wheels, coffee, herbal tea, and good lighting.

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## OBJECT ORIENTED RHETORICAL THEORY AND REFLECTIVE TEACHING PRACTICE

For some years now, recent work in Rhetoric and Composition has moved toward a focus on things--on material objects and the ways that they are integrated, naturally or purposefully, into writing practices and pedagogy. By things, I mean the actual objects and tools--the stuff--that writers interact with, use, and that surround them when they write and learn to write. These theoretical considerations of objects as they pertain to subjects of interest to scholarship in Rhetoric and Composition have come from several directions--philosophy, sociology, and even science fiction.

The idea of object oriented rhetorical theory provide a way to acknowledge and account for the rhetorical agency of objects without anthropomorphizing them, or without trying to conceive of a world where objects make deliberate choices in the same way that humans do. In this conception of agency, the physical properties of objects and things “ask” us to interact with them in certain ways. They do not do this by crafting sentences or intentionally putting together symbols that communicate these messages to us (Davis). Rather, aspects of the object's physicality, and our own physicality, create ways that simply make sense for the interactions to occur in certain ways.

For example, the physical properties of a hammer--the long handle; the heavy metal end; the claws; the flat, blunt head; all limit or encourage us to use the hammer in certain ways and not in others. Using a hammer to drive a nail into wood makes sense because of how we naturally interact with the hammer. However, we could also just as easily use the hammer as a paperweight, or to juggle, or as a weapon, because of these same properties. However, it is difficult to imagine someone using a hammer to pick their teeth, or to wash dishes, or to tweeze their eyebrows, because of these same physical properties. This does not mean that no one could use a hammer for these



purposes, but rather that these uses not occur naturally most of the time. The ontology of the hammer as a hammer sets up certain ways to interact with it that “make sense.” In this way, the hammer’s rhetorical agency is made manifest as humans collaborate with the hammer to accomplish goals. It is this ontological “asking” where an object oriented rhetorical theory places rhetorical agency. Throughout this dissertation, references to agency refer to this particular aspect of object materiality.

This conception of object agency has recently been incorporated into Rhetoric and Composition. This dissertation is mainly concerned with how acknowledging, accounting for, and embracing the rhetorical agency of objects:

- decentralizes human agency to place it within complex networks
- conceptualizes agency as being fundamentally about interaction and theorizes writing as essentially and universally collaborative between humans and objects
- conceives of glitches, or frustration in human/object interaction, as opportunity
- claims that object agency is often effectively invisible and requires a re-seeing to acknowledge it
- lays a theoretical foundation for the creation of curricula that lead writers to consciously acknowledge, work with, and take advantage of the affordances of the objects and tools that surround the writing process

I will more thoroughly address each of these developments in more detail below.

One evidence of this shift of focus can be attributed to the influence of French philosopher Bruno Latour, who according to the Times Higher Ed was the most cited author in the humanities and social sciences in 2007. Latour’s relativistic view of agency undermines the modern divide between the natural objective world that can be explained through science and the subjective social world. Latour’s frameworks for

understanding “the social” take into serious consideration the ability of objects, ideas, and histories to motivate action, and asks researchers to map the influence of these things rather than seek an overall theory to explain their influence. Within Rhetoric and Composition, Latour’s work has been used to describe and propose writing pedagogy (Holmes, Boyle) to design program assessment (Rice), to theorize research assignments (Cooper), multimodal assignments (Rivers and Brown), course materials packets (Pflugfelder), and the discipline of Rhetoric and Composition itself (Rivers “Rhetorical”, Lynch “Apocalyptic”, Lynch and Rivers).

Along with the work of Latour, many in Rhetoric and Composition have also looked to Posthumanism as another way to make sense of the role things play in human communication, and in writing and the teaching of writing. Using the archetype of the cyborg, the hybrid human/object, as a rallying symbol (Haraway), scholarship in posthumanism posits that, from the use of the first tools, humans have existed interdependently with technology. The posthuman conception of human relationships with technology seeks to embrace, explore, and complicate this codependence in ways that benefit humans and objects. Scholars have used posthuman concepts to write literacy narratives (Porter), theorize invention (Lotier), describe the formation of writing habits (Boyle), to challenge disciplinary assumptions in the humanities (Dobrin), theorize and overcome writer’s block (Jensen), and create writing pedagogies (Rice “Inscriptions”).

These concepts lay the foundation for the main purpose of this dissertation, which is to combine these developments within the field and coordinate them with another, not so recent emphasis, reflective practices. In this introductory chapter, I will provide a personal narrative to illustrate the intended benefits of infusing reflective practice with object oriented rhetorical theory, review literature in both object oriented

rhetorical theory as well as in reflective practice, and then preview the chapters of the dissertation. Ultimately, this dissertation will present three structured practices that place reflection, for students, teachers, and administrators, within the framework of object oriented rhetorical theory. These practices will prompt and guide students, teachers, and administrators to reflect on the interdependent relationships they have with the things of writing in ways that will help them re-see composition classrooms and the activities and experiences that happen within them. The reflective practices presented in this dissertation offer different ways that students, teachers, and administrators can consciously choose to acknowledge and account for the agency of objects and the interdependent relationships writers have with them to better integrate them into writing and writing pedagogy.

First, however, I wish to discuss a few of the considerations of working within an object oriented theoretical framework, including difficulties inherent to studying things caused by their ubiquity.

Although the field has benefitted from object oriented rhetorical theories, one problem with them is that the category of “things” is inherently inclusive to a fault. To undertake the study of things is literally an attempt to study “every-thing,” and therefore drawing boundaries around what does and does not pertain to the study becomes fraught with difficulty. Additionally, if one were to attempt to restrict the category to merely the physical, tangible objects of writing, problems quickly arise with inclusion of computers and illuminates a larger tension about the physicality of digitized information. When a person types words into a word processor, one might ask, have they actually created something? Is the act of typing in a word processor fundamentally different from writing with a pen or pencil on paper? In the realm of discussing the things of writing, the line between physical/tangible and not quickly becomes blurry.

Inquiries into how computers affect writing have, for decades, addressed these questions and many more. To attempt to answer these questions is beyond the scope of this project.

From the outset though, I want to color my use of the words “thing,” “object,” “tool,” and “stuff” with this complication. To limit the terms “object” and “thing” as only being used to describe objects with physical mass would be to overlook much of the world of writing. Also, I recognize that using these terms in a way that places pens and paper and digital video editing software in the same ontological space does require some work. Another term that I will use here is actant. Many who look to the work of Bruno Latour use his term actant in discussing human/object interaction to describe both humans and anything else that can be interacted with and influence another. The word actant grants rhetorical agency to both humans and objects in the same way, and makes them both able to act, though in different ways, in what is called a symmetrical stance toward agency, or symmetrical agency.

As Clay Spinuzzi describes in his essay in *Thinking with Bruno Latour in Rhetoric and Composition*, an object oriented rhetorical theory requires us to assume a “symmetrical stance” toward agency as a methodological move, one that places human and object rhetorical agency on the same plane, so to speak, from the beginning. This is done in order to “[get] at certain relationships that are often overlooked or buried in other approaches” (Spinuzzi 29). In this chapter, Spinuzzi uses the vivid metaphor that a person charged with limiting the amount of weight on an elevator would not make a distinction between the weight of a human or the weight of a horse. For that person’s purposes, the two entities are the same because the quality of them that matters for their purposes is their weight. Other possible considerations, such as the value of a life a human versus that of a horse, the human’s and horse’s abilities to understand the

situation or have feelings about the situation do not matter for the task at hand.

Likewise, when examining rhetorical agency, a symmetrical approach allows researchers to carry out the task of describing the complex network of agency within a situation without making a distinction between the rhetorical influence or agency of humans and objects. Doing this--eschewing the distinction between human and object-- does not fundamentally alter either, but rather serves as a methodological stance to accomplish a task. Only their ability to influence another actant in the network is relevant.

Complications notwithstanding, when placed in the context of Rhetoric and Composition, these object-inclusive conceptions of agency and reality aid in describing the component parts of rhetorical situations, and naming and understanding the processes and sources of invention, arrangement, and delivery (collectively referred to as the writing process) by making them thicker and more complex. By acknowledging and accounting for the agency of things, scholars gain a more thorough understanding of how writers can make conscious choices about how they will interact with objects--how they will recognize their own positions in these networks that are ultimately not entirely under their control.

### Black Boxes and the Visibility/Invisibility of Technology

Learning new methods to reflect on our interdependent relationships with things is especially important because, often, the “things” in our writing lives--or at least the agencies and capabilities these things have and do--affect what and how we write, and yet often remain invisible. In other words, because of their ubiquity, many technologies we use to compose exist in a visible yet invisible state--what has been called a “blackboxed” state, a term which was first used by Charles Darwin to describe cells. The term blackbox will be familiar to most readers as the device in airplanes that constantly

records flight data and which is heavily armored to resist any possible crash damage. This box passively collects data from flights to be accessed if the need arises. However, it is not this usage of the word that I am referring to. Rather, blackbox is the term engineers and computer programmers use to refer to a piece of hardware or software, that executes a function, but the inner workings that run them are not visible. There is a clear moment of input, and a clear moment of output, but what happens in between is a mystery.

The same can be said for much of the technology we use while writing and teaching writing. We interact with the technology, and the technology produces results, but we are often unaware of the processes that happen in between. The idea of the blackbox allows us to label these processes and acknowledge the mystery while still frequently using the technology without any complications.

For example, when we press a keyboard key, the corresponding letter immediately appears on the screen or causes something else to happen. Most of us never consider that by pressing the key we are producing an input that a computer is processing in very complicated ways. The process of typing into a word processor is in a blackboxed state. In contrast, the visible, mechanical workings of a typewriter are not. When a key is pressed, a set of visible mechanical functions take place to produce a letter on the page. Similarly, when I send a text message, I am similarly unaware of what happens in between typing the message and the other person receiving it. I interact with my phone by typing and pressing send, then a series of events happen that I am mostly unaware of, and my message is sent and received. These technologies exist within a blackbox for me and for almost everyone that uses the technology. Because our interactions with these technologies are so seamless and require little work from us to

occur, they disappear, or as Arthur C. Clarke's third law states, they happen as if by magic.

Because of these blackboxed processes, we are not actively considering how the technologies we surround ourselves with function (or even that a function is occurring). Rather, we often think the technologies that surround us are merely passive recipients of our will. As such, these things are perhaps unworthy of our attention, or at the very least, are more difficult to pay attention to, because, although the hardware of the technology, or the interface, is visible, the processes that run them are not.

Similarly, when we write and when we teach writing, the agencies that bring the writing to fruition are distributed across complex networks of humans and objects and we are often unaware of these processes. Without some kind of guided reflection in which the user acknowledges and accounts for the agency and work of the thing the writer will likely be unaware of the complex processes taking place. With reflection, however, there can be a richer understanding of the collaborative process that is always in place each time a writer writes. Through reflection, technologies can become "un-blackboxed." The more writers are aware of how, when, and where they interact with technologies when they write, the more they can make conscious choices about how to interact with them. The more writers can reflect on this distribution of agencies and how they influence, limit, or even determine what and how we write, the more writers can avoid frustrations and harness the affordances of technologies to make conscious decisions about how to create in collaboration with these objects, things, and tools.

#### A Moment of Frustration/Glitch: A Personal Example

To illustrate the benefits made possible through reflection and "un-blackboxing" technologies, I will now present a small personal example that I hope will illuminate

what I mean when I advocate for reflective practices within a framework of object oriented rhetorical theory. For this example, I will be talking about photography, (which literally means writing with light). However, I hope the connection to more traditional forms of writing will quickly become apparent.

One day, my wife and I drove an hour and a half to visit her parents at their house, which was also my wife's childhood home. While spending time in an upstairs bedroom, my wife found a headband from her youth that she had forgotten about. She put it on, and then, in an effort to capture the feeling of nostalgia, she posed and asked that I take a photo of her with the camera on my phone. Figure 1 is the image that resulted. The picture displayed back to me on the screen of my phone took me by surprise because it did not resemble the scene I saw with my eyes, but rather was full of brightly colored, pixelated, digital glitches. My initial reaction was to simply assume that something had gone wrong--maybe even that the camera had disobeyed me, so to speak. For the most part, I saw the photo as a failure, or a passing moment of frustration.



(Figure 1: Glitchy Photo of My Wife)



Shortly after taking the picture, I attended the Computers and Writing conference at North Carolina State University in which Alex Reid's keynote address discussed the New Aesthetic, a movement in the London art community that explores the aesthetic experiences of objects. A key component of the New Aesthetic, Reid said, is embracing the idea of glitch as a way to better understand the technologies we use. Reid explains, "We view glitches as technological flaws to overcome and perhaps as evidence of the limits of human planning or design.... I would prefer to think of the glitch as a key ontological condition." As he spoke, I reflected on the picture of my wife I had taken.

Reid's talk prompted me to rethink my initial reaction to the photograph. Rather than following my gut-reaction and cursing my camera phone for not obeying my orders, or seeing my phone as an obstacle that was failing to represent my reality back to me, I could instead take a cue from the New Aesthetic, and from Dr. Reid, and accept that my camera phone had its own way of viewing the scene. The glitch had given me a glimpse of a key ontological condition of my phone. The blackboxed state of using my phone's camera made it difficult for me to understand my camera and the agency it has as an object without the additional prompting. Its processes had become visible in a new way. The image in Figure 1 *had* captured a reality, but a reality that I had not considered before--a reality in which my phone has agency and works collaboratively with me to create the image.

Reid's speech prompted me to reflect, and instead of seeing my camera and myself in conflict with each other, I could instead acknowledge how my camera and I had worked together to create Figure 1. Not only that, but I could further realize that every image that my camera and I make, even the ones that turn out exactly as I expect them to, are a collaborative effort. This reflection helped me accept that neither of us, neither

my camera nor myself, are ever completely in control of the image making. We work together. This reflection guided me to realize that this image that I once considered a failure actually works as one should expect when a human and a thing work together.

My reflection on this image taught me about the constant, interdependent relationship I have with my camera that so often remains invisible. I learned that, without my camera, I can't convert light into digital code that can be manipulated, stored, or shared; and without me, the camera cannot choose to initiate those processes or direct its lens toward any particular subject. We must work together, my camera and I, to compose something. My reflection, though not structured or part of any formal learning experience, fundamentally changed my perspective on my experience in ways that helped me understand how I take pictures more thickly and richly. Rather than seeing myself as an autonomous, controlling manipulator of passive objects, this reflection helped me re-see myself as another node in a network of things. Through this experience, I learned that when we interact with an object (use a pen and pencil and desk to write a paper, or use editing software to create a video essay) the complex processes that take place when we interact with these things are often deeply integral to the act of composing, yet also often invisible.

This experience is representative of the kinds of reflective experiences I will present in this dissertation that will benefit students, teachers, and administrators as they write and learn to write. The purpose of this dissertation is to find ways to incorporate consideration of objects and their agency into the reflective practices of writing and teaching writing and present similar reflective practices that create experiences like the one I had.

Object Oriented Rhetorical Theory

As mentioned above there are five main developments in the field of Rhetoric and Composition that have come from object oriented rhetorical studies that have formed the foundation of this dissertation project. I will use these five concepts as a map to review the literature.

*OORT Decentralizes human agency by placing it within complex networks*

The well-received scholarship done by Jenny Rice, Margaret Syverson, Sid Dobrin, and Collin Brooke all work to conceptualize writing and writers in terms of ecologies and work within an object oriented paradigm to understand writing more complexly. The word ecology, originally used in biology when attempting to describe how multiple systems interact, is meant to place the writer and the act of writing within a dense network of causes and effects. This line of thinking does much to challenge enlightenment assumptions about authorship and invention. Scholars who position writing as ecological challenge our ability to pinpoint and examine the sources of invention, arrangement, and production, because they decentralize and diffuse agency among the component parts of the ecology. Within this framework, researchers characterize writers not as autonomous creators, but rather as conscious, cooperative assemblers or manipulators. The major contribution of this work is to diffuse both the consumption and production of texts among many texts, peoples, objects, and social situations.

*OORT Demonstrates that Object Agency is Often Invisible and Requires Effort to See*

Thomas Rickert's 2013 monograph *Ambient Rhetoric: The Attunements of Rhetorical Being* argues for viewing rhetoric as a natural, constant component of life that infuses all things at all times and that yet remains elusive and difficult to trace. It

envisions an infinitely rich world in which each object and thing has its own rhetorical influence and agency. The world becomes an “affective, circulating, and evolving series of encounters” (44), where “boundaries between brain and body, self and world, language and thought, beginning and end, are permeable” (100). Rhetoric expands from being methods or modes of communications used by autonomous humans with and to other autonomous humans, to being “the always ongoing disclosure of the world shifting our manner of being in that world so as to call for some response or action” (xii). When all things have rhetorical agency, he argues, we constantly live in an ambient environment suffused with rhetoric that we experience on all sides at all times. He draws from Heidegger to posit “attunement” as the way that we make sense of this infinitely complex rhetorical environment. As an illustrative example, Rickert relates ambient rhetoric to the idea of *terroir*, the term winemakers use to describe the complex combination of soil, sun, water, etc. that leads to the individual characteristics of wine and the experience of consuming it.

Rickert’s conception of rhetoric places human actors within constant, dense networks that they are not even fully aware of. By choosing to highlight attunement to describe human interaction with the world, it acknowledges that there are often, if not always, extensive parts of the human experience that we are not aware of and must purposefully attune to in order to experience. Attunement is the set of cognitive tasks that allows an acknowledgement and response to particular things at particular times while ignoring or forgetting about, or not being fully conscious of, everything else. Through attunement we can make ourselves more aware of the things around us and the influence they are constantly having. Attunement, like reflection, requires conscious effort to achieve. Because agency is ubiquitous, diffuse, and decentralized, specific practice must be made to acknowledge and account for object agency.

*OORT Conceptualizes Agency as Being Fundamentally About Interaction and Theorizes Writing as Essentially and Universally Collaborative Between Humans and Objects*

*Rhetoric, Through Everyday Things* is a collection of essays that takes conscious steps away from anthropocentric conceptions of reality by closely examining the things of writing such as the QWERTY keyboard, and other “Writing Devices,” as well as other things like bicycles, stereoscopes, and little lending libraries. The authors in this collection present multiple ways that objects animate the writing process and act in rhetorical ways. This recent publication is a culmination of much of the thought surrounding object oriented rhetorical theory in *Rhetoric and Composition* and characterizes writing and rhetoric as acts accomplished in coordination with objects.

Through the work of Bruno Latour, the fundamental importance of interaction and collaboration in understanding agency is made clearer. Latour argues in *Pandora’s Hope*, “It is neither people nor guns that kill. Responsibility for action must be shared among the various actants” (180). Nathaniel Rivers summarizes Latour’s argument, “For Latour the gun is not a passive receptacle of human motives any more than it is the cause of them. It is rather that a gun being held and person holding a gun are distinct from an un-held gun and an unarmed person. ‘You are a different person,’ Latour writes, ‘with the gun in your hand’” (n.p.). It is this moment of interaction, of codependence, in which a new relationship is formed, and it is this relationship that is fundamentally rhetorical. A gun and a human become a gun-human and can therefore act in ways that a gun alone can, and a human alone can. This codependent ontology is rhetorical, again, because a gun “asks” to be held or used in very particular ways, and a user asks certain things of the gun in return.

*OORT Conceives of Glitches, or Frustration in Human/Object Interaction, as Opportunities*

When we interact with technology, many times we are only aware of them when they do not act the way that we assume they should. We only notice them when they glitch or create moments of frustration. A few scholars have pinpointed these moments of tension or frustration between our expectations of what the thing should do and what the thing actually does as moments that merit reflection. This reflection can then enrich our understanding of our interdependence with the things of writing. In order to critically examine the use of writing technologies, these scholars rely on glitch as a window to deeper understanding. Steven Hammer advocates actively and intentionally creating glitches in pictures, sounds, and word processing documents and text in composition classrooms as a pedagogical choice to bring writing students' attention to these moments to guide them in reflecting on them.

As mentioned earlier, the work of Alex Reid, particularly his 2014 keynote address and corresponding article, directly address glitch as an interesting point of tension that illuminates the codependent relationships humans have with objects. Casey Boyle in *Computers and Composition* also compares working with glitch to working out at a gym in that it creates new embodied opportunities for understanding our interactive relationships with the objects we use to compose.

*OORT Lays a Theoretical Foundation for the Creation of Curricula that Lead Writers to Consciously Acknowledge, Work with, and Take Advantage of the Affordances of the Objects and Tools That Surround the Writing Process*

In a collection of essays that explore how the object-oriented rhetorical theories of Bruno Latour fit into Rhetoric and Composition, Marilyn Cooper suggests what a composition classroom and a sample research assignment would look like. She posits how an object oriented rhetorical theory would guide students to amass a wide ranging collection of documents, statements, and words that describe rather than attempt to explain an argumentative stance. Cooper argues that Latour would rather teachers and students recognize that “the researcher is accompanied by other agents in the composing process,” and that these kinds of research assignments that focus on amassing rather than critiquing or arguing, would result in a description of networks. These descriptions would be more useful as a “sturdy--if not final--knowledge of a real state of affairs” (199). Composition classrooms that incorporate object oriented rhetorical theory would begin from a foundation that imagines topics, students, arguments, and situations as being comprised of dense, ever shifting networks.

In the same collection, Casey Boyle argues that the incorporation of object oriented rhetorical theories like Latour’s into composition does not require a complete overhaul of composition’s pedagogical practices, but rather by “making slight changes and rehearsing genre in different ways.” Boyle argues that these slight changes can help teachers and students understand how writing is ontologically formative and therefore is a practice that accounts for complex human/object interrelationships.

Nathaniel Rivers published a series of video lectures in *Enculturation* in which he comments on ways that Latour would change how we interact with our students and conceptualize writing for them. In these videos, he argues that “there is nothing controversial about Latour for Rhetoric [and Composition]” and argues that the two fields, often at odds with each other, are “pulled into the other by the big tent of Latour’s composition: the work of collecting, of making, of coordinating, arranging and

compromising.” He reminds us of Latour’s concern for material objects and the ways that humans are influenced by them as we interact with them. He also points out how Latour asks us to encourage our students to “show their work,” meaning to ask them to present their work not as final polished explanations of a concept or analysis, but as more complex collections of networked pieces.

Steven Holmes in *Rhetoric Review* directly addressed the issue of the viability of incorporating object oriented rhetorical theory into writing pedagogy and describes how to lead students through a process that embraces and seeks to describe complexity by tracing networks of actants. Holmes’ curriculum guides students through the process of exploring how laws in New York banning the sale of sugared soda drinks are imbricated in dense networks. By doing this, students could produce thick descriptions of the networks to see the agency and influence of human/object relationships.

Each of these pieces of Composition scholarship have been invigorated by object oriented rhetorical theory, which takes as a base assumption that all humans and objects are constantly imbricated in relationships of mutual influence in which each is an actor becoming a node in a network that has constant influence on the other actors in the network. One salient theme throughout these works is how this framework helps to illuminate the distinction between explanation and description as an important component of any Composition pedagogy that draws from object oriented rhetorical theory. As Cooper and Holmes argue, much of the history of teaching writing has relied on teaching students a set of hermeneutic lenses which they then use to examine a particular text. This system of teaching close reading leads to what Cooper and Holmes refer to as “explanation.” This hermeneutic process asks the student to take on the role of an expert who already understands a certain concept (power, sexism, racism, etc.) and asks them to find and explain the aspects of it inherent in the text. Doing this



conceptualizes a world of fixed relationships that solely need to be identified, setting up a series of correct or incorrect answers. To “explain” is to undermine the ever changing networks that comprise social situations. Any attempt to present a final explanation, would be a futile attempt to freeze the complex networks of influence that surround a topic or situation at all times in a way that immediately makes the explanation obsolete. The best one can do is attempt to describe, in as much detail as possible, the vast number of human/object interactions. The practices presented in this dissertation privilege description over explanation in the same way. By privileging description, writing takes on an ontological character in which students and teachers become makers rather than explainers. As students work to describe situations, it prompts them to conceptualize the world in terms of ever shifting networks of relationships.

All of this scholarship works to contextualize writing decision making as existing within a network of things that themselves have agency and can permit, influence, limit, or encumber the decisions that are available to the writer. By doing so, the writing processes of invention, of arrangement, of selection, are distributed among many actors and not just entirely in the minds and actions of writers. As such, this process can be examined through reflection.

### Reflective Teaching Practice

This dissertation is a continuance of the advocacy for reflective practices that have informed much scholarship in Rhetoric and Composition. For some time now, scholars have acknowledged the educational benefits of guiding students through reflective practices, and pedagogical benefits of reflective teaching practices. Reflective practice has done much to shift the emphasis of writing instruction from improving the end product of writing to improving the person writing. Reflection, as I use it here, is a

set of mental exercises or practices, that may or may not include writing, that are meant to make sense of lived experience. Experience then--embodied, visceral, lived experience--is a necessary predecessor to reflection.

In advocating for studying reflection as an important component of Rhetoric and Composition as a field, scholars make one major assumption: that most people are not naturally inclined to reflect on their experiences, that the process is not intuitive, and that many people require prompting and guidance in order to fully take advantage of the benefits of reflection. All have experiences; however, reflection as a deliberate practice to make sense of those experiences does not seem to be as universal. Scholars in Rhetoric and Composition have seen the benefits of thoughtful reflection by students, teachers, and administrators in making sense of writing and the teaching of writing.

For the purposes of this part of the literature review, I will divide my survey of this body of work into two sections: Student Reflection and Teacher Reflection. However, I see these two categories as permeable and believe there are universal aspects of reflection that eclipse them and tie them together. In fact, some scholarly work, such as *Writing/Teaching: Essays Toward a Rhetoric of Pedagogy* by Paul Kameen and Wendy Bishop's "Places to Stand: The Reflective Writer-Teacher-Writer in Composition," find great benefit in collapsing the roles of writer and teacher when performing reflective practices.

### *Student reflection*

Much of the early work in reflection comes from examining genres of student writing that prompt reflection, such as journaling (Anson and Beach; Ede; Emmons), autobiography (Kyburz) and the essay (Qualley). Much of the focus of these studies is to examine and report how these different ways of prompting student reflection have

benefitted students in their abilities to turn their life experiences into meaningful pieces of writing. For much of this work, the goals of the reflective practices are in improving the quality of the student writing through the structure, tone, and thoughtfulness of the end product of writing.

The *Framework for Success in Postsecondary Writing* put forth collaboratively by the Council of Writing Program Administrators, the National Council of Teachers of English, and the National Writing Project, however, emphasizes thinking skills over writing as a final product. The document presents metacognition, or “the ability to reflect on one’s own thinking as well as on the individual and cultural processes used to structure knowledge” among the “habits of mind” that lead to successful teaching and learning in writing classrooms. These eight Habits of Mind are meant to be “intellectual and practical” ways of being or interacting with the world for writing students, teachers, and administrators. The *Framework* in some ways represents a shift away from concentrating on improvement of the quality of student writing and moves toward improving the students as writing and thinking people. Rather than using reflection to aid in producing better prose for specific assignments or semesters, the *Habits of Mind* conceives of students as life-long writers, and posits reflection (among other practices) as the kind of embodied thinking processes that will lead to long-term success in future writing endeavors.

Kathleen Blake Yancey’s *Reflection in the Writing Classroom* creates a three component system for reflection before, during, and after the writing process, which she termed Constructive Reflection, Reflection-in-Action, and Reflection-in-Presentation respectively. Each of these three models of reflection come at crucial times in the writing process, whether at the metacognitive level, asking the students to examine overarching trends in their writing processes, at the granular level by asking students to reflect on

work in progress, or at the programmatic level by asking students to reflect on how their writing does or does not meet the goals established by the program. This comprehensive set of practices continues a focus on improving students as writers rather than improving student writing.

This shift from concentrating on student writing to concentrating on the students themselves has been influential in shaping how I personally have connected with the work of reflection in the writing classroom. I see the pedagogical and administrative practices presented in this dissertation more closely aligned with the latter.

### *Teacher Reflection*

Philosopher Daniel Schön was influential for Yancey in developing her three-part system of reflection. His book *Educating the Reflective Practitioner* introduced the idea of Reflection-in-Action and did much to shift the work of reflection onto the teacher. Channeling Dewey, whom Schön studied for his dissertation, Schön asked teachers to take on a stance of self-examination and presented practical, pragmatic methods for guiding teachers through a process of reflective inquiry. Shifting the emphasis from the students' reflective practices to the teacher made reflection an important pedagogical development rather than a curricular shift.

George Hillocks Jr's *Teaching Writing as Reflective Practice* drew from Vygotsky's idea of the Zone of Proximal Development, also worked to present grounded, practical ways for thinking about teacher reflection that emphasized the teacher's role in the reflective process. He contributed the idea of the Frame Experiment, which attempted to introduce a scientific rigor to reflective teaching. He provided six distinct steps in the process of reflective teaching, and also conducted an extensive meta-study of teaching effectiveness to demonstrate the need for this self-critical stance.

Recently, Robert Yagelski, in “The Ambivalence of Reflection: Critical Pedagogies, Identity, and the Writing Teacher,” elaborates on the self-critical, often uncomfortable, and psychologically difficult stance required by teachers to undertake reflective teaching practices and the resulting ambivalence many teachers feel about it. Yagelski’s article draws from ideas of Zen, Psychoanalysis and the idea of Generosity to link reflective teaching to critical teaching and to examine the teacher-student relationship. By doing so, Yagelski elucidates the difficult task undertaken by a teacher when they engage in reflective practice; they must admit to failure or to lack of expertise. This is not a position that feels comfortable to many, and is perhaps one of the reasons that many teachers require prompting and guidance to participate in reflective practices.

Continuing in the vein of asking teachers to be comfortable with being uncomfortable, Paul Lynch, in a monograph titled *After Pedagogy*, addresses concerns within postprocess pedagogical theories, and returns to Dewey to talk about reflective teaching in terms of “inspired adhocery.” Lynch argues that the mythical “teachable moment” cannot be planned for, that pedagogy happens in unpredictable ways and that teachers need to use reflection to make sense of classroom experience. Inspired Adhocery is a state of being as a writing teacher that requires constant discovery and becoming. Ultimately, *After Pedagogy* argues that the disciplines studying writing pedagogy have “run out of steam” and that has left us in a post-pedagogical moment in which pedagogical theories can no longer account for the complexities of teaching. By drawing from postprocess conceptions of writing pedagogy, Lynch positions reflective teaching as a pedagogy that happens after classroom experiences have already taken place. From within this framing of the current moment of scholarship Lynch turns to

John Dewey's idea of experience and argues the concept creates a space where theory and practice can coexist.

These works present practical, realistic ways of conceiving of the work teachers must undergo to be reflective practitioners. These works have shaped my own conceptions of myself as a teacher, and inform the pedagogical and administrative practices I will present in the chapters of this dissertation.

### Personal Narrative

Just as above I shared a personal narrative to discuss an example of the possibilities of incorporating object oriented rhetorical theory into reflective practice, personal narratives will serve as an instrument throughout this dissertation. These narratives serve as a method of tracing my own reflective practices within the paradigm of human/object interaction. I do not share these to hold myself up as a standard to be met, but rather as an example of possibilities. Because of the inherent complexity of reflective practice, guidelines for practice can be given, however, it can only be described and experienced in local, personal, subjective ways.

### Chapter Previews

The chapters of this dissertation present reflective practices for composition classrooms that are framed within object oriented rhetorical theory. Each of the chapters provide practices for students and teachers to undergo in the classroom in which they must begin with a self-critical stance, and then consciously work to make sense of their lived experience of teaching and learning writing. These practices will benefit those who are willing to share their rhetorical agency with the objects around them and have the end goal of better understanding their own interactions with the objects as a means of

improving themselves as holistic persons. The first practice presented is meant mainly as a curricular example for students that would guide them in discovering their own collaborative interrelationships with objects. The second practice is an applied method for teachers and administrators to better understand the classroom spaces in which the teaching and learning of writing occur by using digital video to aid in the examination of these spaces. After having integrated OORT into the curriculum and daily practice of the classroom, and then used OORT to shape a methodology for examining the classroom space itself, the third practice asks teachers to embrace the collaborative relationship with objects by creating and introducing a system of data collection and analysis that can facilitate constant reflective practice.

#### *Facilitating Reflective Practice through Narrative Network Analysis*

Chapter two presents the first reflective practice of this dissertation which students can use to better understand their own writing processes and the writing processes of others. This practice draws from a method used in the field of organizational science called Narrative Network Analysis (NNA) and will highlight the ways that NNA privileges description over explanation and begins from a symmetrical conception of agency to find ways to describe the interactions of humans and objects within a narrative network. Within the chapter I will both perform NNA, and demonstrate ways that the fundamental principles of NNA--examining situations from a symmetrical standpoint of agency, identifying ways that humans and objects are interacting and influencing one another, and creating visual demonstrations of interactions--can be used in the composition classroom. After this discussion and demonstration of NNA, the chapter then presents a reflective practice called "From Nothing to Something" based on the principles of NNA that guides students through the process of recognizing their

interdependent relationships with objects in ways that allow them to best facilitate their own writing idiosyncrasies.

#### *Facilitating Reflective Practice through Digital Video Capture and Editing*

Chapter three will present the findings of an ongoing multimedia ethnographic project at Arizona State University called Visualizing Teaching in Action (ViTA). The research protocol for this project is meant to observe the teaching of writing, and, through reflection and participant feedback, develop better ways to visualize teaching in action. This chapter presents video essays created by capturing digital video footage of a composition classroom in session and then selecting and juxtaposing with one another salient moments in the captured video. This chapter will discuss three videos that were made from the video and, using object oriented rhetorical theory, examine the interdependent relationships of humans and objects in the classroom. These videos pay particular attention to ways that classroom design; integration of computers, projector screens, and other technologies into writing classrooms; institutional policies; and the physical bodies of students, all have agency and influence within the classroom.

#### *Facilitating Reflective Practice through a Fitness Tracker for Teaching*

Chapter four will look to wearable fitness tracker technology as inspiration for creating a reflective practice for teachers. This chapter will present a tool I have developed and used in my own writing classrooms to collect, store, process and visually represent self-reported survey data from students. The tool itself becomes an important object in the classroom as the collected data then facilitates reflective practice. This chapter embraces the affordances of human/object interaction in the reflective process, and argues for the deliberate creation of tools that facilitate them. This tool also



positions teachers in a constant critical stance toward their own pedagogy by consistently creating opportunities to reflect on their students work and progress. The tool creates a way for teachers to reflect on their classroom experience and pedagogical choices by drawing from data more complete than that created by their own memories and perceptions of the classroom.

## FACILITATING REFLECTIVE PRACTICE THROUGH NARRATIVE NETWORK ANALYSIS

The first reflective practice I will present comes through adapting the guiding principles of Narrative Network Analysis (NNA) to Composition pedagogy. NNA has been used within the field of Organizational Science to trace “Organizational Routines” with the intent to improve efficiency within those organizations. Drawing from an object oriented conception of rhetoric, NNA, at base, seeks to visually present the complex network of actants, both humans and objects that have agency and influence within systems. This methodology adheres to four basic principles—begin from a symmetrical understanding of agency, identify and label actants, observe how the actants influence one another, and trace those influences by composing a visual. These four principles align with the developments in the field of Rhetoric and Composition this dissertation seeks to address. Together they lay the foundation for creating a thicker understanding of the rhetorical agencies at work within systems. Integral to NNA is the assumption that the routines that actually occur within organizations are different from the scripts that we use to discuss them, or from common perceptions about these systems—that there is always a disconnect between how a system is supposed to run, and how it actually does run. NNA assumes that the blackboxed state of objects and technologies within these systems will be overlooked without a systematic, rigorous study.

These assumptions have driven my work to integrate these principles into Composition pedagogy. By doing so, this chapter will present reflective practices that draw from these principles in order to suggest pedagogies that acknowledge and account for the agency of objects within Composition students’ own idiosyncratic writing processes in order to foresee and overcome obstacles in that process, and to better take advantages of the affordances of the objects and tools of the writing process.

One cannot look at a writer without also looking at the tools that the writer uses to write. It could be said that a person only becomes a writer when they interact with things in order to write. NNA serves as a starting place for a pedagogy that will guide students to examine their writing processes, and in order to do so we need to examine when and where a writer interacts with writing objects in order to become a writer. It is at these moments of interaction when a person, attempting to be a writer, will have obstacles and difficulties. The choice of objects and tools a writer uses and surrounds herself with become a critical component. These tools can be chosen by habit or default, or they can be consciously chosen in order to best facilitate the writing process. In this chapter I will demonstrate how the guidelines that led to the methodology known as NNA can help to shape the ways we think about writing processes and drive the creation of curricula that can guide reflective practices for students in first year writing courses.

#### Narrative Network Analysis

Like the scholars in Rhetoric and Composition discussed earlier, practitioners in the field of Organizational Science, who seek ways to understand complex systems such as businesses, supply-chains, hospitals, etc. in order to increase efficiency and streamline processes, have also looked to the theories of Bruno Latour and object oriented rhetorical theory for help. Two scholars in particular, Martha Feldman and Brian Pentland, in a 2003 article, use ideas within OORT to create a more nuanced theorization of what they call “Organizational Routine,” a principle that has become central to the field. In the article, Feldman and Pentland argue that Organizational Routines--the ways organizations do what they do--are what create organizational culture, and therefore serve as a central unit of analysis for understanding how organizations work, and, ultimately, as a catalyst for critique and improvement.

After Feldman and Pentland's pivotal article, Organizational Science researchers made a logical leap from describing "Routines" to describing narratives within organizational structures and created a qualitative methodology for mapping these systems and networks called Narrative Network Analysis. Routines are events with beginnings, middles, and ends and many can be strung together to tell stories of events that happen regularly within organizations. In short, NNA is a method for visualizing the connections among the many nodes in a network (e.g. computer software, workers, architectural design, phone systems, organizational culture) as researchers trace how information is translated and how tasks are accomplished within that network. These narratives of organizational happenings, then, are theorized as integral to the identity and culture of an organization, and NNA is the method for collecting, organizing, and displaying data about these narratives.

Many researchers began using visual representations of routines as an integral part of the method because they were an effective and efficient way to communicate the complex processes being described. For example, a 2011 article in the *International Journal of Medical Informatics* from Hayes et al., used NNA to create multiple visual representations of the complex routines that take place within a specific hospital system such as admitting new patients, requesting patient charts, or scheduling appointments. Hayes et al. argued that "communication, discourse, and argumentation are fundamental to the way medicine is practiced" and therefore other models, such as "workflow-style process [models]" that don't take these object oriented rhetorical factors into account are "artificially simplistic" (163). The field of Organizational Science was searching for a visual model to represent the complex network of human/object interaction, and NNA was a solution.

The NNA methodology used by Hayes et al. is closely related to ethnography in that there is a rigorous, sustained effort to collect primary source data to amass into a thick description. Researchers interviewed patients, hospital workers, and hospital administrators and conducted over 150 hours of observation to find what they called “exemplar processes” --the vital steps that people within the hospital took to accomplish tasks--and took into account the machines, software, documents, equipment, and spaces that were part of them. From these primary sources, researchers generated a body of data containing narratives from multiple perspectives about the routines. They then composed visuals of these narratives from the collected data (Figure 2: NNA Example). In the chart below is the visual composed by researchers to trace the network of the routine of requesting and receiving patient charts. Each node (represented by small rectangles) indicates a narrative event in which two or more actants (both human and object) interacted. This network begins with box A, in which someone requests a medical chart “using the electronic system,” and ends at box T, in which the nurse retrieves the chart. In between these two narrative events, or interactions in the network, many actants involved in the process are acknowledged and accounted for. The major defining factor of the methodology is that it begins with the assumption that humans and objects both have the same level of agency and influence within the network. Computers, messages on screens, paper, writing, electronic systems, telephones, and pieces of software are all as integral to the routine as the humans making the requests.

NARRATIVE FRAGMENTS "I request a patient chart using the electronic system"	NARRATIVE FRAGMENTS "I request a chart from another department"	NARRATIVE FRAGMENTS "I request a chart using the phone"
<p><b>A. The patient schedules an appointment</b>            B. The call center enters a message in RelayHealth "Chart Requested"            C. I turn on the computer            D. I launch RelayHealth            E. I review a message in RelayHealth            F. I see "Chart Requested"            G. I write on paper the chart number requested            H. I log into SoftMed for a "chart check"            I. I look up the chart number requested            J. I see the chart is here            K. I see the chart is in Medical Records            L. I see the chart is elsewhere            M. I log into Signature            N. I enter the Medical Record number            O. I enter a message noting when and why I need the chart            P. An agent in Medical Records sees the request            Q. An agent in Medical Records pulls the chart and places it in the outbound bin            R. An agent in Medical Records marks the chart as checked out in SoftMed            S. A runner delivers the chart to our department  <b>T. A nurse checks the delivered charts for the one needed</b></p>	<p>a. An agent in Medical Records prints a slip of paper showing where the chart is and places it in the outbound bin            b. A runner delivers the message to our department            c. I ask the runner to retrieve the chart            d. I enter a message requesting delivery from the department holding the chart            e. I call the department with the chart            f. A staff member in the department with the chart answers the phone            g. I provide the patient's name and request the chart            h. The staff member agrees to provide the chart            i. A runner from the department delivers the chart            j. A runner from Medical Records picks up the chart at the other department            k. The staff member refuses the request for release of the chart            l. Someone from the delivering department logs into SoftMed and notes the delivery</p>	<p>1. I note a need for the chart urgently            2. I call Medical Records            3. A Medical Records worker answers the phone            4. I provide the Medical Records number            5. I describe the urgent nature of the request            6. I ask where the chart is currently            7. The Medical Records worker checks SoftMed            8. The Medical Records worker tells me the location of the chart            9. I ask the Medical Records worker for the chart            10. The Medical Records worker enters a request in Signature            11. The Medical Records worker asks a runner to pick up and deliver the chart</p>

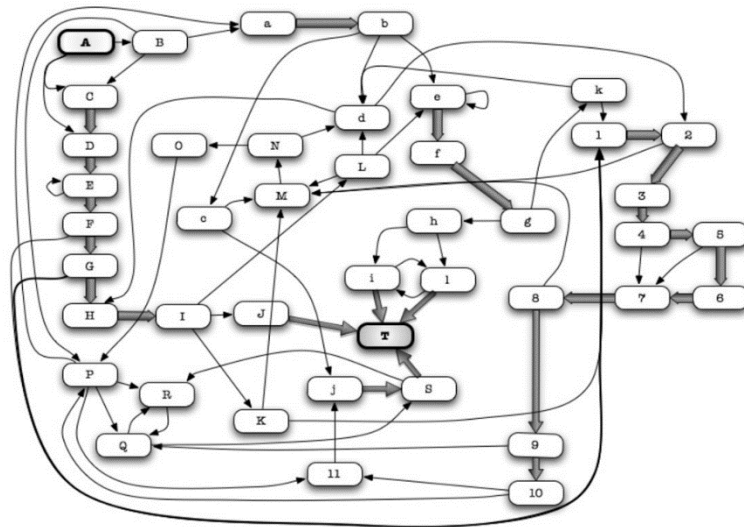


Figure 2: NNA Example

This visually composed network describes the interaction of humans and objects within the hospital system. It provides hospital staff and administration better models to understand the routines that make up their organizational identity, and helped them visualize instances where change was warranted to increase productivity, and provide better experiences for patients. The study provided for a richer understanding of the

process of requesting charts by acknowledging the agency and influence of objects within it.

NNA as a methodology begins with the assumption that both humans and objects have agency and influence in the networks of which they are a part. From there, it relies on narrative events in which the actants interact to provide evidence for conclusions about the epistemologies that generate the identities of the overall organization. NNA works well to describe the human and objects within a complicated task and represent those components in a legible way. As such, I see NNA as a possible framework for positioning the writing that students do as ontologically meaningful as they take on a similar task of locating agency among humans and objects in narratives and in their own writing processes. NNA will guide students in discovering their own place in networks of humans and objects as they undertake writing tasks. NNA provides a set of steps or guiding principles that Composition teachers can draw from to guide students through this process. This process will function as a reflective practice to increase student awareness of their own interdependent relationships with objects in their own writing processes that will help them make more conscious choices in how they interact with them.

### Narrative Network Analysis in Action

I will now present two reflective practices derived from the integration of NNA into the Composition classroom. The first asks students to perform NNA as a methodology, and the second incorporates NNA into daily teaching practices that prompt reflection. In the first part of this section of the chapter I will present how I used NNA to analyze a text as a way to both model how students might perform the same task,

and to draw attention to the kinds of discoveries students can make while composing networks in this way.

As Nathaniel Rivers argues, tracing the rhetorical networks of objects is “not simply an abstract intellectual task, but an embodied, attitudinal task” (2). As I present my own use of NNA, I will pay particular attention to my own embodied experience of performing it. Being aware of and describing the agency of human and objects that are influencing me as I take on this task is integral to the process, if not the process itself. By describing this process, I am acknowledging the “rather laborious and difficult process of determining unique and local configurations of agency, connectivity, affect, influence, and many other factors” (Holmes).

### *My Own NNA*

My own performance of NNA differs somewhat from that of Hayes et al. in that I am not collecting multiple narratives about a single process, but rather using the principles of NNA to analyze a single narrative, and finding within it the places where humans and objects influence each other. NNA methodology requires researchers to locate and label narrative events in which two or more actants interact, represent each interaction as a node in a network, trace the narrative through the network, and ultimately compose a network visually. These basic “steps” or principles will guide me as I perform NNA.

What I will now present is how, beginning from a stance of symmetrical agency, I closely read one narrative, identified the actants, and asked, “Does [the actant] make a difference in the course of some other [actant]’s action or not?” (qtd. in Spinuzzi 35). From there, I can trace each time and place in the narrative where one actant influences another to build a symmetrical picture of the network.



The story I analyzed is one I found through the Digital Archive of Literacy Narratives hosted by the Ohio State University (Appendix A). This archive of literacy narratives contains hundreds of stories recording events in people's lives in which they gain literacy in something, or move from not-knowing to knowing, or from being a novice to someone with experience usually as they become familiar with a new technology.

The narrative I decided to examine was told by Daniel Kuglich about learning to send email in the mid-1990s. By using NNA to analyze this narrative, the affordances of the methodology provide me with a framework and vocabulary to first see and then understand and describe the agency and influence of both the human and objects described in the story in much the same way Hayes et al. traced the organizational routines of the hospital. Throughout this account I will be referring both to aspects of Daniel's narrative about learning to send emails, and also to my own narrative account of performing the narrative network analysis.

I will be presenting how I performed my analysis in great detail (software I used, activities I did, descriptions of how I performed each step). I do not mean to insinuate that the way I performed this analysis is the ideal way to do so. There are many ways to enact the guiding principles of NNA as I have described them. However, I see these details as integral to the overall argument of this dissertation--that paying attention to and reflecting on the objects and tools I interact with as I write provides a better understanding of the task itself, will allow me to avoid frustrations in future experiences, and better take advantage of these objects and tools as well. Each of the details I share in my experience are ones that I, through reflection, recognized played a role in my performance of NNA. Also, I provide these personal narratives as a model of the kinds of insights students will be able to gain through these reflective practices.

### *My Experience*

In order to identify the actants in the narrative, I copied and pasted the transcript of the narrative from the DALN website into a word processing program (Google Docs) and highlighted and erased anything from the narrative that was not a noun, noun phrase, or a gerund. I also converted descriptions of actions and events into gerunds (i.e. dropped became dropping), and generated this list of actants in the story that are capable of influencing something else in the narrative (Figure 3: List of Actants in Daniel's Narrative):

Daniel Kuglich  
1990s  
rumblings of this internet  
a website  
Telnet  
email (as abstract concept)  
my friends  
the phone  
my first email  
Jane Oakly  
the University of Illinois  
Illinois State  
not checking for a reply  
[speaking] to [Jane] in person  
the quickness of the email  
dialogue through email  
other friends  
understanding of digital storage  
feeling like I had to print and save every single email conversation I had  
reluctan[ce] to let go of the former mode of communication  
the physical piece of paper  
several very thick folders... of all these emails [and] chat conversations  
drop[ping] that habit  
every emergent form of technology  
transition period where people are reluctant to let go of the way they used to do things  
a comparison to having an iPod  
music digitally in my hand or in my pocket  
a room full of dusty CDs

(Figure 3: List of Actants in Daniel's Narrative)

The affordances of the word processing program I used while performing my NNA cannot be under-emphasized; were it not for my ability to manipulate text in the ways I could in the word processing program, there is the possibility I would not have been able to perform this analysis as I did. As I reflect on my process, I see that certain aspects of the word processing program, such as the copy and paste function, played an integral role in shaping how I could see and understand the connections among the actants in Daniel's narrative.

The next step I took then, was to go back and read the narrative to pinpoint and list the major events, or the times when one or more actants interacted with each other in some way. I did this using the word processor by highlighting pieces of the narrative and using the copy and paste functions to move the text around on the screen to juxtapose certain actants against others (Figure 4: Actant Interactions in Daniel's Narrative).

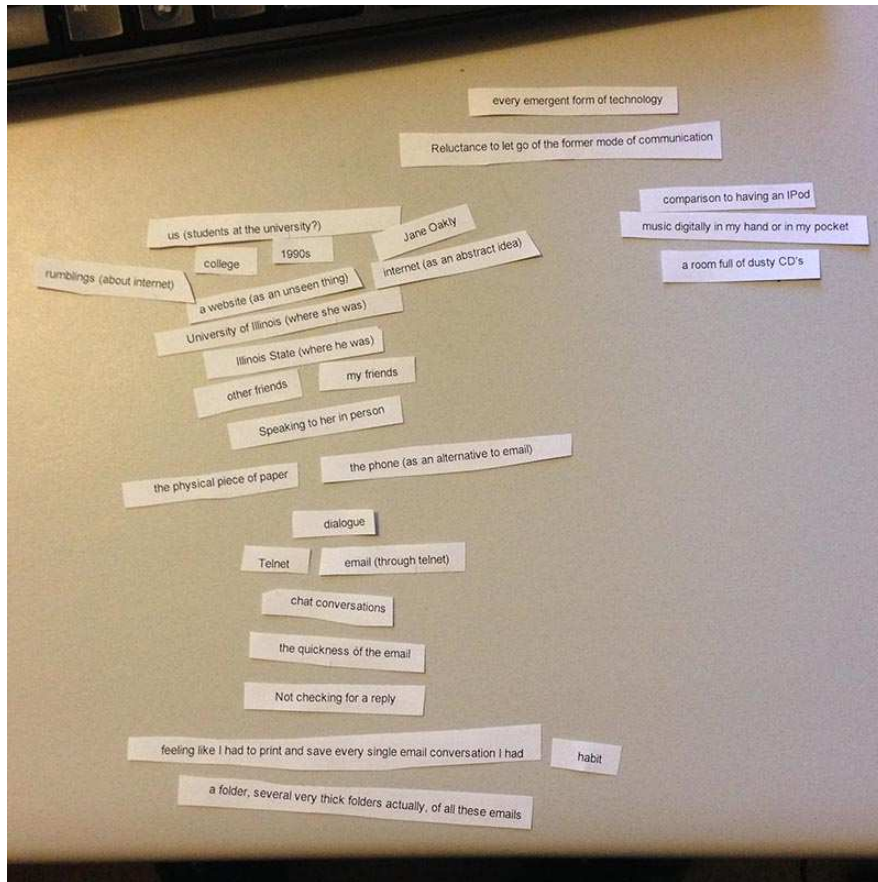
Daniel heard rumblings about the internet He discovered Telnet He emailed friends He emailed Jane Oakly He didn't check for a reply to the email until after having seen Jane in person He and Jane had a dialogue through email He, Jane, and others learned to use chat conversations Daniel felt like he had to print and save every single email and chat conversation he had He eventually Stopped printing them off He still has several very thick folders of all these emails and chat conversations Daniel uses the telling of the narrative to reflect on the experience, and compares it to a similar situation with CDs and iPods
---

(Figure 4: Actant Interactions in Daniel's Narrative)

With these two lists made, I began to understand how the actants were connected, but I still did not fully grasp the network contained within the narrative. The

number of actants were many, and the connections between them were not immediately obvious to me.

I wanted to be able to see this list of actants, and manipulate them individually. So I had the idea to print the first list I made and cut out each actant onto its own slip of paper in order to arrange and rearrange them on my desk (Figure 5: Actants on strips of paper). By doing so, the connections among the various actants became more clear, and the haptic experience, the embodied process of picking up and moving the slips of paper, allowed me to test relationships among each of the actants in a way that was not available to me in a word processor. I was able to use the proximity of the individual slips of paper to build an overall picture of which actants influenced which others.



(Figure 5: Actants on strips of paper).

I ultimately chose to arrange them so that moving from top to bottom represented moving from the past to the present, or in chronological order. This mimics the way texts are usually set up in my experience, though another arrangement might have worked equally well or better. Moving the slips of paper around also helped me to realize that I needed to make two columns because I discovered that there are two narratives, or two different settings in which actants are interacting, contained in Daniel’s narrative: in one, he learns to send email and prints them off as a way of keeping track of them, in another he reflects on how that experience is part of an ongoing cycle of dealing with obsolescence.

It also became clear that certain actants were influencing Daniel before the narrative even began (college environment, the “rumblings” about technology, Daniel’s

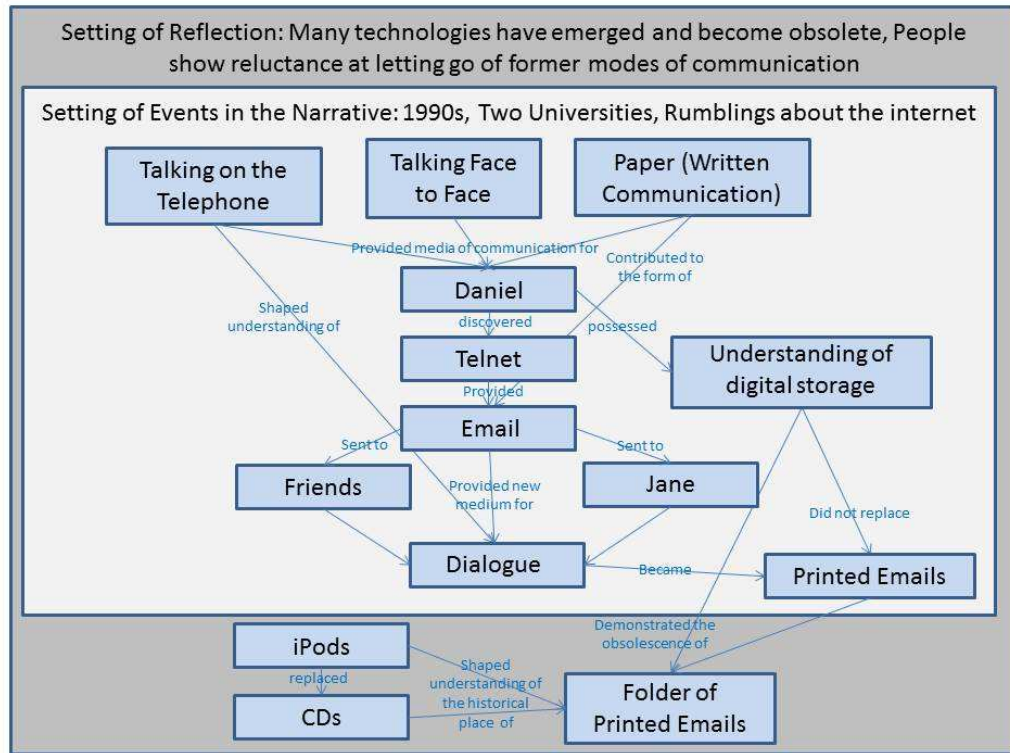
experience with other communication methods like face to face communication, letter writing, and the telephone). In narrative terms, this could also refer to the setting of the story. I placed “every emergent form of technology” and “reluctance to let go of the former mode of communication,” at the top because I saw them as part of the overall cultural milieu in which the entire narrative takes place.

I reopened my Google Docs document and made a list (Figure 6: Actants that create setting) of the actants that were not directly affecting another actant, but rather played a role in establishing the setting.

<p>Narrative Setting Actants</p> <p>1990s</p> <p>University of Illinois (where Jane Oakly was)</p> <p>Illinois State (where he was)</p> <p>Rumblings about the internet</p> <p>Previous Technologies that shaped his understanding of email (part of setting)</p> <p>the phone (as an alternative to email)</p> <p>Speaking to Jane in person (Face to face communication)</p> <p>The physical piece of paper (which possibly refers to a comparison to snail mail, as he mentions the “quickness of email” which demonstrates a comparison to something)</p> <p>Reflection Setting Actants</p> <p>Constantly emerging new technologies</p> <p>Reluctance to get rid of old forms of communication</p> <p>iPods</p> <p>CD’s</p>
---

(Figure 6: Actants that create setting)

By combining the list of actant interactions (events), and the list of actants that create the ambient environment (setting), I started to feel like I had a good idea of the ways that the actants Daniel mentions in his story were working together to create the narrative network, and felt ready to compose a visual to trace the network.



(Figure 7: NNA Visual)

In order to compose this visual, I referred back to the photograph I took of the paper slips on my desk and recreated it in the software. I chose to represent the setting in which the events of the narrative took place, and the setting in which the narrative was told, with the large gray and white rectangles respectively (Figure 7: NNA Visual). These rectangles gave me a field that allowed me to represent the other actants with the smaller rectangles within a given context. I then chose to label the influence the actants had on each other with the smaller blue text. PowerPoint allowed me to represent the three major elements of Daniel's narrative: the settings in which the narrative took place and the actants that created those settings, the actants mentioned in the narrative that influenced other actants in the narrative, and the ways that the actants influenced each other.

### *A Reflection on My Experience*

Again, the purpose of sharing my personal experience is to illuminate the kinds of insights composition students can gain by taking on a similar reflective task of performing NNA.

By doing these four steps in this sequence (beginning from a symmetrical stance to identify all of the actants, pinpointing times when one actant directly interacted with another in the narrative(s), identifying which actants played a role in creating the ambient setting in which the narrative(s) took place, generating the diagram) it became clear that many objects not only played a direct role in the story ( e.g. Daniel used a computer to send email) but also created a constant, diffuse network of agency such as what Thomas Rickert describes in *Ambient Rhetoric* that changed the way Daniel both experienced the events of the narrative and reflected back on the experience through the telling of it.

The idea of “setting” and its connection to object oriented rhetorical theory was an unexpected insight. The concept takes on the symmetrical view of agency integral to NNA, and creates a framework for understanding how Daniel’s local environment also had rhetorical influence over the process of his learning to send email. I was able to pinpoint objects in the narrative that influenced Daniel’s narrative that were more abstract than the computers and folders in the rest of the story. By following the steps of NNA, I was able to gain a greater understanding of the material conditions that created the context of the story, both within the narrative, and surrounding the telling of the narrative itself.

Through NNA, I recognized that, as university students in the 1990s, Daniel, Jane, and their friends were in a privileged place to be able to have access to the internet and receive the support and training necessary to take advantage of it. Had this story



taken place in many other settings, I realized, it is uncertain whether they would have been able to adopt the practice of sending emails when they did. The rumblings about the internet Daniel mentions also clearly had an influence on Daniel's perception of the importance of the new technologies, possibly creating within him a fear of missing out if he did not investigate them further. Also, because Daniel had had previous experience interacting with people through face to face communication, over the phone, and with written communication, he approached the practice of sending and receiving email with preconceived notions about how communication should work, and what materiality should be privileged. It is for this reason that he printed off the emails rather than relying on digital storage media.

By beginning with a symmetrical stance toward human and object agency, I was able to see that Telnet, as an online tool, comes with certain affordances that allowed email to be developed within its system, and thus played as much of a rhetorical role in Daniel's and his friends' learning to communicate in this new medium as the other humans did.

As an embodied activity, NNA encouraged me to reflect on my own interactions with technology as I examined Daniel's. As I worked to compose the network I traced through Daniel's narrative, I became more aware of the network influencing how I was tracing that network, and what actants were influencing my reading. Just as what happened to me, by performing NNA, Composition students stand to be more apt to see the interconnectedness and distributed qualities of all interactions, especially their own acts of communication as they do so.

NNA, First Year Writing, and the Writing Process

The second application of NNA in the First Year Writing classroom involves the daily, embodied teaching practices of the Composition classroom. The guiding principles of NNA—beginning from a symmetrical stance to identify and label actants, narrating how they influence one another, tracing those interactions, and composing visual networks--provide a framework for teachers and students to visualize and describe their own writing processes by tracing how actants mediate their own writing. Again, my presentation of these applications of NNA centers around my own experiences doing so and are merely models of possibilities.

In my own classroom, NNA is manifest in a set of activities I call “From Nothing to Something” and takes two forms. In the first, I assign my students, as groups, to find a YouTube video in which a person discusses their creation process, play the video for the class, and present to the class an analysis of the material conditions that mediated the creation, the sources and methods of invention, the tools used for creation, and the steps the creator takes in the creation process. We might watch videos that describe writers talking about their writing processes (such as Jerry Seinfeld writing a joke, or hip-hop artists writing rhymes), or artists who do two-dimensional and three dimensional art in a variety of media (woodworking, pen and ink drawing, clay sculpture, paper cutouts). This activity works as a guided reflection through the main steps of NNA. It asks them to regularly begin to identify the key objects that writers interact with during the writing process. Throughout the semester, the students compare the tools and environments in which others write, and they compare those situations to their own experiences and writing habits, paying particular attention to the objects that they interact with as they do.

For example, once, as a class, we viewed a video in which Dustin Lance Black, an Oscar-winning screenwriter, describes his writing process. We then discussed how Black

uses index cards, computers, boxes, printed paper, alligator clips, tables, lighting, and other tools within the video as integral parts of his writing process that both mediate the process and serve as sites of invention. We listed the steps of the process mentioned by Black and compared them to our own experiences writing, connecting each step to the objects that both influence Black and that Black interacts with in the process. The purpose of the timeline is to locate actions and actants in time and space. This activity makes the networked, mediated nature of the writing process visible to students by asking them to recognize the agency of the objects involved in other people's writing processes. On top of that, students liked to see how the "professionals" navigate the recursive, frustrating nature of creation, and the variety of ways that creators overcome obstacles in the process. By understanding the writing process as a narrative with a beginning, middle, and end, full of characters and actants, students can more easily locate themselves within a process of writing that is continuous, and situated within a larger context of objects and humans.

In the second form of the "From Nothing to Something" activity, I draw a long line on the whiteboard to represent the writing process as a chronological passing of time and then, with input from the class I make indications for other events along the timeline that represent milestones in the creation of a text. I also have students do this in groups on their own and then present their timelines to the class. The purpose of this activity is to locate meaningful events in their writing process on the timeline. At the far left side of the line, I make a tick mark and label it "Nothing," meaning the students have not created anything, and the far right side, I label "Something," meaning the students have produced the text required of them for the class. Then I ask the class to fill in the rest of the timeline with other activities they must do to facilitate the creation of the text. We also discuss which tools students will need to accomplish these tasks. Often, students

point out to me without me prompting them, that we never really begin a writing assignment with nothing, and thus they acknowledge the role of tacit knowledge in their own processes. When possible, we label milestones with dates, (e.g. Rough draft due 11/25) in order to locate the texts, tools, and activities in embodied space and time. I also urge the students to imagine the reception of the document. I ask them who their reader will be, and then I ask them in what context will their reader engage their text, what tools, events, objects, situations, etc. will mediate the way the reader interprets their texts. We then discuss ways that they can plan for and design documents to better address the needs of the reader. By situating the writing process within a narrative of networked actants, the students can see and understand their own ontological role in the composition process as creators who influence and are influenced by a complex network of actants.

One example in which this method worked well was in a Writing for the Professions course I taught in which we discussed the “life” of a resume. We discussed the several different ways that a resume will be engaged by the reader (it will be sorted; it will exist in a stack of other resumes; it will be used as reference document containing the contact information of applicant; it will be read as a list of skills; it will be viewed as an example of aptitude in spelling, grammar, and document design; it will be read by a person who is also reading many other similar documents; etc.). We also discussed the tools within the available software that would allow them to create the visual design we talked about as being an important aspect of the document. By generating a visual representation of the complex network surrounding the creation of and reception of the document, and by presenting that network as a chronological narrative, students were better able to acknowledge and account for agency symmetrically, and then identify actants and compose networks within which they can compose the texts to meet the

values, expectations, and desires of the actants within the networks (their audiences). After some practice, students should be able to trace the networks in which their own writing takes place and account for and prepare to address the deep and complex rhetorical situations in which their writing takes place.

## Conclusion

As object oriented rhetorical theory is incorporated into Rhetoric and Composition, new teaching practices, reflective practices, and pedagogies need to be explored. The guiding principles of NNA can inspire new activities and practices that reinforce the student's ontological role in composing networks and that guide them to reflect on their interdependent relationships with objects that surround the writing process. Rather than asking students to apply a predetermined heuristic with predetermined effects that will give them, as Hayes et al. found, an "artificially simplistic" representation, NNA, by foregrounding a symmetrical view of agency for textual analysis, will guide students' writing to become an ontological act of tracing networks, of description. NNA serves to integrate OORT into Composition Pedagogy by providing an assumed methodological starting point that students can borrow from in order to begin the work of composing networks as they learn to describe writing acts in terms of the relationships they have with objects. By doing so, they can, as I did, become more aware of the influence of the objects they work with and around as they compose in the future, thus allowing them to make deliberate choices when choosing software, or topics to write about, or where, when, and how they write.

## FACILITATING REFLECTIVE PRACTICE THROUGH DIGITAL VIDEO CAPTURE AND EDITING

As discussed throughout this dissertation project, a self-critical stance toward oneself and one's teaching is required in order to engage in reflective teaching practices. Also, as discussed, the process of reflection--the set of mental practices that lead to insight for future experiences--is often not intuitive, and benefits from guidance and assistance. To aid reflective self-examination, some find that using a method of capturing their teaching in action extends their ability to more objectively view themselves. These captured moments create opportunities to reflect more deeply. Those in educational technology especially have found digital video to be an ideal medium for this (Calandra and Rich; Tripp and Rich; Penny and Coe). The purpose of this dissertation project as a whole is to put reflective teaching practices in conjunction with object oriented rhetorical theory in order to thoughtfully consider the ways that teachers' and students' interdependent relationships with objects factor into the writing and the teaching of writing. The affordances of digital video position it well to shed light on the questions of both reflective teaching and object oriented rhetoric. This chapter will be a presentation of a case study of using digital video to inform reflective practices within the framework of object oriented rhetorical theory.

As such, this chapter will come in two parts: in the first part I will present a theoretical framework in which I focus on human/object interaction as a way to argue for digital video as an ideal medium for investigations that seek to acknowledge and account for object agency in reflective teaching practice. This first section will also provide background information to contextualize the case study being presented as well as theoretical considerations that shaped the final analysis. The next section will present, in video form, three video essays I created from footage taken in a writing classroom and in

interview with the teacher. By selecting and juxtaposing video clips against each other using the lens of object oriented rhetorical theory, I performed a reflection on the human/object interactions that occurred in the classroom space. In this video portion I personally will appear as the narrator--as a personification of the academic voice, guiding the viewer through the data collected. As I do so, I will also demonstrate the benefits and insights provided through the creation of the video essays as a reflective practice.

These video essays are to be understood as “epistemic artifacts” (Tweney); they are the results, the artifacts, of the work I have done to understand how humans and objects interact in the writing classroom. Professor Ryan Tweney first introduced the idea of the “epistemic artifact” when he describes an archive he found of work done by the scientist Michael Faraday in the 1850s. Epistemic Artifacts are, to be brief, the leftovers of discovery, the detritus of the pursuit of knowledge. Tweney originally used the term “epistemic artifacts” to describe the slides of gold foil and chemical colloids created by Faraday as he worked to discover connections between light and magnetism. Each slide in the collection of over 600 represents a moment when Faraday made discoveries, designed new experiments, tried new things, and tried to make sense of what he was seeing. The collection is a physical manifestation of the cognitive work that Faraday did.

Martinussen et al., in their article in the online journal *Kairos* “Satellite Lamps,” reframe Tweney’s idea of Epistemic Artifacts by connecting it to the work of video scholarship. In this project, they created lamps whose brightness increased as receivers in the lamps gathered signals from global positioning satellites. They then filmed the lamps using time lapse photographic techniques to compress time and witness the shifts in light from the lamps. It was in the process of creating the videos that they saw

knowledge being created. For them, epistemic artifacts are evidence that “knowledge is created in the practice of designing, making, and communicating.” In other words, much like Faraday’s collection of slides, Martinussen et al. see the videos that they made as the evidence of their discoveries and experimentation--the videos are an artifact that exists because of their making and thinking.

The three videos I will present here are to be seen in much the same ways as Tweney views Faraday’s slides and Martinussen et al. view their own video work. What you see as a finished video is what happened because of the mental work I did to reflect on the human/object interactions that happened in the writing classroom. As I selected and juxtaposed the specific clips from the digital video, I started to make sense of the human/object interactions. The results of that work are these videos. Through the process of composing the videos I performed the reflection, and the video exists as an artifact of that work.

The video portion of this chapter will present each of the three videos, and then discuss in detail the clips I chose. As I do so, I will point out salient data points and reflect on ways that the things of the classroom shape writing and the teaching of writing.

As epistemic artifacts, these videos provide models of the reflective process I undertook. In this way, the creation of the videos works as a methodology of discovery. The work I have done to understand how objects and humans interact in the writing classroom has been preserved as I created the video essays. I will discuss the process of selecting and juxtaposing clips in more detail below.

In order to fit into the format of a published dissertation, and to facilitate archiving, the video portion will also be presented in this chapter in alphabetic form as a transcript taking cues from the format used by Nathaniel Rivers in his collection of video



essays for *Enculturation: A Journal of Writing, Rhetoric, and Culture* entitled “Rhetorical Theory/Bruno Latour.” The transcript will provide the words spoken in the video footage, brief descriptions of entirely visual portions of the videos, and a transcript of my own narration as well.

The video portion of this dissertation will be available as a supplemental material to this written text. The format of the dissertation does not currently allow me to embed the video in this text, or provide a clickable url to the video--two of the easiest solutions to incorporating digital media into a document like this, thus my inclusion of the transcript here.

Like the hammers, spreadsheets, and computers discussed in this project so far, dissertations likewise, as a finalized, published document, ontologically ask us to interact with them in certain ways. Two defining features of the dissertation as a textual object are its aim for longevity, and its ability to be accessed and read far into the future. In other words, dissertations ask us to sit them on a shelf for years, ready at any moment to be retrieved and read; they want to endure through changes in technology and to be able to be consumed many years in the future. In the past, the format that has had the most success in supporting these demands is printed alphabetic text, and that format continues to be central to the process of graduate school education. Some have recognized and discussed this, and advocate for fundamental shifts in the acceptance of dissertations with digital components (Adams and Blair, Lang, Edminster and Moxley). Along with these scholars, it is my hope that alternative formats for presenting and archiving dissertations will grow in popularity and acceptance. However, because technology quickly advances, and current technologies quickly become obsolete, there is no guarantee that video-hosting sites like YouTube will still be around in the future to support any url link given in this dissertation. These sites therefore do not provide a

medium with sustainable access critical to the genre of the dissertation in the current technological moment. It is for this reason that I have chosen to represent the audiovisual components of this chapter primarily in transcript form while providing access to the video as supplemental.

In fact, through reflection, it has become obvious that the limitations of acceptable formats for dissertations has played a large role in shaping this chapter. I have needed to iterate several times to find a way to present this data. Considerations of file size and storage medium have particularly done much to shape this chapter. In other words, I have had to interact with dissertation formatting guidelines, file sizes, and storage media as objects, and they have played a role in my writing.

#### ViTA Project

The data presented here emanates from the ongoing shared inquiry project directed by Dr. Shirley Rose at Arizona State University called ViTA: Visualizing Teaching in Action. This project is characterized as “a visual ethnography of teaching and learning writing in an American University” (Rose). The main question driving this research project, is “What happens in class?” or in other words, what events occur in the writing classroom, and which ones contribute meaningfully to the teaching and learning of writing. As such, the project relies on visual ethnographic methods to collect data from multiple sources and archive the data to make the work of teaching and learning writing more visible. The goals of the ViTA project include the motivation to “generate data about teaching and writing through powerful images” and to “enable participants to describe and evaluate the material conditions that are the contexts for teaching and learning writing.” An exciting aspect of this research endeavor was the open definition of “participants” which included teachers and students in the role of both subject and

researcher, collectively referred to as participants. During my time at Arizona State University, I participated in this project both as a subject--my class and students were photographed for the project, and a worked with a researcher to write captions for the photographs--and as a contributing researcher. The data presented in this chapter comprises my research work for this project.

Because ViTA begins with visuals, it was my argument as a participant that the objects and spaces of learning and teaching writing are already integrated into the project even if not explicitly stated in the original research protocol. Integrating the work of ViTA into my current dissertation project is an acknowledgement that in order to visualize teaching in action, steps must be taken to consider these objects and spaces. As discussed previously the ubiquitous, yet invisible “blackboxed” state of classroom objects and technologies requires prompting and particular consideration. This chapter contributes an object oriented rhetorical emphasis to the project.

By the time I began contributing as a researcher, the project had already been taking place for two years. The protocol of the project asked researchers to collect and archive images and sounds of the events, activities, people, and objects that make up the writing classroom, as well as capture and archive the kinds of activities writing teachers do within these spaces. This protocol established opportunities for inventive ways of exploring the writing classroom visually. Early entries into the project in 2012 were mainly collections of still images. Then, as the project progressed, participants, through reflection, began to see the added benefit of using multiple media to better answer the main research question, and began to add captions to the images. Soon after, sound recordings were included as well. As researchers would capture, process, and publish the data, we would meet together to reflect on richer ways to make use of the images and sound we were collecting as a research team.

The final product of these research efforts and their method of distribution also took on many forms throughout the development of the project. First the images were published to a blog as static images. Then the images were combined with captions. Then the images were organized into slideshows, sometimes with sound files as well, and published through YouTube and/or embedded in the WordPress blog of the project.

Because I had had previous experience with video and audio capture and video and audio editing through my own hobbies and personal pursuits, and then later through creating visual and audio based projects within the Department of English, I proposed incorporating a video branch of the ViTA project. That work is what is being presented here. As I will discuss below, I saw many reasons why digital video capture, editing, and publication were ideal visual ethnographic methods for pursuing the central question of the ViTA project.

### Digital Video and Reflection

Digital video has a natural place in reflective teaching practices because observing and examining the complex web of interactions that happen in the writing classroom benefits from a methodology that can capture and store large amounts of audiovisual information. M.L. White, for example, chose to use digital video in their classroom research in order to “counter the representation of a single implicit point of view that does not do justice to the complexity of the experience” (389). With upwards of 26 or more people in the writing classroom--students and teachers, each with their own idiosyncrasies, each interacting with complicated technologies connected at all times to vast amounts of information through the internet--any attempt to capture even one fleeting moment of what is “happening in class” is extremely difficult. Any thickly rich ethnographic observational approach to examining the writing classroom, such as those

used in reflective teaching practices and the ViTA project, will naturally be missing out on potentially important information, no matter what method of capture is used.

However, any method that can provide more information about what is happening than what is offered by the practitioner's own senses and experiences, though ultimately lacking, can only further clarify the experience and facilitate better reflective practice.

To be clear, the use of video does not guarantee a complete picture of the writing classroom. Even if a researcher were to have access to multiple microphones, cameras, sensors, screen capture software and devices, and large amounts of data storage, there would still be phenomena that go unseen, unheard, and uncaptured. To capture every possible interaction taking place between teacher and student, student and student, teacher and thing, student and thing, and thing and thing, would, in fact, be impossible. The methods of capture available to ethnographic researchers vary in how much information they can capture and how much work needs to be done by the researcher to capture and store it. These methods of capture range from the researcher relying on their own senses and memory, to writing things in a notebook, to still image photography, to sound capture, to full audio-visual data capture, and even, to perhaps exaggerate the possibilities, to capturing brain activity or other physiological data of the human participants.

On top of possibly leaving out important data because of inherent technological restraints, researchers must also establish systems to overcome the biases inherent in their own participation in the events being captured. These systems might include multiple coders of data, triangulation, or participant checks, for example. As one way to overcome these biases, the ViTA project encouraged the student participants and the teachers to caption photographs and participate in the interpretation of the images. It is for this reason that these videos include footage from a pre- and post-interview with the

teacher. By incorporating digital video into the ViTA project, I was also hoping to naturally overcome some of the biases inherent in the technological restraints. Because of how digital video functions to capture data, its affordances naturally afford checks to overcome some inherent biases in the collection of data.

The affordances of digital video as an ethnographic capture device have a built in system of overcoming researcher bias by constantly collecting information. Human researchers can work in coordination with the digital video to capture data that is thicker and richer than their own observations or still images would yield simply because of the affordances of the medium itself. Digital Video works well as a medium to facilitate investigations into the goings on of writing classrooms because it can capture large amounts of data, sometimes without the researcher even being aware of what is being captured. Cameras ontologically “ask” their users to interact with them in certain ways: once turned on, digital video cameras are constantly collecting information, and therefore ask researchers to simply point the lens in the direction of something that seems important or interesting and to do nothing else. Although, users can direct the attention of the camera to certain things (see Halbritter, 162). I have found through my own experience with digital video that if the camera is on and running, the user must simply point the camera and can therefore be confident that information is being recorded. A researcher can forget about whether information is being captured or not. In contrast, a photographer taking still images with a camera must intentionally decide the importance of a subject being photographed with each push of the shutter button. While some (McNely et al.) find meaning in the subjective nature of the still image, the ViTA research team discussed the importance of capturing more information to be examined later, a process facilitated by digital video. Just like with still photography, when a researcher uses a digital video camera, and they make the choice to direct the camera at

some phenomenon taking place in the writing classroom, the researcher has made a judgement call about what counts as important data within that research context, and is thus shaping the end data through their own bias. However, when using a digital video camera, if a researcher is motivated to direct the camera toward some phenomenon, there is still the possibility of capturing something else that the researcher was unaware of, or in some other way predisposed to ignore or omit. These phenomena are then available to be seen afterward when the footage is reviewed.

The affordances of digital video as a medium also allow the data to be viewed and reviewed many times easily, which facilitates the process of intentional reflection. In *Experience and Education*, John Dewey writes, “To reflect is to look back over what has been done so as to extract the net meanings which are the capital stock for intelligent dealing with further experiences” (110). This “look[ing] back over,” then, is a central act in reflective teaching practices. Digital video has affordances that increase the number of chances a researcher has to “extract the net meanings” by looking back over the data. A term used in education technology to describe the benefits of using video in reflective teaching practices, is “noticing.” (Sherin and Russ, Rosaen et al.). Repeated viewings allow practitioners to draw new information and insight out, or notice more, with each viewing. “Because video provides a permanent record of classroom interactions, it can be viewed repeatedly and with different lenses in mind, promoting new ways for teachers to ‘see’ what is taking place.” (Sherin and Russ, 3). Each new instance of noticing allows the teacher new points to consider when planning for future teaching experiences. This noticing is augmented by multiple viewings, and the multiple viewings are easily accomplished because of the affordances of digital video playback.

After data have been captured, digital video, which again, captures more data than a researcher can even know was captured, can be viewed by the researcher within a

computer screen interface that quickly and easily allows the viewer to pause, rewind, slow down, skip to different parts, or reverse the footage at will. The “playhead” interface that shows the viewer the progress of the video being watched can be controlled by the mouse and keyboard to review it as many times as desired to see and re-see the phenomenon, each presenting a new opportunity to notice something new. The affordances of this interaction, and the ways that the interface ontologically asks researchers to interact with the collected data create new and multiple opportunities for researchers to observe phenomenon in the writing classroom. The opportunities are only limited by the amount of data collected and the time a researcher has available to examine it. These affordances played a crucial role in the creation of the video essays presented in this chapter.

The affordances of the medium of digital video--that it captures more than the user is aware, and it has the ability to play again and again without diminishing in quality--makes it ideal for reflection in classroom situations. This process of noticing facilitated by digital video is particularly important when a researcher, such as myself, wants to examine the human/object interactions occurring within the writing classroom. As discussed in chapter one, many of the technologies in our lives exist in a visible yet invisible state I referred to as being blackboxed. Often, the technologies that surround us go unnoticed because of this blackboxing. Their inner workings are mysterious, intangible, and unable to be understood by most of us. It is natural, therefore, that any researcher attempting to observe and examine human/object interaction, will see, but also not see, the technology at play in the classroom. When attempting to observe and examine the human/object interactions in a classroom, the ability to watch and re-watch the footage is necessary in order to create ample opportunities to notice them, in order to “un-blackbox” these processes.



Finally, digital video is ideal for reflecting on human/object interaction because the end viewer will see the data in the same format that it was captured. As I am using digital video to present my data and analysis in this chapter, you, as the audience, will be able to see the same video footage as I did when I worked with it in the capacity of reflective practice. Even though I have created a transcript for the videos, information is lost as I translate the medium of video into words. If the transcript I give were the only available medium for the audience to experience the data, the audience would miss out on important information because the translation into alphabetic texts alters their experience. That I can present the data, and my work with data, in the same medium with which it was captured is valuable to you as the end audience. You can come closer to having the same experience I did while I selected and juxtaposed these clips against each other in the editing process.

#### Video Editing as Reflective Practice

These techniques of selection and juxtaposition were vital to the process of reflecting on the human/object interactions in the classroom. Scholars in New Media writing, (Rice, Murray) have identified juxtaposition as one of the key characteristics and affordances of digital video composition. Beginning this project, I knew that simply playing the raw footage of classroom proceedings would not, by itself, aid the process of reflecting on the ways that humans and objects interacted in this college writing classroom. To simply play to footage does not allow me to juxtapose parts of the footage against itself, and asks the viewer to the work of connecting different aspects of the video. I knew I had to more thoughtfully produce video essays in order to get my point across. This was for two reasons. First, because spaces like the writing classroom I filmed and the objects in them are ubiquitous, the objects and spaces, and the effect they have

on our lives, can often become invisible to us, even as we interact with them. Even if we see people interacting with objects in the classroom, it's likely that, without proper framing to direct our attention, we wouldn't notice anything remarkable. The process of selection and juxtaposition provides that frame for the viewers. Second, it's very likely that twenty different people could watch the same raw classroom footage and easily come away with twenty different impressions of what had happened and what was important. In order to reach the goal of the ViTA project of visualizing teaching in action, I knew that the selection and juxtaposition of specific pieces of footage would be required to begin to make sense of the multitude of complex interactions happening in the footage. I would need to use editing to direct the viewers' attention to the salient interactions captured in the digital video footage.

To illustrate this point, I will discuss another video I made with the footage, but one that I will not be including in this chapter. In my first attempt to create something for the VITA project, I made a video in which I attempted to summarize or compress the hour-and-fifteen-minute class period into a more easily-viewed, shorter version by only including what I considered to be major events of the classroom proceedings. I added a time clock to the bottom of the screen that counts off the duration of class so a viewer could keep track of where I had made cuts. However, after showing this video to colleagues and reflecting on the purpose of the project, I found that few could understand the purpose of the video, and few, if any, could more easily see the human/object interactions through watching the video. I knew that if these videos were going to meaningfully demonstrate what was going on in this particular writing classroom, I was going to have to consciously select and juxtapose particular clips together more carefully.

The video editing interface and the ability it affords me to group clips into different time lines and manipulate multiple clips simultaneously allows me to easily juxtapose and rearrange clips to work together. Crystal Vankooten's 2016 CCC article explores more about how video editing interfaces affect composition. The interface itself became the place where I could go to place clips side by side, watch them one after the other, and begin to draw conclusions about how the humans and objects were interacting.

In the case of the Classroom Constraints video, I pinpointed fourteen clips within the classroom footage, twelve clips in the pre interview and two clips from the post interview in which the physical constraints of the classroom and the objects in it were mentioned, or became visually salient. I used the editing software to place them in an order that I felt best highlighted each moment. One of the most important affordances of high-end video editing software like I used for this project is the ability to layer multiple clips on top of each other so that you can hear the audio from one clip, while the images from another clip play on screen. This kind of layering is what allowed me to juxtapose the words Kayla said during the interview with the classroom footage, and it is this juxtaposition that allows me to make a cohesive point with the video.

I'll pinpoint one particular example to illustrate. Juxtaposed with, or one might say underneath, the first opening shots of this video, is Kayla's voice describing the classroom. Through the layering of the clips, I used her words as a sort of narration for the clips I chose. In this way, I could make it seem like Kayla's voice, recorded several days before the footage was taken, is directly referring to the footage. For example, in this part:

(Kayla voice over) ...If a student in the middle has a question (a young woman carefully shimmying behind other students in order to exit her chair to find another spot) they have to, like, come and talk to me because I really can't get in there.

By juxtaposing these words with this footage, I can, in a short amount of time, represent to the viewer a situation of human/object interaction in the writing classroom that I saw as important. By layering footage of the female student awkwardly navigating the tight space, over Kayla's words describing how her students need to move in order to ask her questions, which happened in an entirely different piece of footage, the viewer assumes that this student is getting up to come and ask Kayla a question. In truth, though, this student is moving to the rear of the room to join her group. However, the video editing interface allows me to unbind the clip from its original place in the raw footage to illustrate an important point about how the student interacted with the objects in the space. The juxtaposition of words and footage highlights the difficulty the student had maneuvering in the space because of the furniture, which is the main thing I was trying to indicate with the video.

It is through this process of selection and juxtaposition that I began to reflect on what actually happened in the classroom in terms of the humans interacting with the objects of the classroom. The process of recording, watching, logging, cutting, and positioning these clips allowed me to see things in the footage that I might normally miss, and allowed me to arrange them in a way that the viewer can more clearly see what I am seeing.

Context for the video footage

The class session that was recorded occurred during the last half of the fall semester of 2014. The teacher, Kayla Bruce, was new to our university--this was her first semester attending--but did have previous experience teaching writing courses where she earned her Master's degree. During this class session, Kayla guided her students through many typical activities that occur in a writing classroom: she had students review their homework by writing major claims about doing research on the board and then reviewed each answer with the group; introduced a major project; presented the requirements; gave examples, and presented sources for students to use; modelled for students the kinds of questions to ask as they make choices for the assignments; had students work in groups to fill out a form to serve as their brainstorming or freewriting to begin the work on the project; debriefed afterward; asked the groups if they had any questions; and reviewed the homework assignments for the next class. That the events of this class session were typical and unremarkable was a valuable aspect of the ViTA project, which seeks to visualize the teaching of writing not as a remarkable or exciting event, but as a fundamentally important, if quotidian, set of practices and interactions.

Because one goal of the ViTA project is to “empower teachers and students to identify and describe what is of value in writing classes,” I also recorded a pre- and post-interview with the teacher. Once the video footage of the two interviews and the classroom footage had been captured and archived, there existed close to two hours of raw footage. In order to organize the information and to begin to identify salient points of interest in the data I used a logging technique described by radio producer Ira Glass in an interview with Lifehacker.com (Orin) (Figure 8: Log of Video Footage). After capturing the raw footage, I watched it while making a log of the footage. As I watched the videos multiple times with the log, I created a column to begin to label salient

moments into distinct categories that I knew could be placed side by side in the editing timeline to present one cohesive aspect of the classroom footage.

1

October 27, 2014

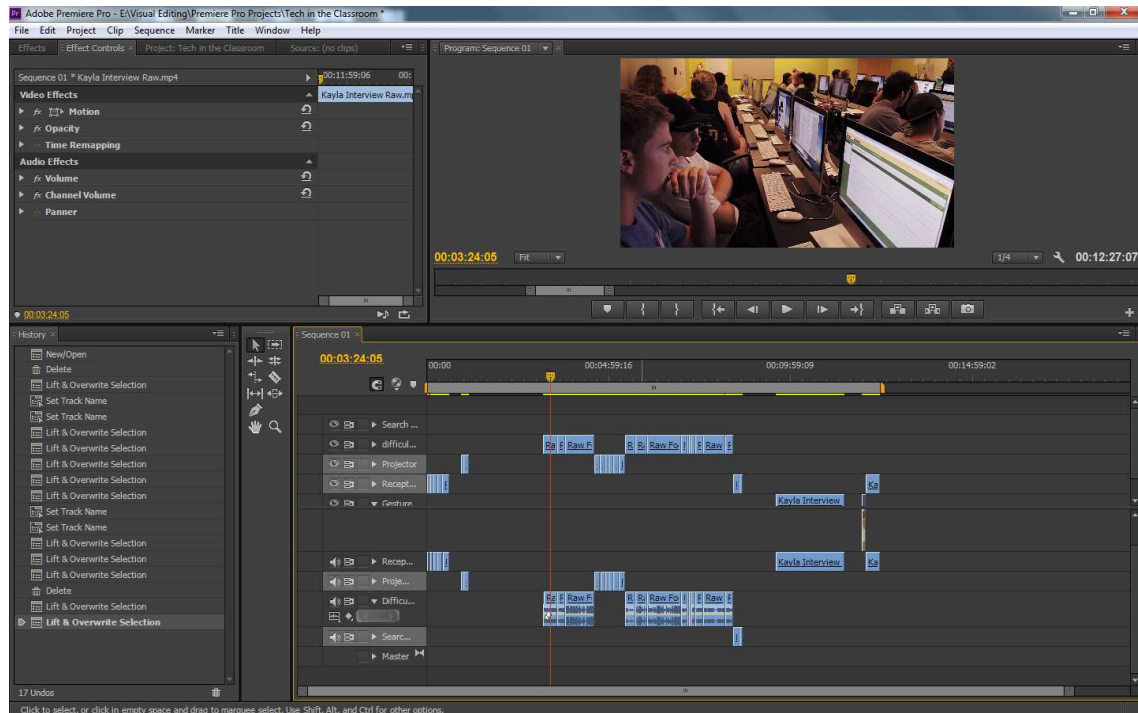
0:00	Kayla (K) Organizes students into groups	A
:28	Has class pull up their <b>reading logs</b>	B
:42	Girls moving to get together in groups	C (Small classroom)
1:14	K asks "How you doing today? Tired?"	D
1:16	K: "Here's what you are going to do with your reading logs- come up with one claim as a group. One person come up and write the claim on the board."	E
2:20	K: "I'll make a place for you to write your claim on the board"	F
2:22- 4:25	<b>Groups discuss amongst themselves the best claim to write on the board</b>	G
3:36	Student asks "Are we making claims or the whole thing?"	H
4:25	K Drinks from Water bottle	I
4:26-8:45	<b>Students begin writing their claims on the board</b>	J
4:52-5:13	Student writes on board "We believe as a group that citing..."	K
5:17	Student talks with her group members standing up in order to see over the computers	L
5:25	View From the front of the classroom	M
5:29	Student crawls underneath desks in order to get back to her seat	N (small classroom)

(Figure 8: Log of Video Footage).

Three columns on the log indicate the time in the footage an event occurs, a brief description of the event or the dialogue, and a label for the event. As can be seen, I also used the third column to begin to group coordinating or similar pieces of data (labeling two items "Small Classroom" was the beginning of what led to the creation of the classroom constraints video). I used this log to make note of times when humans and objects interacted (note item "I" in which the teacher drinks from a water bottle).

After the raw footage was logged, and salient elements of data were identified. I then used the video editing interface of the program Adobe Premiere Pro to begin to

select, organize, and juxtapose the different points of data, the clips, with each other (Figure 9: Editing user interface).



(Figure 9: Editing user interface).

Using the different “tracks” available on the interface I placed similar clips together and separated them by category. In figure 9, it can be seen that I have identified and organized clips in which students and the teacher interact with different technologies. For each, I created a corresponding track and collected the clips into that track. For example, I have created a track called “technical difficulties” onto which I collected the clips that ended up being a section of the video entitled “Technology as Universal Repository.”

By using the logs in conjunction with the video editing interface, I was able to identify and place clips in ways that allowed me to review them side by side, juxtaposing them in ways that are not possible in the raw footage. From nearly two hours of footage, I

was able to identify salient moments of human/object interaction and lay them side by side. This positioning of clips allows the data to build on each other and make repeated phenomena more salient. The final videos are the results of these efforts.

### Theoretical Considerations

One concept that helped me understand what informed me as I watched the raw footage comes from Heidegger's *Fundamental Concepts of Metaphysics*. In this book, which is a collection of Heidegger's lectures, he argues that the way we understand objects within a space first depends on a pre-logical conception of the space the objects are in.

In Heidegger's hypothetical example, he imagines a scenario in a lecture theatre in which a chalkboard is "poorly positioned." Rather than being behind the lectern, the chalkboard he imagines is in a remote corner of the room and requires the teacher to walk to it, and the lighting in the room makes the chalkboard difficult to see. Heidegger argues that it is primarily because the space is a lecture hall that the placement of the chalkboard even matters. He says "It is out of the manifestness of the lecture theatre, that we experience the bad position of the board in the first place...." (345). This "manifestness" of the space as a lecture theatre shapes how we see everything within it, including the chalkboard. As soon as we call the space something else, everything else in the room changes too. Heidegger goes on to say, "If we think of the room not as tiered, but as a dance hall, then the board would be sitting quite favourably in the corner, out of the way" (344). This pre-logical conception of the space itself shapes how we see everything else within the space.

To use the language I've been using in my dissertation, the way Heidegger's hypothetical chalkboard asks to be used is at odds with how the people in the



hypothetical lecture hall want to use it. The material qualities of the board are determined not only by its material—it is flat, vertical, and dark, and chalk easily writes and erases on it—but also by the space in which the chalkboard exists. Chalkboards, by their material nature, ask to be seen, to be written on with chalk, and then erased—that is a common sense way of interacting with them. So, if no one in the space where the chalkboard is wants to write on it or look at it, then it doesn't need to be accessible. It's asking to be used can be ignored quite easily.

Likewise, if these videos were to have happened any other place, every interaction seen in the video would be entirely different. It's important to bear in mind that I am watching this video, logging the footage, and editing these video essays with the idea of the "Writing Classroom" framing everything. The people in the space become students, and one person becomes the teacher. The desks become work surfaces, or obstacles for group work, and the computers become writing machines. If I want to see how humans and objects interact, I first have to acknowledge that the space itself where the people and objects are is being called a writing classroom, and that that shapes how we see all interactions that occur there.

Finally, I will take some time now to discuss the idea of the quasi-object which played an integral role in shaping how I watched the third video that will be presented "Page Count and Multimedia Projects." Michel Serres and Bruno Latour are the two philosophers most closely associated with the idea of the quasi-object. Serres uses the term to discuss how objects are more than just the physical component of the object itself, but they often play a role in establishing identity or purpose. As an example, he talks about a ball, like a soccer ball for example. To a ball player, the ball is more than just the ball—it is what turns the ball player into himself. Without the ball, the ballplayer doesn't exist as a ballplayer, he and the ball have an interdependent relationship. So the

ball can't just be a ball; the ball, and everything that goes along with it, becomes a quasi-object.

As a more abstract example, Serres also formulates language as a quasi-object. A language creates cultures and identities for the people that speak it. It acts in a very real way on people, just as the ball does for the ball player, but it doesn't exist as a tangible thing. Bruno Latour also uses quasi-object in this more abstract way as well in *We Have Never Been Modern*. He describes the quasi-object as existing in the space between what naturally exists, and what society has created. The quasi-object is both naturally occurring and created by society. The classic example many use is the idea of climate change; it both exists naturally in real phenomenon, but is also a socially driven idea. Quasi-objects are things that exist, that we interact with, that determine our identities in some ways, and that ask to be used in certain ways, but that we can't exactly pinpoint their origins or hold them tangibly.

The quasi-object I am referring to in this video is the writing program policy that stipulates that students must produce 20 pages of polished prose by the end of the semester as a requirement for the course. This policy is very much present in the classroom, it changes behavior, and asks to be recognized and followed, yet, no one can point to the policy in the physical surroundings of the classroom like you can the flag or the desks. It is only through the capturing of digital video, and by selecting and juxtaposing clips, that evidence of this quasi-object can be found.

### Preview of the Three Videos

The first video, entitled "Classroom Constraints" highlights the ways that the objects of the classroom directly affect many of the pedagogical choices available to Kayla, the teacher. In the video she explains how the size of the computer monitors, the

arrangement of the desks and chairs, her own clothing, and other objects have a direct influence on how the students interact with each other and about the pedagogical choices she is able to make. You will see, for example, that the size of the monitors creates a situation where Kayla feels she must wear high heels in order to interact with students, and how the close proximity of the desks both limits the kinds of activities she can do in the class, and also creates a sense of community in the classroom<sup>1</sup>.

The second video, entitled “Technology as Universal Repository” presents a series of instances in the classroom when the students and/or the teacher interact with what is commonly referred to as classroom technology: the whiteboards, their cell phones, the computer screens, laptops, and the projector and projector screen. Also, this video highlights salient moments which I refer to as “technical difficulties,” that is, moments of frustration for the teacher or the students during the class in which the technologies assert an agency that does not correspond to the will of the user. By editing these 21 clips from the class footage together, I have created a document that seeks to observe how the humans and objects are interacting. The main argument I seek to make with the video is encapsulated in the title: the technologies that the humans are interacting with in the classroom situation primarily act as repositories for information that can be accessed, added to, or referred to. The moments of technical difficulty are vital to understanding this relationship. These moments of difficulty hinder the teachers’ or the students’ ability to access, add to, or refer to the information.

The third video, entitled “Page Count and Multimedia Projects” presents four instances during the class period in which the students and the teacher attempt to negotiate how the page count requirement policy works when multimedia projects are

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<sup>1</sup> Like Kayla’s choice to wear high heels, many of the phenomena captured and highlighted in this video essay draw attention to women’s bodies and the discomfort created for them by the classroom setup. Although this study does not make a particular effort to use feminist rhetorical methodologies, I do acknowledge that this particular situation could benefit from watching it with a feminist lens in mind.

given as an option. These negotiations are never clear, and, as a result, students avoid choosing to create multimedia projects. This essay demonstrates how students interact with and are limited by the official policies regarding page count requirements in much the same way that the physical, tangible objects do.

What follows is the transcript of the video presentation of the three videos along with my discussion of why the clips were chosen and organized as they were, as well as the conclusions I drew from creating the video essays.

### Chapter 3 Video Portion Transcript

**Steven Hopkins** (speaking to Camera): This is the video portion of Chapter 3 of my dissertation entitled “Re-Seeing Composition.” I’m Steven Hopkins, a PhD candidate in Writing, Rhetoric, and Literacies in Arizona State University’s Department of English.

A transcript and visual description of this video portion is available in print form in the text of my dissertation.

The purpose of this dissertation is to argue for (text appears onscreen) the incorporation of object oriented rhetorical theory (the words Object Oriented Rhetorical Theory are bolded) into reflective teaching practices (the words Reflective teaching practice are bolded) in writing classrooms (the words writing classrooms are bolded) as a way to more thickly describe and understand writing processes, pedagogical choice, and programmatic assessment (these words are also bolded).

In this video you’ll see three separate video essays presented (the three videos appear on the bottom of the screen and then descend off screen). These videos were generated from digital footage captured during three separate occasions: an English 102 class at Arizona State University; and interview footage with the teacher Kayla Bruce, from both a few days before the class and a few days after the class. I have edited together clips from these three sources to create the essays here. After each video essay, I will return to describe the theoretical principles that guided the creation of each essay.

The footage you will see was originally created as part of the ViTA Project (the words ViTA Project appear) at Arizona State University, which seeks to visualize teaching in

action (the word ViTA breaks apart and letters are added to make the words “Visualize Teaching in Action”). As a researcher for the ViTA project, it has been my goal in particular to observe how humans and objects interact in writing classroom spaces. I have provided more information about the ViTA Project in the written portion of this chapter.

Also, the written text of this chapter provides a justification for why I chose to do video work, the scholarly benefits of doing so, as well as the scholarly context in which these video essays emerged.

The first video we will see is entitled “Classroom Constraints,” and we will watch that video now. Again, the purpose of these videos is to reflect on the ways that humans and objects interact in the writing classroom space.

#### *Classroom Constraints Video*

(Kayla stands in front of the Classroom, fade in from black as the camera pans across the classroom)

**Kayla** (to students): So, are we ready? Project 1 is done. Project 2 is done. Did you all get your grades? Questions?

**Kayla** (pre-interview): It’s a really small classroom. It’s like three long rows of desks. (A young woman, after writing on the white boards in the front of the room crawls under the front desks to return to her seat.) It’s kind of hard for them to get in and out. It’s really hard for, like if a student in the middle has a question (a young woman carefully shimmy behind other students in order to exit her chair to find another spot) they have

to, like, come and talk to me because I really can't get in there. But on that one side, it's just all (Kayla walks along the far edge of the classroom as students work at their computers) student desks so I can't really get to that side.

And they have really big Mac computer screens. (A shot from eye level with the seated students from the front of the classroom in which the backs of all of the Mac computer monitors fill up most of the frame) They're, like, big. I have no idea what size they are, but like, the biggest. Like, they're so big. And they all have them, (an above-eye-level shot taken from the front of the classroom panning from right to left of the tops of students' heads poking up above their computer monitors) and I have one at my desk, which I really like. I've never taught not in a computer classroom for composition, so I don't know. I'd have to really (The students watch a YouTube clip on a large projected image in the corner of the room) readjust a lot of stuff if I was going to do that.

So, like, one thing is that I have to wear heels because I can't see their faces otherwise. (Kayla leans against a wall watching as students write on the white boards and her dress and shoes are visible). I'm too short to actually see their faces. So I have to wear heels every time I teach to actually be able to see over their computers, which is kind of like, not a big thing, but it has definitely affected it because I am not as comfortable, like, literally physically.

(A shot from the back left side of the classroom; Kayla enters the frame from the left and looks at the screens of the students' computer monitors) So the way it is set up I can really only go on one side and look at their computer screens without being pretty intrusive and kind of like (Kayla carefully ducks under a hanging American flag in order

to find a position in which she can talk with a student, and then ducks under it again when she has finished) having to skirt around them and everyone having to move their stuff.

(Inaudible dialogue from Classroom footage)

**Kayla** (post-interview): I asked one person from every group to come up and write on the board. (A young man leaves his desk to come to the whiteboards to write, in order to get to the spot where he is to write on the whiteboard, he has to carefully shimmy behind another student) They really like it because it's interactive, but at the same time because of the classroom I have had to limit that, which is kind of frustrating because I have had other classrooms where that would have worked fine, but the student's wouldn't have reacted to it that way. So, trying to find that balance between, "Ok, let's be inclusive," and trying to find that balance of, "OK, don't get so frustrated because you are tripping and falling over everything." It's been really hard this semester.

**Kayla** (pre-interview): And I've also, for the first time this semester, have grouped them from the very beginning of the semester (Kayla leans against the back wall to converse with a student individually while other students work in groups) and it has affected it a little bit. And I think, in this class, we could have done more if the classroom wasn't so constricting because they are so ready to move and engage, but that's just kind of... But it has I think also created a community. (Kayla continues speaking with one group as the rest of the students work together in groups) From the very first day you feel like you are just in this little group. I think the community and the conversation has developed a lot



more quickly than it would have in a larger room. So it's kind of a give and take of the good and the bad.

**Steven Hopkins** (to Kayla): Yeah, awesome.

### *Classroom Constraints Video Analysis*

Steven Hopkins: The clips I have chosen for this video are salient, and work together cohesively, because they are moments when the students or teacher interact with the classroom space with their entire bodies. They are moments in which the physicality of being in this space asks the students to move in ways that often look awkward or uncomfortable, or possibly embarrassing.

In the first two clips, for example, it's a little difficult to catch, but a female student, after having come to the front of the classroom to write on the whiteboard, crawls under her desk to return to her seat (a female student crawls under her desk). In the second shot, another female student must carefully shimmy behind her fellow students (a female student moves carefully). It is perhaps this kind of awkward movement that the first female student wanted to avoid when she chose to crawl under the desk. (The two shots are displayed side by side). After that I chose to include a shot of Kayla walking along the edge of the classroom trying to see her students' work her students overlaid on her describing how feels intrusive trying to do any more than that (Kayla walks along the edge of the classroom).

Next I used two shots to emphasize Kayla's point of view as a teacher who must look at the backs of 25 computers while she teaches (Shots of the computers). Then I chose to

include Kayla talking about the benefits of having the computers in the classroom, and how they are integral to her pedagogy. To further demonstrate this benefit, I chose to show a clip of the students watching a YouTube video as part of the lesson (Students watch a YouTube clip on the projector screen).

Next, to continue to emphasize how humans in the classroom have to adjust themselves to meet the demands of the classroom space design, I included Kayla talking about her need to wear heels to see over the computer screens. I included an image of her wearing them in the classroom, followed by a statement from Kayla that wearing heels is uncomfortable for her (Kayla wears heels). I hope that the viewer mentally connects the shot of Kayla wearing heels with the point of view shot from earlier (The two shots are shown side by side). By using these two images so near to each other, I was hoping to help the viewer vicariously experience what it was like for Kayla to stand and teach these students behind these computers, and I hope to guide the viewer in understanding her choice to wear heels as well (The two shots appear on screen together).

The next two shots are placed over Kayla talking about how the classroom space limits her ability to interact with her students and help them at their seats. The students in the middle of the classroom will have difficulty receiving help from Kayla, as access to this part of the room is difficult (a shot of the classroom with the middle area darkened). Over this, I also placed the clip of Kayla ducking under the American flag that is required to hang in every classroom by Arizona state law (Kayla ducks under a flag while talking to students). As Kayla attempts to interact with a student, she not only has to stand in the small amount of space available to her, but also has to contend with the flag hanging in the space as well (The clip repeats, zoomed in). In the clip, Kayla smiles, perhaps to

indicate to the student that she is talking to that she recognizes the inconvenience of the placement of the flag (Kayla smiles).

The next clip I chose comes from the post-interview done with Kayla in which I asked her about the whiteboard writing activity she had her students do at the beginning of class. In the clip, Kayla voices frustrations about the difficulties students have as they attempt to participate in the activities. Kayla has found that she must balance between this frustration and her purposes as a teacher. To illustrate these frustrations, I chose a clip of a male student approaching the white board and navigating limited space to do so (A male student rises from his seat, and then skirts behind other students to get to the whiteboard).

Finally, I ended the video with Kayla talking about group work, and how she noticed that the class was excited about group work but was limited by the classroom space. Over this I chose two clips of Kayla interacting with a student in the back of the classroom. This clip was another opportunity to demonstrate how Kayla must intrude on the physical space of other students in order to help one (Kayla talks with a student in the back of the classroom). Kayla does say, however, that the physical closeness demanded by the classroom design has facilitated a feeling of community within the class. I chose to try to illustrate that with a shot of students interacting in their group work in the foreground, with Kayla talking with another group of students in the background (Students work in groups).

Through the process of editing this video, I have led myself through a reflective practice that helped me see how the objects of the classroom have limited the ways that students

and the teacher can interact in the classroom, especially in terms of how their entire bodies are asked by the furniture, walls, and computers to interact in certain ways. As I did so, an overall theme of discomfort and awkwardness emerged. This is complicated a little bit by the idea of closeness and community at the end of the video as well.

My dissertation focuses on how objects, by their very design and materiality, ask us to interact with them in particular ways in writing classrooms. The classroom space I observed, for the most part, seems to ask students to sit in one place at their computers and do little else, and also asks Kayla to remain in the front of the classroom. There is limited availability of space to allow student to move and interact, as well as to allow Kayla to interact one-on-one with her students.

I don't know how this classroom ended up with the design it has perhaps future research endeavors could investigate how these decisions are made. However, this video uses editing digital video footage to highlight the ways that the embodied work of teaching and learning writing may have been overlooked in the design. Through this edited collection of footage, it is obvious that the original design of this particular writing space either failed to consider, or saw as unimportant, the motion of the bodies of students in the space and the physical aspects of learning writing.

The next video will concentrate especially on how the students and teacher in the room interact with what we commonly refer to as “classroom technology.”

*Technology as Universal Repository Video*

**Kayla** (voice heard over title card that says “Whiteboards”): Ok, good? Good? Tired? Ok, so here’s what you are going to do with your reading logs. Listen up.

**Kayla** (to class): So with your reading logs what I want you to do is... come up with one claim as a group.... What I’m going to ask you to do is have one person come up and write that claim on the board.

(Indistinct chatter as students come to the front of the room to write on the whiteboard.)

(A student stands at the whiteboard reading what other students have written. He erases something he has written and then begins to write.)

**Kayla** (looking at the whiteboards): So, group 1 said, “Making sure your group’s ideas are well organized, and everyone in that group is doing their part.” So um, Group 1, what do we mean by organized? How, how can a group be... (Fade to black).

**Kayla**: So the flip could be that women propose to men. Another flip could be no proposal. And another flip could be both. Which one do we want to go with just for this example?

Students: Both! Both!

(Title card that says “Cell Phones”)

(A student stands at the whiteboard holding her phone. She looks at her phone and begins writing on the board.)

(A student passes a cell phone to another student for her to input information.) (Fade to black)

(Title card that says “Computer Screens”)

**Student 1:** What do we have to do for it? (Student points at Student 2’s computer screen with pencil. On the screen is the writing prompt assignment Kayla gave to her students.)

**Student 2:** Yeah, we have to select a quote from it.

**Student 1:** (Looking at his own computer screen displaying the assigned article they were to read) From this?

**Student 2:** (Looking at his own computer screen displaying the directions Kayla has given them for the day’s activities) Um, we have to read it and um, choose a quote that we think best represents our [inaudible].

**Student 3:** (Not seen) I kind of like this part. I can’t really highlight it because it’s a pdf.

**Student 4:** Which paragraph?

**Student 3:** Uh, the, I guess third paragraph. First sentence.

**Student 5:** [Reads quote] Creative person vs. non... (Fade to black)

**Kayla:** (Voice heard over title card that says “Projector Screen”) OK. Um, here are some resources to help you start thinking through concepts.

**Kayla:** (Indicating to the projector displaying a Google slide document with clickable links to the resources being presented). So I didn't want you to not have anything. Um, Buzzfeed is actually a really interesting one as far as, I think this one... (Cross dissolve)

(Two students have clicked the link to Buzzfeed website and are browsing it while Kayla continues to explain the project.) **Kayla:** ... right? Um, another thing I thought that we could do was, like, say that we had gone with unmarried...

**Kayla:** (Looking at the whiteboards which display the claims written by each group) Um so group three, do you think, how do you think you can work out, do you think... (Turning to look at the projector screen displaying the names of the members of each group) I don't even know who group three is. Over here. (She turns to face group three). Do you think that you would....

**Kayla:** (Looking at the projector screen displaying the first slide of a presentation introducing the new assignment) Alright, project three. (She clicks to advance to the next slide which contains a description of the project.) Does someone want to read this?

**Kayla:** There's lots of decisions. (She gestures toward the projected screen) So almost every line in here there's another decision that you as a group will have to make.

(Student reads from slide labeled "Action Steps") (A student in the foreground looks at his own computer screen displaying the same image being displayed on the projector screen.)

(A YouTube clip from the television show *The West Wing* plays on the projector screen within the YouTube interface. The lights have been dimmed.) (Fade to black.)

**Kayla** (voice heard over a title card that reads “Technical Difficulties”): Questions about these things so far?

**Student:** [Inaudible] over specific things.

**Kayla:** Ok. Let’s see if I can... (She is clicking on her computer, and we can see what she is doing on the projection screen. She attempts to bring up a YouTube video. The screen displays an error message.) OK, this is not letting me show it. (She enters search terms into the search bar at the top of the screen. She clicks a few times and returns to the slide show about the assignment description.) OK.

**Kayla:** (Voice heard over a shot panning across the students) And then A.J. what did you say?

**A.J.:** Not asking at all.

**Kayla:** Not asking at all. So there already are two flipped concepts. So it’s not actually going to let me... (She turns to her computer. The projector screen displays the login page for google.com.) Um. Sorry. Let me do this... (She clicks twice into the blackboard interface). Hold on, hold on, hold on, hold on. (She clicks again.) I exited out of it somehow. Ok, so those are two ways that we could flip that concept, right.

**Kayla:** ... As far as what you want to use this project for or how you want to do this project.

(Indistinct chatter).



**Student 6:** We don't have permissions.

**Several students:** Yeah [indistinct]

**Kayla:** Oh really? (Looking at her computer screen) It said it was published. Ok, hold on. I'm going to go back. (To students) So it won't open the discussion at all?

Several students: No. We can't open the article.

**Kayla:** Oh really? Well that's weird. Ok. Then here's what I'll do, I'll just pull it up on here...

**Kayla:** (Gesturing toward the projector screen displaying the writing prompt she has provided for the students) Ok. So start with those. Brainstorming. Preliminary brainstorming as a group. And I'll see if I can find this article. (Kayla returns to her computer)

(Kayla works at her personal laptop next to her classroom computer while the students work together in groups.)

**Kayla:** Sounds like some great brainstorming. (Pointing at the blackboard interface displayed on the projector screen.) It is now a PDF. So if you refresh this discussion post, you should be able to open a PDF to that article.

**Student 7:** ...topic possibilities, because the link doesn't work. That's what it is.

**Student 8:** Well here--here's the uh... (He pulls up the PDF of the article on his own computer screen)

**Student 7:** (Looking at Student 8's screen) Is that it? Did she get that to work?

**Student 8:** Yeah, she said that you can refresh it.

**Student 7:** Shoot.

**Kayla:** (Pointing to words she has written on the whiteboard. The projector screen is not on.) Um Wednesday, you have the class to make all of these decisions on your own. That doesn't mean that you can't send me emails. (She presses buttons on the projector screen control interface at her desk.) That doesn't mean that you can't say, 'Hey, we're stuck on this. Right?' Um. (She continues pressing buttons) and ask me questions, but (She presses more buttons and checks the projector screen) This won't open. (She leaves the projector screen control interface)

(Cross dissolve)

**Kayla:** In the last few minutes of class we'll see if you have any major questions that we can address overall. (She returns to the projector screen control interface and presses buttons). URGH! (She shakes her hand in frustration). Um, but the questions that I want... (cross dissolve to Kayla pressing a button and then walks toward the projection screen as the image starts to be displayed on the screen). It's important for you to narrow down your topic and these decisions as quickly as possible, so that when the librarian comes next Monday, you're like, 'Yeah, here's the topic that we're doing. Here's the genre that we're going to use...' (The image on the projector screen turns on.)

*Technology as Universal Repository Video Analysis*

**Steven Hopkins:** This video about technology in the classroom attempts to direct the viewer to observe interactions with technology in the writing classroom. For the most part, Classroom technology refers to the electronic, digital tools used by students and

teachers in classrooms. Although, I have chosen to include whiteboards as well because, as I hope to demonstrate, they serve many of the same purposes as the digital technologies.

Just like with the classroom constraints video, I collected and combined the instances of human/technology interaction from the raw footage and worked to juxtapose the images in meaningful ways. As I did so, I realized that one of the main purposes of technology in the classroom was to hold information that could then be accessed later. The title of the video you just watched, “Technology as Universal Repository” came after many hours of watching, logging, selecting, arranging, and editing the video footage.

In the clips that I have chosen, classroom technology seems to mainly function by “holding” (Steven gestures quotations) writing to be accessed later. This is what is meant by the title “Technology as Universal Repository.” As I watched and re-watched the footage, the primary way I observed teachers and students interacting with the whiteboards, cell phones, computer screens, and projector screens was to deposit and retrieve writing. This became even more salient when my process of selecting and juxtaposing clips led to the creation of a category I called technical difficulties.

I arranged the clips into five sections based around the technology being observed, there are Whiteboards, Cell Phones, Computer Screens, Projector Screen, and then Technical difficulties (these words appear one by one in that order).

So first, let’s look at the whiteboards. I began with whiteboards as the least technological of the group and the one in which the idea of this universal repository is the most

straightforward. At the beginning of the class, we see students using whiteboards to deposit answers to the homework assignment so that Kayla can lead them in reviewing them together (students walk to front of class to write on whiteboards). In these clips, several interactions stood out to me as important. The first is the male student who approaches the board and begins writing, but then takes a moment to read what other students had written on the board before he continues (a male student writes on the whiteboard as described). As the student attempts to write on the board he finds himself in conversation with what the other students have written (the clip plays again). Because the whiteboards retain and display other students' writing, he can retrieve that writing and coordinate his own answer so that it participates in a wider conversation. Next we see Kayla reading what one group has written and then turning to face that group and ask them about it (the clip plays.) In this case, and the next one, (Kayla takes answers from students and writes them on the board) the white board serves as a hub around which discussion can take place by holding the writing in a visible place.

The students and the teacher deposit information on the whiteboard, where it remains until it can be retrieved in order to augment, evaluate, or discuss the information. When viewed in the context of the writing classroom, the whiteboard is a repository for examples of writing that students can learn from and interact with by writing themselves, and a place to store writing temporarily so that it can be used to further discussion. The people in the classroom interact with the whiteboards by depositing and retrieving writing.

Next, I juxtaposed two clips of cell phone use. In the clips I chose, students interacted with cell phones in a couple of surprising ways in order to deposit and retrieve

information. In the first clip in this section, a student carries her phone to the board, and then copies the answer that she wrote there (The clip plays). The answer, which she presumably created with her group, was stored in the phone so that she could transfer it onto the board. In the second clip, we see students who have just been assigned in a group together passing a cell phone back and forth in order to give each other their contact information so that they can contact each other in the future for the group work outside of class.

We see that, in the context of the writing classroom, cell phones, which are sometimes seen by teachers as a nuisance and a distraction, can be helpful tools for accomplishing tasks. Cell phones, in the right context, become learning tools.

Dr. Ehren Pflugfelder from Oregon State University discovered this when he worked with his students to create a documentary video about cell phones (Clips from the documentary play). As he did so, his policy regarding student use of cell phones in class changed. I asked Dr. Pflugfelder to read that passage for me, his reflection. You'll hear his voice now (as the quote is read, moving lines indicate the frequencies of the voice). "I have often considered cell phones to be a kind of nuisance, a distraction from the "real" educational activities that go on... Ones that I have planned for and taken time to create.... While teaching about technology, I was often pretty dismissive of the roles various technologies had in my courses." Dr. Pflugfelder would use soccer penalties to police student use of technology in the classroom, with a yellow card as a warning, and then a red card (image of soccer referee holding a penalty card) that resulted in a lowering of the participation grade. "I now realize that this policy was ridiculous. In policing their attention, I was shaming a literacy habit.... The soccer cards are gone and

have been replaced by more restrained conversations, as needed.” By reflecting on how his students interacted with cell phones in his classroom space, he was able to see them as an important technology for students.

When we observe technology in the classroom as repositories of information, we can see them outside of their connection to social media and other distractions to the learning environment and recognize them as powerful learning tools.

Moving on, the main technology students interact with in this classroom is the computer screen. In the first clip I chose for this section, we see two male students interacting with each other, and with their computer screens (Two male students sit at their computers). The first student points to his neighbor’s screen, which has the writing prompt the teacher has given them, to clarify what is expected of them for the activity. Then the student points at his own screen which displays the reading they are supposed to use for the activity (The clip repeats). The two students and the two screens work together in order to clarify the task at hand. The computer screens display information which was deposited by the teacher into an online repository where students can access it for class activities.

In the second clip, four students each have an article provided by the teacher on their screen, and the students learn how to communicate what part of the article they are looking at. One student’s first instinct is to highlight the text with his mouse in order to indicate a relevant passage to his group members, but then he can’t do that because of the kind of file they are reading (the clip plays). The group, then, has to work out an

alternate system of coordinating their attention and they do it by counting paragraphs and sentences.

In the projection screen section, we see Kayla using the screen to retrieve important information about which students belong to which group. (Kayla reviews what students have written on the whiteboard and attempts to ask group 3 to clarify their answer. Kayla doesn't remember who the members of group 3 are. She refers to the screen to find their names.) Kayla deposited the information about the groups into a document that she displayed on the screen kind of as a way of outsourcing remembering who was in each group.

Kayla also displays information on the projection screen as a way to coordinate the attention of her students. As I reflected and edited the clips together, this emerged as kind of a major affordance of screens in the classroom. As a repository of information, the screen becomes a concentrated place where the teacher can bring the class together by having a central image for the entire group to look at.

In the next four clips, information is displayed on the projection screen and Kayla uses that to coordinate the class's attention. She displays and asks a student to read the assignment description. She reinforces points by gesturing toward the information (the clip plays). Students read the same slide from the presentation on their own computers as well as on the projection screen. Finally, to model the kind of thinking required for the assignment, Kayla plays a YouTube clip for the class (the clip plays).

The projection screen is an adaptable, centralized location that asks students for their attention. Kayla can retrieve any information available on the internet and display it for the students.

Finally, we'll examine the clips in which there were moments of technical difficulty. The clips I have chosen for this video reinforce the idea that a primary way that the people in a writing classroom interact with technology is by retrieving stored information in order to read it or use it. The reason these moments become obstacles in the classroom is because they stop the teacher and students from either depositing, or retrieving writing.

In the first two clips, Kayla attempts to retrieve information from the internet, in the first it is the YouTube clip she plays for the class (the clip plays), and in the second it is the learning management system (the clip plays). In both cases Kayla is attempting to retrieve information to display in the projection screen for the class. These problems are easily overcome through a quick search on the internet.

The next six clips all work together in a sort of narrative. After Kayla assigns the students to read an article and discuss it in groups, the students alert Kayla that they don't have permission to open the article (the clip plays). Kayla then attempts to fix the problem but is unsuccessful (the clip plays). She reorganizes her lesson plan on the spot and asks them to work in groups on another activity while she fixes the problem (the clip plays). Then she announces to the class that she has changed the file type and they have access to it (the clip plays). In the sixth clip, a student, who must have missed the announcement, is informed by his classmates that the problem was resolved, and he expresses disappointment (the clip plays). In this narrative, all the classroom



technologies were working together as a repository for students to access information given by the teacher. Difficulties arose when students couldn't retrieve the information, and the problem was resolved when they could.

The final three clips work together to demonstrate how Kayla, as she is wrapping up class and telling students about their homework assignment, is having difficulty getting the projection screen to display information. Despite this, Kayla continues to give information to the students. The second time she unsuccessfully tries to start the screen, she vocalizes her frustration (the clip plays). Eventually though, she gets the projection screen to work. Although Kayla is verbally giving the information about the homework to her students, she clearly wants to display the information visually as well, and is frustrated when she can't (the clip plays).

The whiteboards, cell phones, computer screens, and projector screens, by being integrated into the writing classroom, fulfill an important role of receiving, storing, and displaying writing. The way the humans and objects, in this case the technologies of the classroom, interact in this writing space is primarily to store and retrieve information. Were these people and objects in another space, these objects would take on other roles, or not be used at all. By placing these objects in the context of the writing classroom, they take on the role of being repositories for writing. It's when they are not being used in this capacity is when they become distractions.

In this third and final video, we will see the people interacting with an object in the classroom; however, the object that they are interacting with is much more intangible.

This next video shows how students interact with an official policy of the writing program.

*Page Count and Multimedia Projects Video Transcript*

**Kayla:** (post-interview): I don't know. It's something that's come up this semester that I've never had before because I've never previously said you need to have this many pages at the end of the semester.

**Kayla:** (class footage, Kayla Stands in front of the room talking to students): Questions about this? About this third project?

**Student 1:** If you decide to do a PowerPoint, how many pages does that count as?

**Kayla:** I think that would be something that we would need to sit down and look at together. How you balance text and images, stuff like that. For this one, we might need to sit down, especially in your draft time... and think about what kind of page count does this add up to depending on the genre you're using.

**Kayla** (post-interview): Yeah I said it. I said it at the beginning of the semester, I kind of wish I hadn't because, in our TA training they said, "Your students need to create 20 pages or 5,000 pages [sic] of work." And I've never had a page count, I've never given my students a page count ever.... It's never proved to be necessary for what I've asked them to do.... Now they're really worried about it.... (Classroom footage of Kayla talking with a female student) Like one girl was like, she basically asked me how much I cared about it, and I kind of told her I don't care about it, but it's a Writing Programs rule, and it kind of gives you a framework

for, “here’s kind of the amount of work that I need to produce.” And she said,  
“Well, you might not care about it, but you’re enforcing it.”

(Three students sit in their row talking with each other)

**Student 2:** I say we should seriously do like, a documentary, like that one video, like a  
documentary. Like a five-minute short film.

**Student 3:** How does that translate to page count, I wonder.

**Student 2:** A minute. A minute per page. Talk to her about it?

**Student 4:** Ooh.

**Student 3:** That, that would be all right. We would just need to be able to get, like, a  
good 10 to 15 minutes. I need my page... pages.

**Kayla (post-interview):** Now that’s interesting, if it’s the group that I think that it is that  
you’re talking about, yesterday, when they gave me their drafts they still hadn’t  
chosen a genre, it was just a bunch of text. And I said, “What genre is this?” and  
they said, “An essay/article.” And I said, “Well, those are two different things.  
You’re going to have to choose one, you know. You’re going to have to...” Because  
they look different, right? They have different conventions.

(Three students sit together and talk with Kayla about their project)

**Student 5:** And on the, uh, genres, so I feel like we want to... do ya’ll want to do more of  
a presentation? But like, I was thinking a presentation, but I didn’t like the  
PowerPoint idea because I don’t know how that goes with our word, like...

**Student 6:** Pages.

**Student 5:** Page numbers.

**Kayla:** Well we'd have to sit down and talk about that once you kind of had something. So like once you have a draft on that peer review day we could sit down and kind of say, "Here's..." and kind of negotiate what that would look like.

**Kayla** (post-interview): Because other people are talking about this, right? Other scholars are talking about what that looks like. I actually had a brief conversation about it today in class because someone else asked the same, one of my grad student colleagues, asked the same question, "I want my students to do multimedia projects, how does that work?" And we kind of talked about how 20 pages doesn't really fit anymore, right? It doesn't really work in the kind of work that we're hoping that our students will produce.

**Kayla** (class footage): Group 3, you guys good? Do you have questions?

**Student 7:** Uh, so, whatever we end up presenting is that what we're like submitting for our word--our page numbers?

**Kayla:** Yes.

**Student 7:** OK.

**Kayla:** Group 4?

**Kayla** (post-interview): And I'm trying to think, I don't think any of my students actually did a multimedia project for this last project, and that's probably why.

*Page Count and Multimedia Projects Video Analysis*

**Steven Hopkins:** In this video, I edited together five distinct occasions during the class period I filmed in which students had some kind of conversation about how to translate the effort to produce a multimedia project to the requirement of a page count.

These five conversations were the first thing that stood out to me upon reflecting on the classroom proceedings I had recorded. These conversations are moments in which the teacher and students must interact with the policy requiring 20 pages of polished prose, which is not physically present in the classroom, but still has an effect on the class proceedings.

For the assignment that Kayla gave her students during the class period we are observing the students were asked to choose a topic, an audience, and a medium. Students were to choose the audience based on who would most care about the topic, and the medium was to be chosen based on how to most effectively get the message to the intended audience. Kayla makes it clear that an alphabetic text is merely one option of many to fulfill the assignment, and gives videos and PowerPoint presentations as options. In this video essay, we see that, almost immediately after introducing the idea of multiple media counting for the assignment, the students begin asking how the work required to do multimedia projects translates to the work required to write pages.

Much of the class interaction in this video centers around a quasi-object in the form of ASU's writing program policy. I have written more about the idea of the quasi-object in the written portion of this video [chapter].

Here is the official wording of the policy from ASU's official course description for ENG 101/102: "During the 16-week semester students will complete three formal written projects. Combined the final drafts of these three projects should result in approximately 5,000 words (this is equivalent to about 20 pages using standard academic format). Additionally, a final reflection is required." (The quote appears.)

This policy doesn't leave wiggle room to be interpreted as advocating for multimedia projects. The words "formal written projects," "5,000 words," and "20 pages" (these words are bolded in the quote) demonstrate that if students want their work to be recognized as legitimate, they need to either be producing alphabetic content, or, the work they do needs to very clearly translate to the acceptable measures of effort.

As I reflected on the clips, I was struck by how real of an object the policy seems to be in the classroom space, even though it was intangible. The policy seems to be ever present, and governs a lot of the actions of the students and teacher.

The beginning of the video starts with Kayla acknowledging that she explicitly talked with her students about this policy.

In the first conversation in the video, a female student asks about how PowerPoint presentation works for the page count requirement. Kayla responds that they will have to sit down and work it out what the ratio is during the drafting period (the clip plays). Kayla implies that the students are going to have to create something, invest time into the project, and then figure out how the effort is going to translate.

In the second conversation, Kayla talks about an interaction she had with a student in which she indicated that she didn't really care about the policy. Then the student points out that even if she doesn't care about the policy, she is enforcing it. Even when Kayla attempts to demonstrate tolerance for whatever work the students do, the students demonstrate to her that her feelings about the policy don't really matter because the policy still exists outside of her authority.

In the third conversation of the video, three male students are brainstorming ideas for what project they want to do. One student expresses interest in creating a documentary type video. Another student immediately questions the idea because there isn't a clear translation from page count to video length. He tells his fellow student that (the clip plays). Kayla informed me in the post interview that ultimately that group of students didn't do a multimedia project, even though they demonstrated interest in it.

In the fourth conversation, a group of students expresses interests in presenting orally with PowerPoint slides as part of the presentation. But the students demonstrate their wariness to Kayla about getting credit for their effort. Again, Kayla tells the students that they would have to create something first in order to figure out how the work would translate as page count (The clip plays). Because the translation of effort from page count to presentation is not clear, the students do not know how to proceed.

In the fifth conversation, at the end of class, when things are wrapping up and Kayla is answering final questions before the class is dismissed, a student asks if the words given in the presentation count as the words required by the assignment and by the policy. Kayla simply answers yes in this situation (the clip plays). Whether because she's

frustrated or doesn't have time to give a nuanced answer we don't know, or maybe she has decided that spoken words and written words are equal. In any case, Kayla informs us at the end of the video that, even though the students were given opportunities to use multimedia genres for the project, ultimately none of them did. Much like the large computer screens ask Kayla to wear high heels to be able to interact with her students, the policy asks the students to only compose in the officially accepted media of the writing classroom.

By juxtaposing these five conversations against each other, we see a situation in which students are clearly worried about having their efforts at multimedia presentations recognized in an environment governed by a policy that privileges written words. This policy shapes the kinds of work students choose to do and how they understand what is being asked of them in an assignment. The teacher's preferences for student work matter little, when this quasi-object, the official writing programs policy, exists in the room.

In these three videos, we see that digital video capture, selection, and editing can illuminate much of what happens in the writing classroom. We see that classroom design can play an integral role in determining how teachers and students can interact in the classroom and also shape the pedagogical choices that a teacher can make. We saw that technology in writing classrooms is used primarily as a repository for information and students are adept at using screens to locate and access the information they need to fulfill assignments. Finally, we saw that policies concerning the types of recognized and privileged texts exist as quasi-objects with the ability to influence the behaviors and actions of the students and teachers in them.



Watching these three videos together, we see the writing classroom as a complex place of human/object interactions. The process of selecting and juxtaposing clips of classroom footage works methodologically to create epistemic artifacts of reflective practice. These videos not only demonstrate the discoveries I made about the human/object interaction in the writing classroom, they are also the process by which I made these discoveries. Editing video footage of classroom proceedings can generate new, thicker visualizations of the teaching and learning of writing.

Thank you for watching.

## FACILITATING REFLECTIVE PRACTICE THROUGH A FITNESS TRACKER FOR TEACHING WRITING

The third reflective practice I will present in this dissertation project seeks to not only account for and acknowledge the agency of objects, but to embrace their affordances within the context of the teaching and learning of writing. As discussed earlier the shift in contemporary reflective teaching practice which privileges improving a student's thinking over improving a student's written prose has led to a need in the classroom to facilitate a closer examination of what students are actually doing in writing classrooms. The last chapter attempts to do this through editing digital video footage of classroom proceedings as part of the ViTA project. This chapter will do so by introducing a technology into the writing classroom with the express purpose of tracking what happens in and out of the classroom through self-reported survey data. As discussed throughout this dissertation, object oriented rhetorical theories, when incorporated into writing pedagogy, have done much to open up new opportunities to re-examine the writing classroom in terms of human/object interactions, and to view the space as fundamentally collaborative between humans and objects.

This collaborative interrelationship between humans and objects opens a space for a digital tool that outsources, so to speak, some of the work of understanding what is happening in the classroom. The tool, which I have termed the Fitness Tracker for Teaching and which I will present in this chapter, generates, from student reports of their lived experience of students in the classroom, a set of data that can be used to facilitate reflective teaching practices. In this chapter, I will present the tool and the theoretical considerations that informed its creation, and present personal narratives of my use of the tool.

In writing pedagogy, as in all pedagogies, there is always a need for teachers to check their pedagogical decisions, which are often made based on abstract theory or remembered experience, against the reality of the classroom. Reflective teaching practice works to shape future decision making by either confirming to teachers that the techniques and assignments of their pedagogy are effective, which would then urge them to repeat the activity, or by guiding them to realize they are not, and therefore urge them to modify or abandon the practices.

In order to do so, a teacher must position themselves in the classroom as still forming, as a learner. Both Kathleen Blake Yancey and Paul Lynch argue for teachers to willingly take on the role of novice, or of cultivating “naivete” about ourselves as teachers. Both of these scholars emphasize the importance of the constant need for writing teachers to place themselves in a position where expertise is voluntarily eschewed, in which we “intellectually disrobe” (Lynch, 96) and lay bare the possibility that we don’t have all of the answers. By doing so, we cease to assume that anything we have learned in previous teaching experiences will produce consistent experiences or results in situations that seem similar.

The principles of OORT that have formed the foundation of this dissertation project likewise ask us to recognize that there may be elements of our environment of which we may be unaware, and that yet play an integral role in how we understand the world around us, and how we communicate with others. It is within this framework of intentional naïveté that this tool works best. It asks teachers to allow that their perceptions of the classroom are at best incomplete, and at worst misinformed or wrong. This tool asks teachers to reinvent the wheel, so to speak, with every class period. This tool, by its very conceit, assumes that the wheel may not be working right, and must be under constant scrutiny. In other words, one fundamental assumption of using this tool

is that the teaching of writing is forever inconsistent, and no knowledge learned before is ever entirely applicable to future teaching situations. Through the introduction of this tool, which collects, stores, and helps analyze self-reported survey data from students, teachers can embrace a technology that gives them more information about their students and their classrooms as a fundamentally important part of their pedagogy.

Taking on this role as a writing teacher has been seen as important for some time now. Stephen North in *The Making of Knowledge in Composition* termed it “Practice as Inquiry,” and fashioned it into six distinct steps:

1. Identifying a problem
2. Searching for Cause(s)
3. Searching for Possible Solutions
4. Testing Solution in Practice
5. Validation
6. Dissemination (36)

These six steps allow teachers to recognize the constantly iterative process of teaching writing reflectively. It recognizes the teaching of writing as a constantly shifting social science without many hard and fast rules. North’s practice as inquiry creates a system of reflective teaching practice in which the onus is on the teacher to be explicitly aware of what is going on in the classroom. Steps 1, 2, 4, and 5--Identify a problem, searching for cause, testing solution in practice, and validation--all require the teacher to be aware of the experience of students in the classroom.

Another iteration of this reflective approach, also in six steps, comes in George Hillocks, Jr.’s *Teaching Writing as a Reflective Practice*:

1. analyzing current student progress in relation to general course goals;

2. positing some change or range of possible changes sought in the writing of students;
3. selecting or devising a teaching strategy or set of strategies to implement the desired change;
4. devising a plan for implementing the teaching strategies;
5. assessing the impact of the teaching strategy in order to “discover consequences and implications of [the] chosen frames”; ...
6. confirmation or change of the strategies used (33)

Hillocks’ update also requires, in steps 1 and 5, for a teacher to be intimately aware of what is going on in the classroom.

These guiding principles create a framework for writing teachers to make of their teaching practice a constantly revolving set of controlled experiments with reflection as the main component driving pedagogical choice. They are consciously making the decision to try a teaching strategy and test its effectiveness in an orderly manner. These decisions are, in turn, assessed and then reinvented and adapted to respond to the results. However, neither North nor Hillocks supply a method by which teachers are to gain this in-depth knowledge of what is happening in their classrooms.

Paul Lynch in his recent *After Pedagogy* continues the work of advocating for teachers to assess their classrooms, experiment new techniques, and reflect on how those techniques actually work in the classroom space. Albeit with a less structured set of instructions, Lynch’s work asks teachers to examine experience as a way of constantly addressing the present situation in the writing classroom. Drawing from the postprocess movement, Lynch asserts that teaching practices are in a constant state of “inspired adhocery” in which “pedagogy becomes not a way to teach in the familiar sense but rather a way to make a resource of our classroom experiences” (7). Working from John

Dewey's interpretations of "experience" and Louise Weatherbee Phelps' interpretation of "phronesis," Lynch wants teachers to leave behind the "tired binary" (xi-xii) of theory vs. practice, and instead draw from the experience of teaching--the feet-on-the-ground, lived reality of the classroom--to generate the wisdom, or Phronesis, required to teach well, which happens when teachers reflect on the pedagogical experience happening each day in the classroom.

Fundamentally, all three of these ideas argue that teachers must be in touch with the material phenomena happening in and around their classrooms to successfully inform their pedagogy in an ongoing, reflective system. Lynch argues that if Composition scholars are to pursue knowledge through pedagogical practice in composition they must "make a resource of our classroom experiences" (7), and "pay attention to particularity" (17). He quotes Dewey: "a well-trained mind is one that has a maximum of resources behind it, so to speak, and that is accustomed to go over its past experiences to see what they yield" (quoted 84) and goes on to argue himself that "developing and sustaining those resources is the work of education" (84). In other words, writing teachers, if they seek to improve their effectiveness, should identify as many resources as possible to make sense of the experiences within the writing classroom. To do so, Lynch claims, is the fundamental work of educators. The purpose of this dissertation is examine how object oriented rhetorical theory can inform reflective teaching practice in the writing classroom. As such, I argue that if a teacher is to "pay attention to particularity," then a conscious effort to examine the role of objects in the classroom is necessary. Not only that, but to the extent that an object facilitates a collaborative interrelationship with teachers that can expand their understanding of their own writing classrooms, teachers should embrace this relationship and work to gain as much information as possible.

In this chapter I will present a tool I made, the Fitness Tracker for Teaching that can be created by teachers through free software that collects, stores, and analyzes self-reported survey data provided by students about their classroom experiences. This tool allows teachers to measure and describe the local teaching situation and provide them with information they can use to make teaching decisions in ways that are more nuanced, capacious, and reliable than their own memory and observations. This tool collects self-reported survey data about the time students spend on homework, about what activities they did for the homework, how confident they felt while doing it, and the tools and objects they used to complete the tasks. Collected frequently this data can serve the six functions that Hillocks and North recognized as vital to the reflective practice of teaching writing: it can help identify situations (or problems) where new approaches may be warranted, it guides the teacher to identify what aspects of the Writing classroom may be connected to the problem or situation, and then, after the teacher has implemented a solution, it can help the teacher assess the effectiveness of the practice. Through the data the students provide, the teachers can have access to the kinds of information needed to inform their reflective practice. In this way this tool can serve as a way to evaluate the effectiveness of teaching practices, and encourage a constant practice of reflective pedagogical decision making.

When I created the questions I used in the survey I followed a similar strategy to one advocated by Claire Lauer et al. in their recent *Written Communication* article urging teachers to set aside pre-packaged survey software in order to create more effective, customized, and customizable, surveys (331) that better meet their methodological and pedagogical needs. However, the questions on the survey can be customized to the teaching situation and the goals, learning outcomes statements, or standards of individual teachers.

If a teacher or a program values group work for example, questions can be asked in the survey to find out their perspectives on the amount and quality of the group work. Then, in real time, teachers can allow for changes if the class responds poorly. Or if a teacher values the concept of transfer, the survey could ask the students to write short reflective paragraphs about ways that the work they did for homework or in class could be repurposed for other classes or in other writing situations in their lives. In this way, student reflection can also be assigned and collected on a regular basis as well. Whatever values a teacher holds as integral to their teaching philosophy, a question or set of questions can be asked on a regular basis that will give the teacher the opportunity to constantly check the reality of the classroom learning situation against the goals, values, and standards that they have pinpointed as important to their own teaching philosophy. Not only that, but if a teacher, through the kinds of reflective teaching practices suggested by North, Hillocks, and Lynch, decides during the course of the semester to emphasize one value over another, the questions can be modified or completely changed at any point.

For example, halfway through the Fall 2015 semester when I first implemented this tool, I became curious about what materials students were using as they completed their homework assignments. I added a question to the survey that they had already been taking during the semester and was surprised to learn less than 1% of students reported using Google Docs to write and store their work. I had assumed that the number was much higher, and now I have plans to integrate more work with cloud-based writing into my curriculum for the next semester. Because I created the survey from scratch and control both the front end and back end of its distribution and analysis, I have complete control over what information gets collected, when it is collected, and how to analyze and present the data afterward.



As I present this tool, I make an analogy to popular wearable fitness tracker technology as a way of understanding the implications and possibilities of a real-time data collection system and how it can influence thought and action. As part of this, we will also encounter “Big Data” methodology and make a few comparisons between my tool and this recently popular methodology. I will also demonstrate how this tool draws from recently implemented methods of data collection from the social sciences that overcome some of the problems inherent in collecting and using self-reported data.

#### Use of Free Software

One technological advance that makes this tool a possibility is the free software provided by Google through the Google forms and Google Sheets web applications. These two programs make possible the creation and distribution of both the front end--the forms--(what the students who take the survey see), and the back end--the spreadsheets--(the collected data that researchers have access to). Google Forms allows users to create surveys with a variety of input methods (multiple choice, choose from a list, short essay, Likert scale, etc.), and link them to a Google Sheets spreadsheet so that as the forms are filled out, a spreadsheet is automatically populated with the information. The spreadsheet, then, not only functions as the repository for the data, but also facilitates statistical analysis of the data.

The tool relies on surveys collected each class, or at any other regular interval, in which students self-report information about their homework activities, their performance, their evaluations of themselves and the class, or any other information that a teacher feels would be relevant and informative to their practice. The students’ answers, which they provide by following a hyperlink to a website that hosts the form, and their answers are automatically collected in a spreadsheet along with a timestamp of

when the student fills it out. I personally have my students provide the last four digits of their student identification number as well so that I can connect the answers to individual students. The teacher who has had their students fill out these surveys regularly can access this information at any time in order to check in with their students and get a better idea of what the students are doing, feeling, and thinking. The spreadsheet can also be set up to constantly summarize information for the teacher in order to provide real time feedback that will make it easier for the teacher to make sense of the data. I will provide a few examples later.

### Fitness Trackers and Pedagogical Possibility

In order to fully illustrate what this tool is and why it will be useful in reflective practice, I first want to offer an analogy by reflecting on the usefulness and potential of wearable fitness tracker watches. I will also be sharing my own personal experience using a fitness tracker watch to more concretely illustrate how they are used to affect decision making. I feel this analogy to be appropriate because these watches, like the tool I am proposing, collect, store, analyze, and display information in real time and serve as a source of reliable information to guide decision making, provide feedback, and encourage beneficial behaviors.

Depending on the features of the particular model, wearable fitness tracker watches are able to measure and store vast amounts of information about physical events, e.g. steps taken, heart rates, flights of stairs climbed, calories burned. This information can either be accessed in real time by looking at the watch interface, or later by connecting the watch to a computer or smartphone for more detailed information. Users of fitness tracker watches can read this information to learn about their own physical activities in ways that they could never know or observe on their own, and if

needs be, make adjustments to those activities to achieve certain goals. In this way, fitness tracker watches are a way to extend or enhance a person's perception of real-world material phenomena that then help that person make more informed decisions about their activities and their health.

The fitness tracker that I personally wear tracks my heart rate, steps taken, floors climbed, sleep habits, and calories burned without any extra effort on my part. While I wear it, I am passively collecting much information, which is constantly updated in real time. With a quick tap on the watch, I have access to current, real-time data about my body and my activities that I can use to make decisions about how much to eat, when to go for a walk or exercise, or whether to take the stairs or the elevator. For example, I often, at the end of a long day, want to eat some kind of snack, and my watch, in coordination with my smartphone, which I have used to log the calories I have eaten during the day, can help me make a decision about what kind of snack I can eat and still maintain my goal.

Hypothetically, I could, if I wanted to, collect all of this data myself; I could take my heart rate at regular intervals and note it in a notebook or spreadsheet; I could count the steps I take, floors I climb, and do likewise. However, my limited faculties make these tasks extremely burdensome and would take my time away from other pressing tasks. When I wear a fitness tracker watch, tracking a complex data set throughout the day has been outsourced, so to speak, to the watch I wear on my wrist.

That being said, my fitness tracker watch only provides me information about my own body. Any attempt I make to extrapolate the information to draw general conclusions about the behavior or health of others must be tempered by the understanding that the information only pertains to me and my body. The information collected is localized to my own current situation and actions. In other words, I can't

consider my use of the fitness tracker watch as a reliable method to describe the health of all people in all situations.

Now, leaving the analogy behind, the teaching tool I have made functions in much the same way. Information is constantly being collected, and is therefore always available to provide data that can inform my teaching practice. In this way, this tool works well to aid teachers in taking the reflective steps advocated by North and Hillocks; namely steps one, two, three, and five in North's schema, and steps one, five, and six in Hillocks'. In this way, this tool provides a constant "pre-test/post-test" style data collection that a teacher can refer to to evaluate the effectiveness of a certain teaching strategy immediately after implementing it. This feedback loop in which students provide self-reported information which teachers use to make decisions that students in turn evaluate will provide more information to teachers than they have access to through their own perceptions and observations. It turns the writing classroom into a constant site of inquiry and experimentation. By first adopting and advocating for an object oriented rhetorical theory to inform the reflective practice of teaching writing, the integration of this tool becomes another object that can be interacted with in order to better facilitate reflective practice.

### Encountering Big Data Methodologies

As a sort of aside, some may recognize that this tool encounters some of the principles of Big Data methodology, particularly using digital technology to collect, store, and analyze large amounts of data in order represent and predict trends. For the sake of clarity, however, I am choosing not to align myself with these methodological considerations. Zachary Dixon and Joe Moxley from the University of South Florida have successfully implemented program-wide Big Data research studies. In their 2011 study,

they used concordance software and other computer programs to analyze teacher comments on 17,433 student essays. They found, in contrast to much research in the past, that the teachers in the study were responding more to higher-order concerns in the students' writing rather than smaller issues of grammar and usage. Dixon and Moxley used software to collect, archive, and analyze very large amounts of information, and the rhetorical weight of that data carries much methodological authority. These studies are useful in their own right and have also embraced digital technologies as an important component of understanding the complexity of the writing classroom. My Fitness Tracker for Teaching tool continues in this vein, but at a much smaller scale.

#### Self-Reported Survey Data

In countless studies, self-reported survey data has been shown to generate reliable data about the lived condition of people in varied circumstances, including educational situations. There is simply no other way to generate the kind of individualized data it provides. Admittedly, there are times when the memory recall of those being surveyed is spotty or selective, and colored by time. Also, as Sara Lipka reported in the *Chronicle of Higher Education*, students take so many surveys as part of the university experience that they often fail to take them seriously, and answer quickly and without intention to provide the best answers. There are reasons to mistrust, at least on some level, the data self-reported by students. However, the ability of self-reported survey data to provide intimate, personal, individualized accounts of lived experiences is valuable.

One major innovation I propose with this tool to address these shortcomings, is the frequency with which the data is collected. Many social science methodologies rely on self-reported data and therefore have been working through issues of reliability for many

years and a recent methodological innovation has emerged called “Microlongitudinal studies” to address these. This methodology relies on collecting self-reported data many times over the course of short amount of time to explore the interconnections among disparate affective phenomena. Researchers in the social sciences who study student performance, worker performance, and affect have found that frequency is one of the most important factors in getting more reliable data as it shortens the amount of time between the occurrence of the phenomenon and the reporting of it. An early example can be seen in the Fuller et al., 2003 study in the *Journal of Applied Psychology* "A Lengthy Look at the Daily Grind: Time Series Analysis of Events, Mood, Stress, and Satisfaction" in which psychologists asked 14 university workers to give daily reports for an entire semester about stressor events in their lives and then report on their mood, strains, and job satisfaction. Researchers used this data to learn that stressful events have a cumulative effect and build over time, and that sometimes the effects are delayed in manifesting. This methodology was the only reliable way to see these small changes over time. There are also studies that use this methodology to explore College students' reasons for not drinking alcohol (O'Hara et al.), the connection between adolescent school performance and sleep habits (Wolfson and Carskadon), the connections between the family-work balance, exhaustion, detachment and a worker's ability to find meaning in life (Garrosa-Hernandez et al.), and the short term positive and negative consequences of sex for college students (Vasilenko et al.). The use of this method in educational research is even more recent and has been used to more specifically try to link study time to academic performance (Doumena et al.). Each of these studies works to explore phenomenon with so many complex variables that controlling for them would be an impossibility. This method of survey collection is the most apt to generate reliable information to see trends over time and to make assertions of interconnectedness. It is

for this reason that I see the frequent collection of the survey data from students as an integral aspect of this tool for use in the composition classroom as a way to facilitate reflective teaching practice in the framework of object oriented rhetorical theory.

### My Own Experience with the Tool

What I will share now is my personal experience using this tool in my own writing classroom and the ways that using the tool shaped my pedagogy. I share these experiences to demonstrate the local conditions in which I have found the tool to be useful in my own teaching practice. Because the most important aspect of using this tool is to give another way that teachers can be in touch with the pedagogical situation of their local classroom, I will concentrate on my own interpretations of what the data I collected meant for my own classroom, and what these data motivated me to do.

However, these experiences are not supposed to represent choices that are ideal for all situations of teaching, but rather represent my response to the data gathered by this tool.

One other thing to keep in mind about the experiences I share here is how difficult (practically impossible) it is to separate out what pedagogical decisions I made that semester based on information from the tool and which I would have made regardless. The line separating the information from the tool, and my own thoughts and perceptions, and role any of them played in my decision making is blurry at best. As I consistently check in with the data my students provide during the semester, it plays a role in probably almost all of my decisions for the semester. Yet, I do not see this blurriness as problematic because I do not see this tool as the only source from which I made my decisions, but rather the Fitness Tracker for teaching was one extra resource I used to do so. As I have worked to reflect on, acknowledge, and account for the objects

and technologies in my own writing classrooms, I have grown much more comfortable with diffusing my pedagogical agency among these tools.

This tool, like I supposed it would, first required me to undertake a self-critical stance, and embrace the integration of the tool as an object in the classroom with which I was going to have an interdependent relationship. Because I have spent many years outsourcing parts of my memory to my phone, to Google Docs, and to other online repositories, this transition was perhaps easier for me than it might be for others. As I discussed in the first chapter, it was not difficult for me to fundamentally rearrange how I understood my relationship with the camera on my phone. I was able to, through reflection, embrace the idea that my camera had agency, and shaped the way that my pictures turned out. Feeling comfortable with this interdependent relationship with technology has not been difficult for me, however, I do realize that it might be harder for some.

During the Fall semester of 2015, I started each class (a two-hour-and-twenty-minute, Monday-only English 101 class) by having the students take the survey I created before the semester began (instrument available in appendix B). I will not spend much time justifying each of the questions I chose for my survey here, because I do not want to make it seem that I am arguing that my set of questions are the best possible questions a teacher could ask. The questions I asked were meant to address the outcomes that I valued within my classroom situation, and may not be what another teacher would like to know from their students. The justification for each of the questions in this survey instrument comes from my own previous teaching experiences, previous survey experiences, or new curiosities I had about the particular curriculum I had designed for that semester.



I will give one example. Question four of the survey I gave in Fall 2015 asks students to rate their level of confidence while performing the type of homework they were reporting. In a previous iteration of this survey which I did in the Spring of 2013, I had read Williams and Alden's survey on student motivation and was curious what "feeling words" students would connect to certain homework tasks. The results from this question were inconsistent, and did not do much to help me evaluate my own teaching choices. After much reflection, I decided that I would ask about confidence, and that is why Question 4 has taken the form it has in the current survey. The Fitness Tracker for Teaching aids me in keeping in touch with my students' reports of confidence and has helped me pay extra attention to certain students who could be struggling by scheduling individual conferences to provide individualized support.

The flexibility of this tool allows teachers who use it to pay attention to the data that help them understand the classroom and their teaching goals and choices, and leave behind anything that does not. The tool can be reinvented as needed to best fill the needs of the teacher and students. Because of this, if a question in the survey is not serving the teacher to aid in decision making, they do not have an obligation to pay attention to the answers. The potential for insight gained from asking a question of the students outweighs the costs of asking, storing, and analyzing the answers.

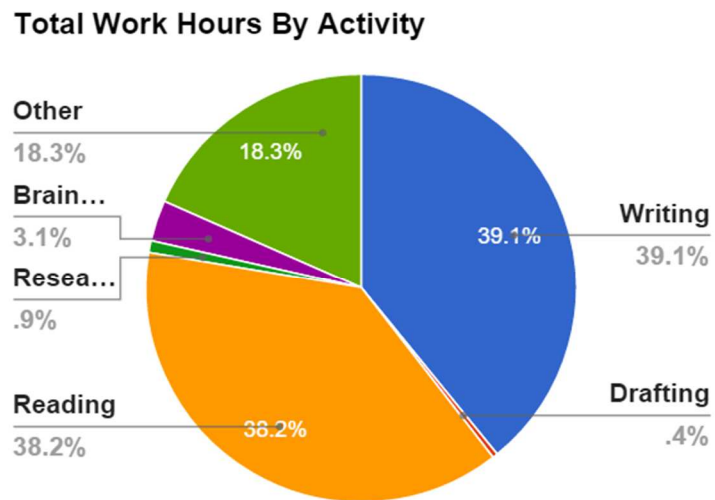
As for my experience gathering, analyzing, and responding to the data I collected while using this tool in Fall of 2015, there are three main parts of the data that have served me well to aid in my decision making: the students' evaluation of the work they did for my class and its contribution to their overall education, the ratio of reading homework to writing homework the students reported doing, and a set of statements students were asked to agree with indicating their own assessment about how my class was contributing to their improvement as writers.

Most of the data I collected from my students confirmed to me that my pedagogical choices were working for them. Questions 9, 11, and 13 (Appendix B) asked the students to choose a number reflecting the value of the homework they did for the class, the value of the work we did during class periods, and the contribution of my class to their overall education on a scale from 1 to 5. They reported, on average, 4.0, 3.9, and 4.0 for these three questions respectively, numbers which stayed consistent throughout the semester. Students high evaluations of my class led me to believe that the pedagogical choices I was making were contributing to an overall feeling of purpose and value. Seeing these numbers, I was reticent to make any drastic changes to my pedagogy during the semester, and felt that I wouldn't have to. I continued to assign the same amount and length of readings and to ask for reading responses from the students, even when my own perceptions might have told me that I was overwhelming students at certain intense parts of the semester, and students continued to respond that the work I assigned to them was highly valuable and contributing to their overall education in a meaningful way. Naturally, I have reasons for assigning the work that I do, but having data from the students to confirm that my choices for them are valuable makes me feel more confident as a teacher.

To reiterate the analogy to the fitness tracker watch, the data collected from my students, like the data about my calories burned, allowed me to make pedagogical decisions to better meet the needs of my students. In this case, the data indicated that many of my choices were working and I felt confident in continuing with my original curricular plan.

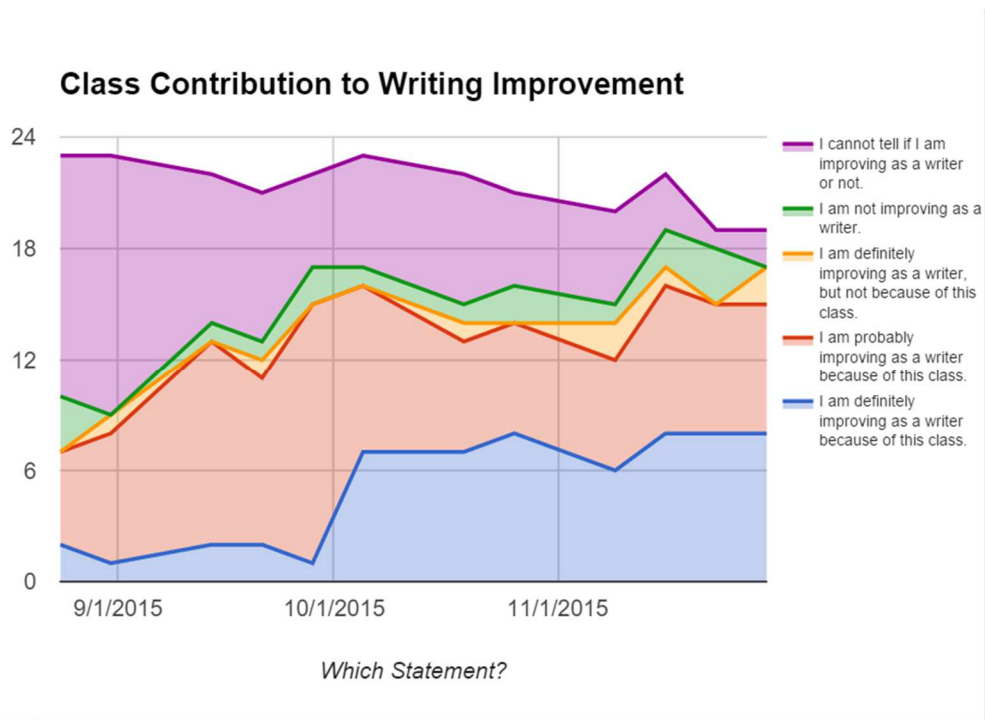
Each choice I make in the classroom is deliberate, and hopefully contributes seamlessly to the overall goals, outcomes statements, and course standards set by the university. One goal I had set for myself at the beginning of the semester was to pay more

attention to the readings. In my past teaching experiences, I had found (through no scientifically verifiable way, but anecdotally) that asking students to do more readings more consistently contributed to a positive classroom experience, as well as to improvements in their writing. I often wondered if students resented being asked to read in a writing class, and despite my feelings about this was never sure if it was the right choice. Because of this, I consciously decided that I wanted to make sure that the students did more reading during this semester, and wanted to track their response to that. I was pleased to see that students consistently reported doing more reading than writing for homework (Figure 10 “Student Reports of Writing/Reading Homework”). This ratio of reading to writing, presented to me in the form of data collected from the students, confirmed to me that the students’ perceptions of my plan, and the abstract idea of my plan, were aligning in a way that met my goals and expectations for the class. Had students reported a different ratio that did not reflect my goals, I could have adjusted and assigned more or less reading so that it better reflected my intentions.



(Figure 10 “Student reports of writing/reading homework”).

The third part of the data that was useful to me in making my decisions was question 15, which asked students each week to identify with one of five statements evaluating the contribution of my class to their improvement as writers. The graph below (Figure 11 “Student Perception of Change in Writing Ability”) demonstrates the results at the end of the semester:



(Figure 11 “Student Perception of Change in Writing Ability”)

This additive line chart, which tracks the aggregated results of this question over 13 weeks, and which constantly updated throughout the semester as more data were added, traces the progress of how students felt about their improvements as writers, and their evaluation of my class’s contribution to that improvement. The number of students at the beginning of the semester who selected “I cannot tell if I am improving as a writer or not” (the top section) decreased over the course of the semester, and the number of students who identified with the statement “I am definitely improving as a writer

because of this class” (the bottom section) increased over the course of the semester. Perhaps students at the beginning of the semester were understandably reticent to make any claims about their improvements, yet as the semester progressed, more and more students felt comfortable claiming that the class had contributed to their improvements as a writer.

Not only did my students’ responses increase my confidence in my pedagogical choices, it also worked more as a pedagogical tool in itself. By asking the students to reflect on their own improvements as writers, this survey serves to encourage the students to consistently evaluate their experiences and reflect metacognitively on the task of improving as a writer. Whether or not a student’s perceptions of their improvements as writers are accurate, the very act of reflecting on the question can be beneficial.

One important aspect of this tool was how it facilitated these meta-reflective conversations in class. At several points during the semester, I showed the data to my students and asked them to reflect with me on the results. We had conversations in class about what we call the work we do when we write, why editing and revising is difficult, and the connections between what we read and what we write. When I recognized that very few students reported editing as a homework activity, we had a discussion about the differences between revising, editing, and proofreading. Many students saw editing as integral to the process of writing instead of its own set of practices. These conversations led to more nuanced conversations about the writing and editing processes than I could have had without recognizing a gap in how I and the students were using the word “editing.”

I will give two final examples of how I have used the tool. In the Summer of 2016 our class engaged in several discussions about the importance of feeling safe in

educational and professional environments. After that class and for the rest of the semester, I asked students to report on a scale of 1 to 5 how safe and welcome they felt in the classroom environment. Students reported an average of 4.8 throughout that semester. Because the data collection allows me to link answers to students, if there were ever a point when a student reported a low number, I could easily approach the student to begin a dialogue about how to improve their feeling of safety. Luckily, I never felt like there was a need to do so.

Finally, I have used the tool in semester-end conferences with the students to show students what they reported throughout the semester. I show them the amount of homework they reported doing for my class (in minutes), their average levels of confidence, and their evaluations of the value of the work they did in my class. These statistics give me a starting point to have conversations with students about their experience in my class that can be based on data collected frequently over the course of the semester, rather than our own selective perceptions of those same experiences.

Knowing that my students were consistently evaluating their experience in my class positively gave me the confidence to continue on with previous intentions in spite of whatever my own observations and perceptions would have led me to do. Had the evaluations been negative, and I felt the need to make changes to my pedagogical practices, I would have had data to engage the class in discussions about their work and what could be different.

However, regardless of what the data collected from the students show, I would never be beholden to make any changes. The survey acts as one possible resource at the disposal of a teacher to inform decisions, or not. The cost of collecting the information, at least in my computer-mediated classroom, is minimal: most students respond to the survey within the first 3 minutes of class. However, the potential of the data to contribute

to my thinking about my class, my choices, and my students, is potentially invaluable. The data my students provided me throughout the semester became such an integral part of my pedagogical decision-making process, that often I was unable to distinguish between perceptions I had of my class and students from my own senses and those that from the tracker tool I was using. The positive feedback I gained from the data constantly renewed my confidence in my pedagogical choices.

The fitness tracker for teaching tool presented here can only produce an incomplete picture of student experience in the writing classroom. This picture is also colored by the students' abilities to honestly and completely self-report their experience. Again, the data collected by the fitness tracker cannot be said to describe writing classrooms in general. The data collected pertains only to the immediate situation in which it is collected. However, when combined with the self-critical stance required for reflective teaching practice, it can provide for the teacher and students more information than is available to them through their own senses. Using the tool is also the willful creation of an object that can influence the writing classroom space, and the decisions made within it.

Teaching writing is not a predictable activity, but one of reflection and improvisation. All teachers rely on their observations and perceptions to decide what to do during class, and when designing curriculum. This tool is way for teachers to embrace an interrelationship with technology in order to facilitate reflective teaching practice. Any teacher who uses it, in some ways, becomes a teaching cyborg, with part of their conception of the Writing classroom being "outsourced" to the software. This interrelationship provides the foundation to create a survey instrument that encourages pedagogical choices that are based on data that is more reliable than mere observations and perceptions by taking advantage of free software to extend human capabilities. It

would allow teachers to harness technologies to collect large amounts of data that they could call on and interpret in order to make decisions customized to the localized situation of their classrooms. Considering this tool within the frame of object oriented rhetorical theory allows us to embrace this interrelationship by recognizing that teachers and students are constantly in collaboration with the objects in the environment of the classroom. This tool allows teachers to inculcate within that collaborative environment a way to better understand what is happening in the classroom to better inform pedagogical decisions.



## CONCLUSION

In *Zen and the Art of Motorcycle Maintenance*, a book that explored human interrelationships with objects and writing in 1974, Robert Persig describes a scenario in which a normally bright student in his Composition class has difficulty beginning what seems like an easy writing assignment. She chose to write 500 words about their town, Bozeman, Montana. When the paper was due, the student had not written anything. He suggested she write about main street, and again she produced nothing. “The more you look, the more you see,” Persig advised the student. Not until the student decided to write about the upper most brick on the façade of the Opera House does the student finally find the words to begin writing. The student in this anecdote was not having difficulty writing because of an inability to write sentences or use grammar--all her previous teachers agreed that she was intelligent and capable. It was because she was blind to the quotidian objects that surrounded her, and couldn't notice them enough to write about them. The student's problem with her vision did not come from any kind of myopia. The student could see fine. Rather, the student's difficulty was noticing or processing what she was seeing, it was in consciously acknowledging what her eyes were taking in. She could see, but she couldn't *see*. Eventually, through the process of consciously restricting her vision and paying attention to simple objects, a brick in this case, that she is finally able to begin noticing what she is seeing. A prompting from her teacher was required before the student was able to begin seeing in a way that allowed her writing to flow.

This difference between seeing, and noticing, is where this dissertation most seeks to contribute. Persig prompted his student to change how she saw, and the tangibility of objects was a key part in helping her make that change. Likewise, each of

the reflective practices presented in this dissertation work to guide students, teachers, and administrators in seeing anew the quotidian objects and relationships of the writing classroom. These practices help to make visible what is already visible, but that often goes unnoticed.

Each of these practices functions by making the complex happenings of the writing classroom static in a way that facilitates examination and therefore reflection. Narrative Network Analysis helps students find within a narrative, itself a static description of human/object interrelationships, and guides them through noticing those connections. Then by producing a visual representation of the network of actants within the narrative, students can better understand the complex network of objects, events, and ideas that have influenced their own writing processes. The static representation of the dynamic network of influences aids students in understanding how their interactions with objects during the writing process can play a role in their work.

The ViTA project similarly, through images, sound capture, and, in the case of my work here, digital video, the proceedings of the writing classroom are made static by capturing them in a medium that allows multiple opportunities to review them and reflect on what is happening. By capturing the interactions on video, I as the researcher gave myself a new way to begin noticing what would normally be mundane interactions with new interest and purpose. Then through the process of editing the videos and purposefully selecting and juxtaposing clips from the footage, I can better convey these interactions to others. By making static, or capturing, the proceedings of the class, I was able to facilitate more opportunities to notice, rather than just see, what was happening.

The fitness tracker for teaching makes static some of the complex network of interactions that happen in and around the classroom by collecting self-reported survey data from the students. The data collected by the fitness tracker allows the teacher, and

students, to find new ways of noticing what is happening in their classrooms. In each case, reflective teaching practice is made possible by capturing some piece of the complexity of the writing classroom in a manner that aids students, teachers, and administrators in re-seeing the writing classroom in ways that highlight the human/object interactions and the deeply collaborative nature of writing. These interrelationships, which often exist in a blackboxed state, are difficult to see even when they are part of everyday life, and thus require prompting to see. The reflective practices presented here seek to do just that.

Scholars of object oriented rhetorical theory might balk at my advocacy of making a complex network static. Because networks are dynamic, they might argue that immediately upon fixing a network in some kind of representation one is guaranteed to have captured an inaccurate and obsolete picture of the network. I do not disagree with this sentiment. The images created by using Narrative Network Analysis should never be considered as perfect representations of a particular writing process and certainly not the capitalized, abstract concept of “The Writing Process.” However, it serves as a method for pedagogically guiding students in reflecting on their own idiosyncratic writing scenarios. Students can take what they learn from reflecting on their own writing processes and the writing processes of others. They can make more informed decisions about how to take on future writing tasks. Also, by framing reflective practice through object oriented rhetorical theory, those who seek to design the spaces, objects, and even policies that govern writing classrooms can better understand and predict the potential outcomes of their decisions through this framework of object oriented reflective teaching practice.

As discussed in chapter three, any attempt to fully and completely capture everything happening in a writing classroom, even by using sound and video recording,

would be impossible. Also, even by capturing the proceedings of one writing classroom, as I have, it would be foolish to think that one has captured the abstract general concept of “The Writing Classroom.” However, by doing so, and by carefully examining the footage through logs and the editing process, insights can be gained about typical ways that students interact in writing classroom spaces. Conceiving of the human/objects interactions in this way also prepares teachers and student to better understand moments of frustration. When the writing classroom space is seen as fundamentally collaborative between humans and objects, there can more of an allowance for the agency of objects and technologies.

Through my own reflections on this project I have realized that by asking students and teachers to use these practices, I am doing more than asking them to reflect on the objects around them. I am really asking them to embrace the objects around them in new ways that grant an agency to objects. I am asking them to reorganize their view of themselves and their agency by diffusing that agency across many objects and spaces. I am asking teachers and students to give themselves less credit for their writing and teaching. To engage in the practices I have presented here is to willingly acknowledge oneself and one’s agency as a small part of something bigger. In a world where we consistently advised to prove our own contributions and claim credit for work we have done, to willingly disperse our agency, and thus the credit for our creations, is difficult and counter-intuitive.

However, it is part of the universal experience of teaching that there is always a confrontation between our perceptions of situations and the reality of situations. The frustrations that come from this gap will always be present. Reflection is a way to try to bring closer together our perceptions of reality with reality as it is available to us, a reality that will always include objects, tools, technology, and stuff. The practices

presented in this dissertation provide tools for making the phenomenological reality of the writing classroom more visible in order to better equip students, teachers, and administrators in the teaching and learning of writing.

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APPENDIX A  
DALN TRANSCRIPT

My First E-Mail  
Kuglich, Daniel

>>DANIEL: Hi I'm Daniel Kuglich and I'm going to talk about one aspect of literacy in my life and that would be the transition between the old and new forms of literacy and some of the frustrations that come with that including the reluctance to let go of the old. So in 1990s when I was in college I had heard these rumblings of this internet and hadn't actually been on a website yet but had actually discovered something called Telnet which was a way for us to access email and I had finally put together that the "e" means electronic in mail and I could talk to my friends; if I didn't want to talk to them on the phone I could talk to them on email. So I do remember distinctly writing my first email to Jane Oakly who was, coincidentally, going to the University of Illinois when I was at Illinois State and not checking for a reply until probably long after I had actually spoken to her in person which kind of defeated the purpose of the quickness of the email I think. Eventually we began writing back and forth and had dialogue on email in between the times when I actually saw her in person. Gradually other friends got on board and I remember still feeling like I had to print and save every single email conversation I had and it wasn't for lack of space or for lack of understanding on how to actually use the disk to store it but because I think I was reluctant to let go of the former mode of communication where you would actually write a letter and actually have the physical piece of paper to look at. So I still have a folder, several very thick folders actually, of all these emails that I printed out and chat conversations once we'd learned to do that too because for nostalgia's sake I guess I still just wanted that piece of paper. Eventually I dropped that habit otherwise I'd need like a spare house to keep all of the paper in, but I feel like that happens with every emergent form of technology that there's this transition period where people are reluctant to let go, maybe not even consciously, reluctant to let go of the way they used to do things. I can make a comparison to having an iPod now and I'm at the stage now where I very rarely if at all play CD's but I can't seem to let go of them even though I have all the music digitally in my hand or in my pocket and there's just a room full of dusty CD's. So I kind of feel the same way about when I was first learning email like I wanted to still have those pieces of paper because that's the way I was comfortable communicating.

APPENDIX B

CHAPTER 3 VIDEO PORTION  
[Consult Attached File]

APPENDIX C

SURVEY INSTRUMENT FOR FALL 2015 ENG 101 CLASS

1. Last four Digits of your Student ID

[Students were provided a list from which they could choose their number]

#### Homework

2. Between last class and this one, what kind of homework did you spend the most time doing for the class? (If you did more than one kind of work, choose that kind that you spent the most time on for this question.)

[Students could choose from the following radio buttons: Writing, Drafting, Reading, Research, Watching/Listening to Media, Brainstorming, Revising, Editing, None, Other [they were provided a space to enter work here]]

3. How much time in minutes did you spend doing this first kind of work?

[Students were given a list of options to choose from in ten minute increments from 0 to 120]

4. How confident did you feel while doing this first kind of work?

[Students were given a Likert scale with 1 labeled “Not confident at all” and 5 labeled “Very confident”]

5. What other kind of work did you do for homework for this class?

[Students were given the same list as in question 2]

6. How much time did you spend doing this second kind of work?

[Students were given the same options as question 3]

7. How confident did you feel while doing this kind of homework?

[Students were given the same options as question 4]

8. If you did more than two kinds of work for homework for this class, or if you feel like choosing from the provided list doesn't accurately describe your work, please explain in the box provided.

[Students were given a long text box to fill]

#### Survey

9. As a whole, how valuable do you see the work you are doing for this class?

[Students were given a Likert scale with 1 labeled “Not valuable at all” and 5 labeled “Very valuable”]

10. How close do you feel to the students you are working with in the Promod unit?

[Students were given a Likert scale with 1 labeled “Not close at all” and 5 labeled “Very close”]

11. How valuable would you rate the work you are doing during class meetings?

[Students were given a Likert scale with 1 labeled “Not valuable at all” and 5 labeled “Very valuable”]

12. To what extent do you feel like you are in control of your experience in this class?

(For example, how much do you feel like you have control over your final grade, or how much you learn, in this course?)



[Students were given a Likert scale with 1 labeled “Definitely not in control” and 5 labeled “Completely in control”]

13. How much do you think the work you are doing in this class is contributing to your overall education?

[Students were given a Likert scale with 1 labeled “Not contributing at all” and 5 labeled “This class is vital to my education”]

14. Overall how confident do you feel as a student at [University]?

[Students were given a Likert scale with 1 labeled “Not confident at all” and 5 labeled “Very confident”]

15. Which statement best describes how you feel?

[Students could choose from the following five statements presented in random order each time a student took the survey]

-I am definitely improving as a writer because of this class.

-I am definitely improving as a writer, but not because of this class.

-I am probably improving as a writer.

-I cannot tell if I am improving as a writer.

-I am not improving as a writer.

16. How interested are you in what is happening in this class?

[Students were given a Likert scale with 1 labeled “Not interested at all” and 5 labeled “Very interested”]

17. Overall, how confident do you feel as a student at ASU?

[Students were given a Likert scale with 1 labeled “Not confident at all” and 5 labeled “Very confident”]

18. What tools did you use to complete this writing homework? (Check all that apply.)

[Students were given the following choices which appeared in random order each time students filled out the form: Materials from Class (syllabus/assignment sheet), Television, Books, Google or other search engine, Friend/Family Member’s help, Computer, Social networking site, Video Games, Paper and pen/pencil, Google Docs, Writing Center, Other: [Students were provided a space to provide an answer here.]]