NEW MEDIA AND THE INVERTED CLASSROOM: INVESTIGATING THEIR

IMPACT ON WOMEN IN FIRST-YEAR COMPOSITION

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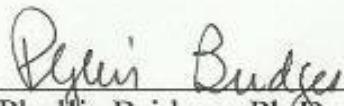CHRISTINA GRIMSLEY B.A., M.A.

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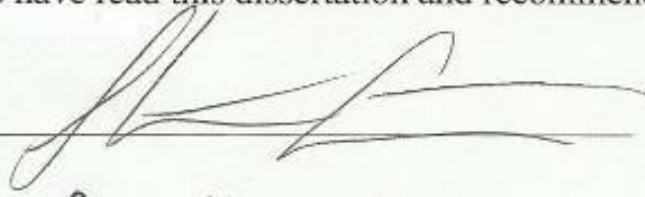DECEMBER 2013

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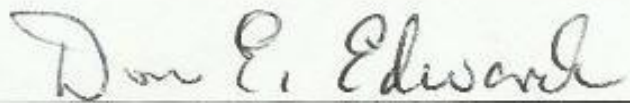DENTON, TEXAS

November 1, 2013

To the Dean of the Graduate School:

I am submitting herewith a dissertation written by Christina Grimsley entitled "New Media and the Inverted Classroom: Investigating Their Impact on Women in First-Year Composition." I have examined this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy with a major in Rhetoric.
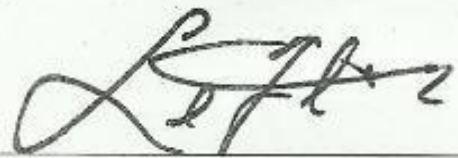
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We have read this dissertation and recommend its acceptance:

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Accepted:

_____
Interim Dean of the Graduate School

DEDICATION

For my husband, Brian Grimsley, who encouraged and supported me
through this experience. Thank you for your continual devotion and love.

ACKNOWLEDGMENTS

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ABSTRACT

CHRISTINA GRIMSLEY

NEW MEDIA AND THE INVERTED CLASSROOM: INVESTIGATING THEIR
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DECEMBER 2013

Prompted by the emergence of financially accessible new media composing
technologies and calls from composition specialists to redefine literacy practices in the
writing classroom, a number of instructors have modified their first-year composition
curriculum to involve students using, discussing, and creating digital compositions. The
primary purpose of this study was to explore how the inclusion of these contemporary
computer-based practices impact students, especially women. In particular, it focused on
students' fluency using Web 2.0 new media technologies, the extent to which men and
women experience these technologies differently, and the ways in which an increasingly
popular use of a specific technology, video podcasts, impacts students in an inverted
entry-level writing classroom. A total of 286 students participated in the two phases of
this mixed-mode research study. The first phase, a limited scope quantitative study,
involved an electronic questionnaire completed by 267 students enrolled in six colleges in
the Southern and Midwestern regions of the United States during the fall 2012 and spring
2013 semesters. The second phase, a qualitative pilot study, was conducted with nineteen
students enrolled at a two-year college in Texas during the fall 2012 semester. For this

second phase of the study, I inverted four of my class sessions by creating and

distributing ten video podcasts to students to watch as homework. Collectively, the data

from these two phases revealed that: (1) while students have experience consuming

digital content, they are not confident producing texts using Web 2.0 new media

technologies, (2) a gap still exists between men and women's fluency with and attitudes

toward technology, and (3) students preferred the inverted classroom over the traditional

lecture format, but less than half of the students watched the podcasts. These results

indicated that teachers sequence their technology assignments so that students experience

first those technologies in which they are most familiar. Survey results also indicate that

teachers inverting their classrooms must seek ways to motivate continually their students

to watch the podcasts. Suggestions for future research include exploring how students

enrolled in online courses as well as upper-level and graduate writing classes respond to

the inverted classroom.

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CHAPTER I

INTRODUCTION

BACKGROUND

The emergence of financially accessible new multimedia technologies has altered the communication practices of those in North America in such a way that several scholars have called composition instructors to expand their definitions of literacy beyond reading and writing (e.g., Hill, "Reading the Visual"; Hocks, "Understanding" 630; Yancey, "Made Not Only in Words"). It is clear that the ubiquity of and social, collaborative nature of today's Web 2.0 technologies has led to major shifts in the ways members of our society communicate with one another and contribute their ideas.[1] Likewise, online communication spaces, including social networking sites, wikis, and video and photo sharing sites, further change the ways in which we read and compose texts. Therefore, students are now a part of a convergence culture in which they are more regularly engaging visual, digital, and linguistic texts.[2]

As a result, Daley asserts that "[n]o longer can students be considered truly educated by mastering reading and writing alone. The ability to negotiate through life by combining words with pictures and audio and video to express thought will be the mark of the educated student" (qtd. in Yancey, "Made Not Only in Words" 305). Daley's point is that students must be able to compose meaning and messages using multiple modes of

communication, including images, animations, audio, and alphabetic writing.[3] Members
of the New Media Consortium similarly advocate that "21st century literacy is the set of
abilities and skills where aural, visual, and digital literacies overlap" (qtd. in R. Selfe and
C. Selfe 86). Many scholars agree that writing is multimodal and multidimensional
(Vojak et al. 98; Lunsford 171; Kress, "Gains and Losses" 5). Only having experience
composing conventional alphabetic texts will no longer suffice when technology offers a
number of mediums and modalities in which one can express herself. In short, students in
composition courses today need to engage a new set of rhetorical practices to create
online discourse. They need to consider pacing, sequencing of text and images, and
economy of language.

Agreeably, many composition specialists argue that writing classroom curriculum
should be modified to include these multiliterate practices (e.g., Yancey, "Made Not Only
in Words" 305; Purdy 48; Shin 391; Clark 28; Cope et al. 84; New London Group 9;
Hawisher and Selfe, "Becoming Literate" 660; Selber 4; Orlowicz 7; Pennell 571;
Faigley 185; Fadde and Sullivan 8; Hocks, "Teaching" 214-15; Sheppard 129; Hill,
"Reading the Visual" 126). Clearly, English classes that fail to prepare students to both
interpret and produce visual, oral, digital, and print modes of discourse are at risk for
being irrelevant and anachronistic (Hill, "Reading the Visual" 127; Yancey, "Made Not
Only in Words" 302; C. Selfe, "Students Who Teach Us" 54; Parker 149; Reid 62). These
classes are not aligning their curriculum to focus on those modern communication
practices, which are most prevalent both inside and outside the academy.

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Responding to this call to expand their definitions of literacy, writing instructors have modified their curriculum to include opportunities for students to discuss and create multimodal compositions, which Takayoshi and Selfe define as "texts that exceed the alphabetic and may include still and moving images, animations, color, words, music and sound" (1). Projects like these often involve students using new media to create public service announcements, videos, podcasts, and Web essays so that they learn to negotiate the many modes of communication available to them.

In addition to assigning students to create discourse using these digital tools, many teachers have been using them to deliver content and communicate with their students. As an example, teachers are increasing their uses of video. Teachers have traditionally used video to show their students films and educational documentaries. More recently, teachers have used videos in more contemporary ways, including presenting offsite guest lecturers, collaborating with students in foreign countries (Holtzblatt and Tschakert), and supplementing classroom lectures (Kay and Kletskin; Hill and Nelson; Griffin, Mitchell, and Thompson; Green et al.), through the use of a video or audio podcast, which is "an audio or video file placed on the Web for individuals to subscribe to or watch using a computer or a portable digital media player" (Brown and Green 4).

Regarding these video and audio podcasts, teachers videotape or record their live lectures, using audio or screencasting tools, and post them to a course management system like Blackboard (Dupagne, Millette, and Grinfeder; McKinney and Page;

Winterbottom; Wieling and Hofman; Copley; Chester et al.). With the lectures available online, students are able to watch them again at their own convenience to prepare for exams or complete major assignments. Some schools, including Harvard, Stanford, Berkeley, and Yale, have chosen to publish their podcasts to Apple's iTunes University. By distributing their courses using this service, universities are able to make their lectures available to not only registered students but also anyone who has access to the Internet.

In addition to distributing recordings of live lectures, another use for podcasts, which is growing in popularity, involves partially or completely replacing conventional, live lectures. This practice involves teachers prerecording their lectures and assigning them as homework. These video podcasts generally range in length from 1 to 50 minutes and are hosted online for students to view outside the classroom. Having already been exposed to the theoretical concepts via these podcasts, students use class time to actively engage those concepts by participating in workshops, labs, and assignments that involve practice applying their newly-learned skills. This phenomenon, which is known by a variety of names: flipping the classroom, reversing the classroom, turning the classroom upside down, backwards classroom, and inverting the classroom, is a classroom model in which "events that have traditionally taken place *inside* the classroom now take place *outside* the classroom and vice versa" (Lage, Platt, and Treglia 32, emphasis original).[4] Though this strategy has been most common in K-12 classrooms and is credited to high school chemistry teachers Jonathan Bergmann and Aaron Sams, who in 2007, started

prerecording all of their lectures and assigning them for homework, instructors in higher education have been experimenting with this teaching method as early as the 1990s.

Accounting professors Lage, Platt, and Treglia, for example, inverted five sections of their microeconomics course in 1996 with favorable results. Others have inverted computer classes (Kurtz, Fenwick, and Ellsworth; Gannod, Burge, and Helmick; Foertsch et al.; Smith and Fidge; Day and Foley) and exercise physiology classes (McFarlin). Outside of the United States, at Queensland University of Technology in Australia, Smith and Fidge followed a similar format for their computer programming course.

In general, these teachers' uses of contemporary screen recording and audio and video editing software has had positive effects on their classes. Students reported that the incorporation of podcasts was useful (Hill and Nelson 398; Foertsch et al. 274; Kay and Kletskin 623; Day and Foley 427; Copley 391, 398), enjoyable (Hill and Nelson 403), and engaging (Ellis and Childs 221; Holtzblatt and Tschakert 107; Kay and Kletskin 623). These podcasts were also credited for enhancing understanding of course concepts (McKinney and Page 374) and increasing flexibility and control over students' learning experience (Winterbottom 7; McKinney and Page 374; McFarlin 90; Griffin, Mitchell and Thompson 535; Hill and Nelson 398-99; Fernandez, Simo, and Sallan 389). Salman Khan, founder of the Khan Academy, similarly praises the inverted classroom because it allows students "to pause [and] repeat at their own pace at their own time." This ability to review videos at a student's own pace offers her great control over her own learning

experience. Overall, instructors' and students' attitudes toward the inverted classroom and video podcasts have been encouraging. While most descriptions of the inverted classroom focus on using video podcasts, it is important to note that video podcasts are not the only way to invert the classroom. Teachers can create audio podcasts, slideshow presentations, and handouts to post online for students to preview before entering the class. In fact, Dan Berrett, in his article "How 'Flipping' the Classroom Can Improve the Traditional Lecture," points out that teachers who assign reading outside of class and then use class time to discuss and analyze that reading are employing flipped teaching (38).

THE PROBLEM

In "Distant Voices: Teaching and Writing in a Culture of Technology," Chris Anson, cautions that "because technology is advancing at an unprecedented rate, we must learn to assess the impact of each new medium, method, or piece of software on our students' learning" (814). Similarly, Kirtley, in her article "Students' Views on Technology and Writing: The Power of Personal History," advocates that "as the times and tools change, so must we continue to conduct research on how students compose, particularly as they incorporate new technologies into the process" (210). As a matter of fact, her research revealed that students' familiarity and experience with technology is less than she had originally assumed ("Students' Views on Technology" 210). In short, one major problem facing students in modern classrooms is the assumption they are technologically savvy and have immediate access to those digital composing tools teachers are assigning.

Another considerable problem in writing classrooms involves androcentrism. The emergence of computers in the 1980s greatly contributed to existing issues of gender inequality. In addition to owning more computers than women and spending more time on them (Koch, Muller, and Sieverding 1800), men are found to be more interested (Cooper and Weaver x), more skilled (Gilroy and Desai; Plumm 1509; Cooper and Weaver 28), and more confident (Gilroy and Desai 713; Cooper and Weaver 14; Plumm 1064; Hesse-Biber and Gilbert 19) in their computer uses. Furthermore, women tend to misrepresent themselves as inexperienced computer users even when their expertise matches or exceeds that of their counterparts (Volman and Van Eck 620; Hesse-Biber and Gilbert 19; Wilder, Mackie and Cooper 225).

In light of these concerns, many composition and rhetoric scholars, including Deborah Holdstein, Lisa Gerrard, Richard Selfe, and Cynthia Selfe, interrogated the ways in which computer-equipped writing classrooms affected the learning of women. One of their initial concerns centered on "[c]omputers [being]…perceived as male machines, and computer culture as an exclusive boys club" (Gerrard 186). Specifically, R. Selfe and C. Selfe point toward the icons on the computer interface as reflecting "the lives and values of white, male, middle- and upper-class professionals" (70).

With this male perception of computers and technology in mind, Gerrard, in her article, "Feminist Research in Computers and Composition," poses a number of critical questions to those in the field of composition concerning the relationship between computers and women. For example, she asks "Does the image of the computer as a male

technology make men initially more comfortable and women less so in a computer-dominated classroom?" (187). She also questions if the computer-based writing class makes the women in writing classes feel "alienated" in academia and worries that women, unlike men, have computer experience deficits that hinder their learning (190). These experience deficits, for Gerrard, involve women's lack of prior computer experiences when arriving to a computer-equipped classroom. Research from the 1980s and 90s indicated that more boys than girls played computer games; therefore, when boys arrived to the classroom, they were more assured in their computer abilities than girls (Gerrard 188-89).

In 1999, Gerrard like Holdstein and R. Selfe and C. Selfe, called compositionists to continue researching the impact of technology on women. Thirteen years later, technology use has continued to increase in educational settings, but compositionists have dialogued less about its impact on women. With the increasing interest in new media technologies, including video podcasts, in the writing classroom, teachers must not forget to scrutinize their impact on the women enrolled in our classes as well as consider their prior experiences with these technical communication tools.

Heeding the call to investigate the use of computer-based technologies in the writing classroom and their impact on students, particularly women, I posed some of Gerrard's questions to first-year composition students. By collecting their answers, I aim to learn how the inclusion of multimodal assignments and use of new media technologies

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impact students. I also plan to discover if thirteen years later women still perceive themselves as inferior and inexperienced users of emerging Web 2.0 technologies.

RESEARCH QUESTIONS

The purpose of this study is to investigate the impact of new media technology on students enrolled in first-year writing classrooms, the extent to which men and women experience technology differently, and how a specific use of technology, video podcast use, that has become widely popularized in the media to invert classrooms, affects writing students. To fulfill the purpose of this study, this dissertation focuses on three primary questions: (1) how fluent are contemporary students with Web 2.0 new media technologies?, (2) to what extent do men and women experience new media technology differently?, and (3) how do students enrolled in a first-year composition course respond to a classroom that is inverted through video podcasts?

Research Methodology

A mixed-mode research approach was used to gather statistical data as well as to explore a specific context regarding students' uses of contemporary communication practices. This multimodal approach involved two phases. The first consisted of an anonymous electronic survey distributed to students enrolled in first-year composition classrooms in the Southern and Midwestern regions of the United States (see Appendix A). The second phase included a pilot study with a first-year composition class that I taught at Collin College, a two-year college in North Texas.

The participants of phase one involved a convenience sample of 267 students enrolled in first-year writing programs at Southeastern Oklahoma State University, Collin College, Tarrant County College District, Texas Woman's University, Texas A&M University in Commerce, and Kansas State University. This survey was anonymous and was completed during the fall 2012 and spring 2013 semesters. It contained twenty-four qualitative and quantitative questions aimed at understanding students' fluency with and attitudes toward new media technology. In addition to gathering demographic details, the survey asked students to self-report their experience and comfort level with various computer-based new media technologies as well their preferences for either a traditional or inverted classroom format.

The second major phase of the research describes a quantitative and qualitative pilot study that further investigated students' proficiency with and reactions toward a specific use of a digital technology, video podcasts, used in an inverted writing classroom. The participants of this pilot study were students enrolled in a first-year composition course at Collin College, a two-year college in North Texas, during the fall 2012 semester. This convenience sample consisted of a total of nineteen students, nine of whom completed the study.

To investigate students' reactions toward an inverted classroom using video podcasts, ten video podcasts were made on the topics of MLA documentation guidelines, electronic library databases, and the video-editing online applications Xtranormal and Animoto.[5] These podcasts were 1 to 9 minutes in length and were assigned, along with

reading from their course textbooks, as homework. Four class sessions were then inverted

so that students' class time was spent actively participating in workshop activities rather

than passively listening to live lectures on the above-mentioned topics. During these

workshops, students were provided opportunities to apply those concepts they had

watched on the video podcasts while I was available to answer questions and to

formatively assess their learning.

To measure the effectiveness of this inverted format and the video podcasts, six

anonymous surveys were digitally distributed to students throughout the course of the

semester (see Appendix B). Five of these surveys were completed after students had been

assigned to watch the video podcasts. Questions included how often the video podcasts

were reviewed, how useful the video podcasts were in their learning, and how likely

students would be to recommend a similarly-formatted class to others. The last survey

was completed on the last day of class and asked students for their overall impressions of

the inverted classroom format (see Appendix C).

SIGNIFICANCE OF THE STUDY

This current study addresses existing gaps in recent literature regarding the impact

of new media technologies on women and the inverted classroom approach. The current

scholarship on new media and the writing classroom rarely addresses the relationship to

and impact of technology on women. While research in other disciplines asserts that

males use computers more than females, these studies generally do not reveal specifically

how males and females use computers (e.g., Volman and Van Eck 617). Through this

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present study, I ask men and women about specific uses of the computer that have become ubiquitous in today's technologically-savvy culture. For instance, students are asked to identify how often they listen to podcasts, read blogs, read and send email, watch online videos, and view Facebook. In addition to these increasingly common computer tasks, I asked students how often they perform such tasks as editing audio, creating videos and podcasts, creating websites, and many others. Evidence indicates that inequality in education occurs with the teacher and learning tools (Plumm 1065). By identifying, through these computer-based practices, any issues of access in the classroom, the results of this study can help writing teachers avoid creating learning environments in which women feel ill-equipped to participate in the contemporary computer literacy practices of students in North America.

Secondly, most of the literature regarding the use of video podcasts encourages teachers to include them in their own classrooms. Yet, few scholars report on video podcast viewership behaviors. As an example, of the nineteen studies referenced in this dissertation, only nine measured if students actually watched or downloaded the podcasts.[6] Of those nine studies, four reported that less than half of the students accessed the podcasts. Moreover, of those nine studies measuring the number of views, only two reported on how age, level in school, or gender impacted students' viewership behaviors.[7] Therefore, this study researches if students will play the podcasts as well as takes into consideration all three of these factors to determine the most effective approaches to incorporating video podcasts in the writing classroom.

Thirdly, while the current discussions of the inverted classroom are replete with scenarios of K-12 teachers' successes with it, there have been only seven studies in peer reviewed journals regarding inverting the college classroom.[8] Further, at present, no works exist that examine the effects of the inverted classroom on first-year writing classes. Receiving accolades for its ability to reduce knowledge and skills gaps, improve learning performance, increase guided learning opportunities, and maximize classroom time, the inverted classroom model must be explored for students enrolled in college writing classrooms. I hypothesized that inverting the classroom can help writing instructors, who struggle with balancing the teaching of rhetoric, writing, and technology, answer the call to expand their writing assignments to include multimodal texts.

OUTLINE OF THE STUDY

Chapter One has been an introduction to the study and lays out the context for it. Chapter Two offers an overview of the relevant scholarship from scholars in the areas of technology, gender, and composition. It first outlines the leading perspectives from a number of composition and rhetoric scholars regarding the need to effectively incorporate critical technology use, including new media composing tools, in the writing classroom. Chapter Two also provides a theoretical framework regarding the increasing interest in the inverted classroom methodology and the ways that video podcasts have been integrated into the course curriculum. Lastly, this second chapter also provides key scholarship focused on issues of technology, gender, and access. It includes a survey of literature that describes the extent to which computer-equipped classrooms affect women.

The third chapter of the dissertation describes the participants and setting of the study. This chapter details how the research was conducted, what data were collected, and the instruments used to measure the data. Chapter Four presents the results of the study based upon the findings from the technology survey collected from students enrolled at higher education institutions in Oklahoma, Texas, and Kansas. It also includes the results from the pilot study of an inverted composition classroom using video podcasts. The final chapter of the dissertation concludes by summarizing the study and listing its strengths and limitations. Using the findings collected from Chapter Four, this chapter suggests activities and strategies that composition instructors can employ to help increase efficiency in the classroom as well as potentially reduce gender bias and access limitations. Lastly, Chapter Five offers ideas for further research.

CHAPTER II

LITERATURE REVIEW

OVERVIEW

This chapter reviews the literature relevant to addressing the fluency of modern

students with Web 2.0 new media technologies, the extent to which men and women

enrolled in first-year writing courses experience technology differently, and the ways in

which scholars have been inverting their classrooms. To begin, it provides critical

perspectives from a number of scholars regarding the need to incorporate rhetorical,

digital writing skills into the writing curriculum. It then offers a historical perspective of

the use of video technology to invert academic classrooms. The final section reviews

several studies on the impact of technology on women in the past two decades. Overall,

this review of literature reveals that technology is continuing to infiltrate students' lives

both inside and outside the academy. Although there exists a number of objections to

modifying writing curriculum to include rhetorical digital communications, the trend is

that many teachers have embraced new media technology and have modified their

curriculums accordingly.[9] I contend that two primary student outcomes of the

composition course should involve rhetorical assessments of all modes of communication

and critical uses of the technology needed to create digital communications. Furthermore,

a rise in the use of video technology to invert classrooms offers new ways in which

writing teachers can enhance their classrooms. As yet, however, it seems that the field of

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rhetoric and composition has not published any findings on the inverted classroom pedagogy. Lastly, despite these increasing uses of technology in the academy, the concerns from scholars twenty years ago regarding gender inequality in computer-equipped classrooms has not been the focus of much of the current scholarship in the field of rhetoric and composition.

TECHNOLOGY IN THE WRITING CLASSROOM

The increasing impact of technology on communication practices in the past twenty years has led to a number of changes, including new definitions of what it means to be literate in the twenty-first century. Outside of the academic classroom exists a growing number of ways in which students can express their ideas. Social networking sites, along with video sharing sites, personal Web sites, and blogs, offer students public spaces to which they can immediately broadcast their opinions on any number of topics. Students are also able to post their pictures, write fan fiction, compose and share video memes, and record and distribute audio podcasts. Individuals in our classrooms are now a part of a convergence culture in which they no longer solely experience the Web as passive consumers. Rather the social nature of today's Web 2.0 technologies offers students more ways than they have ever had to actively participate in online spaces. Although some researchers contend that literacy has always been a "multimedia construct" despite the computer technologies available (Faigley 175-76), it is clear that the availability and popularity of these types of digital composing tools has altered

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communication practices. Consequently, many scholars have called for new definitions of literacy (Hocks, "Understanding" 630; Yancey, "Made Not Only in Words" 297).

New Definitions of Literacy

In response to these calls, scholars have offered modified definitions of writing. Andrea Lunsford, for instance, defines writing as:

> A technology for creating conceptual frameworks and creating, sustaining, and *performing* lines of thought within those frameworks, drawing from and expanding on existing conventions and genres, utilizing signs and symbols, incorporating materials drawn from multiple sources, and taking advantage of the resources of a full range of media. (171, emphasis original)

She goes on to characterize writing as "epistemic, performative, multivocal, multimodal, and multimediated" (171). In a similar vein, Kress describes literacy as multidimensional ("Gains and Losses" 5). Congruent with these definitions, R. Selfe and C. Selfe assert that writing involves a variety of modes and mediums (84). What this means is that we compose messages using multiple modes, including video, images, sound, animation, and alphabetic text (Beach et al. 163; R. Selfe and C. Selfe 86). Due to this multidimensional nature of writing, literacy practices have also changed. For instance, writers must critically and thoughtfully consider how the affordances of each modality impact the intended audience and message. Writers are required to ponder each asset to ensure they effectively assert their ideas. Furthermore, they must consider the

functionality and limits of their available digital authoring tools as well as the spaces in which they plan to share their compositions with others. In short, writers must have a working knowledge of how to use rhetorically multiple modes of communication and new media tools in order to participate in modern communication practices.

Modified Writing Curriculum

"A literate citizen," according to Jessica Parker, "must now have a higher level of critical and analytical skills than was true even a decade ago" (169). To be better equipped to participate in current literacy practices, students should be "prepared both usefully and responsibly for writing and communicating in the digital age" (Selber 14). Despite the ubiquity of new media composing tools, many students may not have "opportunities for meaningful participation in any of the various communities that digital technology and social networking platforms foster and support" (Jacobson 41). Surrounded by a plethora of spaces in which to express themselves, the academy is responsible for helping students recognize how these communication venues and practices impact their intended audience, message, and purpose.

Agreeably, many composition specialists argue that writing classroom curriculum should be modified to include these multiliterate practices.[10] Kress, for example, posits that "some things are best done by using writing, and others are best done by using images" ("'English' at the Crossroads" 74). A second article by Kress furthers this argument stating that "[i]t is now no longer possible to understand language and its uses without understanding the effect of all modes of communication that are copresent in any

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text" ("Multimodality: Challenges" 337). From these statements, it becomes clear that a

new curriculum that focuses on multimodal compositions is necessary. Students need to

understand and decide for themselves if their audience needs visual communication,

written communication, or a combination of both. In addition to considering the

rhetorical effects of linguistic modes of communication, students must be able to

recognize and use visual and digital modes of communication.

Additionally, the technology that enables the composition of these multiple modes

of communication must be incorporated as an integral element of writing curriculum. C.

Selfe declares that "[l]iteracy alone is no longer our business. Literacy and technology

are. Or so they must become" (*Technology and Literacy* 3). Many researchers agree with

C. Selfe that students enrolled in our college writing courses must be exposed to the ways

in which technology impacts how they communicate their ideas (Selber 35; Kirtley,

"Listening" 140; Sheppard 125-26). It follows then, that another primary goal for a

writing course should involve teaching students to critically understand and make critical

choices about their uses of technology (C. Selfe, "Technology and Literacy" 108).

This objective is reinforced by the Conference on College Composition and

Communication (CCCC).[11] Their 2004 position statement on digital environments argues

that "the curriculum of composition is widening to include not one but two literacies: a

literacy of print and a literacy of the screen" (Sidler, Morris, and Smith 16). By exposing

writing students to diverse screen technologies, they are better positioned to make critical

choices regarding which technology best suits their audience and purpose (Kress, "Gains

and Losses" 18). In addition, students also need to know how to use a variety of mediums, including the Web, to compose these communications (Turnley 133; Parker 4).

Rice agrees, arguing that "[c]ollege English should be the intersection of the various areas of discourse that shape thought and produce knowledge" ("Networks" 132). Several scholars seem to support this assertion. For example, Wysocki explains that writing students need a working knowledge of all available composing materials ("Opening New Media" 20). Indeed, to add to this, Selber asserts that "[a] functionally literate student is alert to the limitations of technology and the circumstances in which human awareness is required" (47). In fact, several scholars criticize English classrooms for failing to recognize and incorporate multiliterate practices (Clark 28; Hill 127; Yancey, "Made Not Only in Words" 302; C. Selfe, "Students Who Teach Us" 54). As Hill has argued, writing classrooms that focus solely on print texts are "anachronistic" (127). Likewise, Yancey goes so far as to claim that entire English departments may have also become anachronistic ("Made Not Only in Words" 302). C. Selfe further advocates that English departments must revise their curriculum or risk becoming irrelevant ("Students Who Teach Us" 54).

While these visual and digital modes of communication are not new, there is no doubt that the past thirty years have experienced new and increasing uses of them. The above scholars' arguments seem compelling that first-year writing programs that ignore these modes are placing students at a disadvantage in their studies. Therefore, it is

apparent that those in the academy should broaden the scope of composition courses to include students becoming consumers and producers of visual and digital literacies.

It must be noted, however, that while I argue that students must experience digital literacies within the first-year composition course, I do not suggest that print literacy should be abandoned. Though some scholars have predicted that print literacies will eventually become extinct, print is still a viable communication mode.[12] In fact, print and digital are not competing literacies; they both have a critical role in contemporary communication practices. Consequently, writing curriculum should include opportunities for students to compose traditional academic essays as well as multimodal ones. Haas further supports this point stating that "[c]omputer technology has not usurped print, but rather multiplied its contexts for use…technologies of print and computer technologies mutually complicate and support one another—indeed, computers make print a more vital medium" (218-19). Furthermore, while the writing class must incorporate new media and digital rhetoric discussions, the writing class should avoid focusing solely on functional technology instruction. Rather, the curriculum should balance the writing, technology, and rhetoric discussions and practice.

There are a number of reasons why students must become more knowledgeable and proficient with these multiliterate practices and the technologies that support them. In addition to teaching new media tools because they are ubiquitous, a modified curriculum: allows opportunities for more meaningful, authentic assignments; helps improve student

performance; and ensures appropriate access to all students, despite their race, gender, and socioeconomic status.

For instance, Hill contends that in their daily lives students are surrounded by digital and visual discourse but are not equipped to deal with them ("Reading the Visual" 107). Due to the ubiquity of these digital composing tools, he further declares that students need to learn how "to respond to the messages that they will likely encounter in their lives as part of this culture" ("Reading the Visual" 126). They must be provided opportunities within the writing curriculum to become more knowledgeable as consumers of media and become more familiar with visual media's influence on how they see themselves and their roles in society (Fadde and Sullivan 9). Many students, in fact, are already using these technologies but not in a critical and responsible manner (Daley 37).

Additionally, assignments that involve new media tools create in students a greater sense of agency and purpose than those assignments without. When students use digital tools they "move from teacher-initiated writing to self-initiated writing because they want to communicate to their audiences" (Beach et al. viii). Writing for an authentic audience rather than the teacher can create more realistic and rewarding writing situations. Therefore, these writing assignments are more meaningful and offer students a greater sense of accountability for their writing (Clark 34).

Similarly, it is critical to minimize the gap between the types of communications students compose in school and those communications they compose in their communities outside of school (Parker 9). Students need to recognize the value of

writing. They need to discuss and understand how their current ways of communicating with others is not dissimilar from the ways in which others regularly communicate in their daily lives.

Several researchers noted that using digital communication tools helps improve student writing (Beach et al. 5; Gries 23; L. Bowen 601; Chen, Lambert, and Guidry 1230; Ranker 78). For example, students who have been assigned to create Pecha Kuchas in addition to their print texts learn "how their written arguments could be more effectively arranged on the page" (Gries 23).[13] Gries writes that "[i]ntegrating the design and presentation of Pecha Kuchas into the composing process helps students revise their initial print-based arguments, not only in terms of organization but also in the development of ideas" (23). Therefore, Gries suggests teachers include presentations as one of the elements in the composing process (26). He writes that these presentations are a "productive means of invention, persuasion, and revision" (24). L. Bowen saw similar results where individuals, who were familiar with creating both digital and print texts, were better equipped to make effective rhetorical decisions regarding mediums they wanted to use (601). Similarly, Chen, Lambert, and Guidry report that students who use new media technologies "are more likely to make use of deep approaches of learning like higher order thinking, reflective thinking, and integrative learning" (1230). Some teachers have even found that using new media in the classroom helped improve reading and writing performance for those who were challenged in those areas (Ranker 78).

Furthermore, according to C. Selfe, writing teachers have an obligation to ensure those students who enter the composition classroom are afforded the appropriate access to technology since it is "inextricably linked to literacy and literacy education in this country" ("Technology and Literacy" 96). C. Selfe notes that "the poorer you are and the less educated you are in this country...the less likely you are to have access to computers and to high-paying, high-tech jobs in the American workplace" ("Literacy and Technology"101). Brandt puts it this way: "young Americans need to learn how to mediate their writing and reading through computer technology to gain access to information, audiences, voices, and genres of increasing social and economic importance" (182). If students remain only consumers of these new media literacies, they will always be placed in a position of inequitable access. It becomes the job of the writing teacher to ensure that a number of critical literacies are taught in the classroom. Brandt goes on to say that "unequal access to computer technology introduces new sources of inequality into the processes of staying informed, exercising free speech, and enjoying economic benefits and choices" (48). By incorporating new media discussions and projects in the composition classroom, teachers can help bridge this digital divide. Parker insists that teachers should not "leave some students behind but to encourage them as media-driven explorers" (Parker 145). As an example, Chen, Lambert, and Guidry found that those students who experienced technology when first entering college gained more than those who postponed their use of technology (1230). Similarly, Kirtley found that

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when women were given opportunities to use computers in their classrooms that their

fears waned ("Students' Views on Technology" 221).

HOW TEACHERS USE VIDEO TECHNOLOGY IN THE CLASSROOM

Many instructors have responded to these calls to incorporate technology in their

classrooms in a variety of ways. They have assigned students to create audio podcasts,

Web sites, blogs, wikis, and visual arguments, including public service announcements,

digital remixes, and hypertext essays. Of these technologies, my focus is on the use of

videos since teachers' uses of them continue to rise. According to a 2011 study conducted

by Pearson, for example, 80% of those teaching higher education courses have used

online video in their classes (Moran, Seaman, and Tinti-Kane 3). This same study

reported that 22% of faculty assigned podcasts in their classes (Moran, Seaman, and

Tinti-Kane 23). In addition to the conventional uses involving showing films and

documentaries, teachers have been using video technology to orient new students to

campus, respond to student papers, present guest lecturers, collaborate with students in

other classes, provide exam reviews, and teach interview skills.

First of all, one of the ways in which videos have been used by some institutions

involves orienting new students and faculty to campuses (Little 70). These orientation

videos include information regarding the features, resources, and services available on

campus as well as where to locate those resources (Little 70).

A second increasingly popular use of video in the classroom involves offering

video commentary. In addition to speeding up the amount of time teachers spend

responding to student papers, research indicates students find the video commentary more

personable than the traditional written comments and prefer the video commentary to

written feedback (Silva 2, 9).[14]

Thirdly, instructors have also found that video technology makes it easier to invite

guest speakers to their classes. Rather than trying to work around the guest speaker's

schedule, video technology allows the speaker to record the lecture at a time that is

convenient for her (Gannod, Burge, and Helmick 780; Holtzblatt and Tschakert 102).

Additionally, these "virtual visits" have fewer costs associated with them than the costs

of arranging the face-to-face visit (Holtzblatt and Tschakert 102). Then, during the

appropriate time in the course, the instructor is able to assign the students to watch the

lecture. Similarly, videoconferencing technology enables students and teachers to more

conveniently and affordably collaborate with students in other classes, including those in

foreign countries (Holtzblatt and Tschakert 102).

Exam review is another way in which videos have been used in the classroom. As

an illustration, students enrolled in marine science courses at the University of South

Hampton indicated that exam preparation was one of the most common reasons they

watched video podcasts (Copley 391).

Some teachers have also used videos to help students practice and reinforce those

skills being taught in the classroom. One teacher, for instance, uses excerpts from

broadcast interviews posted on the Internet to show her students, so that they can practice

collecting research from primary sources. While watching these recorded interviews, for

example, students practice the note-taking aspect of conducting interviews, including: selecting the appropriate information to quote, paraphrasing properly, and punctuating quotations correctly (Remler 392-93).

Using Video Podcasts to Deliver Lectures

It is evident that teachers are already using video in a variety of ways in their classrooms, and according to a report in which 57 faculty and librarians were asked about their current uses of and anticipated uses of video, it is evident that more teachers are planning to incorporate video in their classrooms. In fact, 43% of those interviewed reported that they plan to use more video in their classrooms. And 10% of them indicated that they planned to create more of their own videos (Intelligent Television 6). While most students view video content while they are inside the physical classroom (Intelligent Television 8), an increasing trend is asking students to view this video content outside of the classroom. For example, many scholars encourage teachers to record their classroom lectures and make them available to students to watch outside of class (e.g., Beach et al. 144). These recorded lectures can be approached in a variety of ways, including recording live lectures for optional viewing (Dupagne, Millette, and Grinfeder; Wieling and Hofman; Copley; Chester et al.), pre-recording lecture material to supplement course curriculum (Hill and Nelson), and fully replacing live classroom lectures with video podcasts delivered electronically (McKinney and Page; Winterbottom).

Some teachers record their live lectures and make them available for students to watch again if necessary. For the past ten years Brigham University, for example, has

been recording lectures on CDs for those students enrolled in some of the accounting

classes (Holtzblatt and Tschakert 114-15). Similar to other students' reactions to recorded

lectures, the majority of students enrolled at Brigham University "love the CDs because

they allow them to learn the material at their own convenience and pace. They can pause

the presentation to take better notes and watch it as many times as they need to

understand the difficult concepts" (qtd. in Holtzblatt and Tschakert 114-15). Some of

these video lectures are used not only to reach students who are enrolled in the

professor's course but anyone not registered for the course as well. For instance,

Professor Susan Crosson's finance and managerial accounting video lectures have been

viewed more than 2,300,000 times and average 5,000 views a day by people not enrolled

in her courses (Holtzblatt and Tschakert 102).

Holtzblatt and Tschakert cite research that indicates the use of video technology is

useful for augmenting course curriculum, including course readings and discussions

(107). As an illustration, one professor at the University of Richmond posts videos as

introductions and conclusions to the assigned chapters for his accounting course. He uses

these videos to motivate his students to read their homework. His videos prepare students

with the most important aspects of the chapters, so that they can focus on the appropriate

content (Holtzblatt and Tschakert 116). In another study, students enrolled in a second-

year biogeography and conservation course at the University of the West of England

were given six podcasts that they could watch at any time to help supplement the course

lectures. These 15 to 20 minute podcasts offered students visual applications of the live

lecture materials (Hill and Nelson 395). An additional study involves engineering

students enrolled in an introductory undergraduate calculus course (Kay and Kletskin

620). In this study, videos were prerecorded and posted online to show students how to

work through calculus problems. From home, students watched as the prerecorded video

demonstrated how to approach and solve calculus problems. Students reported that the

use of these video lectures increased their knowledge of pre-calculus (625). According to

Kay and Kletskin, these types of problem-based video podcasts or worked examples are

often used by those teaching courses in math or science (619). Others use videos to help

students improve test scores on challenging concepts as well demonstrate the application

and visualization of certain abstract concepts (Gillespie 25; Ellis and Childs 218).

 Some teachers have even started replacing entire live lectures with videos that

students watch online. As an example, in an undergraduate applied biomedical science

course at a university in the UK, two of the conventional live lectures were replaced and

made available online for students to watch (McKinney and Page 374). The 125 students

who participated in this study responded favorably to this delivery method as they liked

being able to hear the lecture more than once (374). A further study, which was

conducted in the UK for an environmental science course, had positive results for its

hybrid format in which eight of the lectures were delivered online (Winterbottom 6).

Reactions to Video Podcasts

 There are a number of benefits that scholars have noted regarding the

incorporation of educational videos in the classroom. In addition to helping students

catch up on missed classes (R. Kay 824; Copley 395) and appealing to a variety of

learning styles and preferences (Holtzblatt and Tschakert 107), videos are generally fun

and enjoyable (Ellis and Childs 218; Holtzblatt and Tschakert 107; Hill and Nelson 403),

convenient (Kay and Kletskin 623-24; Holtzblatt and Tschakert 117), accessible

(Winterbottom 7, 8; McKinney and Page 374; Griffin, Mitchell and Thompson 535, 537;

Hill and Nelson 398-99), and useful in helping students increase their understanding of

the course content.

To begin, one benefit regarding video podcasts is that they are generally engaging

to students. Fifty-nine percent of students in Green et al.'s study reported that they

enjoyed the incorporation of streamed videos (260). Students in other studies commented

that videos are more interesting and engaging than reading textbooks and actually

preferred to watch videos covering their course content rather than to read that material

from their textbooks (Ellis and Childs 221; Holtzblatt and Tschakert 107; Kay and

Kletskin 623). One reason that has been offered for this preference for videos is due to

their use of multiple modes that can satisfy the learning needs of more students than

reading a textbook can (Holtzblatt and Tschakert 107).

Many students positively comment on the convenience of video podcasts (Kay

and Kletskin 623-24; Holtzblatt and Tschakert 117). Being able to watch video lectures at

any time allows the students greater control over their learning (Little 71; Kay and

Kletskin 623). This continual availability of the videos enables students to watch them

prior to completing major projects and taking upcoming exams. In fact, Copley found

that video plays peaked right before assessments (393). Additionally, students like the ability to learn at their own pace with the video lectures (Griffin, Mitchell, and Thompson 535). Specifically, Griffin, Mitchell, and Thompson point out that with the video lecture, students do not have to attempt to maintain the pace of their instructor (537). Similarly, Copley learned that his students watched video lectures so that they could take notes at a pace more convenient to them (391).

Students like the accessibility and flexibility of electronic lectures because they could watch those videos at any time and in any place that was most convenient for them (Winterbottom 7, 8; McKinney and Page 374; Griffin, Mitchell and Thompson 535, 537; Hill and Nelson 398-99). Students in Winterbottom's course also liked the ability to control the lectures by pausing and rewinding them as needed (7). These students reported that they could "repeat sections they didn't fully understand" (Winterbottom 7; McKinney and Page 374).

R. Kay found that the primary reason that students watched videos was to improve their learning. Students described this improved learning experience as having the opportunity to prepare better for exams and take more effective notes, resulting in feeling better prepared for class (R. Kay 823). Holtzblatt and Tschakert cite research that indicates that using video technology helps improve students' apprehension (107). To take a case in point, McKinney and Page found that 89% of respondents reported that the video lectures enhanced their understanding of the course concepts (374). Chester et al. reported that 71.6% of students watched podcasts to prepare for exams (242). This is

similar to Green et al.'s findings that video downloads increased the day before students were tested (259).

In sum, previous findings indicate that there are many positive reactions and benefits to videos and podcasts. Winterbottom found that 76% of the students wanted more lectures delivered electronically (7). This type of positive result regarding the use of videos is encouraging for those considering inverting their classrooms through the use of video podcasts.

THE INVERTED CLASSROOM

In 2000, research on the use of podcasts to invert the classroom began to appear in scholarly journals. Although this teaching strategy is known by a variety of names, the concept is essentially the same. Teachers present all or some of their classroom lectures via video or audio podcasts to students to watch outside of the classroom as homework. Teachers then use class time to explore further, through discussion or skills-based activities, the lecture topics. This section provides details regarding those college instructors who have been inverting their classrooms as well as the benefits and challenges they experienced.

Who's Inverting their Classrooms?

The use of the inverted classroom has been researched by Lage, Platt, and Treglia; Foertsch et al.; Kurtz, Fenwick, and Ellsworth; Gannod, Burge, and Helmick; McFarlin; Day and Foley; and Smith and Fidge. Their research involved replacing all lectures for students in undergraduate computer (Kurtz, Fenwick, and Ellsworth; Gannod, Burge, and

Helmick; Foertsch et al.) and economics (Lage, Platt, and Treglia) courses and supplementing undergraduate exercise physiology (McFarlin) and human-computer interaction (Day and Foley) courses. One study involved supplementing both undergraduate and graduate courses in computer programming (Smith and Fidge).

In 1996, Lage, Platt, and Treglia were among the first scholars to publish their findings on the inverted classroom. In their study, they replaced all live lectures with video podcasts for five undergraduate principles of microeconomics courses at Miami University, where students watched these lectures and completed worksheets or quizzes on them as homework. Students were informed that their instructors would not lecture over the video content during class. Rather, students were made aware that they must arrive to class prepared to discuss and practice the economics concepts they had watched. Teachers started each subsequent class session by soliciting any questions regarding the video lecture. If students did not have any questions, the instructors moved forward with relevant activities created to reinforce the theoretical concepts of the videos. If, however, students had questions, these questions most often led to mini lectures lasting approximately 10 minutes (33). Lage, Platt, and Treglia praise the inverted classroom because it appeals to a variety of learning styles and allows for alternative teaching approaches to the traditional lecture format (41). Similarly, their exploration, through end-of-semester surveys, of both students' and instructors' perceptions of the inverted classroom yielded their approval as well (35). In fact, students indicated that they preferred this classroom platform more than the traditional one (41).

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Also at Miami University, in 2007 Gannod, Burge, and Helmick reported positive student reactions to inverted small-enrollment engineering courses for undergraduates (784). In these classes, all lectures were delivered outside of the classroom through 65 video podcasts lasting up to 50 minutes in length.

Another successful inverted classroom occurred in large enrollment lecture-based undergraduate computer science classes for engineering students at the University of Wisconsin. In 2000 and 2001, professors in Foertsch et al.'s study replaced their two weekly live lecture sessions with video podcasts that students watched online. Students then arrived to class only once a week for a team lab. In these labs, students worked in three-person teams to solve an assigned problem using the concepts covered in the video lecture (Foertsch et al. 270). When compared with the course ratings for the traditional format of the same class, the inverted course ratings were higher (274). According to Foertsch et al., students preferred watching videos online and experiencing team labs than listening to live lectures (272, 274).

In 2006, Day and Foley published their experiences inverting a human-computer interaction course at the Georgia Institute of Technology. Though they did not label their course as inverted, the teaching strategies Day and Foley describe are consistent with those inverting their classes. As an illustration, students watched a 15 to 25 minute video lecture on interviewing techniques and then were asked to practice interviewing each other during the regularly scheduled class session (Day and Foley 420). Other in-class activities in which students participated included group discussions, presentations, and

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role-playing (424). In this reversed class, Day and Foley delivered all but three of their lectures using video technology. They found that students enrolled in the inverted course sections were more satisfied with the class than those students enrolled in the traditional version of the same course (427). They also discovered that students' grades improved in the inverted courses.

Another study that was not explicitly labeled inverted was conducted from 2004 to 2007 by McFarlin at the University of Houston. For six semesters, McFarlin supplemented his upper division undergraduate exercise physiology course curriculum with 15 to 20 minute video podcasts. In general, the 658 students involved in this study had positive attitudes toward the inverted format. McFarlin also noted their grades were higher than those who had been in the traditional model of the same course.

Institutions outside of the United States have also experimented with inverting their classes. As an example, undergraduate and graduate students enrolled in first-year computer programming courses in Australia's Queensland University of Technology experienced an inverted approach (Smith and Fidge). In 2006 through 2007, these 300 students were assigned to watch up to twenty podcasts lasting from 5 to 15 minutes to supplement eleven class lectures. Though students' grades were not higher than those students in traditional versions of the same class, students had positive reactions to the inverted course structure.

Although most reactions to the inverted classroom are positive, a 2005 study at Appalachian State University in North Carolina found that students enrolled in an

inverted software engineering class had negative reactions to the flipped format (489).[15]

In this study conducted by Kurtz, Fenwick, and Ellsworth, students were assigned 65 podcasts ranging in duration from 9 to 44 minutes. Every class lecture was moved out of the class and students were assigned to spend 40 to 50 minutes outside of class watching the lectures as homework. Students reported that they missed being able to engage immediately with their instructors.

Benefits Experienced with Video Podcasts and the Inverted Classroom

Those who have been inverting their classrooms through video podcasts report a number of benefits. The most common advantages include: the promotion of an active learning environment, more class time to cover more content and to have more in-depth discussions and explorations of that content, convenience and more control over learning, improved student performance, and increased student and teacher interaction.

The primary benefit of the inverted classroom is that it fosters a constructive learning space where students are able to take on a more active role in their learning experience (Foreman 14; Gannod, Burge, and Helmick 780; J. Bowen 186). Day and Foley reiterate this benefit, stating that "[w]hen a large portion of the lecture material is covered before class, much more in-class time is available to engage learners in the hands-on experiences" (422). In a similar vein, Foertsch et al. comment that "professors and students would both be better served if their time together were spent on problem solving, not on lectures" (268). Indeed, more occasions for hands-on experiences in the classroom are critical in promoting student learning. Such opportunities are necessary in

writing courses where students need practice brainstorming and drafting texts, locating primary and secondary sources, and reading and commenting on peers' texts. For those instructors who have had challenges creating time for this in-class practice, the inverted classroom presents a practical solution.

Another advantage to the inverted classroom is that instructors are no longer limited by the number of minutes of their class (Gannod, Burge, and Helmick 778). By assigning students to watch video lectures at home, instructors are able to ensure "[c]ourse coverage [is] not sacrificed" (Lage, Platt, and Treglia 37). This benefit has great potential for instructors of writing. One of the main objections toward using new media in the writing class is teachers' concern that they will not have enough time to teach both print and computer literacies in their classrooms. Likewise, Davis found in a focus group with ten students from Cornell University that students did not feel that they had the computer skills their teachers wanted, but they also did not want to devote class time toward learning those computer skills (71). The inverted classroom enables teachers to move functional computer literacy outside the classroom so that class time is spent discussing and practicing critical and rhetorical computer literacies. In this way, the inverted classroom becomes a way to incorporate effectively multimodal projects in the writing classroom. By using video podcasts to cover computer skills, teachers are able to ensure students have the skills they need without dedicating too much class time toward them.

In fact, the depth and number of assignments that the teacher uses in an inverted classroom can be more substantial than those in a traditional classroom (Gannod, Burge, and Helmick 781). By moving lecture outside of the classroom, teachers have more class time available to cover more material; thus, they can create more opportunities to create assignments that assess students' understanding of that content. This inverted format can be advantageous to the writing classroom, where students typically write five major papers. With less class time dedicated to lecture, students should be able to create a multimodal project in addition to the commonly assigned five major papers.

Convenience is one of students' most commonly touted benefits for using podcasts in the inverted classroom (Foertsch et al. 274; Gannod, Burge, and Helmick 779; Day and Foley 423; Kurtz, Fenwick, and Ellsworth 488). As an example, two-thirds of the students enrolled in a computer course for engineering students found that the ability to view video lectures "at their own convenience enhanced their ability to understand and review lecture material" (Foertsch et al. 274). Specifically, the students in this study report that "online lectures gave them the ability to learn difficult material at the time of day when they were the most attentive or focused, as opposed to whenever a lecture happened to be scheduled" (Foertsch et al. 271). Making video podcasts accessible online places students in greater command of their learning (Foertsch et al. 272; Little 71; Kurtz, Fenwick, and Ellsworth 488). Students also liked the availability of electronic lectures because they could "repeat sections they didn't fully understand" (McFarlin 90).

Also, being able to pause and replay lectures allows students to learn at their own pace. For instance, 83% of those students enrolled in an inverted computer class reported stopping the video lecture to either take notes or review other source materials (Foertsch et al. 271). Students also commented that taking notes during the lecture was easier in the inverted format than the traditional one (Foertsch et al. 271). A study conducted by Foertsch et al. reported that 89% of students re-watched parts of videos within the same sitting (271). This type of flexibility allows students to re-watch videos to prepare for upcoming exams or activities. Foertsch et al.'s study further found that 67% of students re-watched lectures when preparing for exams (271). The ability to review lectures more than once and watch them at any time and in any place that is convenient for students are all critical to enhancing students' learning experiences.

Although one study saw no improvements in student performance and therefore discourage the use of video lectures if the teacher's sole objective is to improve grades (Smith and Fidge 135), it cannot be ignored that some studies have reported enhanced student performance when teachers inverted their classrooms. For example, Day and Foley found that those students enrolled in their inverted classroom had higher midterm and final exam scores than those students enrolled in the traditional sections of the same course. Consequently, these final course grades were also higher (426). Along the same lines, McFarlin reported a nearly 10% increase in the final grades of those students registered for the inverted sections of the exercise physiology classes at the University of Houston (89). Though not enrolled in an inverted classroom, students in Kay and

Kletskin's study self-reported heightened comprehension of the course material when they watched the optional video podcasts their instructors provided (625).

Similar accounts of enhanced student understanding were reported in other studies as well. For example, three-fourths of students enrolled in a computer course for engineers reported confidence in learning the tools taught in the course (Foertsch et al. 272). All of the students in Hill and Nelson's study also commented that the video podcasts reinforced their learning (401). These students' increased confidence can be contributed "to the reinforcement and hands-on application" of the inverted classroom, which "assists in helping students commit knowledge to long-term memory" (Gannod, Burge, and Helmick 780). While others have reported no improvements in students' grades (Dupagne, Millette, and Grinfeder 54; Hill and Nelson 404; Kurtz, Fenwick, and Ellsworth 487), providing students opportunities within the classroom to practice and discuss course content and providing students video lectures that they can watch at their convenience can only help ensure that students are provided ample ways to learn the material and boost their knowledge.

Another benefit is the increased interaction between students and their instructors (Gannod, Burge, and Helmick 780; Lage, Platt, and Treglia 37; Foertsch et al. 274). Since most students may encounter confusion and have questions when trying to apply new knowledge and skills, moving that practice from at home to inside the classroom enables students to receive immediate guidance and encouragement from their instructor. This one-on-one interaction allows instructors to not only provide timely and personalized

feedback to their students but also to formatively assess their learning (Gannod, Burge, and Helmick 780; Foertsch et al. 268; Lage, Platt, and Treglia 37). Teachers also report that this increased interaction leads to the inverted classroom being more fun and stimulating to teach (Foertsch et al. 270; Lage, Platt, and Treglia 37). Furthermore, Lage, Platt, and Treglia believe that this increased interaction places students at greater ease in the classroom, leading them to ask more questions of their instructor (37).

Challenges Experienced with Video Podcasts and the Inverted Classroom

While the benefits of the inverted classroom outweigh any problems, there are a number of challenges that should not be ignored. These issues involve: decreased attendance, an inability to ask questions immediately and receive feedback from the instructor, no significant improvements in learning performance, and students' failure to watch podcasts.

Chester et al. (238) and R. Kay (826) cite studies reporting decreased attendance in classes where podcasts were made available. Chester et al.'s own study also yielded a decline in attendance for those students who viewed podcasts (244). Though reduced attendance is one of the most often cited objections to the incorporation of podcasts, only a small proportion of the studies on podcast use actually reported a drop.

As previously noted, many researchers indicate that student and teacher engagement is a benefit of the inverted classroom. However, some researchers remark that students missed the ability to ask questions immediately and interact with their instructor (Gannod, Burge, and Helmick 781; Kurtz, Fenwick, and Ellsworth 487;

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Winterbottom 7; McKinney and Page 375; Foertsch et al. 271). They point out that

students like the ability to interrogate ideas and concepts during live lectures. If they

happen upon a challenging idea or become confused while watching the lecture outside

of class, it is not a best practice to ask them to wait until the next live lecture to clarify

this uncertainty.

Reactions to the impact of video podcasts on students' learning performances

were also mixed. Many teachers noted improved learning, but others asserted that

students' grades and exams were not impacted. For instance, when comparing classes

using the traditional live lecture format and those using the inverted format, researchers

found that students' exam scores were the same in both types of classes (Kurtz, Fenwick,

and Ellsworth 488; Dupagne, Millette, and Grinfeder 54; Smith and Fidge 135). One

reason provided for the lack of increased performance involves the students' ability to

pause and replay lectures. Though most students praised the convenience of this feature,

they also found fault with this element because it discouraged note-taking (Foertsch et al.

271). Students blamed this lack of note-taking on their inability to remember concepts

and learn the material as easily as they would have in a live lecture format (Foertsch et al.

271). Additionally, students also noted that when watching lectures outside of the

conventional classroom setting that they experienced more distractions and tended to take

the video lectures less seriously (Foertsch et al. 271). Overall, students blamed any

learning performance challenges on not having the formal classroom setting in which

they were accustomed to learning.

Another criticism of incorporating video podcasts in the curriculum involved students not watching them (R. Kay 826; Kay and Kletskin 623; Lage, Platt, and Treglia 35; Smith and Fidge 132; Griffin, Mitchell, and Thompson 537; Chester et al. 244: Dupagne, Millette, and Grinfeder 60). Chester et al. found that half of the students chose not to watch any of the videos (244). Kay and Kletskin report that one-third of the students enrolled in their undergraduate calculus course did not view the video podcasts made available to them (623). Similarly, Smith and Fidge reported "that some students never accessed *any* of the prerecorded lectures" (132, emphasis original).

There were a variety of reasons students choose not to watch their video lectures. Some of the reasons cited for not viewing the podcasts included: irrelevant video content (Dupagne, Millette, and Grinfeder 63; Kay and Kletskin 623), unaware that the videos were available (Kay and Kletskin 623; R. Kay 825; Chester et al. 243), lack of time (Kay and Kletskin 623; Dupagne, Millette, and Grinfeder 63; Hill and Nelson 397; R. Kay 825), disinterest (Dupagne, Millette, and Grinfeder 63), lack of self-discipline (R. Kay 826; Kurtz, Fenwick, and Ellsworth 488; Foertsch et al. 272; Day and Foley 423), and technical problems (Kay and Kletskin 623; R. Kay 825; Winterbottom 8; McKinney and Page 375; Copley 391; Silva 4).

Of the reasons cited for not watching videos, students being unmotivated was among the most cited. Students often complained that they needed more self-discipline (R. Kay 826). To take a case in point, several students enrolled in Kurtz, Fenwick, and Ellsworth's study "openly expressed dislike for the podcasts saying they were asked to do

'extra' work outside of class that should have occurred in class" (488). Of those students enrolled in an inverted computer course at the University of Wisconsin in Madison, 64% reported needing to exercise more self-discipline than in other courses (Foertsch et al. 272). Other engineering students enrolled in an inverted computer science course also expressed their concern with the need to exercise greater self-discipline than in traditional class models (Day and Foley 423).

Technology issues, such as Internet speed, outdated media players, slow download speeds, and large file sizes, were other major causes for some students not to watch the videos (Kay and Kletskin 623; R. Kay 825; Winterbottom 8; McKinney and Page 375; Copley 391; Silva 4). Other technical obstacles involved inexperience with streaming videos (R. Kay 825; Green et al. 258). In one study, faculty observed that the majority of the students did not realize that there can be a delay when clicking on a video link. Therefore, students reported that they could not access the videos when in fact they simply needed to wait longer for the link to open. Additionally, students often thought the video had stopped playing anytime the video started buffering (Green et al. 258-59).

Furthermore, some students reported a lack of access to a computer or the Internet; therefore, they did not have the means to access the video tutorials off campus. To help mitigate this challenge, students enrolled in an inverted engineering class requested that the videos be included on a CD-ROM (Foertsch et al. 273). A more practical solution involves asking students to use the school computer labs. Many students are already using school computer labs to view videos. For example, 58% of

students enrolled in an inverted computer classroom for engineers used the computers on campus to view the material, while only 37% viewed them from home (Foertsch et al. 271). Instructors need to consider, though, that if students are using the computer labs on campus, they may not be able to listen to the lecture if the computer does not have audio capabilities (Silva 4).

Though most of the criticism toward inverting a classroom centers around students' dislikes and challenges with the videos themselves, in-class activities also received some negative criticism. Some students reported that they found these activities dissatisfying (Lage, Platt, and Treglia 35).

Despite these challenges, the overall reactions from students and teachers have been positive. Therefore, it is critical that teachers continue finding ways to enhance their curriculum by embedding technology in the classroom through video lectures. However, the inclusion of these digital tools requires teachers to consider critically the ways in which their pedagogy impacts students who may be less technologically savvy than others.[16]

TECHNOLOGY'S IMPACT ON STUDENTS

Several studies indicate that instructors erroneously assume that all students are digital natives. Margaryan, Littlejohn, and Vojt found that students were not using technology as had been assumed (433). It is usually after a teacher first introduces technology in the classroom, that she becomes cognizant of these false assumptions. To take a case in point, after incorporating digital texts into their curriculum, Evans and Po

reconsidered their assumptions about their students' digital literacy (70). For example, they found that even if students use technology for entertainment purposes outside the classroom, they still have difficulty transitioning from reading print texts to digital ones (59). Their students complained that the online reading was not linear and it also strained their eyes (62, 67). Some related work indicates that several students also experience anxiety and apprehension when asked to use technology in the classroom (Yeaman 16; Evans and Po 57; Reinheimer 467). Failing to acknowledge students' varying levels of computer skills and comfort levels can negatively impact their learning and success in the classroom.

WOMEN IN THE CLASSROOM

While there are a number of challenges for all students, several studies indicate more of these challenges are experienced by women in the classroom. In general, the educational experience for women is far inferior to that of men due to gender biases from teachers, learning tools, and student interactions among each other (Plumm 1053; 1065). Hesse-Biber and Gilbert cite research that suggests that the gender gap is one caused by cultural stereotypes rather than biology (19). This assertion becomes evident when observing the differences in the ways men and women are treated in the classroom.

First of all, teachers' behaviors have contributed to the existing gender biases in the classroom. This is in part because few teachers have had any formal preparation for dealing with technology or gender bias in their classrooms (Plumm 1056). Therefore, they have been observed giving men more talk time, individual instruction, and feedback

and praise (Plumm 1055). This gender bias is further perpetuated in classrooms with technology where teachers "tak[e] over more quickly at the computer for girls," reinforcing the assumption that males are more competent in computer use than females (Volman and Van Eck 620).

Secondly, learning tools can perpetuate gender gaps. In the late 1980s and early 1990s, for example, many studies indicated major gender imbalances with technology. In addition to the general absence of women's contributions to technological advancements from historical records (Aschauer 9), it was reported that men were more experienced and proficient with computers than women. For example, men owned more computers (Volman and Van Eck 616), enrolled in more computer courses, (Gutek and Bikson 129), read more computer magazines (Gutek and Bikson 129), enjoyed computers more (Wilder, Mackie, and Cooper 218), and generally tended to use computers more (Lockheed 119; Gutek and Bikson 129; Volman and Van Eck 616). In addition, men dominated jobs in the computer sciences (Aschauer 15).

Student interactions are the third factor involved in perpetuating gender divides. Research strongly suggests that these gender gaps begin as early as elementary school (Hesse-Biber and Gilbert 19). For example, Cooper and Weaver cite literature that observes adolescent girls waiting for their teacher's guidance before using computers. Adolescent boys, however, immediately begin experimenting with their computers without waiting for their teacher's instruction (57). Young boys have also been observed being more eager than girls to use computers (Cooper and Weaver 12), pushing girls

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away from computers, (Siann, Glissov, and Durndell 189), and ridiculing girls when working on computers (Volman and Van Eck 620). These behaviors have devastating effects in that both men and women possess the belief that women are less capable of using a computer (Sieverding and Koch 700; Hesse-Biber and Gilbert 19). This trend continues into adulthood where even high-performing college females consider their computer aptitude to be low (Cooper and Weaver 28).

In addition to feeling that they are less competent computer users, women are generally more apprehensive than men about using computers (Gilroy and Desai 713; Cooper and Weaver 14; Plumm 1064; Gerrard 190; Hesse-Biber and Gilbert 19). As Cooper and Weaver note the incorporation of computers in the classroom is a source of distress for women and may hinder their learning (12-13). Consider Hesse-Biber and Gilbert's findings in which women tended to negatively describe computers with words such as "dangerous, frustrating, stubborn, and complicated" (21). Also, Wilder, Mackie, and Cooper report that both men and women alike consider computers more suitable for men (218). When students were asked to name their computers, for instance, they chose male names (Hesse-Biber and Gilbert 21). Disturbingly, women tend to misrepresent themselves as inexperienced computer users even when their expertise matches or exceeds that of the opposite sex (Volman and Van Eck 620; Hesse-Biber and Gilbert; Wilder and Cooper 225).

Researchers have noted a number of reasons for this technological gender gap. For instance, Gilroy and Desai (713) and Plumm (1064) attribute the gender gap to

women's inexperience with computers. This inexperience leads women to inflate their perceptions of the computer as challenging (Gilroy and Desai 713). However, other research yields evidence that when women are given more opportunities within class to use computers, they work on the computers more than those women who do not have similar chances to use them in their classroom environment (Gerrard 201). This experience helps women learn more about the machines and therefore their assurance in their abilities are increased (Gerrard 190). By providing students more opportunities within the classroom to use computers, teachers can help close this technological gender gap.

However, as teachers integrate more computer use in their classrooms, they must remain thoughtful of the ways in which the presence of the computer can further alienate women. Hesse-Biber and Gilbert, for example, contend that teachers must be aware that men and women have different needs in regards to their learning environments when computers are involved. Failure to recognize these differences can further perpetuate a "technological gap" (20). However, in the past ten years, very few peer reviewed articles addressing technology's impact on women have appeared in the field of composition and rhetoric.

Yet, Sieverding and Koch, in an international journal on education and computer applications, point out that several studies show gender gaps are still present in the uses of and attitudes toward technology (696). For example, in a 2009 study performed on college-age students in Germany, researchers learned that more men than women owned

a computer, were more prepared to use the latest technologies, and spent more time on computers (Koch, Muller, and Sieverding 1800). Other research shows that few women earn degrees in computer-related degrees (Cooper and Weaver 5), and tend to use computers more for social activities than men do (Selwyn 528).

It is evident from this body of research that technology has powerfully impacted communication practices, writing curriculum, and students. Therefore, it is the responsibility of the academy to ensure adequate instruction of and access to these multiliterate practices. Likewise, it is critical that teachers are aware of the ways in which their technology uses and assignments may negatively impact all students in their classes, especially women, who historically have been underprepared and anxious about using computer technology.

CHAPTER III

METHODS

OVERVIEW

To determine how students enrolled in first-year composition courses throughout

the United States experience new media technology, this study investigated three major

research questions: (1) how fluent are contemporary students with Web 2.0 new media

technologies?, (2) to what extent do men and women experience new media technology

differently?, and (3) how do students enrolled in a first-year composition course respond

to a classroom that is inverted through video podcasts? To address these questions, a

multimodal research approach was used. This methodology was chosen because it offers

an expansive, far-reaching scope and analysis through a variety of data gathering

measures (Webb 463). As Patricia Rose Webb advocates in her article

"Reconceptualizing Classroom-Based Research in Computers and Composition," a

mixed-mode methodology in which quantitative and qualitative approaches are

combined, broadens the data collected as well as provides the statistical data and the

specific context in which the research questions are applied (473). The mixed-mode

approach used for this study involved two major phases. The first phase consisted of a

limited scope quantitative study in which an electronic survey was distributed to students

registered at six public institutions of higher education in the Southern and Midwestern

regions of the United States (see Appendix A). This small-scale survey gathered students'

experiences with and attitudes toward new media technology.

The second major phase of the research involved a qualitative pilot study with a

first-year composition course that I taught in North Texas during the fall 2012 semester.

This pilot study enabled me to explore thoroughly a specific use of new media

technology and understand how the data collected in phase one looks when actually

enacted on a day-to-day basis. I chose to investigate how the increasingly popular use of

video podcasts to invert the classroom impacts students' learning experiences by

inverting my own classroom via ten video podcasts I created and assigned. The data

collected during this phase included my observations, direct participation, field notes,

course assignments, class activities, and surveys documenting students' uses of and

attitudes toward these video podcasts and the inverted classroom format. The benefit of

this qualitative pilot is that it allowed me to gather students' personal experiences and

reactions as well as observe them for myself. While this experience in only one writing

classroom with a small sample is a limitation of this study, my findings appear to support

the assertions presented from the current body of research on the flipped classroom and

can be beneficial to those instructors interested in designing their own flipped writing

classes.

Kirtley, in 2005, published a similar study to phase one of this research project.

Also using a variety of data, including surveys, interviews, and students' literacy

narratives, she investigates composition students' perceptions of using computers to

compose texts. Through these surveys completed by 129 students enrolled in first-year composition courses at the University of Massachusetts at Amherst and through a writing and technology course she taught in 2001, Kirtley aimed to determine how students' past experiences with computers impacted their present attitudes toward them ("Students' Views on Technology" 213). A number of her survey questions inspired several of questions I used for phase one of my study. Kirtley's questionnaire, however, focused primarily on those computer technologies such as word-processing software, email, computer games, and chat rooms, which were increasing in popularity in the 1980s and 1990s ("Students' Views on Technology" 225). My study expands her scope to include not only Web 1.0 applications and activities, but also Web 2.0 applications and computer literacy practices that allow students to communicate, produce, consume, and manage digital content, including alphabetic text, images, and videos. Furthermore, this study extends beyond the Northeastern region of the United States in which Kirtley's study took place to include institutions in the Midwest and South. While I drew upon a convenience sample from these two regions, including them helps to offer a broader perspective of technology uses and attitudes among undergraduate students.

PHASE 1: LIMITED SCOPE QUANTITATIVE STUDY

This section describes the participants, procedures, and evaluation method used to complete phase one of this research study.

Participants

A convenience sample of a total of 267 (185 females and 82 males) students enrolled in composition writing programs at Collin College, Kansas State University, Southeastern Oklahoma State University, Tarrant County College District, Texas A&M University in Commerce, and Texas Woman's University agreed to participate in the first phase of the study. Since I pre-identified contacts at these particular institutions, my sample was not random; rather it was selective and convenient and restricts the generalizability of the results. Participants involved in this study are self-identified men and women, who ranged in ages from 18 to 54 and are classified as freshmen, sophomores, juniors, and seniors (Table 3.1). Though the majority of the participants self-identified themselves as white, the persons in this survey are from a broad range of ethnic/racial backgrounds. Survey participants also came from diverse annual household income levels.[17]

Table 3.1
Demographic Characteristics of Phase 1 Participants

Characteristic	Number	Percentage
Gender:		
Female	185	69%
Male	82	31%
Classification:*		
Freshman	231	87%
Sophomore	19	7%
Junior	10	4%
Senior	7	3%
Race:		
African American or Black	44	17%
Asian	9	3%
Hispanic (any race)	71	27%
Native American or Alaskan Native	1	0%
Native Hawaiian or Other Pacific Islander	1	0%
White	137	52%
Other	3	1%
Age:		
18-24	221	83%
25-29	16	6%
30-34	12	5%
35-39	9	3%
45-49	5	2%
50-54	3	1%
Annual Income:*		
$0-$20,000	37	14%
$20,000-$29,999	27	10%
$30,000 - $39,999	40	15%
$40,000 - $49,999	21	8%
$50,000 - $74,999	50	19%
$75,000 - $99,999	37	14%
$100,000 - $149,999	30	12%
$150,000 +	18	7%
*Variance is due to decimal values less than .05.		

Furthermore, the schools in which these students are enrolled include a somewhat

wide range of features.[18] For example, two of the six schools are very large two-year

multi-campus institutions with a high part-time student enrollment. One of these two-year institutions, Collin College, consists primarily of suburban students, whereas Tarrant County College District consists largely of urban students. The other four institutions are medium and large four-year colleges, including two doctoral research universities and one research university with high research activity. The student population at these four-year colleges includes primarily full-time undergraduates. As far as residential versus nonresidential students, Kansas State University consists primarily of residential students whereas the other three generally include nonresidential students. Southeastern Oklahoma State University and Texas Woman's University, unlike the other four-year colleges, include a high transfer-in rate (see Appendix D for complete table of features).While this survey's sample is small and only includes respondents from two major regions of the United States, its findings are still valuable to those instructors interested in adjusting their pedagogy to include computer-based technologies since it includes students from two and four-year colleges, diverse racial and ethnic backgrounds, and a broad range of incomes.

Procedure

After IRB approval was obtained (see Appendix R), to recruit participants during the first four weeks of the fall 2012 and spring 2013 semesters, I sent an email (see Appendix E) directly to the directors/chairs of the writing programs at Collin College, Kansas State University, Southeastern Oklahoma State University, Tarrant County College District, Texas A&M, Commerce, and Texas Woman's University, inviting them

to forward my email request to their writing instructors. In this email communication, writing instructors were advised that those students who were enrolled in their first-year composition courses and eighteen years of age or older were invited to participate in the study during the semester in which the recruitment email was received. Further instructions expressed that the voluntary, anonymous electronic survey contained twenty-four questions and students needed approximately twenty minutes to complete it. The direct link to the electronic survey was included in the email communication.

Though electronically distributing this survey immediately presents challenges in that respondents must have access to and fluency with computer technology to complete it, this electronic method was chosen in an effort to yield a higher number of student responses. Evidence indicates that electronic surveys usually have a higher rate of return and speedier response times than those that are mailed (Nesbary 57). Therefore, while the electronic distribution may exclude those students who may be less technologically savvy, the data from those who did complete these surveys are still helpful in assessing student fluency and comfort level with technology. All students who completed the surveys provided their electronic consent.

Evaluation

This survey was anonymous, and it was completed during the fall 2012 and spring 2013 semesters. It was created and electronically deployed using SurveyMonkey and contained twenty-four qualitative and quantitative questions aimed at collecting data regarding students' fluency with and attitudes toward new media technology.[20] This

survey was divided into two major sections. The first section gathered demographic details, including gender, age, race, income, classification, education level of parents, and whether or not the student is a first generation college student. The second section focused on students' technology uses. To launch this section, one question prompted students to select from a list of four options the way they best learn to use new technology.[21] Next, to gain a general sense of students' preferences for either a traditional or inverted classroom format, they were given two questions. The first of the two questions prompted students to select the classroom format they liked best. This question was followed up with an open-ended response question in which students explained the reason for their choices.

The last part of this section included questions aimed at assessing how digitally literate students are when using Web 2.0 new media technologies. To create these questions, I first relied on questions and concerns posed by Gerrard and Kirtley to guide my work. Both of these scholars had interest in learning what preconceived perceptions students have when entering our writing classrooms (Kirtley, "Students' Views on Technology" 209; Gerrard 188, 190). For example, Gerrard wonders if the computer technology in the classroom perpetuates women being "outsiders" in academia (190).[22] Kirtley poses a similar concern. She inquires whether having computers in the classroom will "help, or hinder, the students' experiences" ("Students' Views on Technology" 209). To help address these concerns for present-day composers and designers, I included an open-ended response question for students to list three words describing how they have

felt or would feel when entering a computer-equipped classroom for the first time. This question was very similar to the one Kirtley included in her study. I created an additional follow up question for students to explain the reasons for their choices. Kirtley also asked students to identify how often they used personal computers, word processing software, email, and chat rooms as well as rate on a scale from 1 to 10 their comfort level with computers ("Students' Views on Technology" 225-26). I offered two similarly-formatted questions. For my survey, however, I wanted to focus specifically on those skills that contemporary digitally-literate individuals use.

To define digital literacy, I turned to those definitions provided by Don Descy and David Buckingham. Descy, in his article "All Aboard the Internet: Becoming a Digital Being," asserts that "[a] digital being uses digital tools to communicate, manage ideas and time, and create content" (7). Buckingham cites literature that similarly asserts that "a digitally literate individual is one who can search efficiently, who compares a range of sources, and sorts authoritative from non-authoritative, and relevant from irrelevant documents" (77). Along the same lines, other scholars have declared that modern students should be able to cite appropriately intellectual property used when creating multimodal texts (Pandey), search for, evaluate, and manage information found on the Web (e.g., *DIY Media,* Knobel and Lankshear 99-100; Sorapure, Inglesby, and Yatchisin 333), and evaluate, share, and edit images (Potter 131).[23] I contend that a digitally-literate individual is a combination of the skills Descy, Buckingham, and Pandey require. Students should be able to communicate, compose, search, evaluate, and manage online

content. Using these specific skills, I planned to learn, through this survey, the extent to which students' actual experiences aligned with this expectation.

Some of the computer applications and practices included in this survey consisted of communication technologies such as email and social networking sites. Students were asked about their experiences with online activities both inside and outside the academy. These involved listening to and editing audio podcasts; reading and maintaining blogs, Web sites, and wikis; watching and creating videos; creating slideshow presentations; and using Web storage devices, such as Dropbox, and Web photo storage devices like Flickr.[24]

These particular media uses were selected due to their increasing popularity.[25] Several reports conducted on trends of technology use center around these technologies and abilities. Pearson, for example, in their 2011 report on how teachers use social media included Facebook, Twitter, YouTube, wikis, Flickr, blogs, videos, and podcasts (4). Additionally, the Internet practices and tools included in this survey have also been the focus of a number of research reports published by the Pew Research Center. As an example, their surveys have revealed that email continues to be the most popular online activity with 92% of online users reading and sending email communications (Purcell, "Search and Email" 2). Regarding social networking, researchers found that over half of those online are members of at least one social networking site (Hampton et al. 8). Of those who are using these social networking sites, 92% are Facebook users, resulting in Facebook's current status as the "dominant social networking site in this country"

(Rainie, Smith, and Duggan 2; Hampton et al. 3).[26] Twitter users comprise 13% of social networking site traffic (Hampton et al. 13). Though this number is low when compared with Facebook users, Twitter continues to rise steadily in members as well as gain attention in academic scholarship (Mueller; Rodrigo and Jolayemi).

So as far as online reading and content creating activities, the Pew Research Center also reported data on video and image-editing and sharing, blogging, searching for information on Wikipedia, creating Web pages, and downloading podcasts.[27] In addition to these reports, the digital practices and technologies included in my study have been cited in academic scholarship, specifically composition and rhetoric scholarship (e.g., Wysocki et al.; C. Selfe, *Multimodal Composition*; Anderson et al. 75; Beach et al.; R. Selfe and C. Selfe 91; Kirtley, "Rendering" 199; Parker; Hocks, "Understanding" 644; Sheppard 125-26; Chelliah 280; Sorapure 60; Clark 28).[28]

PHASE 2: QUALITATIVE PILOT STUDY

This section details the context, participants, procedures, and methods of evaluation used for phase two of this study.

Context

To investigate a specific use of new media technology to invert a classroom and student reactions toward it, I flipped four class sessions of my ENGL 1301 Composition I class using ten 1 to 9 minute podcasts, corresponding interactive learning activities, and quizzes.

ENGL 1301 Composition I is a first-year, three-hour entry-level writing course offered at Collin College. Before this study, I taught this class using a variety of delivery methods, including peer editing workshops, whole group discussions, lectures, and hands-on practice. The primary assignments for this class included five academic essays.

The pilot version of this class was in the format of a traditional face-to-face class, which met on Monday evenings from 7:00 to 9:45 in a networked computer-equipped classroom for sixteen weeks. Students used the same course textbooks as have been used for previous classes I have taught. These included Daniel Anderson's *Write Now* and Gerald Graff and Cathy Birkenstein's *They Say/I Say: The Moves That Matter in Academic Writing.* The major assignments for this pilot study increased from five to six projects: four academic essays and two multimodal video projects.

The key change in this course involved moving lecture content from four of my lesson plans from inside to outside the classroom, and then creating engaging activities that afforded students the chance to apply and reinforce actively the knowledge presented via the podcasts. Therefore, students' homework consisted of watching video lectures, reading from their course textbooks, and completing quizzes over the video lecture content. Collectively, these quizzes, along with in-class activities and response papers, accounted for 10% of the students' overall course grades and were assigned to help ensure students watched those mandatory videos prior to arriving to the next class session.

There were a number of goals I hoped to achieve by inverting my classroom in this manner:

- **Offer a visual resource for those challenging topics with which students often struggle.** Recent research indicates that students want more multimodal learning resources (e.g., Hill and Nelson 400). Fernandez, Simo, and Sallan, as an example, found that the majority of their students preferred to learn through a variety of "communication/learning media (voice, text, pictures, etc.)" (386). Anderson et al. also discovered more of their students desired that their textbooks include tutorials for such topics as conducting research and using certain software (76). Therefore, I intend to offer such tutorials to my students. This way, they can watch the videos as often as needed. Furthermore, I hope that by providing students these videos as an ever-present resource, any challenges caused by students' lack of effective note-taking skills or high retention patterns would be mitigated.

- **Provide additional support to students who may need it.** My intentions involved finding a way in which all students, despite any knowledge or skill gaps, could supplement their learning. By offering video resources that students could watch at their own convenience and as often as necessary seemed a practical strategy to help them achieve this goal. Specifically, I planned to offer any necessary functional computer literacy skills through these video podcasts. Since several institutions of higher education require students to have experience

creating multimedia projects (Holtzblatt and Tschakert 112), I, too, wanted

students to experience how to communicate using multimedia authoring tools.

However, I needed to ensure my teaching time was not improperly balanced by

focusing too much on those functional computer literacy skills students often lack.

I also wanted to promote a learning space in which all students, no matter their

age, gender, race, socioeconomic background, or current technological aptitude

and comfort level, were fully involved in using technology. In short, I wanted to

provide a way to ensure adequate access to all students regarding the material

being taught.

- **Free up time to incorporate multimodal composing assignments.** Like others

  who have inverted their classrooms, I did not plan to invert all of my lectures and

  homework activities. Rather, I wanted to move general content discussions as

  well as functional technology demonstrations out of the classroom, so that class

  time could be used to delve further into these topics. I hypothesize that the use of

  video podcasts will enable instructors to effectively balance the time necessary for

  students to learn a digital tool and the rhetorical considerations that are necessary

  to create effective discourse.

- **Create an active learning experience for my students.** J. Bowen cites research,

  which points out that when teachers spend class time engaging students in "active,

  cooperative, or problem-based learning," the students experience "improved

  retention, greater facility in application, and deeper understanding of content"

(193). Simpkins quoted similar findings in that student learning necessitates that the leaner actively engage with the content (279).

Participants

The participants of this pilot study were students enrolled in my ENGL 1301 Composition I course at Collin College during the fall 2012 semester. This convenience sample consisted of a total of nineteen students, nine of whom completed the entire study (Table 3.2). Participants are self-identified men and women ranging in ages from 18 to 34.[29] All students in this study were classified as freshmen.

Table 3.2
Demographic Characteristics of Phase 2 Participants

Characteristic	Number (N=19)	Percentage
Gender:		
Female	7	37%
Male	12	63%
Age:		
18-21	12	63%
22-34	7	37%

To invite participation for the pilot study, on the first day of class students were provided an overview of it and asked for their voluntary participation. Those students who agreed to participate signed consent forms, and were advised that they could suspend their participation at any time. For this study, IRB approval was granted by the university (see Appendix R).

Procedure

This subsection covers my process for creating and assigning podcasts to those students in phase two of this study.

Creating the podcasts. I made ten video podcasts on the topics of MLA formatting guidelines, electronic library databases, and the video-editing online applications Xtranormal and Animoto (Table 3.3). These podcasts were relatively short, lasting 1 to 9 minutes in length, and focused entirely on the fundamental points of my lessons. Research indicates that students prefer brief, focused, and engaging videos (Little 71; Holtzblatt and Tschakert 104; Ellis and Childs 223). By contrast, Silva found that if the video remained relevant to the lesson, video length was not an issue (9). So I had as my goal that videos would not last longer than 30 minutes and would be delivered in a focused, upbeat manner.

Table 3.3

Summary of Video Lecture Podcast Duration and Description

Video Podcast	Duration	Description
Lecture 1: Basic MLA Guidelines		
MLA: An Overview of the Basics	5 minutes	Provides an overview of what MLA is and how it should be used in academic papers.
MS Word: Hanging Indents	1 minute	Explains how to create a hanging indent in MS Word 2007 and 2010.
MS Word: Inserting a Header	1 minute	Demonstrates how to insert a header for academic papers written in MLA style using MS Word 2007 and 2010.
Lecture 2: MLA Works Cited Page		
MLA: The Works Cited Page Overview	3 minutes	Provides an overview of the MLA style works cited page.
MLA: Electronic Sources	2 minutes	Demonstrates how to list electronic sources, such as Web pages and online news/magazine articles, on a works cited page using MLA formatting guidelines.
MLA: Book Sources	3 minutes	Demonstrates how to list book sources on a works cited page using MLA formatting guidelines.
Lecture 3: Navigating Xtranormal to Create Multimodal Project 1		
Xtranormal: Movie Maker Basics	9 minutes	Provides an overview and directions on how to create a movie using Xtranormal.
Xtranormal: Student Accounts	4 minutes	Provides step-by-step instructions on how to sign up for an Xtranormal account using the class token.
Lecture 4: Evaluating Sources and Using the Library's Online Databases		
Library Online Databases: Going Beyond Google	8 minutes	Provides an overview and demonstration on using Collin College's online databases, which include more credible and reliable sources than can be found on the World Wide Web.
Lecture 5: Navigating Animoto to Create Multimodal Project 2		
Animoto	7 minutes	Demonstrates how to sign in and to navigate Animoto to create the visual argument project.

To make the podcasts, I typically spent approximately six hours per video and used a variety of authoring tools. Microsoft PowerPoint was first used to create the title

screens, which usually displayed for 10 seconds with a voice over that provided an overview to the video, including its duration and primary learning objective (see fig. 3.1). PowerPoint was further used to display all lecture content, specifically the main points of the lectures.
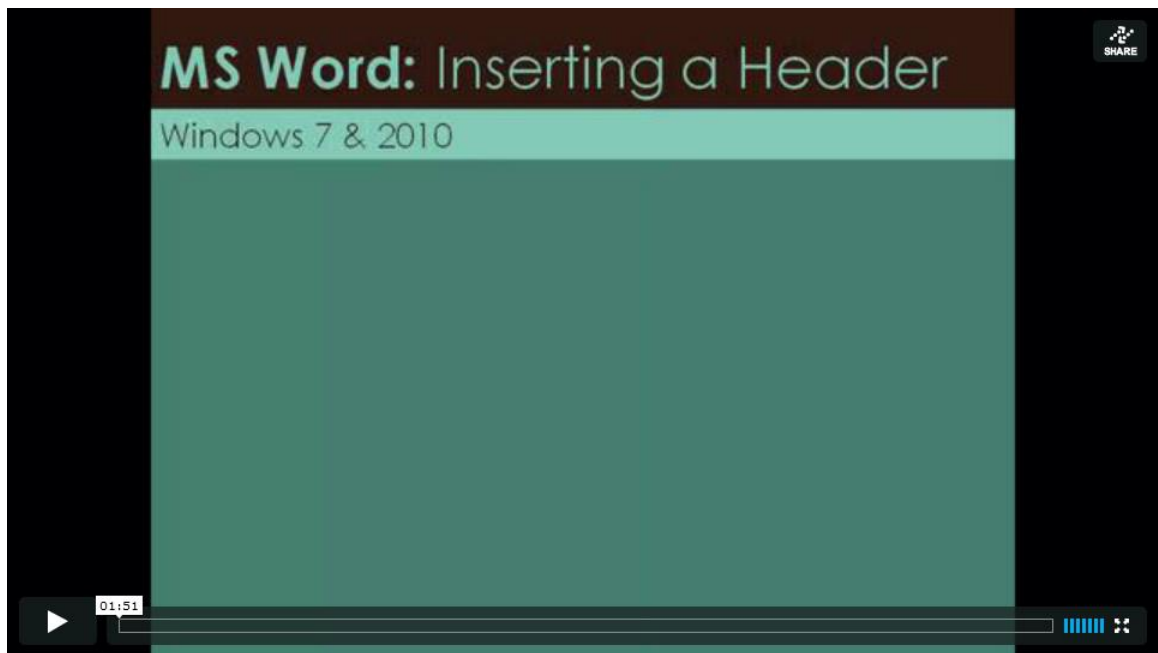
Fig. 3.1. Video Podcast Title Screen.

A 30-day trial version of the commercial video-editing software Camtasia Studio 8 was the primary tool I used to create these podcasts.[30] Though there are many free video-editors available, Camtasia Studio is the most functional and robust, affording me the ability to create high-quality videos relatively easily. Specifically, it offers a variety of authoring features, including recording on-screen movements, editing video and audio, adding additional image, audio, and video files, and publishing to the Internet. Free

video-editors, on the other hand, are typically less sophisticated, offering only the ability to record (and usually for a limited number of minutes) and share video content.[31]

Using Camtasia, I first recorded the slideshow I had created in Microsoft PowerPoint, and then I recorded any computer screen movements for the software tutorial demonstrations. Once all content was recorded, I edited it by including callouts, such as arrows and captions, to emphasize certain elements (see fig. 3.2).
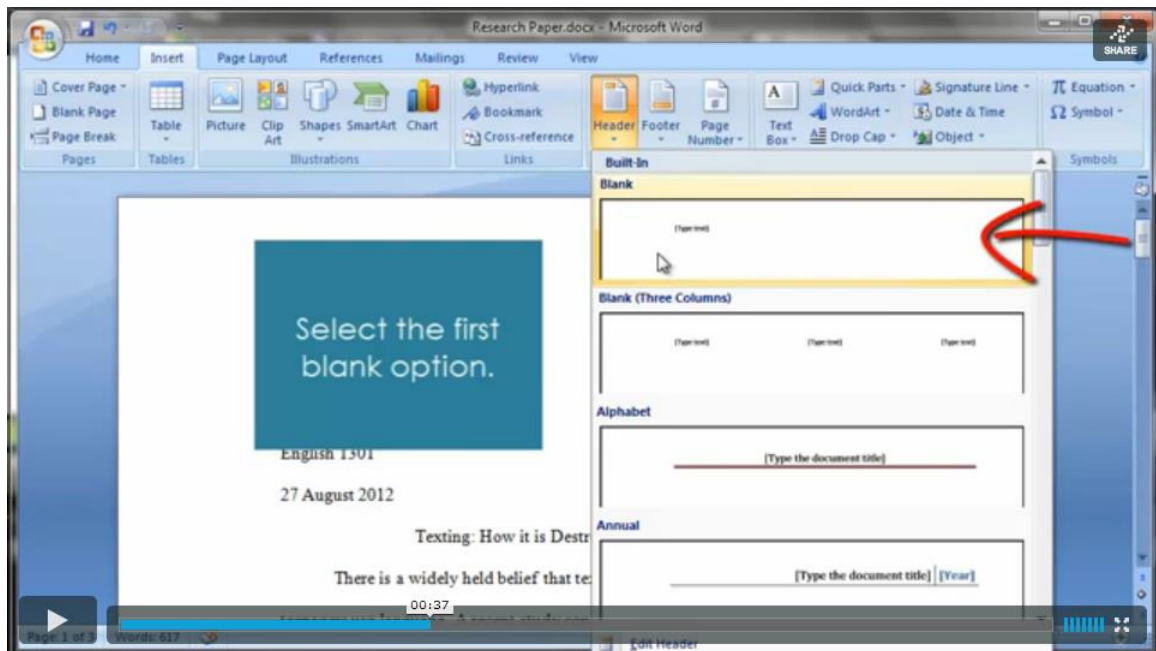
Fig. 3.2. Screenshot of Video Podcast in Which Emphasis Was Added Through Callouts.

Apple's GarageBand 4 was another tool that proved to be instrumental when creating these video podcasts.[32] This commercial software was used to record my audio commentary, which was then imported into Camtasia Studio and edited as needed to align with the slideshow and software demonstrations. Before recording my audio, I

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drafted a brief script to keep my lecture focused and to help minimize my getting off

topic. Though scripted, I endeavored to make my videos sound as conversational as

possible since research has shown that videos should be informal, conversational, and

upbeat (Little 71; Clark and Mayer 182). In addition to maintaining a focused lecture and

sounding casual, I wanted to ensure that I followed a suggestion offered by students

enrolled in flipped computer science classes at the University of Wisconsin in Madison.

Having listened to some of their video lectures, which their instructors had recorded

outside, students recommended the omission of background noise from the teacher-

produced videos (Foertsch et al. 273). Thus, I found a quiet space inside my home to

record so as to avoid any unnecessary background noise that could distract students from

learning.

After finalizing the recording and editing stages, I published the podcasts to

Vimeo.[33] This particular video-sharing site was chosen over similar ones for a variety of

reasons. The primary reason involved how the video content looked once published.

After the videos were uploaded to Vimeo, their resolutions appeared clearer than they did

on other sites, which offered a more pixilated rendering of the videos, making them

blurry and difficult to view. Additionally, Vimeo includes a statistics section that

provides the number of plays per video as well as the dates in which the videos were

viewed, which was used to validate how often my students watched the podcasts. Lastly,

Vimeo's video interface's inclusion of user control buttons, which allow students to

pause and rewind the video material, adheres to students' preferences for controlling their own movement through course videos (Foertsch et al. 273).

Once the videos were published to Vimeo, I posted their links to the college's course management system Blackboard. From within Blackboard, I created a folder entitled "Video Tutorials/Lectures" to house all of the course podcasts. Upon accessing that folder, students were provided a list of the video podcasts, including the video links, brief video content description, and the total time it would take to view them (see fig. 3.3 and fig. 3.4).[34]

Fig. 3.3. Screenshot of the "Video Tutorials/Lectures" Folder Housed on Blackboard.
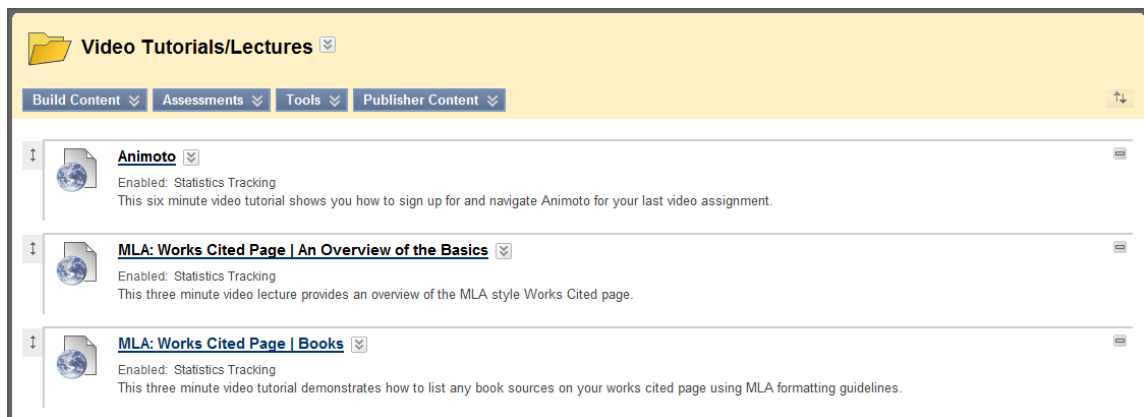
Fig. 3.4. Screenshot of the List of Video Tutorials Available in the "Video Tutorials/Lectures" Folder Housed on Blackboard

Assigning the podcasts. There were two primary ways in which I incorporated video podcasts in my classroom. The first involved completely moving live classroom discussions regarding those fundamental concepts I expected my students to know to optional videos students could watch at any time. During the study, I offered three such podcasts on the topics of MLA guidelines and Microsoft Office features.[35] My other plan centered on delivering, through required video podcasts viewed outside the classroom, information on less interactive topics and functional computer literacy skills that could be reinforced through active learning activities completed inside the classroom. As a result, I inverted four class sessions. The first inverted classroom occurred six weeks into the semester and centered on creating works cited pages using conventional MLA formatting guidelines. The second inverted class occurred during week nine of the semester and offered students a demonstration on using the Web-based application Xtranormal, which was required to compose one of their major projects. The following week involved the

third reversed classroom where students were provided, through video podcasts viewed outside of class, an overview and demonstration on using the college's online databases. During class, students used these databases to locate sources for their own research papers. Finally, at week fourteen, students experienced the last flipped class of the semester. Once again, they were provided a video demonstration on how to navigate another Web-based software program Animoto and used in class time to create their own multimodal projects with that software.

My first method for incorporating video podcasts in the classroom involved offering them as optional resources that students could leverage in the event they needed to boost their existing knowledge and skills. Heeding Kirtley's warning that ignoring students' varying levels of computer literacy may lead to perpetuating a digital divide ("Listening" 140), I chose to modify my pedagogy to include video demonstrations and explanations of those skills students need to more knowledgeably participate in class discussions and complete course assignments. These videos were intended to offer the occasion for students to familiarize themselves with those general concepts and functional computer literacy skills that I expected them to employ in their work. In short, I hoped that by offering these supplemental resources, I would help avert any unequal access issues in the classroom.

Furthermore, my plan with these videos was to use my classroom time more efficiently by avoiding formally discussing any of their content during class time. Their subject matter includes those topics that repeatedly arise every semester I teach entry-

level composition. While there are a number of topics that fit this description, I started with creating three videos that addressed understanding the basics of MLA, properly creating and formatting headers in Microsoft Office Word, and creating hanging indents in Microsoft Office. If questions regarding the basics of MLA and how to create headers and hanging indents came up in class or issues with them were spotted in the writing assignments, students were reminded to watch the relevant video.

To determine if students would actually watch videos if they were not assigned for a grade, I placed these three video tutorials on the course Blackboard site. During the second face-to-face class meeting, students were advised about the availability of these optional resources as well as their content and purpose. Although I told students that viewing these videos was optional, I advised them that the information was necessary to their upcoming essay assignment. In an effort to ensure students knew where to locate these videos, during this live class session I directed them to open the course Blackboard site and navigated them to the video podcast folder. Each student was asked to click on one of the optional videos and advised to return to the videos later if needing the knowledge contained in them.

Unlike the first three described above, the seven remaining video podcasts I created were assigned to students for mandatory viewing. With these videos, I intended to discover how students would respond to my replacing live lectures with them, and then using class time for students to employ their newly-learned concepts. The first inverted lesson plan, covering the topic of MLA, occurred during week six of the semester. It

showed students how to attribute properly their ideas using the conventional MLA

formatting guidelines. Specifically, this lesson's focus included how to create a works

cited page and how to format book and electronic sources. Typically, I teach this lesson

by asking students to read, as homework, a chapter from their textbooks on MLA. During

class, I then lecture for approximately 30 minutes on the conventions of MLA. Next, I

assign students a worksheet activity in which they identify those instances in which the

MLA conventions are poorly applied and offer recommendations on their appropriate

applications. The focus on formatting rules, including the proper number of spaces, when

to use quotation marks versus italics, and where to locate source publication information,

often lends itself to being difficult for students to grasp. In fact, I typically find that

students still make a number of mistakes on the works cited pages they compose

throughout the semester. Like others, I have found that lectures alone are not sufficient

for student learning (Simkins 278). Simkins, for instance, points out that actively

engaging students "increase[s] the academic performance…and generate[s] more positive

attitudes about learning (278). My hope was that by using class time to create rather than

to talk about works cited pages, I would enhance my students' understanding and

performance.

Therefore, the lecture on MLA seemed an appropriate one to move from inside

the classroom to outside. In addition to reading the chapter on MLA from their course

textbooks, students were assigned to watch three video podcasts, for a total of 8 minutes

of viewing. The first video titled "MLA: The Works Cited Page Overview" offers the

basic elements students should include when composing their works cited lists for their essay assignments. During its 3 minutes, this video podcast provides such formatting guidelines as centering (not bolding) the words "Works Cited" at the top of the page, including the author's first and last name, arranging entries in alphabetical order, using end punctuation, including the author, source title, and publication information on every entry, and using the hanging indent feature. "MLA Works Cited Page: Electronic Sources," the second video students were assigned to watch, lasted 2 minutes and demonstrated how to list electronic sources, such as Web pages and online news and magazine articles, on the works cited page. This video included examples of electronic sources by showing various online newspaper articles, blogs, and Web sites. "MLA Works Cited Page: Book Sources" was the last video podcast students were asked to watch for this inverted classroom. By watching this 3 minute video, students observed how to list book sources on their works cited pages using MLA formatting guidelines. My students were also shown images of books' publication information to make finding this content easier when they are outside of the classroom composing their essays.

To motivate students to watch these three video podcasts prior to arriving to class as well as evaluate their understanding, I assigned students to complete a ten-question quiz (see Appendix F) covering the content from the videos. Once students arrived to the face-to-face class, I immediately engaged them in an individual activity that was designed to help them reinforce those concepts covered in the three MLA video screencasts. Using the computers in the classroom and ten electronic and print sources

provided, I asked students to create their own works cited pages. Each student was

responsible for citing five books from those that I had brought to class and the five Web

links I provided on Blackboard (see Appendix G). Relying upon their course textbooks,

videos, and me, students spent 60 minutes of the class period composing their first works

cited pages of the semester. Once my students completed drafting and printing these

works cited pages, I provided students the correct version of the MLA works cited page,

and as a class we compared and discussed the differences found between their pages and

the model provided. As mentioned previously, the plan of this inverted class session was

to allow students an opportunity to apply rather than discuss the MLA guidelines during

class. Furthermore, I was available to answer immediately questions and observe their

performance.

The second lesson plan that was reversed during the semester involved a

multimodal project using Xtranormal (see Appendix H for lesson plan). This is an

assignment that was new to my syllabus (see Appendix I for assignment sheet). My

concerns with balancing the technology discussions necessary to ensure students know

how to use this video-composing software as well as the rhetorical considerations that

students need had kept me from adding this type of assignment in previous classes.

However, the notion that moving the technology discussion to a video seemed a plausible

solution to this concern. Therefore, during week eight of the semester, I assigned two

video podcasts for students to watch outside of class. These videos were created by

Xtranormal and were located on their Web site. I included their links on our course

Blackboard site and assigned students to watch them. The first video, "Xtranormal: Movie Maker Basics," was 9 minutes in duration and provided students an overview of the features of Xtranormal and directions on how to create a movie using this online video editor. The second video was 4 minutes in length and was titled "Xtranormal: Student Accounts." It focused on showing students the step-by-step instructions on how to sign up for their own Xtranormal accounts using class tokens. As homework, students were asked to watch these two videos, 13 minutes of total viewing, complete the corresponding online twenty-question quiz (see Appendix J), and create their student accounts using the class tokens I provided.

Having learned how to navigate Xtranormal through a video lecture, class time was used for the rhetorical discussions regarding the assignment. Immediately after arriving to class, for example, I engaged students in a group discussion regarding contemporary communication practices. To launch this discussion, students watched a poorly-created Xtranormal video and evaluated its rhetorical effectiveness by listing what they found effective and ineffective in its delivery. Using their lists, we generated the criteria for effective videos (see Appendix K for rubric). Secondly, students watched an effective Xtranormal video that I had created and compared it with the newly-drafted criteria. Having been exposed to ineffective and effective video deliveries, students used the remaining class period as a workshop in which they composed their own visual arguments using Xtranormal. For those students who were unable to complete their videos in class, there was an extension to finish the videos as homework.

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The third class that was inverted occurred during the tenth week of the semester on the topic of using the library's online databases. Beach et al. point out that students do "not know how to judge the value, sufficiency, relevancy, and validity of information they acquire" (28). These researchers recommend teachers model how to use search tools and how to use key terms when searching. Therefore, the goal of this lesson was to provide students an opportunity to become familiar with electronic databases and model how to navigate one (Academic Search Complete) specifically for their upcoming research papers. Historically, I have taught this content by asking students to read the corresponding sections from the course textbooks. Once in class, I then demonstrate how to locate and use these databases. After lecturing on the advantages of their uses, I usually advise students that they can find me in the library during the next class period to help them locate scholarly sources for their papers using the databases.

Instead of spending class time to cover these basic concepts, I wanted to leap directly to in-class application. Therefore, in addition to reading a chapter from their course textbooks on conducting research and evaluating sources, students were assigned to watch an 8 minute video lecture entitled "Library Online Databases: Going Beyond Google." As with the other video podcast assignments, students completed a quiz prior to class (see Appendix L). In addition, to check further for understanding, I required them to locate from Academic Search Complete two scholarly sources for their research papers and bring them to the next class. Upon arriving to class, students immediately engaged in an individual workshop activity in which they began searching for the additional required

database sources. Through this inverted lesson plan, class time was used to engage actively with the online databases in the presence of their instructor.

The last inverted lesson plan of the semester occurred during the fourteenth week and centered on the final multimodal project (see Appendix M for lesson plan). For this assignment, students were expected to remediate their persuasive research papers into a 3 to 5 minute visual argument using the Web-based video editor Animoto (see Appendix N). To enable students the ability to develop their functional technical literacy of Animoto without sacrificing class time, students watched, as homework, a 7 minute video podcast describing how to create an Animoto video and completed an eleven-question quiz to measure their understanding (see Appendix O). Upon arriving to the live class, students were immediately involved in a whole class discussion on the rhetorical strategies they should consider when designing visual arguments. As an illustration, students were shown three online visual arguments that ranged in effectiveness from poor to fair to good. Students were asked to rate the effectiveness of each video and provide the reasons for their decisions. Through these examples, students identified the importance of demonstrating a high degree of visual impact, offering visual coherence, and selecting music that sets the appropriate tone of the argument (see Appendix P for rubric). Furthermore, students were instructed on the necessity of attributing credit for every image and song used as well as shown how to document these assets. After showing students several examples of visual arguments, listing effective rhetorical strategies, detailing how to document sources, and explaining where to locate free images

and music online, I gave the remainder of the class period to students to participate in a workshop environment where they began designing their own visual arguments. The intended goal with this flipped lesson plan was that class time would be used to focus on the rhetorical considerations of visual arguments and not on how to use the Animoto technology used to create those visual arguments.

Evaluation

To measure the effectiveness of this inverted format and the video podcasts, I created six anonymous surveys using SurveyMonkey and digitally distributed them to students throughout the course of the semester via the course Blackboard site. Five of these classroom-based surveys were completed in class during weeks 4, 6, 9, 10, and 14, immediately following inverted classroom sessions (see Appendix B). These surveys ranged from eleven to thirteen qualitative and quantitative questions specifically focused on determining how students used the video lectures as well as their attitudes toward them. These surveys also aimed to collect students' attitudinal perceptions toward inverting lectures and activities. Responses were collected using multiple choice questions, open-ended questions, and five-point Likert scales, ranging from strongly agree (5) to strongly disagree (1). In addition to collecting demographic details, including gender and age, survey questions asked students to indicate which videos were watched, reasons videos were not watched (if relevant), portion of videos watched, number of minutes spent watching the videos, usefulness of the video podcasts to their learning, number of times video podcasts were reviewed, likes and dislikes about the videos,

preference for inverted format, and appropriateness of video format for presenting the material. Many of those questions were inspired by previous research (e.g., Dupagne, Millette, and Grinfeder 58-59; Chester et al. 239-40, 242; Kay and Kletskin 622, 626).[36]

The last survey was completed on the last day of class and asked students for their overall impressions of the inverted classroom format and how likely they would be to recommend a similarly-formatted class to others. This anonymous survey contained eight questions, including multiple choice, scale-response, and open-ended questions (see Appendix C). Like the previous five surveys, these scales responses were also collected using a five-point Likert scale, options ranging from strongly agree (5) to strongly disagree (1).

Video podcast use. Like others, this study investigated students' uses of video podcasts. Specifically, it collected those videos that were watched (e.g., Dupagne, Millette, and Grinfeder 58; Foertsch et al. 271; Kay and Kletskin 622), time spent watching the videos, and the number of times the videos were watched (e.g., Kay and Kletskin 622; Hill and Nelson 397).[37] First of all, to measure if students watched videos, I used the tracking systems available through Blackboard and Vimeo for the number of plays. These data were corroborated with student surveys, where students indicated those videos watched or indicated that none of the videos were watched.[38] Secondly, to measure the time students spent watching the videos, I included two questions on their surveys. The first of these two questions helped to determine if students watched the entirety of the podcasts (as well as helped validate if students watched videos rather than

just clicked on them or downloaded them). This multiple choice question instructed students to select each of the videos they watched from beginning to end.[39] The second question, inspired by Kay and Kletskin (622), asked students for an open-ended response to the number of minutes they spent watching the videos. Also, like Kay and Kletskin (622), I was interested in the number of times a student would choose to watch each of the videos. This behavior was measured via an open-ended question that asked students to include the number of times they watched the video tutorials.

Attitude. Consistent with other researchers, I was interested in students' attitudes toward the use of video podcasts to invert the classroom.[40] Six times throughout the semester students' attitudes toward the inverted classroom were collected.

The first way in which attitude toward the podcasts was measured involved asking students how useful the videos were. There were a number of survey questions included to gauge this perceived usefulness. First, to build on previous research regarding video usefulness, this study measured it by the survey statement "The video tutorials were useful."[41] This statement was rated on a five-point Likert attitudinal scale, from strongly agree (5) to strongly disagree (1). At the end of the semester, students were presented two additional questions to help measure their perceived usefulness of the videos. Both of these were scale-response questions in which students rated on a five-point scale that the videos added to the overall value of the course and that the course was more effective with the videos than without them.

Attitude was further measured by asking students, through two open-ended questions, to list those elements they liked and disliked about the video podcasts.[42] Through these open-ended questions, participants were able to provide more elaborate details than were able to be collected from the scale response questions. Lastly, to ensure all students provided feedback regarding their attitudes toward the surveys, for those who chose not to watch any of the videos, an additional open-ended question was included. This question prompted an explanation regarding why the video was not watched.

To measure students' attitudes toward and preferences for the inverted classroom format versus the traditional classroom format, three questions were included on each of the five surveys distributed throughout the course of the semester. Two of the questions involved collecting scale responses from students using a five-point Likert scale. One of these scale-response questions asked students to rate the appropriateness of using video podcasts to deliver course content.[43] This same question was also included on the sixth survey delivered at the end of the semester. The other scale-response question required students to rate their preference for spending face-to-face classroom time participating in activities versus listening to lectures. Each survey was specific to the lecture content that was flipped. As an illustration, during week six when the MLA works cited page lecture content was covered primarily through video podcasts, students were provided the following statement to rate: "I preferred spending time in class creating a works cited page rather than listening to a lecture about how to create a works cited page." Students were provided a follow up open-ended question, allowing them a space to provide an

explanation for their rating. A similar scale-response question was included on the survey that was distributed on the last day of class. This question was a more general one asking students to rate their preferences for the classroom format using video tutorials versus the traditional lecture format.[44] Two additional questions were included on this final survey to help determine which classroom format students preferred. The first of the two was a multiple choice question advising students to select the classroom format they prefer (listening to lectures inside the class and completing activities and assignments outside of class or listening to lectures outside of class and completing activities and assignments during class). The second one was an open-ended question prompting students to explain the reasons for their choices.

Conclusion

In summary, a total of 286 college students participated in this mixed-mode research study. The first phase of the study involved a limited scope quantitative research method conducted at six public institutions of higher education in Kansas, Oklahoma, and Texas. For this phase, 267 students enrolled in first-year composition courses in the fall 2012 and spring 2013 semesters completed an electronic survey including twenty-four quantitative and qualitative questions aimed at collecting details regarding their experiences with and attitudes toward using Web 2.0 new media technologies. The second part of the study involved a qualitative pilot study conducted at a two-year suburban college in McKinney, Texas. This pilot consisted of nineteen freshman enrolled in a first-year composition course I taught at Collin College. For this pilot study, I made

two chief changes. The first involved the incorporation of multimodal assignments using new media composing tools. The second involved varying my delivery methods by presenting some lecture material via video podcasts that students watch outside of the classroom. Since my ENGL 1301 lessons included some subject matter that seemed a better fit for video as opposed to live lectures. Just as important, the use of video lectures seemed a practical solution to ensuring that I had enough time to include multimodal composition projects in the course. Six electronic, anonymous surveys were distributed throughout the course of the semester to collect student use of the podcasts as well as their attitudes toward them and the flipped classroom format.

CHAPTER IV

FINDINGS

OVERVIEW

This chapter includes the findings from the limited scope quantitative study in which an electronic survey was distributed to students registered at six public institutions of higher education in the Southern and Midwestern regions of the United States and the qualitative pilot study with a first-year composition course that I taught in North Texas during the fall 2012 semester. These results regarding students' technology uses are categorized into three primary categories: (1) contemporary computer literacy practices, (2) video podcast use, and (3) the inverted classroom.

CONTEMPORARY COMPUTER LITERACY PRACTICES

From the small-scale survey completed by 267 students enrolled in first-year composition programs at Collin College, Kansas State University, Southeastern Oklahoma State University, Tarrant County College District, Texas A&M University in Commerce, and Texas Woman's University, students expressed mixed reactions when asked about their attitudes toward and confidence with computer-based technologies. Though participants generally listed positive emotions toward computer-equipped classrooms and reported frequently consuming computer-based content, they rated lowly their confidence in producing content using Web 2.0 new media technologies. When

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asked about their preferences for acquiring new functional computer literacy skills, participants revealed their desires for independent learning opportunities and demonstrations.

Student Attitudes Toward Computers

Generally, students expressed positive reactions toward using computers. When asked to describe their feelings when walking into a computer-equipped classroom for the first time, over twice the number of those surveyed characterized their experience as positive (69%) versus negative (31%) (Table 4.1). Of those positive words students listed, three predominant themes emerged. The first theme indicated students' being enthusiastic about the presence of computers in their classrooms. Students' most frequently-cited word "excited" (14%) fell into this category (Table 4.2). Other words students listed included "fun," "ecstatic," "great," and "impressed" (see Appendix Q for a comprehensive list of the words provided in the survey). Each of these words seemed to indicate respondents' interests in having computers available in the classroom.

Table 4.1
Percentage of Positive Versus Negative Words Women and Men Used to Describe
Computer-Equipped Classrooms

Word	All (*n*=258)	Women (*n*=177)	Men (*n*=81)
Positive	69% (*n*=177)	66% (*n*=116)	75% (*n*=61)
Negative	31% (*n*=81)	34% (*n*=61)	25% (*n*=20)

Table 4.2

Top 5 Words Students Used to Describe First Entering a Computer-Equipped Classroom

All	Frequency (*n=258*)	Women	Frequency (*n=177*)	Men	Frequency (*n=81*)
Excited	14%	Excited	14%	Excited	15%
Comfortable	10%	Comfortable	11%	Comfortable	10%
Nervous	7%	Nervous	6%	Nervous	9%
Awesome	4%	Overwhelmed	5%	Awesome	6%
Overwhelmed	4%	Intimidated	5%	Prepared	5%

The second theme to arise from the positive responses students provided involved their competence with using computers. The word "comfortable," which was the second most commonly listed word in the survey results, fell in this category. Additionally, students mentioned being "confident," "familiar," and "knowledgeable," which described students' assurance in their abilities to use classroom computers.

Other words categorized with a positive connotation primarily involved students' characterization of the computer itself. Rather than focusing on their excitement toward and ability with computers, they focused on the computer as a "convenient," "advanced," "modern," and "innovative" resource.[45] Other responses from students regarding the presence of the computers in the classroom included "normal," "neutral," and "okay." These ambivalent feelings were categorized as positive because they indicated that those surveyed did not feel alienated by the computers. Rather, it could be inferred that these students seemed to expect that it is common to have computers in the classroom and did not see any significance toward their inclusion.

The key theme to emerge from the set of negative words that students listed in the survey depicted their apprehension and uneasiness with the computer-equipped classroom. They listed such words as "nervous," "intimidated" "overwhelmed," "surprised," and "worried." When comparing the negative responses between men and women, there was a noticeable gap. One-third of women and one-fourth of men had unfavorable reactions toward computers (Table 4.1). Unlike men, women listed such words as "confused," "scared," "afraid," and "frazzled." This finding is consistent with the work Kirtley published in 2005. She discovered that nearly 10% more women than men listed at least one negative characterization of computers (219). Additionally, women involved in Hesse-Biber and Gilbert's study listed similar negative adjectives, including "scary," and "confusing" (21). Furthermore, despite the fact that more than half of those students involved in my survey asserted positive emotions toward the presence of computers in their classrooms, men listed more positive reactions than women. Of the words women contributed, as an example, two-thirds of them were positive as compared to three-fourths of the positive words men expressed toward computers (Table 4.1).This is further evidenced when reviewing the top five words selected by men and women. Of the top five words provided by women two were positive, while four of the five words provided by men expressed positive reactions (Table 4.2).

Though students' attitudes toward computers were favorable, their self-reported confidence with using various digital tools to produce discourse revealed contrary results. For example, when asked to rate, on a scale ranging from 1 to 5, their comfort level in

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regards to producing digital elements using computer-based technologies, students generally did not have a high comfort level (m=2.78) (Table 4.3). Of the fourteen technologies, there were only two in which students expressed high confidence levels. These two included creating presentations (m=4.25) and maintaining a Facebook profile (m=4.23). Creating e-zines, podcasts, vlogs, and wikis were reported by students as being the least comfortable computer literacy practices. Huang, Hood, and Yoo had similar results with students enrolled in an entry-level educational technology course. In general, students in their study also were not confident in their abilities to use Web 2.0 tools. They were, however, confident in their use of social networking sites (61). In terms of gender, the men's self-reported comfort level (m=2.89) with these technologies was higher than women's (m=2.73); however, this difference is minimal. Some related work also found women to be less confident in their digital abilities (Sieverding and Koch 696; Koch, Muller, and Sieverding 1800; Huang, Hood, and Yoo 62).

Table 4.3

Means on Students' Comfort Level with Contemporary Computer Literacy Practices

Computer Literacy Practice	All	Women	Men
Editing audio	2.37	2.20	2.74
Creating a blog	2.60	2.62	2.57
Creating e-zines	1.59	1.52	1.76
Creating podcasts	1.75	1.67	1.93
Creating presentations	4.25	4.33	4.05
Editing video	2.70	2.56	3.01
Searching, evaluating, and sorting through online information	3.63	3.64	3.62
Creating vlogs	1.86	1.74	2.11
Creating wikis	1.79	1.63	2.12
Creating Web sites	2.18	2.07	2.41
Tweeting	3.32	3.50	3.05
Maintaining a Facebook profile	4.23	4.36	4.04
Using Web storage (Dropbox)	3.27	3.12	3.51
Using photo storage	3.32	3.25	3.42
Total	**2.78**	**2.73**	**2.89**

Frequency of Consuming Content Via Computer-Based Technologies

Overall, the majority of students in this study identified that they frequently consumed computer-based content. In terms of using the designated computer-based tasks, well over half (79%) indicated using them on a daily, weekly, or monthly basis (Table 4.4). Using a computer and browsing the Internet were the top two computer-based activities being used by 100% of the respondents daily or weekly. Students also regularly read and sent email (99%), watched entertainment (98%) and instructional (93%) online videos, and viewed Facebook (90%). Other researchers have come to similar conclusions. Purcell learned that 92% of online adults read and send email. Like my findings, she learned that over half of the respondents send and read email on a daily

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basis ("Search and Email" 2). Likewise, Van Braak reported 93.9% of survey

respondents' regular use of email (304).

Table 4.4

Percentage of Students' Frequent Use of Contemporary Computer Literacy Practices

Computer Literacy Practice	Daily	Weekly	Monthly	Never
Listening to Podcasts	10%	27%	11%	52%
Reading Blogs	23%	17%	22%	38%
Using a Computer	88%	12%	0%	0%
Reading/Sending Email	76%	20%	3%	1%
Browsing the Internet*	89%	10%	0 %	0%
Watching Videos Online (entertainment)*	60%	32%	6%	1%
Watching Instructional Videos (how-to videos)	19%	40%	34%	7%
Watching Vlogs*	12%	14%	22%	53%
Reading Wikipedia*	12%	34%	34%	21%
Following Twitter	44%	8%	3%	45%
Viewing Facebook	70%	11%	9%	10%
Total	**46%**	**20%**	**13%**	**21%**

*Variance is due to decimal values less than .05.

Though most of the students had experienced the computer-based technologies

involved in this survey, there were some technologies in which students indicated having

no experience. These included vlogs, podcasts, and blogs. As an example, over half of the

respondents claimed never to have watched vlogs or listened to podcasts, and 38% had

never read a blog. My findings reinforce those reported by the Pew Research Center who

reported blogs as less familiar technologies to respondents (Lenhart and Fox 1). In terms

of how men and women experienced these computer-based technologies, there were no

significant differences between them (Table 4.5). For example, 21% of women and 20%

of men reported that they had never used the computer-based technologies included in the

survey.

Table 4.5
Percentage of Women and Men's Frequent Use of Contemporary Computer Literacy
Practices

Frequency	Women*	Men
Daily	45%	47%
Weekly	21%	19%
Monthly	12%	14%
Never	21%	20%

*Variance is due to decimal values less than .05.

Methods by Which Students Best Learn to Use New Technology

Students' responses to the survey question regarding how they best learn to use

new technology indicate that the men and women involved in this study learn unfamiliar

technology similarly (Table 4.6). For both men and women listening to lectures and one-

on-one tutoring are among the least useful ways they become familiar with a new

technology. In fact, none of the men surveyed selected lectures as a useful resource.

Rather, they preferred to learn new technologies independently. Women also favored

acquiring new computer literacy skills independently. Equally, the women surveyed

identified watching demonstrations as their preferred method to learn new technology.

Table 4.6

Methods by Which Women and Men Best Learn to Use New Technology

Method	Women (*n*=185)*	Men (*n*=82)
Listen to a lecture	3%	0%
Watch a demonstration	42%	35%
One-on-one tutoring	10%	15%
Independently	42%	45%
Other	4%	5%

*Variance is due to decimal values less than .05.

VIDEO PODCAST USE

Results from the qualitative pilot study conducted with the nineteen students

enrolled in my ENGL 1301 Composition I course at Collin College during the fall 2012

semester yielded that the majority of my students did not watch the video podcasts made

available to them. However, of those students who did access the podcasts, the majority

of them tended to watch the podcasts in their entirety at least one time. These students

also maintained a positive outlook toward the use of these podcasts provided in their

writing course.

Number of Videos Watched

The Blackboard and Vimeo statistics tracking systems, along with students' self-

reported use of podcast data, yielded that the video podcasts were viewed by 33% of the

students in my pilot study (Table 4.7). Once I introduced the podcast in class, students

had until the next class period to watch the video. Using these parameters, my results

indicated that those video podcasts that were assigned as mandatory homework had a

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higher viewership (48%) than those that were made available for optional viewing (0%).

With respect to gender, twice as many women (53%) as men (24%) watched the

podcasts. In addition, a higher percentage of students in the age range of 22 to 34 (40%)

viewed the video podcasts than those in the younger age range of 18 to 21 (27%).

Table 4.7
Percentage of Students Who Watched Video Podcasts Broken Down by Gender and Age

Video Podcast	Total Enrolled	Class	Women	Men	18-21	22-34
1	19	0%	0%	0%	0%	0%
2	19	0%	0%	0%	0%	0%
3	19	0%	0%	0%	0%	0%
4	17	41%	67%	27%	36%	50%
5	17	47%	83%	27%	55%	33%
6	17	29%	50%	18%	27%	33%
7	14	57%	75%	50%	50%	67%
8	14	36%	50%	30%	38%	33%
9	13	54%	100%	33%	17%	80%
10	10	70%	100%	50%	50%	100%
Total		**33%**	**53%**	**24%**	**27%**	**40%**

These findings are comparable with other studies on podcast use. Of the nine

studies that measured podcast viewership, four reported that less than half of the students

accessed the podcasts. Three of these studies involved podcasts that students could access

as an optional resource, while the fourth study researched the use of those podcasts

assigned for mandatory viewing. Among those studies researching optional podcast use,

Copley reported that the majority of the students did not download the video podcasts

that were made available to them in two undergraduate marine science courses at the

UK's University of South Hampton. He reported that 49% of students enrolled in one of the classes downloaded the podcasts, and only 40% of students enrolled in the second class accessed them (389). Similarly, Dupagne, Millette, and Grinfeder's optional videos were generally accessed by 40.9% of the class. They further report that only 5% of students watched all twelve podcasts made available to them (60). Chester et al. also found that less than half (42%) of the students in their study accessed the supplemental podcasts during the semester (240). During the fourth study, which incorporated mandatory podcast use, only 34% of environmental science students regularly accessed the video podcasts (Winterbottom 7).

The other five studies measuring podcast use, however, had more favorable results with over half of their students accessing podcasts.[46] For instance, 75% of students enrolled in Foertsch et al.'s study watched the majority of the podcasts (271). In Green et al.'s study in a life sciences course for nurses, over half of the 750 students watched the videos (255). Smith and Fidge's study had high access rates (88% and 86%) at the beginning of their semester; although, by week twelve, viewership began to decline with 46% of students accessing recorded podcasts (132). Similarly, Hill and Nelson reported high podcast viewership early in the semester. As an example, 92% of their students watched at least one of the six podcasts; but as the semester continued, they, like Smith and Fidge, reported declining podcast viewership. A podcast assigned later in the semester, for instance, was viewed by 20% of the class (397). Kay and Kletskin's study also had higher viewership than mine with two-thirds of their students watching the

videos (622). Students in their three-week study were sent links to these videos and
advised that the videos would prepare them for their upcoming pre-calculus diagnostic
exam.

When looking at the number of views that occurred after the dates in which the
podcasts were expected to be watched, I did find that the optional video podcast
viewership increased. Like Kay and Kletskin, I found that students tended to watch
videos prior to a due date of a major assignment. As an example, the "MLA: An
Overview of the Basics" podcast was watched five times during the semester. Each of
these views occurred prior to the dates in which two major writing assignments were due.
I speculate that these videos were viewed to help students prepare their essays using the
MLA documentation guidelines. The second podcast regarding inserting headers was
watched twice in the semester. Both times involved the dates in which the first two major
writing assignments were due.

Reasons Cited for Not Watching Video Podcasts

There were a variety of reasons students in my study chose not to watch their
video lectures. These reasons included: lack of time (7 comments), unaware of video
availability (6 comments), lack of motivation (5 comments), information not needed (4
comments), lack of Internet access (3 comments), unawareness of video location (2
comments), technical issues (2 comments), and forgetting about the video assignment (1
comment) (Table 4.8).

Table 4.8
Reasons Students Cited For Not Watching Video Podcasts

Reason	Frequency (*n*=30)	Percentage
Lack of time.	7	23%
Unaware of video availability.	6	20%
Lack of motivation.	5	17%
Information not needed.	4	13%
Lack of Internet access.	3	10%
Unaware of where to find video links.	2	7%
Technical issues.	2	7%
Forgot about video assignment.	1	3%

Lack of time. Of the reasons students in my study indicated for not watching the

video podcasts, a lack of time was the reason most cited. Students noted being too busy to

watch the video podcast homework. Other studies have similarly reported lack of time

among the primary reasons for students failing to view video podcasts. In one study, for

example, over half of the students reported needing more time to watch the supplemental

biogeography and conservation podcasts that were made available for optional viewing

(Hill and Nelson 397). In two other studies in which podcasts were made available for

students to watch at their discretion, students indicated not having enough time to view

them (Dupagne, Millette, and Grinfeder 63; Kay and Kletskin 623). Green et al. in their

study involving nursing students suggested that students did not watch their supplemental

videos because the students may not have had adequate time (260).

Unaware of video availability. Another popular reason students reported for not

watching video podcasts included being unaware that the podcasts were available or

assigned to be watched. In two other studies, both of which provided optional video

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podcasts to students, students claimed that they did not know about the video podcasts (Kay and Kletskin 623; Chester et al. 243). As an example, Chester et al. found that nearly half (44%) of those students who did not watch the podcasts stated that they were unaware of the availability of them (243).

   Lack of motivation. On average, 17% of those students who did not watch the video podcasts indicated a lack of motivation as the reason. Two other studies in which videos were made available for mandatory viewing also found that students reported being disinterested (Kurtz, Fenwick, and Ellsworth 489; Winterbottom 7). Students in Kurtz, Fenwick, and Ellsworth's study, for instance, commented on the videos being boring, so they chose not to watch them (489). Similarly, Winterbottom found that "[u]nless students were very motivated, they often put off watching them [electronic lectures] until another day" (7). In addition, researchers, who made recordings of live lectures for students to watch optionally at a later time, also reported that students did not watch the videos due to their lack of interest in them (Dupagne, Millette, and Grinfeder 63; Copley 391).

   Information not needed. Another commonly cited reason involved students deciding that the information I made available through the video podcasts was not necessary for them. For instance, one student mentioned not watching the Xtranormal videos because the Xtranormal application seemed intuitive. Another student, however, commented that he thought he did not need the works cited information until taking the

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corresponding quiz. His comment indicated that he then realized that he should have watched the video.

Other studies have also noted this reason. In a study in which videos were provided to students as a supplement to the curriculum, for example, some students advised that they simply did not need the help of the content provided in the videos or that their textbook provided enough information for them (Kay and Kletskin 623). Two other studies noted that students felt that they did not need the information from the podcasts (Dupagne, Millette, and Grinfeder 63; Chester et al. 243). In fact, 89% of those students who did not use podcasts in Chester et al.'s study indicated that they did not need the information from the podcasts (243). It is important to note, however, that the videos in Dupagne, Millette, and Grinfeder's and Chester et al.'s studies were recordings of live lectures made available for further viewings. Therefore, students had already been exposed to the content contained on the videos. Students in my classes, however, had not been exposed to the content via a live lecture; yet they still did not feel compelled to watch the content.

Lack of Internet access. Students commented that not having Internet access prohibited them from watching the video podcasts. These students mentioned that they had to watch the videos from the campus library. McKinney and Page, in their study in which they replaced two live lectures with electronic ones to be viewed from home, also found that some students living in rural areas reported not having Internet access (375).

Additional issues of access reported in other studies involved students not having the appropriate hardware to play the videos (Copley 391).

Unaware of where to find video links. The sixth obstacle students in my pilot study noted was an unawareness of where to access the video podcasts. Only one other study regarding the use of video podcasts reported this same reason (Chester et al. 243). Though a less prominent reason noted in my own study and by others, over half of the students in Chester et al.'s study experienced this challenge when trying to watch video podcasts.

Technical issues. Two students in my study documented technical issues as the reason for not watching the video podcasts. One student was unable to watch the video on his mobile device and the other student mentioned having difficulty with the Internet. When asked about their technical issues, one student stated that the video would not play on her home computer. It was later determined that she did not have the latest version of Adobe Flash Player, which was necessary to view the video, installed on her machine. Though technical problems are not among students' most frequently-cited reasons for not watching video podcasts, they were mentioned by the majority of the studies focused on video podcast use. One study, for example, noted students being unable to download the large video files (Copley 391). Another study reported that students encountered hardware problems outside the classroom (Kay and Kletskin 623). Two studies showed that students were unable to play the video podcasts from home (Dupagne, Millette, and Grinfeder 63; Winterbottom 8). Winterbottom, for instance, found that students reported

being unable to play the MP3 file types from home. Other researchers reported that students experienced slow Internet download speeds, which impeded their ability to view the video podcasts (McKinney and Page 375; Kay and Kletskin 623; Winterbottom 8).

Green et al. also indicated technology issues in their study (259). They noted, for instance, that most of their students had little to no experience with streamed videos (258). Faculty observed that the majority of the students did not realize that there can be a delay when clicking on a video link. Therefore, students falsely reported that they could not access the videos (258-59). Green et al. point out that "[a]nticipation of this delay was a 'skill' needing to be taught." Additionally, students often thought the video had stopped playing anytime the video started buffering (259).

Forgot about video assignment. The final reason provided for not watching videos was provided by one student in my pilot study. This student commented that he forgot about the video assignment. Likewise, students involved in Dupagne, Millette, and Grinfeder's study also noted forgetting to watch the podcasts (63).

Time Spent Watching Videos

As a means to determine how much time students spend engaging with the video podcasts, students were invited several times throughout the semester to indicate if they watched videos in their totality and how many times they watched those videos.

Percentage of students who watched podcasts in their entirety. Among those students who watched the video podcasts, the majority of students (89%) reported watching the videos in their entirety (Table 4.9). There were no significant differences

among the viewing patterns of men and women in my class. There was a difference, however, among 18 to 21-year-olds and 22 to 34-year-olds, with more of those in the younger age group watching the full length of the podcasts.

Table 4.9
Percentage of Students Who Watched Entire Podcasts Broken Down by Gender and Age

Video Podcast	Class	Women	Men	18-21	22-34
4	86%	100%	67%	100%	67%
5	86%	80%	100%	83%	100%
6	71%	67%	100%	100%	50 %
7	100%	100%	100%	100%	100%
8	100%	100%	100%	100%	100%
9	100%	100%	100%	100%	100%
10	83%	100%	67%	67%	75%
Total	**89%**	**92%**	**91%**	**93%**	**85%**

Number of views. When comparing self-reported data and the number of views provided through Blackboard and Vimeo, it was discovered that of those students who watched the video podcasts, most (89%) watched the entire video at least once by the assigned deadline. In fact, collectively, students watched the available video podcasts 81 times (nearly twice the number of expected views (47) if all of those students who watched the videos watched them only one time) (Table 4.10). Consistent with other studies, I found that the earlier podcasts had more frequent viewings than those assigned later in the semester (Hill and Nelson 397). It is important to note that all students did not watch the videos twice. Rather, the majority of students watched the podcasts just once. The class' higher frequency of views was largely due to two female students, aged 22 to

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34, who watched the majority of the video podcasts multiple times. One of the women

watched three of the seven videos five times and the remaining four videos three times.

The other 22 to 34-year-old woman viewed five of the seven podcasts twice.

Table 4.10

Number and Percentage of Video Podcast Views by Gender

Video Podcast	Class	Women's # of Views	Women's % of Views	Men's # of Views	Men's % of Views
4	13.5	10	74%	3.5	26%
5	16	11	69%	5	31%
6	13	9	69%	4	31%
7	11	6	55%	5	45%
8	9	6	67%	3	33%
9	11	7	64%	4	36%
10	7.5	4	53%	3.5	54%
Total	**81**	**53**	**64%**	**28**	**46%**

When looking at the students' podcast viewing behaviors based on gender and

age, there were clear distinctions. In regards to gender, of those who watched the videos,

women tended to view them more often than men (Table 4.11). Though there were four

men who watched various podcasts twice, overall, most of the men tended to watch them

only once, with one man only viewing half of two of the ten podcasts. As mentioned

previously, some of the women watched the videos three to five times. These women

commented that they enjoyed the simplicity of the videos due to their many examples and

step-by-step instructions. Overall, 64% of the video plays were by women and 46% were

by men. As far as age, those students in my class who were in the 22 to 34-year-old age

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range (61%) were more likely to watch the videos more frequently than those younger

students aged 18 to 21 (39%) (Table 4.11).

Table 4.11
Number and Percentage of Video Podcast Views by Age

Video Podcast	Class	18-21 # of Views	18-21 % of Views	22-34 # of Views	22-34 % of Views
4	13.5	5	37%	8.5	63%
5	16	8	50%	8	50%
6	13	5	38%	8	62%
7	11	4	36%	7	64%
8	9	3	33%	6	67%
9	11	4	36%	7	64%
10	7.5	3	40%	4.5	60%
Total	**81**	**32**	**39%**	**49**	**61%**

Student Attitudes Toward Video Podcasts

Students were provided three survey questions in which they rated on a five-point

scale their satisfaction of the videos that were used in the study. Overall, students'

responses to these three questions indicated their approval of the videos (Table 4.12).

When asked specifically about the usefulness of the podcasts, for example, the majority

of the respondents rated the podcasts as useful to their learning. The average mean

satisfaction for those seven podcasts students watched was 4.50 on a scale ranging from 1

to 5. At the close of the semester when students were asked to rate the overall value

podcasts added to the course, the majority of students agreed that the videos contributed

value to their learning experiences ($m=4.11$). Students also scored moderately highly the

statement that the class was more effective than it would have been without the inclusion

of the video tutorials (m=3.78).

Table 4.12
Means on Students' Attitudes Toward Video Podcasts by Gender and Age

Statement	Class	Women	Men	18-21	22-34
The video tutorials were useful.	4.50	4.87	4.20	4.38	4.75
The video tutorials added to the overall value of the course	4.11	4.25	4.00	3.80	4.50
This course is more effective with video tutorials than it would be without them.	3.78	4.25	3.40	3.40	4.25

The perceived usefulness of the podcasts was higher among women than men. As

an example, more women (m=4.25) than men (m=3.40) reported that the class is more

effective with videos than without them (Table 4.12). With respect to the podcast

usefulness, women (m=4.87) rated them more useful than men (m=4.20). There was also

a correlation between age and perceived usefulness of the podcasts. The older students

(m=4.25) found the video tutorials to be more effective than the younger ones (m=3.40).

In addition, those who were older rated the inclusion of the videos as a positive addition

to the classroom (m=4.50), and those students in the 18-21 age range rated the videos

much lower (m=3.80) than the 22 to 34-year-old students.

These findings on the videos' usefulness correlate with other reports of student

attitudes toward video podcasts (Smith and Fidge 314; Green et al. 260; Hill and Nelson

398; Chester et al. 240). When students enrolled in an undergraduate calculus course in

Canada, for example, were provided a menu of fifty-nine videos to view outside of class,

87% of survey respondents rated these optional videos as useful to their learning (Kay and Kletskin 623). In addition to Kay and Kletskin's findings, 73.2% of students in Dupagne, Millette, and Grinfeder's study, where recordings of face-to-face lectures were made available for optional viewing, agreed or strongly agreed that the videos were useful (59).

When asked to rate the usefulness of in-class lectures, in-class activities, textbook readings, and video lectures, students in Day and Foley's flipped introductory human-computer interaction course rated the video lectures as the most useful resource (427). Similarly, students enrolled in marine science classes also rated video podcasts as more useful than printed handouts, and they requested more materials to be delivered via video and audio podcasts (Copley 391, 398).

When students involved in my pilot study were invited to provide, through open-ended questions, what they liked about the video podcasts, the majority of the responses focused on the content of the video lecture (Table 4.13). Most students mentioned their liking the visual step-by-step structure of the video lectures. Similar reasons were reported in Hill and Nelson's research. Students mentioned that the visual aspect of the podcasts "helped them to remember facts, highlighted their knowledge gaps and, during the exam itself, triggered their memories and offered a structure for their answers" (404).

Other comments from my students included their preferences for the useful, informative, detailed content delivered at a slow pace. The format of the lecture delivered by means of a video as opposed to in person was of interest to some students as well. One

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student indicated that viewing information in a video format enhanced his comprehension of the content. He wrote about the videos: "They were informative and different from the normal reading in a book which can be confusing sometimes." Another student noted that he planned to visit the videos again due to their usefulness. He reported, "I liked everything about the videos. The step by step the instructor uses. The videos were very useful, and I know for a fact that I will visit them again some time in the future."

Table 4.13
Self-Reported Reasons Students Liked Video Podcasts

Reason	Frequency (n=38)	Percentage*
Step-by-step instructions.	9	24%
Useful, informative content.	7	18%
Visual demonstration.	6	16%
Easy to follow along.	5	13%
Concepts explained in simple, straight-forward manner.	3	8%
Detailed information.	2	5%
Slow pace.	2	5%
Interactive.	1	3%
Animation.	1	3%
Examples given.	1	3%
Structure.	1	3%
Variance is due to decimal values less than .05.		

While students who took part in my pilot study commented primarily on the content contained in the video podcasts, students in other studies noted the use of video as a medium to deliver content. For instance, students mentioned liking the flexibility to watch the videos at a time most convenient for them as well as the ability to pause and rewind the video lectures as needed. Students also liked that they could watch the videos without the distractions that may be present during a live lecture class (Winterbottom 7).

When asked to include any dislikes of the videos, the vast majority of the students in my ENGL 1301 course wrote "nothing." Of the few who included dislikes, their comments focused on the nature of the content itself. A summary of their comments included:

- Boring videos.
- Took time out of my day to watch.
- All necessary information could have been stated rather than delivered through video.
- Repetitive information.
- Animated narrators [Xtranormal video].
- Content too simple and obvious.
- Too long.

Other studies have also identified similar complaints. Students reported their dislike for needing to motivate themselves to watch the videos, spending additional time to watch videos due to the pausing and rewinding parts of the video, and watching any repetitive information that the video offers (Winterbottom 7; Hill and Nelson 401).

THE INVERTED CLASSROOM

Students involved in both the qualitative pilot study and the small-scale survey that was sent to six institutions of higher education were asked a number of questions to determine which classroom format (traditional or inverted) students favored. The results from both phases of this research study yielded mixed results regarding students' preferences for the inverted classroom.

In general, of the students involved in my pilot study, most preferred the inverted classroom format (Table 4.14). For example, they rated the podcasts as an appropriate

method to deliver content (*m*=4.51). The average rating for the statement "I prefer the

inverted classroom format with video tutorials versus a traditional lecture format" was

3.89 on a Likert scale ranging from 1 to 5. There were a number of reasons students

noted for preferring the inverted classroom format. In general, they liked having the

instructor immediately available during activities to answer their questions. This benefit

is highlighted by the following comments they provided in the surveys:

- Because I can watch the video at home and learn, and if I need to write down any question for next class that way I'll be clear.
- I have limited time. I would like to finish most of my work in the class if it were possible.
- I like this choice because the teacher is there for you if you need help, and also it seems easier to understand the information.
- I am able to easily get help if I need it.
- I connect more this way.
- I can get more help if I am doing an assignment inside the classroom.
- The teacher is more available to answer questions.

Past research has noted analogous preferences (Lage, Platt, and Treglia 35;

Foertsch et al. 272; Day and Foley 427-28). Students in Day and Foley's study, for

instance, indicated they learned more in the inverted class (427-28). In a similar vein,

Foertsch et al. discovered that students felt the inverted classroom model improved the

course's usefulness (272; 274). Furthermore, students in other studies preferred the video

podcasts over other resources (Kay and Kletskin 623; Copley 393) and wanted more

lectures delivered online through video (Winterbottom 7).

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Table 4.14
Means on Pilot Study Participants' Perceived Usefulness of the Inverted Classroom

Statement	Class	Women	Men	18-21	22-34
Video tutorials are an appropriate method of presenting material.	4.51	4.59	4.42	4.57	4.43
I preferred spending time in class engaging in activities and watching the corresponding lecture content at home.[47]	3.51	3.28	3.67	3.55	3.44
I prefer the inverted classroom format with video tutorials versus a traditional lecture format.	3.89	4.25	3.80	3.80	4.25

A comparison of classroom preferences by gender indicated a relationship between women and the preference for an inverted classroom format. The women (m=4.25) involved in my study scored the inverted classroom model higher than men (m=3.89). This is in keeping with the findings of Lage, Platt, and Treglia, who also reported that women's reactions to the inverted classroom have been generally more positive than male students' reactions (37, 41). Likewise, Plumm asserts that men generally prefer traditional lectures (1060).

Conversely, these preferences for the inverted classroom differ from the responses I received from the phase one survey respondents as well as participants in other video survey research (Table 4.15). When those students involved in the phase one survey were asked to choose between experiencing lectures outside the classroom or inside the classroom, most respondents (55%) preferred the traditional model.

Table 4.15

Percentage of Classroom Format Preferences by Gender for Phase 1 Survey Participants

Classroom Format	All (*n=188*)	Women (*n=114*)	Men (*n=74*)
Traditional	55%	58%	51%
Inverted	45%	42%	49%

Nine chief reasons were provided by the survey participants regarding their preferences for the traditional model (Table 4.16). The most frequent reason involved students' desire to work on their assignments independently as opposed to collaboratively in the classroom. The second reason was related to engagement with the instructor and classmates during lectures. Students indicated wanting the ability to ask immediately of their instructor any questions regarding the lecture content rather than watching the video lecture independently and awaiting their return to class before receiving those answers. Another reason consisted of students feeling that their comprehension is enhanced when experiencing the lecture live. They noted that they learn and focus better in a classroom setting. Students also mentioned that having the teacher in person rather than online helped increase their understanding. The fifth and last reason I will detail here included students' concerns that they would not be motivated to watch video lectures outside of class.

Table 4.16

Self-Reported Reasons Phase 1 Survey Participants Preferred the Traditional Classroom

Reason	Frequency (*n*=87)	Percentage*
Prefers working on assignments independently.	27	31%
Prefers the ability to interact by asking questions and discussing ideas during lectures.	20	23%
Comprehension is increased when lectures are delivered live.	16	18%
Lack of motivation to watch videos outside of class.	12	14%
It's just the way I've always done it.	5	6%
Easier to focus when lecture content is delivered live in a classroom.	4	5%
More prepared for live class when assignments are completed prior to class.	1	1%
No time outside of class to watch videos.	1	1%
Lack of access to watch videos.	1	1%

This finding that students prefer the traditional classroom concurs with Chester et al.'s findings in which 78% of students indicated that the live lectures were more useful than podcasts (243). Griffin, Mitchell, and Thompson discovered that most of their students prefer the traditional lecture format over the prerecorded lectures and disagreed strongly with replacing lectures with these prerecorded lectures (535). Smith and Fidge also found that the majority of their students did not want to replace live lectures with video ones (784).

CONCLUSION

This mixed-mode research design offered both the quantitative data revealing students' attitudes and experiences with computers and computer literacy practices as well as the context with which these digital practices are employed in a first-year

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composition course. Combined, these approaches revealed students' inexperience with listening to podcasts in their everyday lives as well as their decisions not to watch those video podcasts that are provided in the classroom. When students did watch videos, though, they tended to watch the video from beginning to end at least once prior to arriving to class. In turn, those students in the pilot study favored the inverted classroom via the use of podcasts. Students in the small-scale survey, however, maintained a different stance. This finding seems to suggest that students' unfamiliarity and lack of regular experience with listening to podcasts leads to their preferences for the more commonplace live lecture format. Once students are provided a space to experience listening to podcasts, they tend to prefer the inverted format.

CHAPTER V

IMPLICATIONS AND CONCLUSIONS

SUMMARY

Prompted by calls from composition specialists and others, many writing

instructors have modified their first-year composition curriculum to include multiple

media elements, including students creating digital compositions. The main purpose of

this study is to examine the contemporary computer-based practices of first-year writing

students. In particular it focuses on the fluency of contemporary students using new

media technologies, the extent to which men and women experience these technologies

differently, and the ways in which a specific use of new media technology, video

podcasts, impacts students in an inverted classroom. A total of 286 students participated

in the two phases of this study. The first phase, a limited scope quantitative study,

involves an electronic questionnaire completed by students enrolled in colleges in the

Southern and Midwestern regions of the United States during the fall and spring

semesters of the 2012-2013 academic school-year. The second phase, a qualitative pilot

study, was conducted with nineteen students enrolled at Collin College, a two-year

college in Texas, during the fall 2012 semester. Collectively, the data from these phases

provide answers to the following three research questions: (1) how fluent are

contemporary students with Web 2.0 new media technologies?, (2) to what extent do men

and women experience new media technology differently?, and (3) how do students enrolled in a first-year composition course respond to a classroom that is inverted through video podcasts?

STRENGTHS

The current study has several strengths. Though the survey sample was small, it does reflect students with diverse annual household incomes and ethnic/racial backgrounds. Secondly, it collects information from students enrolled in both four-year and two-year colleges. To date, this is the only study examining the inverted classroom pedagogy in a two-year school. Thirdly, using a mixed-mode research design allows for multiple avenues of data collection, resulting in providing educators a context of the data obtained from the small-scale survey.

LIMITATIONS

There are a number of limitations in this study. One is that the sample size for phase one of the study is small. Also, the use of students from only the Southern and Midwestern regions of the US greatly restricts the generalizability of the results. A similar limitation is present for phase two. Since it is an exploratory pilot study, and as such, one of its limitations is the small sample size. The study is also limited because it involves only one flipped writing class experience. Likewise, because I use a sample of convenience for both phases of the study, generalizations to all entry-level writing students should be made with caution.

The personal characteristics asked of those who took part in the pilot study are limited to age and gender in an effort to help me ensure students' anonymity. Additional characteristics, including racial/ethnic background and income level, would have been beneficial in offering a broader perspective of the impacts of technology on writing students.

Another limitation of this pilot study is that it was my first attempt at teaching an inverted class. As such, I made several mistakes as I experimented with this teaching model. In addition to my needing to find better ways in which to motivate my students to watch the podcasts, I also discovered that students were able to complete one of my video quizzes without having actually watched the video podcast. If I had prior experience teaching this type of class, my study may have yielded different results.

Lastly, this study requires that students self-report their comfort level with various computer technologies. Studies indicate that women tend to misrepresent their abilities by rating them lower than they actually are (Volman and Van Eck 620; Hesse-Biber and Gilbert 19). While my findings on women's low confidence and abilities with computer-based technologies are consistent with other studies, these results may not be a true representation of women's actual abilities.

IMPLICATIONS

The data collected reveal that present-day students are not confident producing content using Web 2.0 new media technologies. Rather, students were more experienced consuming multimodal texts as opposed to creating them. This is consistent with other

research on new media technology use. As an example, DigiRhet maintains, "We see a divide where students may download complex, multimodal documents but lack the training to understand how to construct similar documents" (236). DigiRhet goes on to declare that "students must have experiences with both" (253).

Of the fourteen digital practices included on my survey, only two were given ratings in the 4.00 (out of a 5.00) range. These two involved using presentation software and maintaining Facebook profiles. This finding indicates that students involved in my study are not savvy with those computer-based writing assignments that many instructors require of their students. This is not to suggest that instructors avoid these types of multimodal assignments in the classroom. Rather, students' uncertainty with them further supports the need to include these multiliterate practices in the writing classroom. However, when assigning students to create e-zines, podcasts, vlogs, and wikis, those technologies students expressed being the least comfortable, teachers should offer explicit instructions on how to use these digital composing tools. Teachers might consider scaffolding student learning by first using those technologies with which students are most familiar. As an example, an assignment may require that students remediate an alphabetic text into a slideshow. By using a digital tool that is well-known among students, teachers can delve deeper into the rhetorical aspects, including using images, color, and sound, of the assignment. The next remediated assignment could further build students' computer-related skills by incorporating any of the other less

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familiar tools. Teachers should plan to survey their own students to identify those technologies in which their students are confident.

Next, the results of this study suggest that a gap still exists between men and women's fluency with and attitudes toward technology. Women tended to express being less confident and less experienced than men with a number of the ubiquitous Web 2.0 technologies included on my survey. Although this gap appears to be diminishing, it is still imperative that writing teachers realize that women in our entry-level composition classrooms do bring with them an experience deficit. As an example, of the twenty-five digital literacy practices and technologies included in this study, men were more familiar than women with three-fourths of them. Those practices in which women expressed confidence consisted of using email, following Twitter and Facebook, creating digital presentations, and sorting through online information. It is worth noticing that of these digital practices women are most familiar, the majority are related to social activities. Past research has noted a similar finding (Selwyn 528). Furthermore, women are not as experienced as men in producing content using Web 2.0 tools. In particular, their experiences with creating wikis, Web sites, and podcasts as well as editing audio and video were lower than men's self-reported experiences.

These findings reiterate researchers' warnings to consider to what extent technology impacts men and women differently (Gerrard 190). It is essential that writing teachers continue to realize that women may be arriving to our classrooms less prepared than men to use digital technology. Therefore, it is critical that educators involve digital

communication practices within our classrooms in an attempt to provide women more

opportunities to use them (Takayoshi 104; Plumm 1064). Women enrolled in our classes

require more opportunities to expand their use of technology beyond social activities, and

the writing classroom provides such a circumstance.

In addition, teachers must continue seeking ways to adjust their pedagogy to avoid

perpetuating a digital divide in their classrooms. Early on in this study I hypothesized that

the use of additional resources, namely, video podcasts, would offer women exposure to

the knowledge necessary to close any technological skills gaps that were essential to my

ENGL 1301 course. Results from my pilot seem to support this hypothesis. Twice as

many women as men watched the video podcasts. Women also watched the video

podcasts more frequently than men. To illustrate, some of the women watched the videos

three to five times; whereas, the men typically watched them only once. The most

common feature that women praised of the video podcasts involved visual step-by-step

instructions. This finding suggests that the videos did indeed offer information that was

unfamiliar to the women in my class. As one woman said of the video "It showed

everything step-by-step and explains slowly, so I won't miss anything."

Furthermore, the video lectures allowed for the women in my class to grapple with

the concepts prior to arriving to the classroom. In fact, female students reported having

learned more in the inverted classroom format (Lage, Platt, and Treglia 41). One reason

Lage, Platt, and Treglia offer to explain the different learning experience for males and

females is that females tend to prefer the ability to connect the abstract concepts they are

learning with their own experiences (41). By providing the lecture material before class,

my students were given more time to consider the content and then make the necessary

connections to it. Moreover, researchers assert that when in public, women succumb to

the stereotype that they should be more anxious and less competent than men with

computers (Cooper and Weaver 65; Plumm 1059). Offering women opportunities to

experiment with the digital tools in private may have also contributed to their preference

for the video demonstrations.

In addition to their preference of the video podcasts, this study reveals that

women tend to prefer the inverted classroom format over the traditional one. This finding

is in line with other studies. As an example, Lage, Platt, and Treglia report that the

women in their research indicate being more satisfied with the in-class worksheets and

experiments than the males are (37). Furthermore, these researchers found that the

women in their classes appeared to be more active in the inverted classroom than they

were in a traditional classroom model (37). There are a number of reasons for this

preference for watching video lectures and using class time for interactive discussions

and explorations of the content. First of all, women generally prefer interacting and

collaborating with others (Volman and Van Eck 616; Plumm 1060; Weiler 461; Hesse-

Biber and Gilbert 21). In fact, Davis cites research in which students' computer fears

waned when they were able to learn those skills in a collaborative learning environment

(71). The flipped classroom model provides students more opportunities for these

collaborative learning opportunities.

Likewise, research has shown that teachers should move from an authoritative to a collaborative role in the classroom in order to create a feminist classroom space for students (Hesse-Biber and Gilbert 23). The flipped classroom model facilitates this pedagogy by de-emphasizing the teacher as an authority figure and by creating more opportunities for women to engage actively in constructing their own meaning and knowledge through workshops and activities (Hesse-Biber and Gilbert 23). Rather than requiring that students listen to me lecture in the classroom, students experienced my circulating the classroom and offering advice as they grappled with using the video content to complete assignments. In this way, I was able to become a "joint learner" with my students (Weiler 460).

Next, by focusing on skills practice activities during class, I was able to create a classroom environment in which women were more comfortable engaging with others. Deborah Tannen, in her work "How Male and Female Students Use Language Differently," notes that "when young women sit next to young men in classrooms, the males talk more" (328). Therefore, Tannen argues that the male voice is typically the most prevalent in class discussions. By moving away from a classroom experience in which lecture and discussion are the prevailing methods to learn new ideas, the women in my study were able to take a more active role in the classroom by asking questions of me during individual skills activities and collaborating with their peers during small group activities.

Third, the findings of this study suggest that writing teachers invert their classrooms. There are a number of reasons why composition instructors should consider inverting some of their classes. To begin, students involved in my pilot and other studies generally seem to favor the inverted over the traditional classroom format.[48] In general, students like watching video lectures outside of class and having their teachers available while they attempt to apply their newly-learned knowledge and skills. One student from my study explains her choice for this classroom style by writing: "I like this choice because the teacher is there for you if you need help, and also it seems easier to understand the information."

Secondly, my experience flipping my ENGL 1301 class supports my hypothesis that an inverted classroom offers a viable solution to writing instructors faced with the challenges of balancing teaching rhetoric, writing, and technology. By moving functional computer literacy topics to video podcasts, I was able to incorporate two additional major projects, both of which were multimodal and required the use of digital tools, which were foreign to all of the students enrolled in my class. Moreover, I was able to more efficiently and effectively assist students in becoming critical users of the technology used to communicate their ideas as C. Selfe advocates ("Technology and Literacy" 108).

Despite the overall satisfaction with the reversed classroom, motivating students to watch video podcasts is one of the largest obstacles teachers will face when flipping their classrooms. The download results and student survey responses from my pilot study suggest that students must have video podcasts assigned for mandatory viewing. When

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students were offered videos for optional viewing, none of the students in my survey chose to watch them by the next class period. Although download results indicated that the optional videos were watched a few times later in the semester, these views were still lower than those views of the videos that students were required to watch.

In addition to assigning video podcasts as mandatory, the majority of the reasons students cited for their not watching the podcasts can be mitigated if instructors offer clear, explicit expectations during the first day of class. Students must be made aware of the critical role the videos have in the course curriculum. One limitation of my study is that I did not set these expectations immediately with my students. This was in part because it was my first attempt at flipping a classroom and in part because I did not want to skew my research results. Providing a more explicit explanation on the first day of class would have helped better set my expectations that videos must be watched and that they were not optional or "extra" work. In addition, explaining to students how videos will contribute to their overall grades may further help incite them to watch the podcasts.

Another suggestion to motivate students to watch the podcasts involves a technique offered by J. Bowen, who recommends that teachers motivate students to read their texts by asking an intriguing question that the reading assignment will answer (109). A similar strategy can be used to create interest in watching the video lectures. J. Bowen also suggests that teachers discuss with students the learning goals of the video content so that students focus their attention accordingly (131). Other researchers have suggested similar strategies, advising that "videos should be verbally introduced prior to screening in class

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in order to communicate the context and meaning for the students" (Holtzblatt and Tschakert 104). Likewise, once students arrive to class after having completed the podcast assignment, I recommend spending the first five to ten minutes asking students what questions they have in regards to the video. This is a method that Lage, Platt, and Treglia exercised in their own study that could prove to be helpful in arousing student interest (33).[49] In the same way, this strategy may help create a more consistent viewership throughout the entire semester. In my study and others, it was discovered that students tend to watch videos more frequently earlier in the semester (Hill and Nelson 397). By talking about the importance of each video throughout the course of the semester, students may be more likely to watch them each time they are assigned.

In addition, teachers should plan to assign quizzes or activities that can only be completed after watching the podcasts and must be finished prior to attending the next class session. Green et al. employed a similar strategy in which they "incorporated tasks designed to encourage students to engage with the video, such as answering set questions, drawing diagrams based on information from the video, and producing summary notes" (257).[50] When I teach a flipped writing class in the future, I plan to modify my MLA works cited video assignment in the way Green et al. describe. I aim to assign a shortened version of the in-class assignment, in which students were asked to create a works cited page, as homework (see Appendix G for assignment I used for this current study). Rather than asking students to create the entire works cited page in class, I intend to ask students to create part of the document at homework and the other part in class. For example,

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students should create a works cited page of five sources prior to arriving to class. Then, we will use class time to discuss those drafts and then create another one, using the other five sources. My expectation is that students will be more likely to watch the videos when an assignment such as this one is due prior to arriving to class.

In addition to a lack of motivation, students also list technical issues as a reason for not watching the video podcasts. To help alleviate this issue, teachers should provide students detailed documentation that outlines the common technical problems they might encounter as Winterbottom did in her study (8). As an example, students in my study and others had challenges accessing videos if their computers did not have the most up-to-date media player (Silva 4). Such a document should provide students with information on how to identify this technical obstacle and step-by-step instructions on how to remedy it. In addition, students should be advised if a certain Web browser, including browser version, is preferred for optimized playback. Likewise, if the videos cannot be viewed on mobile devices, students should be made aware of this limitation since many may plan to use these devices and learn too late that the video will not work on them.

Furthermore, since my findings indicate that our students may not be as technologically savvy as we may have assumed, it is critical to discuss openly with them any computer behaviors that may be mistaken for errors. For instance, students should be made aware that slow Internet speeds can lead to a delay when clicking on video links and shown how to identify when a video is buffering. Students in other studies reported that the videos would not work because they did not realize they simply needed to wait.

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In conjunction with offering students instructions on how to identify and troubleshoot technical challenges, teachers should ask students to watch the first podcast during class. This way, teachers can minimize the challenge of students not knowing where to access the videos. Furthermore, teachers will also be able to field any technical questions as they occur and can reiterate expectations of their students.

In addition, while some teachers have chosen to replace all of their classroom lectures with videos, I discourage this practice. Rather, writing teachers should consider using video podcasts to supplement their course curriculum. Many researchers have come to a similar conclusion (Hill and Nelson 400; Smith and Fidge 134; Gillespie 26; Day and Foley 422; Griffin, Mitchell, and Thompson 535; Winterbottom 6). I found that the MLA content, online database use, and authoring tools Xtranormal and Animoto were useful topics when delivered as podcasts. In addition to these topics, there are several others that could be effectively covered through video podcasts and in-class practice.

To start, podcast topics can include a number of demonstrations on the functional and critical uses of the ubiquitous word processing software MS Word. For example, one of these topics regarding MS Word could involve the use of its spelling and grammar checker. Scholars have argued that composition teachers have a responsibility to teach their students how to use critically the spelling and grammar checker, including how to modify its settings (McGee and Ericsson 310) and how turn it off (Buck 409; Goldfine 313).[51] For teachers who typically do not have class time to devote to this tool, a demonstration that students watch outside of class is an effective solution.

Other MS Word features that would be best portrayed through a video involve showing students how to proofread and revise better their essays using the "find," "replace," and "go to" options. The "find" feature, for example, can help students look for overuse of certain words during the proofreading stage (Buck 412). In a similar vein, this feature, coupled with the "replace" option, can enable students to speed up the revision process by replacing recurring spelling errors (Goldfine 313). Other ways to accelerate the revision process involve using the "go to" and "find" tools to locate quickly those areas in which the peer editor or instructor has indicated recommendations for revision (Goldfine 312). Goldfine writes that "[t]he use of [these] features enables student writers to locate easily a specific section of text without having to move line-by-line or page-by-page through the entire document" (312). I concur with Goldfine and Buck that efficiently navigating these features can benefit our writing students. Brief videos demonstrating their use can help students learn these features and how they can be used critically in their revising process.

Goldfine also shows her students how to use the "split window" and "outline" views when planning and organizing their essays (312). With the "split window" option, for example, students are able to view one document in two different windows. Goldfine has found that "[w]hen viewing a document in this mode, students can remain in a fixed spot within their document in one window while scrolling through that same document in the other window" (312). Likewise, the "outline" view helps students locate organization issues within their text (312). Both of these features can be advantageous uses of MS

Word but are not those in which the teacher should spend a lot of class time discussing. Therefore, moving them to a video format more efficiently covers these topics without sacrificing the core learning outcomes.

Lastly, removing the extra space between paragraphs is another feature of MS Word that could be equally useful to teachers trying to maximize class time. I recommend that teachers assign this type of video prior to students turning in their first academic essay of the semester. For those students who fail to remove the extra space, teachers can point students to the video rather than repeat this information at various times throughout the semester.

In addition to providing students demonstrations on using the MS Word interface in more critical ways, I recommend that teachers create brief videos on MLA. There are a number of formatting guidelines that usurp classroom time as recurring questions from my students. Two of these include how to format in-text citations and short and long quotations. Other items that I typically re-teach throughout the semester include formatting the first page of the paper, setting the margins in the word processing software, and determining when to use italics versus quotation marks for students' sources. Offering students brief videos on each of these topics can prove to be beneficial in helping teachers better maximize class time without sacrificing student needs.

Another approach that may be useful involves creating a podcast to detail one's grading process to students. Such a podcast could involve explanations of the proofreading marks most commonly used as well as any proofreading marks that are

unique to one's grading commentary. For instance, if one typically uses checkmarks to indicate a good idea, the podcast would be an efficient way to express this meaning to students. And yet another possible use of podcasts could involve detailing any grammar, mechanics, and usage issues that are common among the majority of students' papers.

Lastly, if any new media technologies will be used in the classroom, video podcasts covering their step-by-step instructions would be beneficial for viewing outside of class. Some teachers, as an example, ask students to experience a variety of video, audio, and image editors. Others ask students to create blogs and Websites. Students can use time outside of class to familiarize themselves with these technologies and then use class time to engage in higher-order thinking discussions of these technologies and the texts they create. It may also be helpful if teachers provide video resources regarding any applications, such as Blackboard, they plan to use in class.

Teachers considering embedding video podcasts into their curriculum should plan on spending a lot of time creating them. I averaged 8 to 10 hours on each video podcast. Others have noted spending similar amounts of time on video podcast production. For a 30-second video podcast, for example, instructors spent two days creating and publishing it (Brown and Green 13). McFarlin spent 16 to 20 hours for each online lecture that he created for his class (87). Smith and Fidge averaged spending two hours for each video lasting 10 to 15 minutes (135). While the time invested in creating these podcasts is immense, the value the video podcasts offered my students outweighs this challenge.[52] Nonetheless, teachers should be prepared to allocate a lot of time to this effort.

To save time, I recommend using pre-existing videos rather than making one's own when possible.[53] As an example, when assigning students to watch videos over the library's online databases, many college libraries now offer their own videos. Also, a search on YouTube most likely will yield a number of tutorials addressing how to use any digital tools that may be used in the classroom. I chose those videos created by Xtranormal, for instance, to use in my own study. Similarly, Microsoft Office has a number of video tutorials on their site.

In addition to noting that production efforts consume a lot of the teacher's time, Smith and Fidge point out that they "found it surprisingly intimidating to produce the narration for the lecture slides, given the knowledge that these recordings will be listened to closely and often" (134). They also discuss the challenge of recording their lectures in a fluent manner. They often falter as they prerecord their lectures (Fidge and Smith 134). I had similar challenges when creating my videos. Therefore, if the video-editing software being used to produce these podcasts contains a text-to-speech option, I highly recommend using it.[54] Future work in researching video podcast use in the classroom could involve determining if students have a preference for their teacher's voice over an automated one.

DIRECTIONS FOR FUTURE RESEARCH

Although my focus is primarily on gender, we cannot ignore that there are several other factors that must be considered. Women with low incomes, for instance, are less likely to use computers (Gerrard 201). Gilroy and Desai speculate that computer anxiety

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may also be seen among minorities (713). Specifically, Dupagne, Millette, and Grinfeder find that nonwhite students have a lower podcast viewership than those students who self-identified as white (62). Future work investigating these areas of ethnicity and socio-economic class can be fruitful as writing teachers continue using technology, specifically video podcasts, in their classrooms.

While this study investigates the results of embedding video podcasts into a traditional face-to-face course, future research could experiment with using video podcasts in online classes. One of the chief concerns students and teachers have with online courses is the lack of interaction with each other (Fernandez, Simo, and Sallan 387; Boyd 225, 229; Allen and Seaman 15). In addition to the lack of interaction, students dislike that they are unclear of their instructor's expectations and assessment of their work (Boyd 229). Despite these challenges, course offerings and enrollment for online education courses continue to rise in higher education (Allen and Seaman 4; 26). Indeed, to add to this, a report conducted by the Babson Survey Research Group in 2011 indicated that 65% of the institutions surveyed expressed that "online education is critical to the long-term strategy of [their] institution[s]" (Allen and Seaman 8). Responding to this increasing interest in online education, Tallent-Runnel et al. call for more research in improving engagement in an online course (117). In their research, Fernandez, Simo, and Sallan indicated that videos created more personalized connections among students and teachers in their distance education class (390). If other studies find this to be true, video

lecture capture could offer a plausible solution to students feeling abandoned in the online classroom environment.

The low podcast viewership in my study is a major concern for me. Although it is difficult to generalize my findings to a larger population, the preliminary results of my study and others seem to suggest that the flipped classroom is more suitable for older students and those enrolled in upper division courses. On the issue of age, Chester et al. found that those students who viewed the podcasts were older (26 and older) than those students who did not access the podcasts (240). Furthermore, Chester et al. reported that the lowest podcast viewership occurred in an entry-level course (240). They also learned that podcast satisfaction was rated higher among students enrolled in their second and third year of school than those in their first year of school (241). Based on these findings, Chester et al. suggest that conventional live lectures may be the preferred method of delivery for freshmen (245). This is in line with Copley, who found that upper division undergraduate students and graduate students downloaded more audio and video podcasts than the undergraduate students in his study (390). Similarly, Foertsch et al., who experienced high podcast viewership in their study, reported only 3% of their students were freshman (271). Exploring how students in upper-level writing classes, including graduate courses, respond to the inverted classroom also may be useful.

Another area for further study involves measuring students' level of ambition. The higher viewership of students in upper-level courses may be due in part to students' abilities and interest level in the courses. As an example, Chester et al. found that

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students who reported having high confidence in their academic ability also had a higher viewership of the podcasts (242). Furthermore, students enrolled in courses specific to their discipline may be in a position to appreciate better the content contained on the video podcasts. In their study, Wieling and Hofman asked students such questions as "I take this course because I am interested in the field" to measure their intrinsic motivation (Wieling and Hofman 994). Their extrinsic motivation was measured with such questions as "I take this course because this course is obligatory to obtain my bachelor degree" (994). Similar questions should be used in future studies as the student's motivation to learning will be critical to their response to the flipped classroom.

Heilesen points out that most of the current studies deal with only one to two semesters of using video podcasts (1064). Like Heilesen, I contend that there is a need for more longitudinal studies of the use of video podcasts in the classroom (1064). Furthermore, my class met only one night a week. It would be useful to learn how students meeting more than once a week respond to this classroom format. I speculate that the podcast viewership would be higher since students would see their instructors more often and may feel a greater sense of accountability than my students, who saw me only once a week.

In those instances in which live lectures are replaced with videos, as seen in a hybrid model, colleges can free up more classroom space. For instance, McFarlin found that his hybrid physiology course allowed two courses instead of one to be taught from a

classroom space (90). It will be advantageous for schools to investigate how the inverted classroom can contribute to their own classroom space issues.

CONCLUSION

To conclude, though present-day students are often characterized as technologically sophisticated, they lack the technical proficiency with the new media tools writing instructors are assigning. So too, a gap still exists between men and women's familiarity and proficiency with these new media tools. Women continue to show less ability and comfort with computer-based technologies. Therefore, teachers must provide students with ways to augment their digital skills. The inverted classroom can serve such a purpose. The results of my study show me that while less than half of my students watch the videos, their attitudes toward the flipped format are positive. In fact, women respond most favorably to the inverted classroom. The appeal of this pedagogy is that students are provided direct instruction on technology use via videos that can be watched as often as necessary to prepare for the in-class discussions and activities. With this type of resource, students can surmount those technological deficits they may bring to our classrooms. We should continue taking steps toward figuring out how to make this flipped format work in future writing classes.

NOTES

[1] Bennett et al. describe Web 2.0 technologies as offering users "new opportunities for creating and sharing content and interacting with others." They go on to describe Web 2.0 as "tools that allow individual and collective publishing; sharing of images, audio, and video; and the creation and maintenance of social networks" (524).

[2] For more information about convergence culture, see Henry Jenkins' *Convergence Culture: Where Old and New Media Collide.*

[3] Beach et al. express similar views regarding teaching students to compose in multiple modalities in their book *Teaching Writing Using Blogs, Wikis, and Other Digital Tools.* They also provide a number of engaging multimodal assignments for students (163). Richard Selfe and Cynthia Selfe in their article "'Convince Me!' Valuing Multimodal Literacies and Composing Public Service Announcements" further the argument as well as offer assignment ideas regarding students creating audio, visual, and video public service announcements (86).

[4] Jose Antonio Bowen, in his book *Teaching Naked: How Moving Technology Out of Your College Classroom Will Improve Student Learning,* labels the flipped classroom "naked pedagogy" (187). Also, in the 1990s this mode of instruction was referred to as Web-assisted teaching or instruction. See Scott Simpkins' article

"Promoting Active-Student Learning Using the World Wide Web in Economics Courses" for details.

[5] Xtranormal and Animoto are Web-based video editors that teachers have been using in their classrooms to deliver content as well as assign to students to make their own movies. To learn more about Xtranormal, the text-to-movie technology, visit www.xtranormal.com. For a description on how one teacher used Xtranormal in the writing classroom, see Jason B. Jones' article "Using Xtranormal Against Straw Men" in *The Chronicle of Higher Education*. For details about Animoto, which offers users the ability to create movies using images, video clips, text, and music, see www.animoto.com.

[6] Of those studies I reviewed for this dissertation, the following nine reported on video podcast viewership behaviors: Foertsch et al.; Smith and Fidge; Kay and Kletskin; Green et al.; Hill and Nelson; Winterbottom; Dupagne, Millette, and Grinfeder; Chester et al.; and Copley.

[7] Chester et al. and Dupagne, Millette, and Grinfeder reported on age and gendered viewership patterns. In regards to how level in school impacted video podcast viewership, Chester et al. and Copley reported their findings.

[8] For more information about inverting classrooms via podcasts see Lage, Platt, and Treglia; Foertsch et al.; Kurtz, Fenwick, and Ellsworth; Gannod, Burge, and Helmick; McFarlin; Day and Foley; and Smith and Fidge.

[9] For a sampling of objectives and concerns to incorporating technology and multiliterate practices in the composition curriculum see Wysocki, "Seriously Visible" 42; Nugent 63; and Gresham 397-98.

[10] For perspectives on the necessity to modify writing curriculum with technology, see Yancey, "Made Not Only in Words" 305; Purdy 48; Shin 391; Clark 28; Cope et al. 84; New London Group 9; Hawisher and Selfe, "Becoming Literate" 660; Selber 4; Orlowicz 7; Pennell 571; Faigley 185; Fadde and Sullivan 8; Sheppard 129; Hill, "Reading the Visual" 126; Shipka 299; Buckingham 74; and Hocks, "Teaching" 214-15.

[11] The Conference on College Composition and Communication (CCCC) is a national conference dedicated to improving the teaching of composition and communication at the collegiate level.

[12] Jay Bolter's *Writing Space: The Computer, Hypertext, and the History of Writing* (2) and Sven Birkerts' *The Gutenberg Elegies: The Fate of Reading in an Electronic Age* (121) argue that print literacy is coming to an end due to being wholly replaced by visual literacy.

[13] Pecha Kucha is a type of presentation lasting a maximum of 6 minutes and 40 seconds. It is comprised of 20 slides, which are displayed for 20 seconds each. See Laurie E. Gries and Collin Gifford Brooke's "An Inconvenient Tool: Rethinking the Role

of Slideware in the Writing Classroom" for more information regarding Pecha Kuchas and how they can benefit the writing classroom.

[14] Professor Scott Warnock reported being able to read and respond to four essays an hour using video commentary (Silva 2).

[15] It is noteworthy that Heilesen, in his article "What is the Academic Efficacy of Podcasts," questions the overwhelming positive reception of video podcasts. He points out that the majority of the studies on podcast use have been performed in introductory undergraduate courses where "many of the participants...have limited professional qualifications, limited study skills, and no real basis for comparison" (1064). In addition, he argues that the way in which survey questions are posed to students can lead to the overwhelmingly positive feedback. As an example, he contends that "questions answered on a Likert scale where it is difficult to disagree if respondent is generally positive about the course" may lead to unreliable results (1065).

[16] For a comprehensive review of the ways video podcasts are being used in the classroom, see Robin H. Kay's "Exploring the Use of Video Podcasts in Education: A Comprehensive Review of the Literature."

[17] The categories used to collect the respondents' ethnic/racial background and annual income were designed to reflect those categories used by the Internal Revenue Service.

[18] The Carnegie Classification was used to describe the six institutions of higher education involved in this study.

[20] SurveyMonkey is a commercial Web-based survey tool that offers researchers the ability to enable the SSL encryption and ensure all data collected is anonymous and confidential. See www.surveymonkey.com for additional details.

[21] This survey question (#10) was taken directly from Cynthia Selfe's technology survey included in *Multimodal Composition: Resources for Teachers* (224).

[22] Even though more men than women are enrolled in institutions of higher education in the United States (Gonzalez) evidence indicates that the presence of males in the classroom often leads to women participating less in discussions (Tannen 328). In order to provide women an optimal learning experience, it is critical to adjust one's pedagogy to ensure a level of security in the classroom.

[23] A number of works have discussed the necessity for twenty-first century writers to attribute sources effectively, including Patch 278-79; Sirc 122; Beach et al. 28; and M. Kay par. 9.

[24] Dropbox and Flickr offer Web-based storage to users. Dropbox is a Web-based file storage tool that allows end-users to store, manage, share, and sync documents housed on multiple devices. See www.dropbox.com for additional details. Flickr is a Web-based photo storage application that allows end-users to store and share their photos. See www.flickr.com for details.

[25] It is important to note that these types of technologies used for communication tasks are constantly changing. See, for example, Jacob Sugarman's report on the declining use of Facebook in his article "Is Facebook Over?"

[26] MySpace is another popular social networking site, but its members comprise only 29% of the social networking site population (Hampton et al. 3); therefore it was not included as a part of this research study.

[27] The Pew Research Center has reported that in general 26% of online users have created and shared material, such as videos and images, online (Madden and Fox 2). In 2006, it was found that 8% of online users created and maintained their own blogs (Lenhart and Fox 2). Also 15% of adults who are online create and maintain Web pages (Lenhart et al. 25). The Pew and Research Center has also published their findings that 19% of online users have downloaded podcasts. Though this number is relatively small, the trends in podcast viewership continue to rise (Madden and Jones 1). Wikipedia is one of the most visited sites on the Web (Rainie and Tancer 2). To illustrate, Zickuhr and Rainie reported that 53% of American users have searched Wikipedia for information (2).

[28] In her article "The Digital Imperative: Making the Case for a 21st Century Pedagogy," J. Elizabeth Clark calls many of these digital tools "the 'greatest hits' of the current digital world" (28).

[29] Survey age categories used for phase two were broadened to allow greater anonymity for participating students.

[30] Camtasia Studio 8 is a product of TechSmith, which now features "TechSmith in Education," which provides special pricing and teaching tips for educators. Visit www.techsmith.com/education.html for details.

[31] One of the most commonly-cited free-editors that educators use is TechSmith's Jing, which limits end-users to 5 minutes of recorded video and does not have an editing capability. Visit www.techsmith.com/jing.html for details.

[32] GarageBand offers a variety of features related to recording, mixing, editing, and sharing audio files. To date, GarageBand 11 is the most recent version of this software that Apple has made available. Visit www.apple.com/ilife/garageband for additional information, including features and pricing. A less expensive alternative to this commercial audio-editor is Audacity, a free audio recorder and editor. See www.audacity.sourceforge.net for download details. It is also important to note that Camtasia Studio has its own audio recorder and editor. Therefore, there is no need to use a separate audio tool as I did. I only chose to use GarageBand because I already had a license for it. In addition, the microphone on the laptop in which I had Camtasia Studio installed did not produce quality sound. The microphone on my Apple computer in which I had GarageBand installed, however, produced clearer, louder vocals that I felt my students would be able to hear and understand better.

[33] Vimeo is a video-sharing site that allows members to upload and share their videos. See www.vimeo.com for details. Some instructors have also created their own YouTube channels to host video lectures.

[34] The inclusion of the duration of each video was a recommendation provided by those students enrolled in flipped computer science classrooms that did not offer the total time of each video (Foertsch et al. 273).

[35] While I chose to focus my tutorials on navigating the Windows 7 operating system, it is important to note that not all students will be creating their assignments using a Windows platform. In addition, they may be working from an older version of Windows, limiting the usefulness of these video tutorials.

[36] Other studies that inspired several questions I included in my inverted classroom pilot study involved work from Hill and Nelson 397, 399, 401; Day and Foley 427; Copley 391; Smith and Fidge 134; and Winterbottom 7.

[37] See Hill and Nelson 397; Copley 389; Green et al. 257; Chester et al. 240; and Smith and Fidge 131 for additional research completed on students' viewership of video podcasts.

[38] Tracking the number of views proved to be a challenge in this study. For instance, Blackboard's course tracking system indicated the number of times each student accessed the "Video Tutorials/Lectures" folder rather than any specific tutorial housed in the folder. Vimeo was open to the public, so my data could have included views from

those outside of my class. This seems unlikely, however, since the number of views were relatively low. With these two limitations, I chose to use three tracking mechanisms, including Blackboard, Vimeo, and student's self-reports to help triangulate the number of views. Even still, these data are estimations.

[39] A similar research question was investigated by Dupagne, Millette, and Grinfeder 58; Chester et al. 240; and Silva 9.

[40] Much of the research on the use of video podcasts to invert the classroom has investigated student perceptions of the videos. See Kurtz, Fenwick, and Ellsworth; McFarlin, Foertsch et al. 271; Lage, Platt, and Treglia 35; Day and Foley 427; and Smith and Fidge 131 for their findings. Though not inverted classrooms, other scholars, who have also studied the use of video podcasts, include Holtzblatt and Tschakert; Dupagne, Millette, and Grinfeder 58; Kay and Kletskin 622; Hill and Nelson 397; Griffin, Mitchell, and Thompson 535; McKinney and Page 374; Copley 391; Green et al. 258; Chester et al. 240; and Fernandez, Simo, and Sallan 388.

[41] A few studies discuss and measure video podcast usefulness. These include Dupagne, Millette, and Grinfeder 59; Day and Foley 427; Kay and Kletskin 622; Hill and Nelson 399; Copley 391; Chester et al. 240; Smith and Fidge 134; and Green et al. 260.

[42] Winterbottom 7 and Hill and Nelson 401 gathered student likes and dislikes toward video podcasts.

[43] Similar data were collected in Winterbottom's study (7).

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[44] This question was inspired by Lage, Platt, and Treglia's use of a like question in their study (35). Similar data were also collected by Day and Foley 427 and Griffin, Mitchell, and Thompson 535.

[45] Susan Kirtley, in her article "Students' Views on Technology and Writing: The Power of Personal History," also notes students' descriptions of computers as "convenient" and confusing." Unlike my survey, however, students in her class also provided "stressful" and "useful" when characterizing their feelings toward computers (219).

[46] It is important to note that while all of these studies measured podcast viewership, the format of their classes have a number of variables that make these viewership comparisons less reliable. Foertsch et al.'s study, for example, used video podcasts to completely replace live lectures. The incorporation of these video lectures resulted in fewer class sessions in which students had to attend. Unlike my study, students in Foertsch et al.'s classes only came to class for workshop sessions.

[47] The results from this scale-response question are misleading. When reviewing students' open-ended responses to this question, it seems that they misunderstood the intent of this question. They interpreted this question as choosing between watching a video or completing the in-class activity. For instance, one student wrote, "I liked doing both. Not just one or the other." Another student wrote a similar statement: "I liked doing both because typing our own [works cited pages] really solidified the videos."

[48] It is important to note that the respondents involved in phase one of my study indicated their preferences for the traditional classroom format over the flipped. Unfamiliar with this pedagogy, students indicated preferring the classroom model in which they were accustomed. Griffin, Mitchell, and Thompson assert that students who report preferring live lectures to video ones, may be inexperienced with using video podcasts. Therefore, their familiarity with live lectures becomes their preference (538). It is critical that teachers spend the time necessary showing students how to use video podcasts.

[49] While I agree with Lage, Platt, and Treglia that class time should be used to answer questions regarding the video content, I agree with Day and Foley in their article "Evaluating a Web Lecture Intervention in a Human-Computer Interaction Course," that teachers should not plan to recap the video lecture during class (420).

[50] John C. Bean in his text *Engaging Ideas: The Professor's Guide to Integrating Writing, Critical Thinking, and Active Learning in the Classroom* recommends a similar strategy. He suggests that students draft one-page summaries of a teacher's lecture in order to boost their listening skills (171). An analogous assignment could be offered to students watching video lectures outside the class. Students in Hill and Nelson's study wanted questions incorporated directly into the video podcasts themselves to make them more interactive. They also liked having the opportunity to formatively assess their

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performance (401). Teachers with the video-editing software that allows this type of interactivity should consider adhering to this recommendation.

[51] Amber Buck notes in her article "The Invisible Interface: MS Word in the Writing Center" that students' writing processes were often disrupted by the spelling and grammar checker. She pointed out that students who paid attention to the grammar checker often spent too much attention on surface level errors (409).

[52] Day and Foley contend that "the upfront time investment to record and publish Web lectures is only a little more than half of the time the instructor would need to give the same lecture(s) in class and, once recorded, the same Web lecture(s) can be reused for future classes" (421). McFarlin 90 and Smith and Fidge also speculate that reusing video lectures will eventually save teachers time.

[53] J. Bowen recommends a similar strategy to help teachers use their class preparation time in an efficient manner (116).

[54] In versions of Adobe Captivate 4 and later, users are presented the option to turn their text to speech using any of the pre-programmed voices offered by the makers of Captivate.

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APPENDIX A

Phase 1 Technology Survey

Phase 1 Technology Survey

The purpose of this research project is to investigate the impact of technology on students in the first-year composition classroom. This is a research project being conducted by Christina Grimsley at Texas Woman's University. You are invited to participate in this research project because you are currently enrolled in a first-year composition class.

Your participation in this research study is voluntary, so you may choose not to participate. If you decide to participate in this research survey, you may withdraw at any time. If you decide not to participate in the study or if you withdraw from participating at any time, you will not be penalized.

To participate, please fill out this online survey, which will take approximately 20 minutes. The survey questions will ask about your experiences with technology. Your responses will be confidential, and I will not collect any identifiable information such as your name, email address, or IP address.

The results of this study will be used for scholarly purposes only. This research has been reviewed according to Texas Woman's University and Collin College IRB procedures for research involving human subjects.

If you have any questions about the research study or if you are interested in a summary of the results, please contact me at cgrimsley@mail.twu.edu.

Thank you in advance for helping with this study.

ELECTRONIC CONSENT: Please select your choice below.

Clicking on the "agree" button below indicates that:

- you have read the above information
- you voluntarily agree to participate
- you are at least 18 years of age

If you do not wish to participate in this research study, please decline participation by selecting the "disagree" option.

- o Agree.
- o Disagree.

1. Please select your school.

2. Are you male or female?

3. What is your age?
   - o 0-17.
   - o 18-24.
   - o 25-29.
   - o 30-34.
   - o 35-39.
   - o 40-44.
   - o 45-49.
   - o 50-54.
   - o 55-59.
   - o 60-64.
   - o 65-69.
   - o 70-74.
   - o 75-79.
   - o 80-84.
   - o 85 years and over.

4. Are you the first person in your family to attend college?
   - o Yes.
   - o No.

5. What is the highest level of school your father completed or the highest degree he received?
    o Less than high school degree.
    o High school degree or equivalent (e.g., GED).
    o Some college but no degree.
    o Associate degree.
    o Bachelor degree.
    o Graduate degree.

6. What is the highest level of school your mother completed or the highest degree she received?
    o Less than high school degree.
    o High school degree or equivalent (e.g., GED).
    o Some college but no degree.
    o Associate degree.
    o Bachelor degree.
    o Graduate degree.

7. What is your classification in college?
    o Freshman.
    o Sophomore.
    o Junior.
    o Senior.

8. What is your annual family income?
    o $0 - $20,000.
    o $20,000 - $29,999.
    o $30,000 - $39,999.
    o $40,000 - $49,999.
    o $50,000 - $74,999.
    o $75,000 - $99,999.
    o $100,000 - $149,999.
    o $150,000 +.

9. Please select your race.
   o African-American or Black.
   o Asian.
   o Hispanic (any race).
   o Native American or Alaskan Native.
   o Native Hawaiian or Other Pacific Islander.
   o White.
   o Other (please specify).

10. How do you best learn to use new technology?
    o Listen to a lecture.
    o Watch a demonstration.
    o One-on-one tutoring.
    o Independently.
    o Other (please specify).

11. If given the choice between the following two classroom formats, which would you choose?
    o Listen to lectures inside the class and complete activities and assignments outside of class.
    o Watch/listen to video lectures outside of class and complete activities and assignments during class.

12. Please explain the reason for your choice.

13. If given the choice to compose an essay using images using either of the following formats, which would you choose?
    o Web essay (create a Web page online and insert images found online).
    o Poster board essay (use a poster board and paste images found from magazines, books, family pictures, etc.).

14. Please explain the reason for your choice.

15. Choose how often you experience the following computer-based technologies.

	Daily	Weekly	Monthly	Never
Listening to podcasts.				
Reading blogs.				
Using a computer.				
Reading/sending e-mail.				
Browsing the Internet.				
Watching videos online (for entertainment purposes).				
Watching instructional videos (how-to videos).				
Watching vlogs.				
Reading Wikipedia.				
Following Twitter.				
Viewing Facebook.				

16. Rate your level of comfort with the following computer-based technologies.

	1 (least comfortable)	2	3	4	5 (most comfortable)
Audio-editing.					
Creating a blog.					
Creating e-zines.					
Creating podcasts.					
Creating presentations (e.g., MS PowerPoint, Keynote, etc.)					
Video-editing.					
Searching, evaluating, and sorting through online information to find authoritative and relevant sources.					
Creating vlogs.					
Creating wikis.					
Creating Web sites.					
Tweeting.					
Maintaining a Facebook profile.					
Using Web storage (e.g., Dropbox).					
Using photo storage (e.g., Flickr).					

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17. Write three words that describe how you have felt or would feel if walking into a computer-equipped classroom for the first time.
    - ○
    - ○
    - ○

18. Please explain the reason for your choices.

19. What are your weaknesses in composing/designing texts online?
    - ○
    - ○
    - ○

20. What are your strengths in composing/designing texts online?
    - ○
    - ○
    - ○

21. Do you prefer to read information online or in print?
    - ○ Online.
    - ○ Print.

22. Please explain the reason for your choice.

23. What are your strengths in reading information online such as articles and Web essays?
    - ○
    - ○
    - ○

24. What are your weaknesses in reading information online such as articles and Web essays?
    - ○
    - ○
    - ○

APPENDIX B

Phase 2 Surveys 1-5

Phase 2 Survey 1

Optional Video Tutorial Survey

1. Are you male or female?

2. What is your age?
   o 0-17.
   o 18-21.
   o 22-34.
   o 35-44.
   o 45-54.
   o 55-64.
   o 65 and over.

3. Select all of the videos that you watched. Check all that apply.
   o MLA: An Overview of the Basics.
   o MS Word: Hanging Indents.
   o MS Word: Inserting a Header.
   o I did not watch any of the videos.

4. Why didn't you watch any of the videos?

5. Which of the following video tutorials did you watch from beginning to end (i.e., did you watch the entire tutorial)? Check all that apply.
   o MLA: An Overview of the Basics.
   o MS Word: Hanging Indents.
   o MS Word: Inserting a Header.
   o I did not watch any of the video tutorials from beginning to end.

6. The video tutorials were useful.

	1 (strongly disagree)	2	3	4	5 (strongly agree)
MLA: An Overview of the Basics.					
MS Word: Hanging Indents.					
MS Word: Inserting a Header.					

7. How many times did you watch the video tutorials?

8. How much time (in minutes) did you spend viewing the video tutorials?

9. What did you like about the video tutorials?

10. What didn't you like about the video tutorials?

11. The video tutorials were an appropriate method of presenting the material.

	1 (strongly disagree)	2	3	4	5 (strongly agree)
MLA: An Overview of the Basics.					
MS Word: Hanging Indents.					
MS Word: Inserting a Header.					

Phase 2 Survey 2

MLA Works Cited Page Survey

1. Are you male or female?

2. What is your age?
    o   0-17.
    o   18-21.
    o   22-34.
    o   35-44.
    o   45-54.
    o   55-64.
    o   65 and over.

3. Select all of the videos that you watched. Check all that apply.
    o   MLA: The Works Cited Page Overview.
    o   MLA: The Works Cited Page Overview | Electronic Sources.
    o   MLA: The Works Cited Page Overview | Book Sources.
    o   I did not watch any of the videos.

4. Why didn't you watch any of the videos?

5. Which of the following video tutorials did you watch from beginning to end (i.e.,
    did you watch the entire tutorial)? Check all that apply.
    o   MLA: The Works Cited Page Overview.
    o   MLA: The Works Cited Page Overview | Electronic Sources.
    o   MLA: The Works Cited Page Overview | Book Sources.
    o   I did not watch any of the video tutorials from beginning to end.

6. The video tutorials were useful.

	1 (strongly disagree)	2	3	4	5 (strongly agree)
MLA: The Works Cited Page Overview.					
MLA: The Works Cited Page Overview | Electronic Sources.					
MLA: The Works Cited Page Overview | Book Sources.					

7. How many times did you watch the video tutorials?

8. How much time (in minutes) did you spend viewing the video tutorials?

9. What did you like about the video tutorials?

10. What didn't you like about the video tutorials?

11. I preferred spending time in class creating a works cited page rather than listening to a lecture about how to create a works cited page.

1 (strongly disagree)	2	3	4	5 (strongly agree)

12. Please provide reasons for your response.

13. The video tutorials were an appropriate method of presenting the material.

	1 (strongly disagree)	2	3	4	5 (strongly agree)
MLA: The Works Cited Page Overview.					
MLA: The Works Cited Page Overview | Electronic Sources.					
MLA: The Works Cited Page Overview | Book Sources.					

Phase 2 Survey 3

Xtranormal Overview Survey

1. Are you male or female?

2. What is your age?
   o 0-17.
   o 18-21.
   o 22-34.
   o 35-44.
   o 45-54.
   o 55-64.
   o 65 and over.

3. Select all of the videos that you watched. Check all that apply.
   o Xtranormal: Movie Maker Basics.
   o Xtranormal: Student Accounts.
   o I did not watch any of the videos.

4. Why didn't you watch any of the videos?

5. Which of the following video tutorials did you watch from beginning to end (i.e., did you watch the entire tutorial)? Check all that apply.
   o Xtranormal: Movie Maker Basics.
   o Xtranormal: Student Accounts.
   o I did not watch any of the video tutorials from beginning to end.

6. The video tutorials were useful.

	1 (strongly disagree)	2	3	4	5 (strongly agree)
Xtranormal: Movie Maker Basics.					
Xtranormal: Student Accounts.					

7. How many times did you watch the video tutorials?

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8. How much time (in minutes) did you spend viewing the video tutorials?

9. What did you like about the video tutorials?

10. What didn't you like about the video tutorials?

11. I preferred spending time in class creating an Xtranormal video rather than listening to a lecture about how to create an Xtranormal video and then creating that video as homework.

1 (strongly disagree)	2	3	4	5 (strongly agree)

12. Please provide reasons for your response.

13. The video tutorials were an appropriate method of presenting the material.

	1 (strongly disagree)	2	3	4	5 (strongly agree)
Xtranormal: Movie Maker Basics.					
Xtranormal: Student Accounts.					

Phase 2 Survey 4

Library Online Databases: Going Beyond Google Survey

1. Are you male or female?

2. What is your age?
   o 0-17.
   o 18-21.
   o 22-34.
   o 35-44.
   o 45-54.
   o 55-64.
   o 65 and over.

3. Did you watch the Library Online Databases: Going Beyond Google video tutorial?
   o Yes.
   o No.

4. Why didn't you watch the video?

5. Did you watch the video tutorial from beginning to end?
   o Yes.
   o No.

6. The video tutorial was useful.

1 (strongly disagree)	2	3	4	5 (strongly agree)

7. How many times did you watch the video tutorial?

8. How much time (in minutes) did you spend viewing the video tutorial?

9. What did you like about the video tutorial?

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10. What didn't you like about the video tutorial?

11. I preferred spending time in class searching for sources in the online database rather than listening to a lecture about how to use the online database and then searching for sources as homework.

1 (strongly disagree)	2	3	4	5 (strongly agree)

12. Please provide reasons for your response.

Phase 2 Survey 5

Animoto Survey

1. Are you male or female?

2. What is your age?
    o 0-17.
    o 18-21.
    o 22-34.
    o 35-44.
    o 45-54.
    o 55-64.
    o 65 and over.

3. Did you watch the Animoto video tutorial?
    o Yes.
    o No.

4. Why didn't you watch the video?

5. Did you watch the video tutorial from beginning to end?
    o Yes.
    o No.

6. The video tutorial was useful.

1 (strongly disagree)	2	3	4	5 (strongly agree)

7. How many times did you watch the video tutorial?

8. How much time (in minutes) did you spend viewing the video tutorial?

9. What did you like about the video tutorial?

10. What didn't you like about the video tutorial?

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11. The video tutorial was an appropriate method of presenting the material.

1 (strongly disagree)	2	3	4	5 (strongly agree)

APPENDIX C

Phase 2 End of Semester Survey

Phase 2 End of Semester Survey

1. Are you male or female?

2. What is your age?
   o 0-17.
   o 18-21.
   o 22-34.
   o 35-44.
   o 45-54.
   o 55-64.
   o 65 and over.

3. Video tutorials are an appropriate method of presenting material.

1 (strongly disagree)	2	3	4	5 (strongly agree)

4. You prefer this classroom format with video tutorials to a "traditional" lecture format.

1 (strongly disagree)	2	3	4	5 (strongly agree)

5. The video tutorials added to the overall value of the course.

1 (strongly disagree)	2	3	4	5 (strongly agree)

6. This course is more effective with video tutorials than it would be without them.

1 (strongly disagree)	2	3	4	5 (strongly agree)

7. If given the choice between the following two classroom formats, which would you choose?
    o Listen to lectures inside the class and complete activities and assignments outside of class.
    o Watch/listen to lectures outside of class and complete activities and assignments during class.

8. Please explain the reason for your choice.

APPENDIX D

Table A1: Features of the Public Colleges Surveyed in Phase 1

Table A1: Features of the Public Colleges Surveyed in Phase 1

Table A1

Features of the Public Colleges Surveyed in Phase 1*

Public College	Control	Classification	Student Population	Size	Enrollment Status	Student Profile
Collin College	2-year	Associates	24,872	Very Large	High Part Time	Suburban
Tarrant County College District	2-year	Associates	44,355	Very Large	High Part Time	Urban
Southeastern Oklahoma State University	4-year or above	Master's College and University (medium)	4,229	Medium	Medium Full Time	Nonresidential; High Transfer-Ins
Texas Woman's University	4-year or above	Doctoral Research University	13,338	Medium	Medium Full Time	Nonresidential; High Transfer-Ins
Texas A&M University-Commerce	4-year or above	Doctoral Research University	9,021	Medium	Medium Full Time	Nonresidential
Kansas State University	4-year or above	Research University (high research activity)	23,581	Large	Full Time	Residential

*All data collected from the Carnegie Classification of Institutions of Higher Education.

APPENDIX E

Recruitment Script: Phase 1

Recruitment Script: Phase I

Dear Dr. _____,

I am a doctoral student of rhetoric at Texas Woman's University located in Denton, Texas. I am gathering data for my dissertation entitled "Inverting the Classroom: Investigating its Impact on Women in Freshman Composition." This dissertation investigates the impact of new media technology on male and female students in the first-year composition classroom.

With the recent calls to expand our definitions of literacy beyond reading and writing, many composition instructors have refocused their writing assignments to include discussions and productions of multimodal texts, including videos, blogs, and Web sites. My study aims to determine how the inclusion of these multimodal assignments and use of new media impact students, particularly female students.

In 1999, Lisa Gerrard, in her article, "Feminist Research in Computers and Composition," questions if female students feel alienated and have computer experience deficits that hinder their learning. My research intends to answer Gerrard's questions about understanding female's comfort level and fluency with technology.

I am contacting you because you are listed on your university Web site as the/a (chair of, instructor in) the Composition and Rhetoric program. I am asking for your help in distributing this voluntary, anonymous 20-minute electronic survey of 24 questions to students in your first-year composition program who are 18 years and older.

Please feel free to forward this survey to other faculty members who may be interested in sharing this survey with their students as well. This survey has received IRB approval. All participation is voluntary and may be discontinued at any time.

[https://www.surveymonkey.com/s/CMTZK7R]

If you have any questions about the study, please feel free to contact me (cgrimsley@mail.twu.edu) or my dissertation advisor Dr. Bruce Krajewski (bkrajewski@twu.edu).

I thank you for considering participating in my research study. If you or your students are interested in my research findings, I will be happy to share them with you upon completion of the dissertation.

Sincerely,
Christina Grimsley

APPENDIX F

MLA Works Cited Page Quiz

MLA Works Cited Page Quiz

Directions: This quiz checks your knowledge regarding using the MLA style for academic papers. After watching the three MLA video tutorials posted on Blackboard, answer the following 10 questions. Each question is worth 10 points.

1. Which of the following is an example of a works-cited entry for a book? *(10 points)*

   A. Lehrer, Jonah. "Trials and Errors: Why Science is Failing Us." *Wired.* Conde Nast Digital, 16 Dec. 2011. Web. 22 Sept. 2012.

   B. "Former Mining Official: We Need to Reach Miners Faster." *CNN.com.* Cable News Network, 11. Aug. 2007. Web. 22 Sept. 2012.

   C. Brooke, Collin Gifford. *Lingua Fracta: Towards a Rhetoric of New Media.* Cresskill, NJ: Hampton P, 2009. Print.

   D. Clark, J. Elizabeth. "The Digital Imperative: Making the Case for a 21st-Century Pedagogy." *Computers and Composition* 27 (2010): 27-35. Print.

2. Which of the following is an example of a works-cited entry for a Web page? *(10 points)*

   A. Bolter, Jay David, and Richard Grusin. *Remediation: Understanding New Media.* Cambridge, MA: MIT P, 2000. Print.

   B. Bean, John C. *Engaging Ideas: The Professor's Guide to Integrating Writing, Critical Thinking, and Active Learning in the Classroom.* San Francisco: Jossey-Bass, 2001. Print.

   C. Aronson, Anne. "Composing in a Material World: Women Writing in Space and Time." *Rhetoric Review* 17. 2 (1999): 282-99. Print.

   D. Tyre, Peg. "Standardized Tests in College?" *Newsweek.* Newsweek, 16 Nov. 2007. Web. 15 May 2008.

3. Using the image below, list four errors that appear on this works cited page. *(10 points)*

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Works Cited

Lehrer, Jonah. "Trials and Errors: Why Science is Failing Us." *Wired.* Conde Nast, 16 Dec. 2011. Web. 22 Sept. 2012

"Former Mining Official: We Need to Reach Miners Faster." *CNN.com.* Cable News Network, 11. Aug. 2007. Web. 22 Sept. 2012

Keen, Judy. "States Weigh Lowering Drinking Age." *USA TODAY.* Gannett Co. Inc., 1 April 2008. Web. 22 Sept. 2012.

Tyre, Peg. "Standardized Tests in College?" *Newsweek.* Newsweek, 16 Nov. 2007. Web. 15 May 2008

4. List the three major pieces of information that must be included for all book sources listed on the works cited page. *(10 points)*

5. List two differences between the ways that book sources (versus electronic sources) appear on the works cited page. *(10 points)*

6. Using the works-cited entry below, identify the name of the publishing company that published Bella Adams' work. *(10 points)*

> Adams, Bella. *Becoming Chinese: Racial Ambiguity in Amy Tan's The Joy Luck Club.* Amsterdam: Rodopi, 2002. Print.

    A. Adams.
    B. Amsterdam.
    C. Rodopi.
    D. The publishing company is not listed.

7. List one thing that is wrong with the following works-cited entry for a book. *(10 points)*

> Patricia P. Chu. *Assimilating Asians: Gendered Strategies of Authorship in Asian America.* Durham: Duke UP, 2000. Print.

8. List one thing that is wrong with the following works-cited entry for a book with multiple authors. *(10 points)*

> Bolter, Jay David, and Grusin, Richard. *Remediation: Understanding New Media.* Cambridge: MIT P, 2000. Print.

9. List the date in which the writer of the following works-cited entry accessed Jonah Lehrer's article. *(10 points)*

> Lehrer, Jonah. "Trials and Errors: Why Science is Failing Us." *Wired.* Conde Nast, 16 Dec. 2011. Web. 22 Sept. 2012.

10. Using the works-cited entry below, identify the sponsor or publisher of Judy Keen's Web article. *(10 points)*

Keen, Judy. "States Weigh Lowering Drinking Age." *USA TODAY.* Gannett Co.

Inc., 1 April 2008. Web. 22 Sept. 2012.

APPENDIX G

MLA Works Cited Page In-Class Activity

MLA Works Cited Page In-Class Activity

OBJECTIVE

To provide students practice creating a works cited page and documenting electronic and print sources.

ASSIGNMENT SEQUENCE

1. **Individual Activity: Creating a Works Cited Page**

    Provide students the following directions and allow 45 minutes to complete the task.

    Directions: Open a blank Word document and create a works cited page using the sources below and provided to you. You can reference any textbook and/or video lectures to assist you.

    1. Article link 1.
    2. Article link 2.
    3. Article link 3.
    4. Article link 4.
    5. Article link 5.
    6. Book 1.
    7. Book 2.
    8. Book 3.
    9. Book 4.
    10. Book 5.

2. **Whole Class Activity: Discussing the Works Cited Page**

    Provide each student an example of the correctly formatted works cited page. Ask them to compare it with those they created, and ask for any differences noted. Allow 15 minutes for the whole class discussion.

APPENDIX H

Xtranormal Multimodal Project Lesson Plan

Xtranormal Multimodal Project Lesson Plan

OBJECTIVE

- To provide students an opportunity to identify effective design strategies used in visual arguments.*
- To engage students in redesigning and revising a print position essay to make it more effective as an on-screen dialogue between two characters.

ASSIGNMENT SEQUENCE

1. **Homework**
   - Read from textbooks on the topics of photo essays and document design.
   - Watch the following two video podcasts: "Xtranormal: Movie Maker Basics" (10 minutes) and "Xtranormal: Student Accounts" (5 minutes).
   - Check your knowledge and understanding by taking the "Xtranormal: Finding Your Way Around" quiz (20 questions).
   - Create your Xtranormal student account using the provided class token.
   - Bring a set of headphones to class.

2. **Whole Class Activity: Viewing and Evaluating Xtranormal Visual Arguments**
   - Provide the following freewriting prompt and discuss as a whole class their answers:

     According to YouTube, "100 hours of video are uploaded to YouTube every minute." Why do people choose to communicate their ideas via video? In what ways does communicating via video differ than via print (essays, newspapers, blogs, etc.)?

   - Show a poorly-created Xtranormal video and ask the class to answer the following questions:

     - What is the video's stance on [video topic]?
     - List some of the opposition's reasons that the author rebuts.
     - What evidence is used to defend the author's position?
     - How effective was the video?

   - Ask students to brainstorm and generate a list of criteria for effective video communications.

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- Show class a well-constructed Xtranormal video and ask them to evaluate it against the class-generated criteria.

3. **Individual Activity: Creating the Xtranormal Video**
   - Provide students the remainder of the class period to write their video scripts, and then log into Xtranormal, and create their own videos.

*Assignment objectives adapted from activities detailed in C. Selfe's "Toward New Media Texts: Taking Up the Challenges of Visual Literacy" (85, 101).

APPENDIX I

Xtranormal Multimodal Project Assignment Sheet

Xtranormal Multimodal Project Assignment Sheet

To complete writing project 2, you will create a two-page script and a three to five minute video using Xtranormal. This script and video will visually communicate your argument from your second major writing assignment.

A successful script will:

- Include dialogue for two actors.
    - One actor communicates your stance on the topic.
    - One actor communicates the opposition's stance on the topic.
- Include at least two of the opposition's beliefs about the topic and your response to those beliefs.
- Include evidence (quotes, examples) to support your claims.
- Follow the formatting conventions of a script.
- Clearly indicate your stance on the topic.
- Include dialogue that is written in a tone and style that is most appealing to the opposing audience.
- Include at least two pages of dialogue.

A successful video will:

- Include two actors who will be most credible to your opposing audience.
- Include a reasonable location/set that may be most credible to your opposing audience.
- Ensure sounds and music (if used) are necessary to your story and are not distracting to your opposing audience.
- Use gestures (faces, pointing, and motions) effectively to emphasize points and break up dialogue.
- Use camera angles effectively to set up a scene or convey an emotion.
- Clearly indicate your stance on the topic.
- Include at least two of the opposition's beliefs about the topic and your response to those beliefs.
- Include evidence (quotes, examples) to support your claims.
- Avoid offending your target audience.
- Last at least three minutes and no longer than five minutes.

APPENDIX J

Xtranormal: Finding Your Way Around Quiz

Xtranormal: Finding Your Way Around Quiz

Directions: This quiz tests your knowledge regarding how to navigate and create videos using Xtranormal. After watching the "Xtranormal Movie Maker Basics" and "Student Accounts" video tutorials posted on Blackboard, answer the following 20 questions. Each question is worth 5 points.

1. In addition to selecting any actor you want from the characters collection, you can also select from over 60 voices for your actor. *(5 points)*

    o   True.
    o   False.

2. Xtranormal allows you to include a maximum of how many actors in your movie? *(5 points)*

    A. 1.
    B. 2.
    C. 3.
    D. 4.

3. Xtranormal includes a feature that allows you to add background music and sounds to your video. *(25 points)*

    o   True.
    o   False.

4. Using the image below, select the "bubble type" that the video tutorial directed you to use when adding dialogue for each of your actors in an Xtranormal video. *(5 points)*
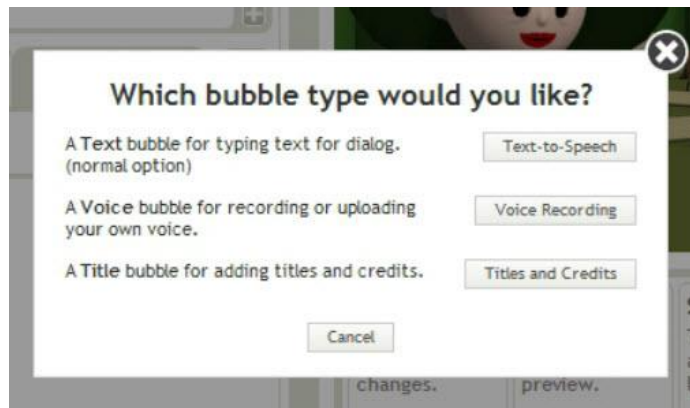
> A. Text-to-Speech.
> B. Voice Recording.
> C. Titles and Credits.
> D. None of the above.

5. Using the image below, click on the area of the image that allows you to add more dialogue in an Xtranormal video. *(5 points)*

6.   You want to change the actor who is talking. Click on the part of the image that allows you to change all dialogue so that actor 2 is talking--not actor 1. *(5 points)*

7.   Using the image below, select the part of the image that allows you to delete the dialogue bubble. *(5 points)*

8.   Using the image below, click on the part of the image that allows you to hear an audio preview of actor 1's dialogue. *(5 points)*

9. Using the image below, select the part of the image that allows you to preview your entire movie in Xtranormal. *(5 points)*
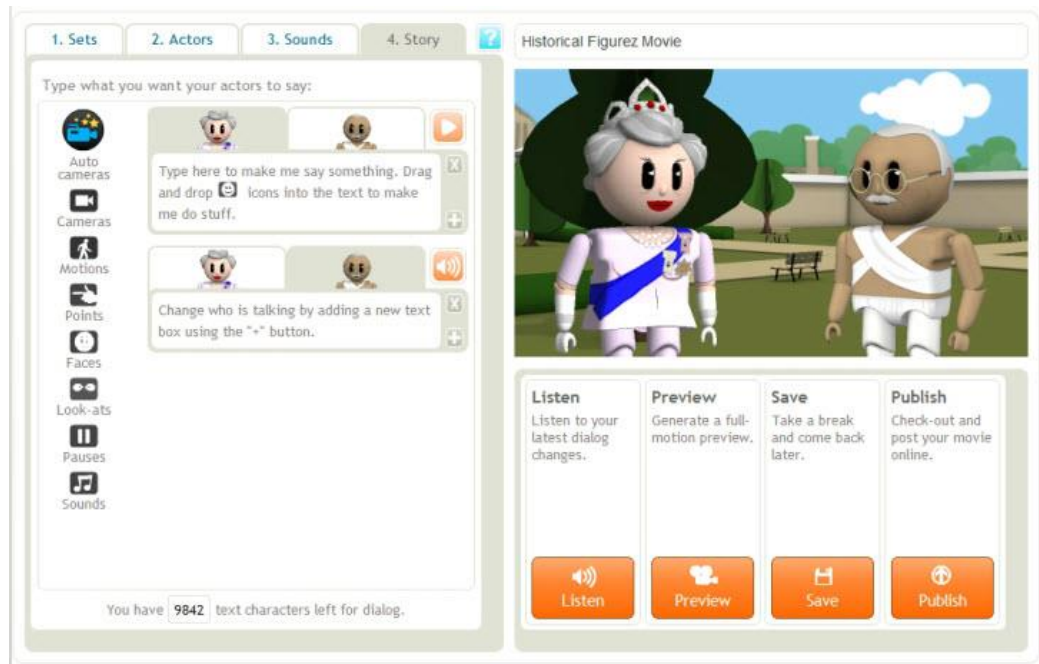
10. Using the image below, select the part of the image that allows you to add animations, such as blowing kisses, to your actors. *(5 points)*
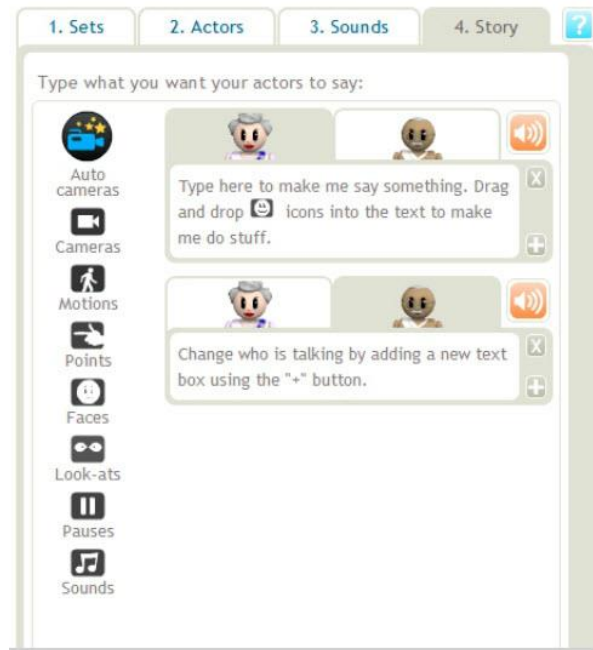
11. Using the image below, select the part of the image that cues the actor to look directly at the camera for dramatic effect. *(5 points)*

12. Using the image below you can tell that the camera angles will automatically be added to the Xtranormal movie so that a lot of cinematic polish will be added to the movie without a lot of work from you. *(5 points)*

- o True.
- o False.

13. Using the image below, select the part of the image that allows your actor to point in any of seven different directions, including up, behind, and at himself. *(5 points)*

14. Using the image below, select the part of the image that cues the actor to pause for a long duration. *(5 points)*
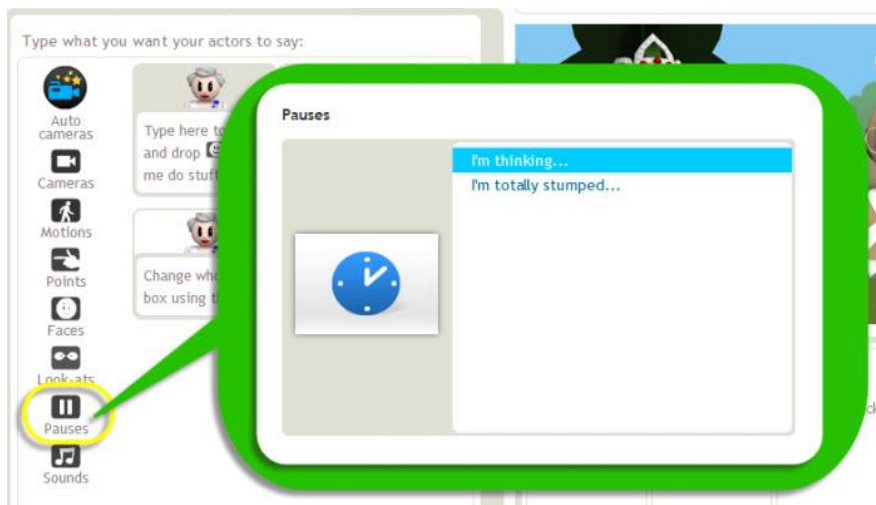
15. Using the image below, select the part of the image that allows you to start creating your Xtranormal video. *(5 points)*
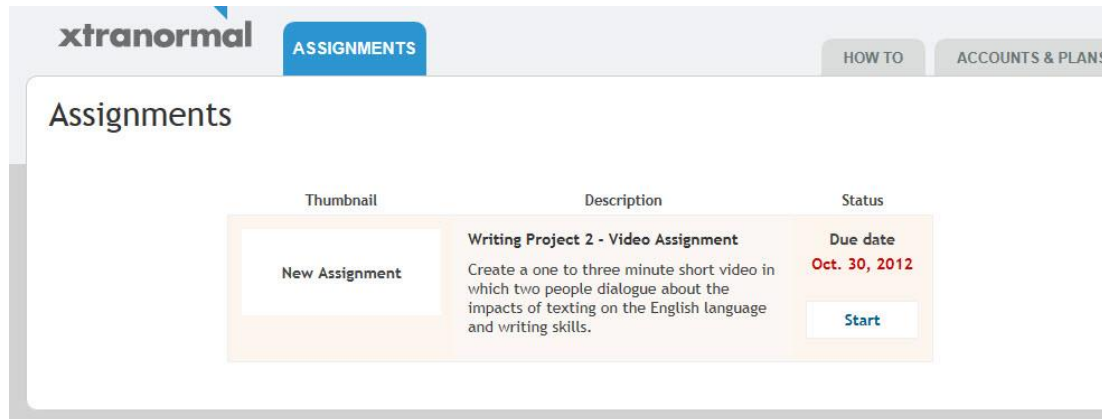
16. Using the image below, select the part of the image that allows you to create a video using two actors in the Robots collection. *(5 points)*
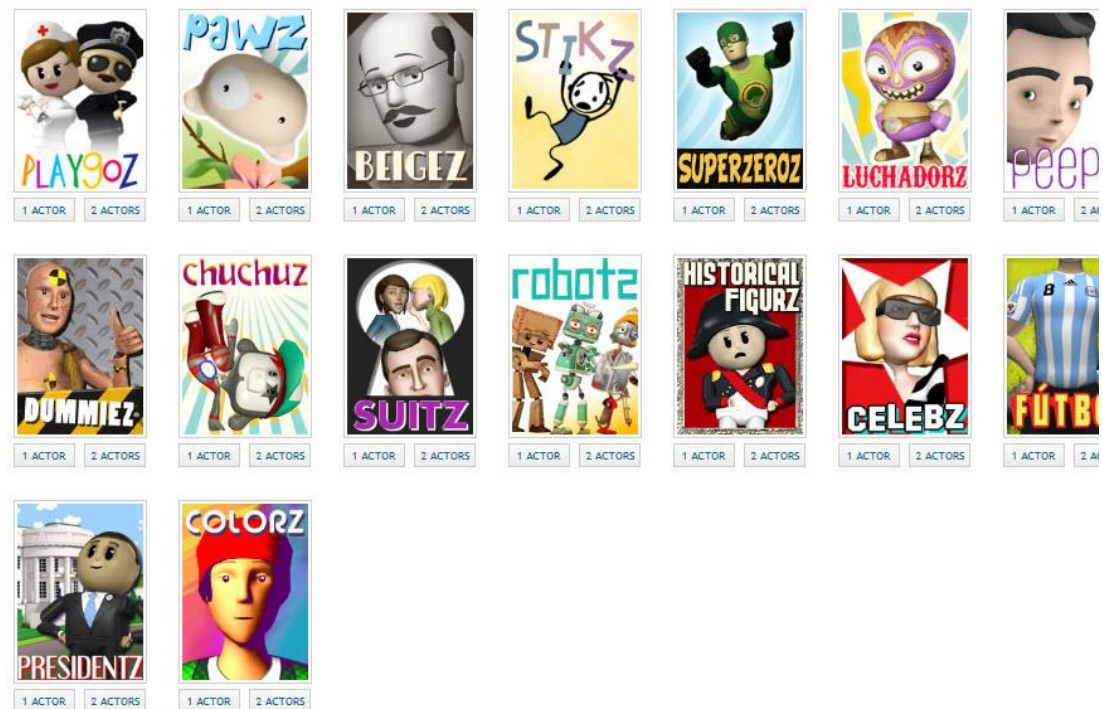
17. Which of the following is the token for you to create an Xtranormal account for this ENGL 1301 class? *(5 points)*

    A. Q026B.
    B. 9U68O.
    C. 123BG.
    D. OP879.

18. You should access www.xtranormal.com/students to set up your Xtranormal student account. *(5 points)*

    o True.
    o False.

19. Using the image below, select the part of the image that allows you to add sound to only a designated part of the movie. *(5 points)*
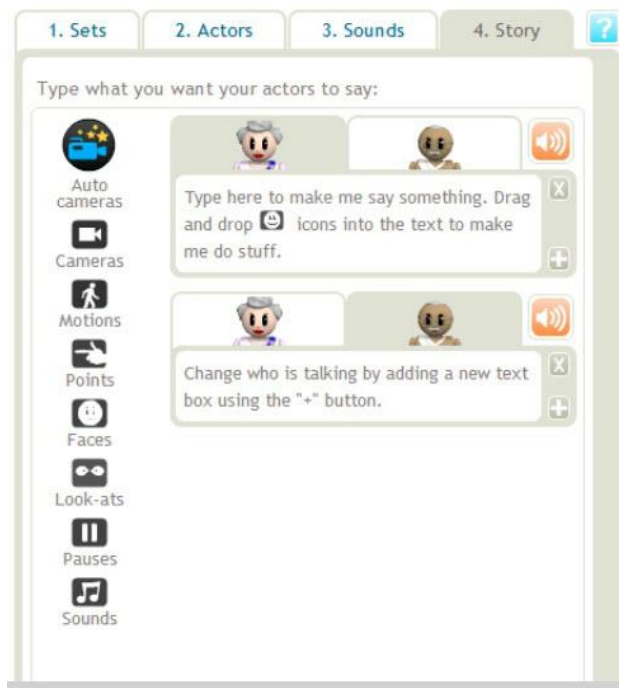
20. Using the image below, select the part of the image that allows you to change the "set" of the Xtranormal video. *(5 points)*

APPENDIX K

Xtranormal Multimodal Project Rubric

Xtranormal Multimodal Project Rubric*

1	2	3	4	5
Ineffective use of actors.			Effective use of two actors who are credible to the opposing audience.	

1	2	3	4	5
Ineffective choice for the location/set of the story.			Effective choice for the location/set of the story.	

1	2	3	4	5
Ineffective use of sounds and music.			Effective use of sounds and music.	

1	2	3	4	5
Ineffective use of gestures (faces, pointing, and motions) to emphasize points and break up dialogue.			Effective use of gestures (faces, pointing, and motions) to emphasize points and break up dialogue.	

1	2	3	4	5
Ineffective use of camera angles to set up a scene or convey emotion.			Effective use of camera angles to set up a scene or convey emotion.	

1	2	3	4	5
Ineffectively conveys stance on the topic.			Effectively conveys the stance on the topic.	

1	2	3	4	5
Ineffectively conveys and rebuts audience's stance on the topic.			Effectively conveys and rebuts at least two of the audience's views on the topic.	

1	2	3	4	5
Ineffective use of evidence to support claims.			Effective use of evidence to support claims.	

1	2	3	4	5
Ineffective attention to audience.			Effective attention to avoiding offending your audience.	

1	2	3	4	5
Ineffective video length.			Effective video length of three to five minutes.	

Comments:

*Assignment rubric adapted from C. Selfe, Fleischer, and Wright's "Words, Audio, and Video: Composing and the Process of Production" (22).

APPENDIX L

Library Online Databases: Going Beyond Google Quiz

Library Online Databases: Going Beyond Google Quiz

Directions: This quiz checks your understanding of the differences between Google and Collin College's online databases as well as how to navigate those online databases. After watching the "Library Online Databases: Going Beyond Google" video tutorial posted on Blackboard, answer the following 5 questions. Each question is worth 20 points.

1. Explain why you might choose to search for sources using Collin College's online databases versus searching Google for sources. *(20 points)*

2. The sources found in online databases are generally written by whom? *(20 points)*

3. According to the video tutorial, what is the name of an online database that is one of the most popular databases, covering content for general topics? List it below. *(20 points)*

4. Explain the significance of selecting "Full Text" (as shown in the image below) when searching for topics in an online database. *(20 points)*

5. Using the image below, select the area of the image that you should click on to view a list of Collin's online databases. *(20 points)*

APPENDIX M

Animoto Multimodal Project Lesson Plan

Animoto Multimodal Project Lesson Plan

OBJECTIVE

- To provide students practice in analyzing visual arguments and evaluating their effectiveness.*
- To involve students in expanding a text's effectiveness by redesigning it as a visual argument.
- To provide students practice in documenting assets, including images and audio.
- To engage students to reflect on their design process in presenting an argument.

ASSIGNMENT SEQUENCE

1. **Homework**
   - Watch the "Animoto" video podcast (6 minutes).
   - Check your knowledge and understanding by taking the "Animoto" quiz posted on Blackboard (11 questions).
   - Bring a set of headphones to class.

2. **Whole Class Activity: Viewing and Evaluating Visual Arguments**
   - Show three visual arguments of varying effectiveness.
   - Ask students to evaluate the effectiveness of each video and generate a list of criteria for effective video communications.
   - Show class a well-constructed Animoto video and ask them to evaluate it against the class-generated criteria.

3. **Whole Class Activity: Discussing Selecting and Documenting Images/Audio**
   - Lead students in a discussion regarding the rhetorical strategies involved in selecting appropriate images and audio. Initiate the discussion by displaying three sets of four images and asking which image of the set is best suited for visually arguing on topic x.
   - Lead students in a discussion regarding the importance of documenting all image and audio sources by presenting an example works cited page for a video project.

4. **Individual Activity: Creating the Animoto Video**
   - Provide students the remainder of the class period to create their own videos.
   - Assign students to complete videos and post to Blackboard for peer editing.

5. **Peer Editing Workshop**
    - Group students together to evaluate each other's videos using the assignment rubric.
6. **Class Presentations**
    - Provide students time to present to the class their videos and then explain their reasons for the design strategies used to convey the topic, stance, and supporting points.

*Assignment objectives adapted from activities detailed in C. Selfe's "Toward New Media Texts: Taking Up the Challenges of Visual Literacy" (88, 91, 104).

APPENDIX N

Animoto Multimodal Project Assignment Sheet

Animoto Multimodal Project Assignment Sheet

To complete writing project 3, you will create a one to five minute video using Animoto. This video will visually communicate your argument from your third major writing assignment.

A successful video will…	Points Possible	Points Earned
Clearly identify the claim/thesis of the argument.	9	
Provide enough evidence to support the claim/thesis of the argument. • Clearly identify at least two major points (and appropriate evidence). • Use strategies to make these points prominent and stand out from other elements: size, placement, etc.	9	
Document the source of each image (and music if using a song outside of Animoto music library) using the format below and attach on Blackboard.*	9	
Demonstrate a high degree of visual impact. • Use images that are especially effective for the topic and its audience and purpose (Microsoft Images, Flickr, images that you take yourself). • Use an Animoto style that sets the appropriate tone for the topic and its audience and purpose. • Use a song that sets the appropriate tone for the topic and its audience.	9	
Demonstrate a high degree of visual coherence (use pattern of organization that helps viewers comprehend your composition).	6	
Be relatively free of distracting surface errors.	3	

Images:
Artist (if given). "Title of file." <u>Web site from which image was taken</u>. Accessed date on which you accessed the Web site.

Example: Grannan, Katy. "Anamarie Regino."

<u>http://www.flickr.com/photos/nostri-imago/3401730734/</u>. Accessed 7 Nov. 2012.

Songs:
Artist (if given). "Title of file." MP3.

Example: N-GeniuZ. "Dream Dance." MP3.

*Documentation format and assignment criteria adapted from assignment rubrics detailed in C. Selfe's "Toward New Media Texts: Taking Up the Challenges of Visual Literacy" (81-82, 89).

APPENDIX O

Animoto Quiz

Animoto Quiz

Directions: This quiz tests your knowledge of signing in, navigating, and creating videos using Animoto.com. After watching the "Animoto" video podcast posted on Blackboard, answer the following 11 questions.

1. Type the email address and password that should be entered when signing into your Animoto account. *(10 points)*

2. According to the video tutorial, click on the part of the image that will allow you to move on to the next step in creating your Animoto video. *(10 points)*
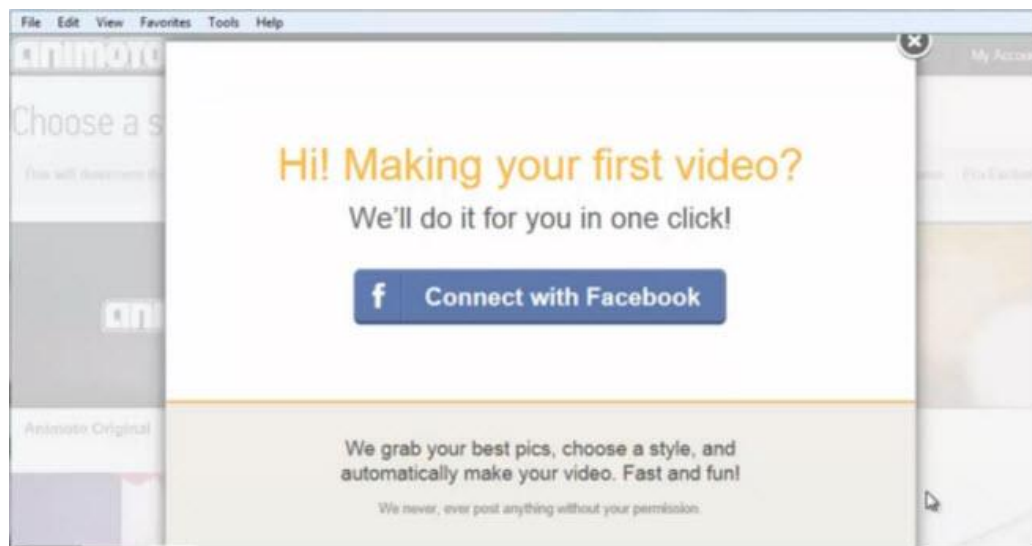
3.	According to the video tutorial, Animoto offers a variety of styles for your video. Select the style that would be most appropriate for a visual argument emphasizing a formal, academic tone. *(10 points)*
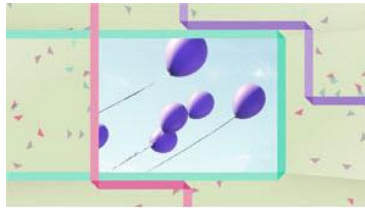
Confetti

Land of the Rising Hearts

Water

Pop-up Pandemonium

4.	Click on the area of the image that allows you to upload images directly from your own computer. *(10 points)*
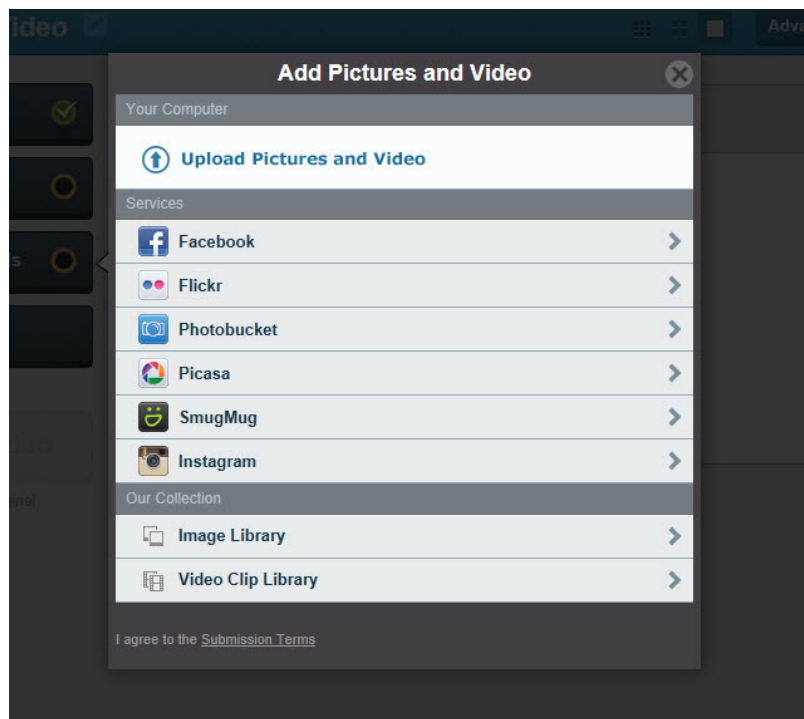
5. Click on the area of the image that will allow you to delete the selected image of the burger. *(10 points)*

6. Click on the area of the image below that will make the selected image of the burger really stand out in the video. *(10 points)*

7. Animoto limits the number of characters you can use when adding text to your video. To work around this limitation, you should click on the **Add Text** option to add more text to the video. *(5 points)*

   o True.
   o False.

8. Click on the area of the image that allows you to update the title, description, and branding/credits of your Animoto video. *(10 points)*
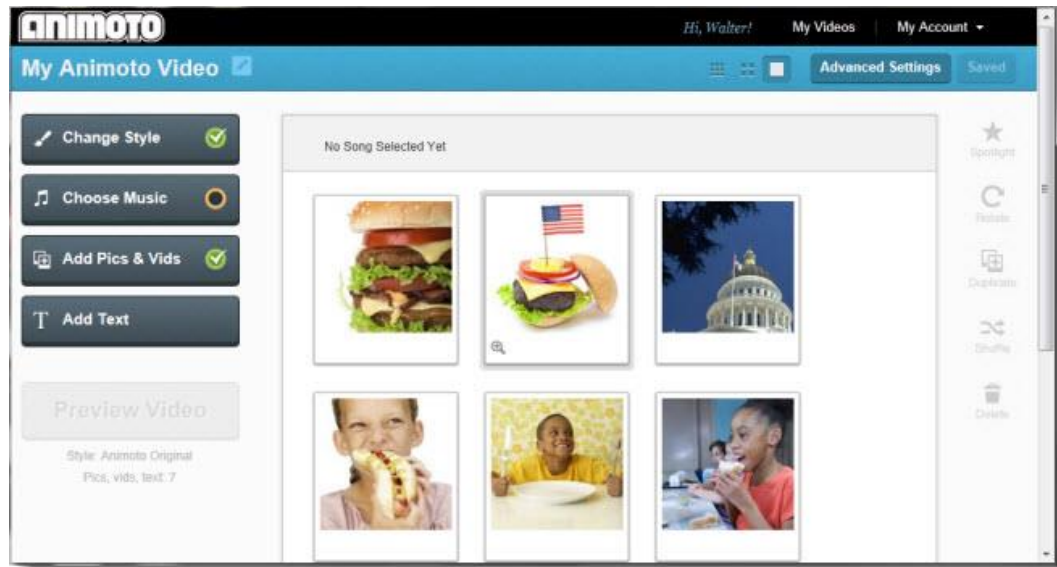
9. Select the area of the image that allows you to add the selected song "Coquetry" to the video. *(5 points)*
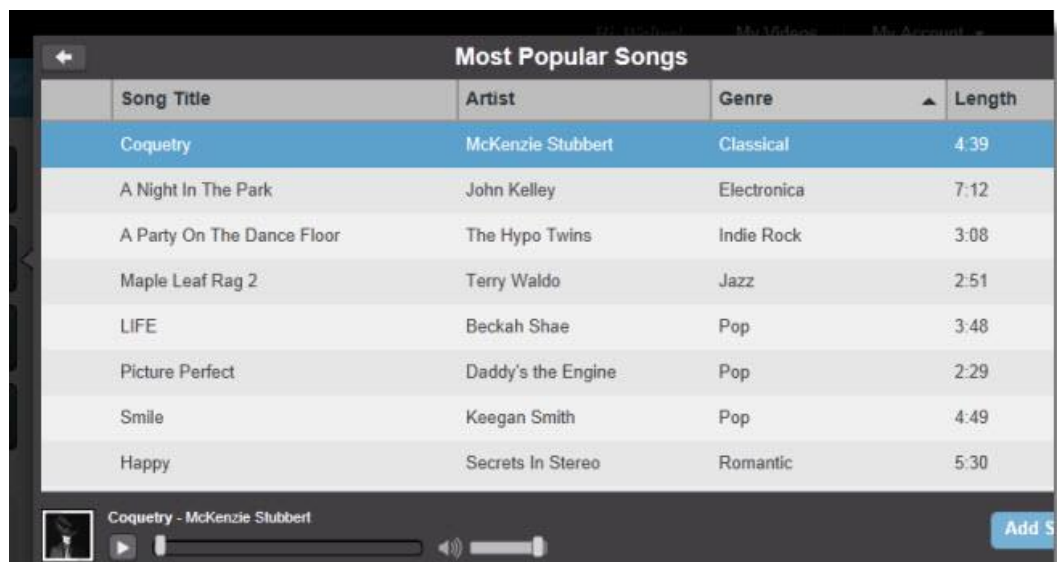
10. When ready to start producing your finalized Animoto video, which of the buttons do you select? *(10 points)*
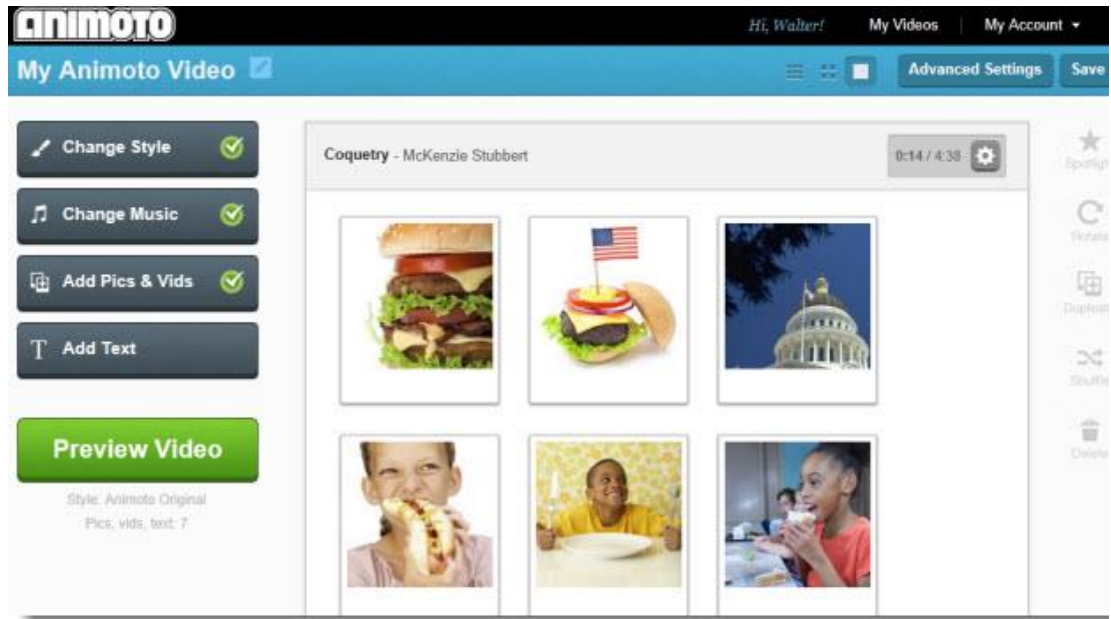
11. Click on the area of the image that allows you to add more pictures to your video. *(10 points)*

APPENDIX P

Animoto Multimodal Project Rubric

Animoto Multimodal Project Rubric

1. Overall Visual Impact

Argument's overall impact is low & presentation is less than effective.

Argument has moderate level of overall impact and presentation is moderately effective.

Argument has exceptional overall impact and presentation is highly effective.

2. Claim of the Visual Argument

The claim of the argument is not clearly identified.

The claim of the argument is identified.

The claim of the argument is clearly identified.

3. Supporting Evidence for the Argument

The supporting points and evidence is less than persuasive and not prominent.

The supporting points and evidence is persuasive and prominent.

The supporting points and evidence is highly persuasive and highly prominent.

4. Visual Coherence

Essay needs more visual coherence

Essay is visually coherent.

Essay demonstrates excellent visual coherence.

5. Documentation of Images/Music

Images/music are not correctly documented.

Images/music are generally correctly documented.

All images/music are correctly documented.

Comments:

*Assignment rubric adapted from C. Selfe's "Toward New Media Texts: Taking Up the Challenges of Visual Literacy" (81-82).

APPENDIX Q

List of the Words Students Used to Describe
Walking into a Computer-Equipped Classroom for the First Time

List of the Words Students Used to Describe
Walking into a Computer-Equipped Classroom for the First Time

- Advanced
- Afraid
- Amazed
- Anxious
- Awesome
- Bewildered
- Bored
- Calm
- Comfortable
- Confident
- Confused
- Content
- Convenient
- Cool
- Crap
- Curious
- Different
- Distracted
- Eased
- Easy
- Ecstatic
- Engaging
- Entertainment
- Excited
- Facebook
- Familiar
- Fine
- Frazzled
- Fun
- Good
- Great
- Happy
- Hopeful
- Impressed
- Innovative
- Interested
- Intimidated
- Intrigued
- Joyous
- Knowledgeable
- Lonely
- Lost
- Modern
- Need Time to Adjust
- Nervous
- Neutral
- New Experience
- Nice
- Normal
- Okay
- Open-minded
- Opportunity
- Out of Place (computers)
- Overwhelmed
- Pleased
- Prepared
- Puzzled
- Relaxed
- Relieved
- Responsibility
- Rich
- Rigorous
- Scared
- Screwed
- Secure
- Shocked
- Stoked
- Sure
- Surprised
- Sweet
- Thankful
- Tough
- Uncomfortable
- Uneasy
- Unimpressed
- Willing
- Worried
- Yay

APPENDIX R

IRB Approval Letter

October 4, 2012

Ms. Christina Grimsley

Dear Ms. Grimsley:

Re: *Inverting the Classroom: Investigating Its Impact on Women in Freshman Composition*
        (Protocol #: 17101)

The above referenced study has been reviewed by the TWU Institutional Review Board (IRB) and
appears to meet our requirements for the protection of individuals' rights.

If applicable, agency approval letters must be submitted to the IRB upon receipt PRIOR to any data
collection at that agency. A copy of the approved consent form with the IRB approval stamp is
enclosed. Please use the consent form with the most recent approval date stamp when obtaining
consent from your participants. A copy of the signed consent forms must be submitted with the request
to close the study file at the completion of the study.

This approval is valid one year from October 4, 2012. Any modifications to this study must be
submitted for review to the IRB using the Modification Request Form. Additionally, the IRB must be
notified immediately of any unanticipated incidents. If you have any questions, please contact the
TWU IRB.

Sincerely,

Dr. Rhonda Buckley, Chair
Institutional Review Board - Denton

cc. Dr. Genevieve West, Department of English, Speech & Foreign Languages
     Dr. Bruce Krajewski, Department of English, Speech & Foreign Languages
     Graduate School