Instructor Views about the Use of Technology in Teaching ESL Writing at the University Level

DISSERTATION

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By

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Abstract

The presence of technology in education has affected how the process of teaching and learning of ESL writing occurs. In ESL composition courses at the university level, technology as a pedagogical tool has become common among instructors and the use of technology in ESL composition instruction seems to be becoming the norm. The purposes of the present study were to examine how instructors of university-level ESL composition courses described their regular use of technology as a pedagogical tool and to investigate the participating instructors’ self-reported views about the use of technology in their teaching practices. This qualitative dominant mixed methods research study was conducted in a post-admission ESL composition program at a large Midwestern U.S. university. In one ten-week academic quarter, data for the study were collected from instructors teaching in the program via the distribution of questionnaires (n=18), one-on-one interviews (n=5), classrooms observations (n=4), and document analyses (n=4).

The present study found that all instructors who participated in this study reported the use of technology in their ESL composition classrooms regardless of their gender, employment position in the program, number of years of teaching experience, and other categories that classified the instructors’ demography, but the degree to which technology was used differed from instructor to instructor. The study also found that the instructors’ responses regarding their use of technology can be classified into two broad categories:
unidirectional tool and bidirectional tool. Moreover, in the present study, most of the participating instructors reported having positive viewpoints about the use technology in teaching ESL composition at the university level. Their positive views were expressed in terms of the usability of technology, the perceived advantages for students, and the instructors’ assessment about technology. However, in discussing the effects on their ESL writing students, the instructors reported that the results of their use of technology in their teaching practices had both positive and negative effects. Instructors in the study reported that the positive effects of using technology included students’ ability to become more independent learners, and the negative effects included distractions caused by the use of technology. The study implies that while technology can be a useful tool in teaching ESL composition, instructors’ decisions about using technology in their courses might be influenced by their comfort levels, their knowledge about technology, and external factors; that technology use affects both instructors and students; that technology as a tool is a dominant view; and that pedagogical use of technology varies from instructor to instructor.
Dedicated to the memory of Professor Charles R. Hancock,
who directed and supervised this dissertation until the day he passed away
on October 29, 2012
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Fields of Study

Major Field: Foreign and Second Language Education

Cognate Areas: Educational Technology

College and University Teaching
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Chapter 1

Introduction

The use of technology began many centuries ago, long before the introduction of digital and advanced technologies that we are now accustomed to (Persichitte, 2008). Prior to the existence of digital technology, chalkboards and posters were once considered to be new technologies (Bruce, 2001; Meskill, 2007). For many people, as technology improves and moves forward, these are now considered non-technological (Bell, 2006).

Students and teachers have seen and used technologies in various forms in their daily lives, from advanced electronic portables such as notebooks, smart phones and tablet computers, to technologically advanced items such as web-enabled flat-screen 3D smart televisions. In education, students and teachers alike have used technology as a teaching and learning tool in their classrooms. Blogs, wikis, course management systems and web 2.0 are some of the digital tools that are readily available for use (Bloch, 2008). In this modern age, the ubiquity of technology makes the tools no longer a foreign object for both students and teachers. Tuzi and Hayward (2003) stated that “Technology is here to stay; it is not something we can ignore” (p. 8). They also added that “it is also not a thing to be feared” (p. 8), which may be quite comforting for teachers who are still apprehensive, intimidated, or indecisive about integrating technology in their teaching. Second language writing classrooms have also benefited from the use of technology as an
engaging tool to learn how to write. Based on empirical research studies, the use of
technology has largely been regarded as a positive teaching and learning tool by second
language writing researchers (e.g., Braine, 1997; Coleman, 2002; Salies, 2002; Ince,
2002). The caveat, as noted by Kasper (2002) is that it should “provide students with
meaningful educational experiences” (p. 144).

The question ‘really, what is technology?’ regularly appears when we cannot
agree on a definition. A universal definition of technology is elusive, but scholars and
organizations have some working definitions. As a general definition, the American
Heritage Dictionary defines technology (noun) as “the application of science, especially
to industrial or commercial objectives.” While the dictionary definition may not fit
exactly into what we know as technology in education, there may be some truth in it. In
education, pedagogical technology certainly is used with educational objectives to help
meet specific needs (Bloch, 2008) and to give students positive educational experiences
(Kasper, 2002). More specifically in the field of education, the Association for
Educational Communications and Technology (AECT) defines educational technology as
“the study and ethical practice of facilitating learning and improving performance by
creating, using, and managing appropriate technological processes and resources” (2008,
p. 1). From the teaching standpoint, technology is primarily used by teachers to help
students achieve independent learning. In such a situation, teachers may act as a
facilitator, counselor or resource to their students. While research shows that technology
appears to have mostly positive effects for both students and teachers, Postman (1992)
added that “every technology is both a burden and a blessing” (p. 4-5) and Bloch (2008)
pointed out that “adapting technology … to fit a certain problem is not always simple” (p.
7). These statements indicate how technology is used in classrooms as an area needing to be investigated.

As a writing instructor, the researcher’s use of technology in ESL composition course has been personal and is a frequent topic in daily conversations with students and colleagues. In the researcher’s ten years of teaching ESL writing, many types of technology have come and gone with success and failure. While the researcher’s personal viewpoints towards technology have been generally positive, it would be interesting to discover how other ESL writing instructors view the use of technology in their classrooms and professional experiences. The researcher’s capacity as a pedagogical technology specialist, personal interest in technology, and curiosity about other instructors’ views has given impetus to embark on an in-depth empirical investigation on the topic.

An area of investigation that is frequently associated with the discussion of technology is how technology affects people and society. As a result, technology also affects literacy, which then affects writing pedagogy (Bloch, 2008). With the effects that technology brings into our lives, the theory of technological determinism has influenced the ways technology is viewed. Coined by Thornstein Veblen, technological determinism is the most common way of seeing how technology drives societal change and impacts society (Bell, 2006; Brette, 2003). In addition, the conversation of teachers’ attitudes and beliefs has influenced the field of teaching and learning. The functionalist theory proposed by Katz (1960) has been as a major contributor to this area of inquiry. Furthermore, in ESL teaching and learning, technology is a major aspect discussed in the computer-assisted language learning (CALL) theory. Within the CALL theory, the
Sociocultural Theory (SCT), a subset of the Second Language Acquisition (SLA), is deemed relevant and used to conceptualize how technology relates to language learning. Because all of these viewpoints are influential in discussing the relationship between technology and many aspects in society, how technology affects ESL teaching and learning, and teachers’ views about the use of technology, these theories motivated this study and dissertation.

**Problem Statement**

The growing use of technology in educational settings has affected how the process of teaching and learning occurs. While many students appear to be able to use technology at least on the surface level, it is imperative to better understand how instructors use technology to meet instructional needs. With the growing interest and rapid advances in technology, many educational institutions have encouraged teaching staff to take advantage of the potential that technology offers. As a result, schools and universities now regularly use and provide technology in classrooms. At the research site for this study, for example, each classroom is now equipped with technology (e.g. the installation of audio/video inputs and classroom projectors for pedagogical purposes). A few years ago at this institution, instructors needed to reserve a technology cart if they wanted to use a computer and projector in their classes. In addition to availability of the hardware, online course management systems (CMS), student evaluations, and grade books are examples of the types of administrative tools that can be and have been used mainly through the Internet. Consequently, paper is being reduced with paperless tools. Moreover, with the spread of text messaging, dependence on email as a means of
communication, and the growth of information on the Internet, the nature of writing is changing (Stapleton, 2007). In ESL writing courses at the university level, technology as a pedagogical tool has become more common and this trend seems to continue to grow.

While much of the professional published literature focuses on how English as a second language learners and students use technology for learning purposes, little research has explored instructors’ viewpoints towards its use, especially for university-level ESL English writing instructors. Although some instructors may quickly embrace the use of technology, other instructors may be resistant and reluctant (Postman, 1992; Tuzi & Hayward, 2003). Because instructors play an important role in students’ learning, more studies investigating technology and instructors need to be conducted. In particular, the present study was needed to investigate instructors’ views of technology in a post-admission ESL composition program within a research university setting.

To address the needs, the study attempted to answer the following research questions:

1. What are the professional profiles of university ESL writing instructors who claimed to regularly use technology in their teaching?

2. How do these university ESL writing instructors describe their regular use of technology in their teaching?

3. What do university-level ESL writing instructors self-report to be their views about their regular use of technology in their instruction?

4. What do university ESL writing instructors self-report to be the results of their use of technology to teach their students?
Gap Statement

While studies have been conducted on the topic of technology use in ESL writing classrooms, they have mainly focused on students. Researchers seemingly have been interested in discovering how technology impacts students. Since the presence of instructors is integral to any teaching and learning process, the roles of instructors cannot be ignored. Instructors are a key participant in any class and their contribution to research, such as this project, is necessary. Instructors’ views about technology as an instructional tool should be investigated so that instructors’ voices and opinions can be represented in a professional discourse. It is important to see how university instructors describe their use of technology as a component of teaching, particularly in an ESL writing context. This study is designed to fill this gap by collecting, describing, and analyzing instructors’ views about the use of technology as a tool in a university level ESL writing program.

Purpose of the Study

The purposes of the present study were: (a) to examine how instructors teaching in post-admission university-level ESL writing courses regularly use technology as a pedagogical tool, and (b) to investigate the participating instructors’ self-reported views about the use of technology in their teaching. To this end, a qualitative dominant mixed methods research study was planned to answer the research questions. Data for the study were collected via questionnaires, interviews, classrooms observations, and document analysis.
This study was not intended to measure the quality of university student writing as a result of their instructor’s use of technology, nor did this study focus on evaluating the performance of the participating instructors. To reiterate, the focus of the study was instructors’ self-reported practices and their viewpoints about their regular use of technology as a tool for teaching ESL English writing.

**Significance of the Study**

This study is intended to benefit university-level ESL writing instructors who use technology as a pedagogical tool in their writing courses and university-level ESL composition programs. Benefits and insights can be gained through the telling of stories and the responses to a questionnaire, interviews, observations, and document analysis from the participating instructors in the study. In addition, this study may foster a deeper understanding of an alternative teaching approach for instructors who are considering adopting and integrating technology into their ESL writing classrooms at the university level.

For university-level ESL writing instructors, the present study is important because it provides valuable information about how technology can be used as a tool in writing instruction for university-level ESL students. Moreover, instructors’ roles in selecting pedagogical technologies are crucial. Through the use of technology as tools, instructors not only teach their ESL writing students how to write, but they also prepare them with technological skills and knowledge needed for academic success. For example, teaching students how to use online corpora may help them with solving problems about grammar in their other academic courses they take at the university. This
particular tool may be beneficial beyond the ESL writing course. Furthermore, this study provides instructors’ insights on the various types of technology they used in their classrooms and how they felt about incorporating these technologies in their teaching practices. This information can help other ESL writing instructors select and implement pedagogical technologies that could work in their particular teaching contexts.

This study is also beneficial for university-level ESL writing programs. The instructors’ views on how they used technology in teaching expressed in the present study may be useful in informing ESL writing programs on how to prepare their instructors to teach with technology and how to provide technological support for them. As suggested by Liu and Szabo (2009) and Yildiz (2007), training should be provided for instructors so that they can strengthen their skills in using technology. The present study provides a glimpse of the technology use of ESL writing instructors which may help ESL writing programs tailor training programs. Additionally, this study contributes to an understanding of the technological support system that is required for the success of technology use by ESL writing instructors.

For ESL writing instructors who are considering adopting technology in teaching, the present study is advantageous as it gives an overview of how the participating instructors integrated technology in their teaching, the benefits and drawbacks of their use of technology, and the impacts of technology use on their students. The insights from the study instructors may help ESL writing instructors who are uncertain about technology explore the possibilities and make an informed decision about how technology could be incorporated into their teaching.
Basic Assumptions of the Study

The underlying basic assumptions of the study were:

- Instructors are expected to have computer literacy. While the degree of computer literacy may vary for instructors, familiarity with instructional technology tools (e.g., word processing software) is commonly expected at the university level.
- Instructors are familiar with the computers and can operate them with relative ease. To determine the extent to which this assumption is valid, a survey and interviews will be used.
- ESL writing students, especially those from countries with advanced technology, tend to be comfortable with computers. Indeed, many contemporary ESL university students either have their own personal computers, or they often take advantage of the university’s public computing sites on a regular basis.
- Technology in general is seen as a positive pedagogical tool.
- The ESL writing field makes progress in the implementation and integration of technology.

Definition of Terms

The following terms were used in this study and are presented here to describe the intended meaning in the study. For the purposes of this study:

CMS refers to a Course Management System in which instructors can create, manage, and distribute content and teaching materials through a centralized website. At the research site, the CMS is called e-Course (pseudonym), which is a web-based
platform designed by Desire2Learn, a company that provides eLearning solutions to corporations, organizations, and educational institutions.

*ESL composition/writing* refers to the scholarship and practice of writing English in a second language context.

*L1* refers to an individual’s first or native language. In this study, the first or native languages vary depending on where the person is from.

*L2* refers to an individual’s second language. In this study, the second language is English.

*Instructors* refer to the main participants of this study who teach English as a second language composition courses in a university setting where this study is conducted. An instructor may teach undergraduate- or graduate-level courses or both.

*Students* refer to any non-native English speakers who are enrolled in English courses at the university where the study was conducted.

*Technology* refers to any computer (including tablet computers such as iPad), audio, video, or multimedia devices. It also refers to the Internet and the World Wide Web (including Web 2.0).

**Organization of the Dissertation**

Chapter One of the dissertation serves as an introduction of the study. This chapter explains the background of the study. The research questions and purposes of the study are also stated. Additionally, basic assumptions of the study will be provided and terms used throughout the dissertation are defined.
Chapter Two provides a review of relevant literature. This chapter consists of an overview of educational technology and relevant theories as well as discussions on technological literacy, the roles of technology in ESL classrooms. Moreover, instructors’ attitudes on the use of technology and challenges that instructors face when using technology are topics that are included in this chapter.

Chapter Three describes the methodology used in the dissertation. This chapter includes descriptions of the research site and the participants of the study. In addition, data collection instruments, procedures and analysis, and the study timeline are presented. At the end of this chapter, the ethical issues and trustworthiness of research are discussed.

Chapter Four of the dissertation presents the analysis and discussion from the data collected from the research participants. In this chapter, the data are explained, described, and discussed.

Chapter Five includes the answers to the research questions and interpretation of findings. It also discusses the theoretical frameworks used in the study. This chapter also discusses the implications of the study on ESL writing instructors and ESL composition programs. Additionally, it provides recommendations for future research studies and discusses the limitations of the present study. The chapter ends with closing remarks about the dissertation.
Chapter 2
Literature Review

As technology has become readily available in many higher education institutions, the use of technology in second language writing courses has recently too become quite widespread. The availability of wireless Internet (Wi-Fi) makes it easier to access the Internet from anywhere. In university courses, teachers certainly play an important role in the implementation of technology in writing courses and their views about it can be influential. While the assumption is that technology benefits teaching, debates continue on how much good it truly has to offer. In order to address the research questions of this study, it is important to explain the underlying theoretical frameworks for the study and to review the pertinent and relevant literature related to a brief overview of educational technology, the general discussion of technological literacy, the roles of technology in writing classrooms, instructors’ attitudes about the use of technology as well as the technological challenges that instructors may face.

Theoretical Framework

In the discourse of educational technology, many theories have been introduced, praised, debated, and sometimes dismissed. Because this study pertains to three separate issues: technology, instructors’ viewpoints, and L2 setting, it is rooted in three relevant theoretical concepts that can contribute to the richness and depth of the discussion. The
theories of technological determinism, teachers’ beliefs and attitudes, and CALL underlie the present study.

**Technological determinism**

For this study, the theory of technological determinism is one of the underlying conceptual frameworks. The theory assumes that technological enterprise drives social change. This concept has sparked debates among scholars from many disciplines, but seems to be a prominent one used in the literature. As noted by McLuhan (1965), the idea of technological determinism can be traced back to the invention of printing press by Johannes Gutenberg in the 15th century, which marked the beginning of the print age, revolutionized the ways ideas were spread, and allowed thoughts to be communicated and accessed in written forms. With the ubiquity of computers and the pervasiveness of the Internet, many deem the theory of technological determinism as relevant and applicable today (e.g. Friedman, 2005; Winner, 1997; Ong, 1982).

Among the many definitions of the theory of technological determinism, this concept can be defined as an idea that “technology’s impact or influence on society is unidirectional” and that “technology is the driving force behind other changes” (Bauchspies et al., 2006, p. 127 and p. 80). To put it simply, Bell (2006) summarized it as a cause-and-effect equation where “technology produces effects in society” (p. 45). In further discussing the concept, he saw technological determinism as an inevitable force with both positive and negative effects. Bell (2006) also argued that technology has positive effects when its progress helps society and advances knowledge. On the other
hand, Bell (2006) added that it could also bring negative effects when, for example, technology enslaves people. Oliver (2001) regarded the former position as optimistic determinism and the latter as pessimistic determinism. Despite the differences, he noted that both positions acknowledge that the change is caused by technology.

While technological determinism is the most common way of thinking about technology, it also seems to be the most problematic (Bell, 2006). Since the emergence of technological determinism, the theory has been praised and criticized by a number of scholars. Kritt and Winegar (2007) described these positions as “two diametrically opposing camps” with “fundamental differences in values” (p. 3). Furthermore, they explained that the one camp views technology as progress that cannot be avoided and dismisses any opinion that opposes it; and the other camp consists of those who are not willing to accept technological innovation. Bloch (2008), however, pointed out that there is a third group with viewpoints that stand in the middle of the two polarizing sides. According to him, this group of people believes that “technology is neither inherently good nor bad.” (p. 8).

McLuhan (1965) was one of the vocal proponents of technological determinism. McLuhan (1965), a scholar in the field of communications, believed that the progress and development of technology have the power to determine social change. His famous and rather optimistic statement was “the medium is the message” (McLuhan, 1964). This phrase emphasizes the importance of the medium as the influential factor of how a message is conveyed. McLuhan’s ideas (1965) were revisited by Winner (2001), who is a contemporary, strong supporter of the theory. He advanced McLuhan’s (1965) arguments and criticized the opponents of technological determinism. According to
Winner (2001), many scholars have attacked the notion that technology shapes society (in other words, they believe that technology is socially constructed), but what they did not realize is that there is clear evidence showing that “unstoppable, strongly deterministic, technology-centered processes rule our times” (p. 13). He gave an example of how we have to keep up with the rapid development of computer technology. To further explain it, he cited “Moore’s Law” – a term coined by Gordon Moore, a founder of Intel – which states that the power of a microchip doubles about every eighteen months. In such cases, Winner (2001) argued that the constant technological change forces people to continually upgrade our computers.

While the theory of technological determinism has been influential, it is important to acknowledge that some have disagreed with it. As noted by Winner (2001), the opponents of technological determinism seem to come from those who see technology from social constructivist views and believe that society forces technological change. Johnson (1998) pointed out that one of the goals of social constructivists discussing the impacts of technology is to reject determinism. According to him, followers of these views believe that “certain technological artifacts have not been the result of efficiency or fixed historical sequences, but rather have been invented, designed, stabilized, disseminated, and eventually shaped by social forces” (p. 94). As advocates of the social constructivist views, Pinch and Bijker (1987) coined the term Social Construction of Technological Systems (SCOT) to counter the theory of technological determinism. In their arguments, they believed that society molds technology, and not the other way around.
While most people subscribe to either the technological deterministic views or the social constructivist views, a third, less prominent position has emerged. Hughes, whose 1969’s essay appeared in Smith and Marx (1994), believed that there should be a middle ground between the two polarizing views. He offered “technological momentum” as an alternative view that incorporates both sides. His idea lies somewhere between technological determinism and social constructivism. This integrative concept regards both social and technical forces as equally influential in terms of how they promote change.

While technological determinists and social constructivists have strong opposing arguments and the debates will likely to continue, the theory of technological determinism seems likely to remain as a dominant view in the technology discourse and can be applicable to investigate the impacts of technology use in the teaching of ESL writing. To borrow Winner’s (1997) phrase, technological determinism is “alive and kicking” (p. 1).

Attitudes and beliefs

While the terms attitudes and beliefs are often used interchangeably, they actually refer to different concepts. It is important in the present study to note the difference. Katz (1960), a psychologist, defined attitude as the individuals’ tendencies to evaluate aspects of their world. Developed and proposed by Katz (1960), a major contributor to the discussion of attitude, the functionalist theory describes how we hold certain attitudes because these attitudes serve some functions to help us achieve our goals. As a pragmatic approach, the theory argues that people’s attitudes change depending on whether they can
serve their needs. Katz’s (1960) functional theory of attitudes identified four purposes that attitudes might serve the individual. Two of the four functions relevant for the present study are the instrumental function, which serves to motivate people to gain rewards and minimize punishments, and the knowledge function, which refers to a benchmark or a structure that people use to react to a phenomenon that is presented to them and to give an interpretation of the phenomenon. How these two functions work in the present study is discussed in chapter 4 of the dissertation.

Since the present study pertains to instructors’ perspectives, this theory is deemed to be relevant and applicable to the discussion, and, therefore, it is also used a framework. This theory has relevance in the use of technology in teaching writing. For example, if giving online feedback is seen as a tool that can help writing instructors to become more efficient, it is more likely to be used because it rewards them with more time to do other activities.

Belief is another related concept often mentioned in discussing instructors and their teaching. Nespor (1987) presented a theoretical model of teachers’ beliefs. In one of the features of the structure of beliefs, he argued that “belief systems frequently contain propositions or assumptions about the existence or nonexistence of entities” (p. 318). Pajares (1992) added that these belief systems are more personal than universal. Furthermore, he recommended that teachers’ personal beliefs be distinguished from their pedagogical beliefs. When it comes to the use of technology in teaching, Ertmer (2005) suggested that teachers’ belief may be influential and play an important role. If we expect teachers to use more technology in their classrooms, “we must consider how
teachers’ current classroom practices are rooted in, and mediated by, existing pedagogical beliefs” (Ertmer, 2005, p. 36).

**Computer-Assisted Language Learning (CALL)**

Because the present study contains discussions about technology in an L2 setting, Computer-Assisted Language Learning (CALL) is another framework that informs the study. In L2 teaching and learning, the discussion of CALL emerged during the development of mainframe computers in the early 1970s (Kunzel, 1995). While many may not regard CALL as a theory in the traditional sense, it was introduced as a framework because there was an increasing need to provide language teachers with a foundational approach for teaching with technology (Levy, 1990). Hubbard (2008) defined CALL as a concept “which has technology in language learning at its foundation and that then may draw on one or more theories from more established domains for support” (p. 393). He also noted that the field of CALL is still developing and many have not viewed it as a fully independent discipline. Instead, it is often connected to other concepts such as the Second Language Acquisition (SLA) theory.

In discussing the advent of the CALL concept, Egbert et al. (2007) added that the growth of computer availability for language teachers and their desire to employ the Second Language Acquisition theories support the need of CALL, which fosters a relationship between language learning and computers. They further explained it by pointing out that because computers have become more integrated in language learning, technology use that is tailored to students’ needs can promote language acquisition. The integration of technology to foster language acquisition is a key assumption of CALL.
Adding to the discussion, Smith and Thorne (2009) stated that “a variety of second language acquisition theories came to inform pedagogical practice and innovation as well as research on the effectiveness and outcomes of technology mediated practice and communication” (p. 268). They, however, added that many CALL practitioners have a tendency to give more attention to the technology itself and less attention to the SLA research. Within the diverse SLA theories, Smith and Thorne (2009) points out their connections to technology. Among the theories discussed by Smith and Thorne (2009) was the “Sociocultural Approaches to SLA and Technology” (p. 268), a subset of the SLA theory that the present study focuses on. Drawn on the work of Vygotsky, the Sociocultural Theory (SCT) was described by Lantolf and Thorne (2007) as an approach to learning that emphasizes the influence of social environments. Thorne (2009) saw the connection between CALL and SCT in that the existence of technology has transformed how people communicate, including in educational contexts. This notion can be exemplified in the use of wikis, a type of technology that allows the users to collaboratively generate content. As a new medium for writing, wikis blur the line between an author and the audience (Thorne, 2009). The existence of wikis is changing what and who we write for. We value it as co-constructed and negotiated. We seem to no longer believe in the absolute authority of facts, yet only twenty or thirty years ago we did.

Adding to this discourse, Warschauer (1997) analyzed how the SCT plays a role in literacy, which has significance in CALL. He saw the contribution of the SCT in literacy in three constructs: genetic analysis, zone of proximal development (ZPD), and mediation, all of which were developed based on Vygotskian theories. Lantolf and
Thorne (2007) explained that the genetic method concentrates on process as opposed to product of learning. Of the three constructs that Warschauer (1997) discussed, the concepts of ZPD and mediation are directly relevant to the context of the present study as both concepts relate to how technology is used as a mediating tool in teaching university-level ESL students how to write. The ZPD and meditation will be further discussed in relations to the study findings in Chapter 4.

Lantolf and Thorne (2007) described the famous Vygotsky’s Zone of Proximal Development (ZPD) as the difference of what learners are able to achieve on their own (current level of development) and what they can do with assistance or support from others (future level of development). In the conceptualization of ZPD, technology can function as an assistant to learning a language. In explaining the relationship between ZPD and technology, Oxford (2009) stated that “computer programs that allow students to work at their own pace to learn grammar or writing-assistant programs that bridge the gap between what learners can accomplish at their current level of proficiency only with help and what they will ultimately be able to accomplish independently can enhance the learning process” (p. 6). To illustrate how ZPD and technology work, Rosetta Stone is an example of a commercially available software program where learners can learn a new language through prepared online modules and, according to its website\(^1\), where learners have the opportunity to interact with a live coach after each lesson.

Mediation, according to Lantolf and Thorne (2007), refers to “the process through which humans deploy culturally constructed artifacts, concepts, and activities to regulate the material world or their own and each other’s social and mental activity” (p. 79).

\(^1\) The website is http://www.rosettastone.com
Technology, like many of the essential transformative tools before it, such as the printing press, is a mediating tool (Lantolf & Thorne, 2007) by and for civilization. This means we transform our capabilities by inventing tools to serve us, but our lives and social practices are in turn changed by them. In technology discourse, a simple example of this might be email. Before our letters and messages could be conveyed electronically, people composed, hand-wrote or typed, and sent letters by mail, or snail mail as people now call it. Email, one of the most commonly used types of technology, made this literacy act much quicker. It transformed how people wrote, the speed of delivery, and ultimately the way they composed. Because people could communicate faster and with more frequency, the nature of what they communicated changed. To accommodate the technology, it is now acceptable and common to write in abbreviations, to use emoticons, and to be less personal. Whereas before, letters might have carried an entertainment as well as an information value, electronic media privileged speed and over eloquence.

Thorne (2008) and Warschauer (1997) considered the SCT to be useful and have significance in several pedagogical applications of the CALL framework, including in second language teaching. Because of its applicability for second language teaching, the SCT is used as a framework for the present study.

For L2 writing specifically, Bloch (2008) pointed out that “the use of technology in the L2 composition classroom has its roots in the more general area of CALL” (p. 26). In light of implementation of CALL in L2 writing classrooms, Johns (1994) pointed out a specific approach that is particularly applicable in L2 teaching and that has been employed in teaching grammar. This is called “the classroom concordancing or Data-driven Learning (DDL)” (p. 296). According to Bloch (2008), a concordancing program
allows users to search using a set of criteria and the result is a sample collection of sentences that is drawn from a database. He added that unlike the traditional teaching of grammar, the sentences generated from the search are contextualized and not isolated. An example of a concordancing program is the Corpus of Contemporary American English, which can be accessed at no cost through http://corpus.byu.edu/coca/.

According to Egbert et al. (2007), drawing from the relevant teaching and learning theories, CALL also uses a widely-used and -accepted model that specifies conditions for optimal language learning environments that can be used to guide the use of technology in teaching. The model is displayed in Figure 1. Some of the elements of the model will be revisited in Chapter 4 of this dissertation.

1. Learners have opportunities to interact and negotiate meaning.
2. Learners interact in the target language with an authentic audience.
3. Learners are involved in authentic tasks.
4. Learners are exposed to and encouraged to produce varied and creative language.
5. Learners have enough time and feedback.
6. Learners are guided to attend mindfully to the learning process.
7. Learners work in an atmosphere with an ideal stress/anxiety level.
8. Learner autonomy is supported.

Figure 1. Conditions for Optimal Language Learning Environments
Overview of Educational Technology

While educational technology in L2 has been discussed since the 1980s (e.g. Stevens, 1983; Kleinmann, 1987; Dryer, 1989), one of the significant studies on the use of technology in L2 classrooms came from Sullivan and Pratt (1996). The comparative study of online and face-to-face classrooms concluded that students had largely favorable and positive attitudes towards the effectiveness of networked classrooms, a relative new phenomenon at the time. Since most newly-arrived ESL students are not confident that they can communicate well in English (Chen, 2003); computers can alleviate their anxiety level since the activities do not require them to orally communicate their messages (Ware, 2004). Issues such as having a heavy accent or limited vocabulary can be mediated by having discussions via computers. The fact that there was a significant gain in students’ writing due to the use of computers in Sullivan and Pratt’s (1996) study was enlightening. However, one limitation of the research was its exclusive focus on students. In their study, instructors’ account was not a focus.

Educational technology in general has made rapid progress since the 1980s and the emergence of the World Wide Web has created new avenues for teachers to use resources (Persichitte, 2008). Studies have been conducted to determine whether the use of computer is beneficial to students' learning (e.g. Beauvois, 1997; Braine, 1997; Sullivan & Pratt, 1996). In L2 writing classrooms, the use of technology has become more apparent and widespread in the past two decades. During this time, technology has offered new opportunities for language teachers. Consequently, the connection between
computers and language teaching and learning has been shown to grow stronger (Matsumura & Hann, 2004) and “integrating technology into language classrooms is inevitable” (Wang, 2005, p. 40). The advent of the Internet, networked computers, and computer software with its high-tech features, has attracted teachers to use technology as an instructional supplementary tool in giving instructions. With the recent advances in computer technology such as Web 2.0 (which includes blogs, wikis, and other web-based interfaces with content generated by users), the Internet has become a place to not only consume content, but also to share and create it (Nakamaru, 2011; Thorne, 2008). This is something that was not common a decade ago, when most Internet contents tended to be presented as read-only and with limited user contribution.

On the topic of educational technology, although not necessarily a type of typical computer technology, simulation has also been discussed in the educational technology literature. Simulation as a pedagogical technique has been defined in various ways, but it is essentially a classroom activity that represents the reality and it is brought to life by the students who are active participants of the task given by the teacher (Crookall & Oxford, 1990). In L2 teaching and learning, simulations have proven to help students learn language (Crookall & Oxford, 1990; Jung & Levitin, 2002). Furthermore, research shows that simulations can be used as a starting point to improve students' attitudes about the class (Ince, 2002). Students who think that learning English is hard might find learning through simulation more interesting and engaging. Although still uncommon in L2 writing courses, simulation is seen as “exciting, fun, emotional, entertaining, and educational” (Petranek, 2000, p. 108) and it is an activity that facilitates language acquisition through communicative language learning (Garcia-Garbonell et al., 2001).
Moreover, simulation has been regarded as an effective method of teaching English because the use of simulation encourages students to use their creativity. Furthermore, it allows them to develop the English language in a less structured, relaxed, and non-threatening environment (Gaudart, 1999; Crookall & Oxford, 1990). Unlike in the real world, making language mistakes in simulation carry few or no consequences. Students via simulation can try expressing themselves by using different vocabulary and expressions without “real-world” risks. The situations are simulated, but students develop real thinking skills while engaging in the simulation. Even though the use of simulations in L2 writing courses is not widespread, it has been suggested as an alternative way to teach writing (Halleck et al., 2002). Studies conducted on simulations in L2 writing show an agreement in that teachers play an important role in the success of the simulation in their classes (Hertel & Millis, 2002; Crookall & Oxford, 1990; Coleman, 2002; Salies, 2002). The use of simulations does not necessarily require the presence of computer technology, but it is not uncommon that computer technology (e.g., games and web quests) can be integrated in a simulation.

In a discussion of the integration of technology, we can see that L2 writing instructors have begun to incorporate online environments into their conventional classrooms for students to improve the quality of their work. In computer-assisted language learning (CALL), the method where conventional resources are combined with online technologies is commonly referred to as blended learning (Yeh, 2007). The availability and accessibility of computer and Internet technologies on college campuses also encourage instructors to integrate the online and offline classrooms (Bloch, 2008). Unlike regular classrooms, the online environment “offers updated information –
Writing instruction that has traditionally been given in face-to-face classrooms has incorporated what the online technologies have to offer. Online technologies have opened doors to new avenues through which education can be delivered (Merchant, 2007). Yeh (2007) discussed how she used this type of blending learning in her teaching. In her article, she indicated that in her Research Writing course, she gave in-class lectures and assigned her students to post their essays to an online blog. What she did is an example of how face-to-face meetings can be combined with online activities. In addition to using it in conjunction with traditional face-to-face classrooms, this type of technology can accommodate both distance learning and online education, where teachers and students meet virtually and are not physically in the same location.

**Technological Literacy**

The discussion of technological literacy (which can also be referred to as digital, computer, or multimedia literacy) started in the scholarship in teaching of English as L1, but it has now been adopted by L2 scholars. In order for a teacher to take advantage of multimedia technology and make it meaningful, he/she needs to first acquire the technological knowledge and skills. Daley (2003) argued that to be literate in the language of multimedia, one needs to be able to understand aspects such as sound, image, color, and composition and make meaning through them. These components commonly appear in non-text and non-print materials. Merchant (2007) maintained that the emergence of digital literacy opens new possibilities in education. He started his
argument by discussing the more common technology such as email and discussion boards as examples of asynchronous digital communication suitable for education. Merchant (2007) then gave an example of the rapid spread of social networking as an avenue for educators to explore. Also, synchronous communication, such as chat rooms, that was traditionally associated with speech can now be seen in written form. He gave these examples to show that digital literacy can “provide us with templates for a new interactive literacy that reaches well beyond the classroom walls” (pp. 124-125), with which Bloch (2008), who wrote about technology in L2 composition classroom, seemed to agree. Warschauer (1997) added that literacy in reading and writing is a social process.

With the pervasiveness of the Internet, teachers need to possess adequate technological literacy to navigate it and teach students how to filter useful and relevant information. Stapleton (2005) suggested the following questions to be used as a starting point to critically evaluate a web source: “Who is the author?; What authority does the site have?; How current is the information?; What is the intended audience?; What agenda (if any) does the author have?; and Is the content biased?” (p. 136). Furthermore, Murray (2005) reported that a number of research studies have looked at how learners read information on the web. In her article, she also pointed out that the ability to navigate the web is necessary not only for educational purposes, but also for one’s life in general because of the increasing presence of the Internet. These phenomena prompted Murray’s (2005) article to focus on how literacy is used in computer-mediated communication (CMC) and how learners use the web to gather information and learn.
The arguments posed by Merchant (2007), Bloch (2008), Stapleton (2005), and Murray (2005) showed that technological literacy is a prerequisite before anyone can make the most of what technology has to offer. Teachers need to first be technologically literate and prepared to teach the “digital natives,” a term that is used to refer to students who grew up with technology and may be its frequent users (Prensky, 2008). With the rapid expansion of technology, the number of digital natives will certainly grow in the coming years. The topic of technological literacy is fluid and is still going to be discussed, debated, and argued by scholars. Merchant (2007) acknowledged that the concept of digital literacy is still developing and more debates about it will likely continue.

**The Roles of Technology in L2 Writing Classrooms**

With the availability of different types of technology, teachers can personalize these technologies to meet the learners’ needs (Bloch, 2008). Many studies in the literature, however, focused on students. One important work related to computers in L2 writing classrooms was reported by Sullivan and Pratt (1996). In an experimental comparative study done in two ESL writing classes at the University of Puerto Rico at Mayaguez, one in a classroom with networked computers and another in a traditional oral classroom, Sullivan and Pratt (1996) divided 38 students into two groups taught by the same teacher to avoid differences in teaching style and materials used. The goal of this research was to measure the quantitative differences in attitudes towards writing with computers, writing apprehension as well as the qualitative analyses of participation and
discourse characteristics. The results of the study demonstrated that there was a significant improvement in writing because of the use of networked computers. However, the findings did not identify any significant differences related to attitudes toward writing with or without the use of computers. Compared with students in an oral classroom control group, students in the networked classroom displayed greater interest in discussions and had more practice in writing. In the oral classroom, the teacher dominated discussions, while in the computer-assisted class, the students were active participants. The students in the networked writing class were also found to be more focused than their peers in the traditional classroom in this investigation. This study seemed to be supported by other related research (cf. Braine, 1997; Beauvois, 1997; Braine 2001) which noted that the use of networked computers in ESL writing classrooms had positive effects and was advantageous to students. In this study, however, Sullivan and Pratt’s (1996) research did not address the effects of networked classrooms on L2 writing teachers.

A similar study was conducted by Braine (1997) at a southeastern U.S. university. This research was based on previous studies, one of which was conducted by Sullivan and Pratt (1996), but the study by Braine (1997) took a different approach. The aims of the research were to investigate which setting, computer networked or traditional classroom, promoted better writing, improved students’ writing quality, and generated more peer and teacher feedback on students’ writing assignments. The findings in this research supported Sullivan and Pratt’s (1996) comparative study that showed that students in networked classrooms demonstrated an improvement from first to final drafts in the quality of their writing. Conversely, in traditional classrooms, the results were
different. Braine’s (1997) quantitative approach showed that the overall scores on final drafts in oral classrooms were higher than those in networked class. These findings also demonstrated that students wrote many more comments in peer-review activities than those in the traditional classrooms, 480 words versus 197 words. Similarly, the teacher provided more feedback in networked classrooms and spent less time in total on giving feedback to students. This study was a continuation of Sullivan and Pratt’s (1996) work. But, once again, the research focused on students.

Teachers’ computer proficiency was not addressed in Braine’s (1997) research. In order to create a productive networked classroom environment, teachers as an authoritative individual in classrooms should know how to use technology. However, the inclusion of teachers that Braine (1997) addressed in this study was the fact that they spent less time in giving comments to students’ work.

Beauvois (1997) supported the previous studies on the benefits of writing instruction in ESL classes with a focus on use of computers assistance. In this study, Beauvois (1997) conducted research on a similar issue, but she focused on students’ interaction in the Local Area Network (LAN) environment, not in the classrooms themselves. She reported that there was a natural connection between writers and computers. The connection, then, established an environment which sought to lower students’ anxiety level and allowed students to make revisions easily (pp. 165-166). In her article, Beauvois (1997) discussed “the natural effects and the transformative effects on communicating on a LAN” (p. 171). According to her, in a networked environment, most students communicating through LAN felt less anxious. The participants in her study reported that LAN lowered their affective filter. Another interesting aspect about
this study is that Beauvois’ (1997) research was conducted before the invention of social networking, a recent phenomenon on the Internet, but she reported that the LAN community had social benefits as well. Students commented that they became to know their peers and their teacher better in the LAN setting than in the traditional classroom. While the studies conducted by Sullivan and Pratt (1996) and Braine (1997) focused on the improvement in the quality of student writing, Beauvois’ (1997) article addressed the potential of the use of a networked classroom to be a social community.

Braine (2001) conducted another study a few years after the 1997 article. This follow-up study focused on EFL writers and was conducted at a Hong Kong university. The notable difference in this research was that the study was longitudinal. Eighty seven undergraduate students participated in the study. Similar to his earlier study (Braine, 1997), Braine’s (2001) objective of this research was to investigate which classroom settings, networked or traditional, promoted better quality of writing and the degree of improvement in the writing quality. The results demonstrated that, in EFL settings, a networked classroom was no more beneficial than a traditional one. The findings suggested that the quality of final drafts produced in traditional classrooms were higher than those in the computer-assisted class. Drafts in traditional classes showed more improvement than those in the networked class. Braine (2001) concluded that writers in EFL contexts enjoyed face to face interactions more than online communications which made traditional classroom settings more productive and effective. The results of this study are in agreement with a number of other studies (e.g., Guardado & Shi, 2007).

With the availability of computer technology in L2 writing classes, electronic feedback (or e-feedback) has become a new method for teachers to give comments on
their students' academic papers. This approach supplements conventional handwritten comments that teachers normally use when giving feedback on students’ assignments. While it seems that electronic feedback is straight-forward, it is a term that has multiple meanings. Tuzi (2004) defined it as a type of feedback “in digital [and] written form” (p. 217). The digital aspect of it requires the use of a computer. Furthermore, Ware and Warschauer (2006) divided electronic feedback into two categories. They looked at it as “automated feedback provided by a computer” and “[a] means by which human feedback is provided” (p. 105). Tuzi (2004) proposed electronic feedback, an Internet-based method, as an alternative method of giving comments on students’ writing. His study looked at the impact of electronic feedback on students' revisions. In this study, besides using it as a means to provide feedback, he also used the Internet to communicate with students about their writing. This study supported the findings from many studies on the use of computer in L2 writing classrooms that show positive results in terms of the usefulness of it (e.g. Beauvois, 1997; Braine, 1997). Braine (1997) reported that the existence of online classroom promotes better writing, improves students’ writing quality, and generates more peer and instructor feedback on students’ writing assignment. Online feedback (another way electronic feedback can be described) seems to have a more positive reception among students compared to oral feedback. This might result from the fact that electronic feedback is retrievable at a later time and can be easily accessible (Murray, 2000). Tuzi (2004) posited that “a web-based writing environment enables writers to submit drafts and e-feedback from any Internet-accessible computer” (p. 230). Students can use and see electronic feedback from anywhere there is access to Internet-enabled computers.

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Although many studies have shown that the use of technology has been found to be favorable for students (e.g. Braine, 1997; Beauvois, 1997; Braine, 2001; Tuzi, 2004), some scholars disagree with this notion. An opposing view was expressed in the part of Comeaux and McKenna-Byington’s (2003) article about possible instructor’s negative perceptions. In the article, they pointed out that instructors who are accustomed to the live interactions with their students in classrooms were quite skeptical of the use of an online classroom. Even though interaction can take place in an online environment, it is not the same. Another skeptical view is presented by Samuels (2004) who identified that some institutions use the online environment for the purpose of reducing costs, cutting instructional time and making an instructor teach more classes. He added that these practices therefore defeat the educational purpose of integrating an online environment to regular face-to-face classroom meetings. Essentially, for technology to become effective, “[it] must be used to support well-planned curricular goals and should involve carefully designed activities that provide students with meaningful educational experiences” (Kasper, 2002, p. 144).

**Instructors’ Attitudes about Technology**

Technology has become more widely used in L2 writing classrooms and teachers’ roles have become integral to how technology is used. Computer-assisted language learning (CALL), an area of ESL teaching, has grown tremendously in recent years. The TESOL International Association has an active CALL interest section where teachers who are interested in technology discuss research and teaching practices related to
computers as a tool. According to the TESOL website (2011), the CALL interest section “exists to define issues and standards in the field of computer-mediated language instruction, promote research and development in the area of computer-based language learning, and disseminate information about CALL to ESL/EFL educators worldwide.” (Paragraph 1). Alternatively, Murray (2005) pointed out that some researchers and teachers refer to computer-based and digital technologies as information and communication technology (ICT), a term commonly known in Europe for its provision for “information production, delivery, and sharing” (p. 189) as well as communication among humans and between human and computer. The terms CALL and ICT have both been used in L2 teaching and research.

Literature on teachers’ attitudes on the use technology have covered areas in in-service training teachers in secondary schools and pre-service teachers in teacher education programs (e.g. Becker & Ravitz, 1999; Liu & Szabo, 2008; Yuen & Ma, 2008; Fook et al., 2011), but little empirical research has been conducted in university-level L2 writing classes, especially those focusing on teachers. A recent study conducted by Kim (2008) was one of the closer ones to the intended participants of the present study. Kim (2008), after interviewing student teachers for her study reported, that they regarded “computers as an alternative and optional tool” for teaching (p. 243), which made it more in line with a teacher-centered paradigm as opposed to a student-centered one. According to Kim (2008), in the teacher-centered paradigm, teachers, not the students, make the decisions about how the technology is used. Her statement was in agreement with Wang’s (2002) argument that technology is frequently used with a teacher-centered approach. The teacher-centered notion found by Kim (2008) and Wang (2002), however,
contradicted an earlier study by Becker and Ravitz (1999). Based on their extensive study in K-12 settings, Becker and Ravitz (1999) posited that regular use of technology led teachers to give more authority to students to complete assigned tasks, a practice that tends to be associated with a student-centered approach.

Positive results about the use of technology by teachers in ESL classrooms were reported by Yunus (2007). While the study’s scope was limited to Malaysia, the study showed that most of the participating teachers reported that they believed that technology can help students learn English. Training, however, would be needed to help teachers maximize what technology can offer (Yunus, 2007; Fook et al., 2011). Beach et al. (2009) suggested that teachers could write personal reflections to enhance their teaching with technology. According to Pollard (2002), reflective teaching is an approach that encourages teachers to explore their teaching practices and suggests ways to improve them. He explained the approach as a cyclical process where teachers first monitor their teaching, then evaluate and revise it continuously. This model allows a teacher to learn about their teaching and make changes for future teaching activities. It is also believed that teachers who reflect on their teaching show commitment to their professional development and that they are able to pose and solve problems in their teaching (Zeichner & Liston, 1996). Wallace (1991) looks at reflective teaching as a link between theory and practice and as connection between received knowledge and experiential knowledge. Reflective teaching has been embraced as “a paradigm that dominates teacher education around the world” (Lee, 2007, p. 321). The reflective practice could help teachers describe whether the use of technology in their classes should be used.
Another study related to the attitudes of teachers was conducted by Liu and Szabo (2009) where they investigated teachers’ views of the integration of technology in schools. While the scope of the study was in K-12, some concerns that the teachers reported could be applicable and similar to those related to university instructors. In the study, they found that some teachers seemed to believe that integrating technology is a time-consuming process and support for teachers is necessary. In this regard, Liu and Szabo’s study (2009) seemed to agree with Yunus (2007).

Challenges for Instructors

While pedagogical technologies are commonly available, using them for teaching may pose challenges for the users. We cannot ignore the fact that some people are still apprehensive about and intimidated by technology. Because the concern is valid, researchers are aware of the presence of technological challenges and have offered suggestions on how to overcome them (Hayward & Tuzi, 2003; Meskill, 2007; Yildiz, 2007; Yunus, 2007; Yuen & Ma, 2008).

It is assumed that using technology in teaching can reduce face-to-face interactions between an instructor and students. In his study on EFL writers, Braine (2001) concluded that research participants seemed to enjoy face to face interactions more than online ones. In Hayward and Tuzi (2003), one of authors wrote a personal testimony in which she stated, “I valued the face-to-face interaction students needed to bond, to create a sense of community. I believed this sense of community decreased students’ apprehension about sharing writing” (p. 3).
Insufficient computer skills could be a hindrance for instructors. Yunus (2007) stated that the majority of teachers in his study reported that they needed more training to refine their skills and provide solutions when presented with technology problems. In order to deal with this obstacle, Liu and Szabo (2009) suggested that teachers be provided with “regular workshops and demonstrations of technology integration” (p. 19). Furthermore, Yildiz (2007) added that tailoring training to match the instructors’ interest could help the instructors to further strengthen their skills in using and applying educational technology.

The lack of computer self-efficacy is another possible challenge in instructors’ use of technology in their classrooms. Yuen and Ma (2008) maintained that “it is important to build up teachers’ confidence in using technology in general” (p. 239). Hayward and Tuzi (2003) reported that teachers should realize the potential of technology as a useful tool for teaching. Moreover, Meskill (2007) pointed out that computer is a machine that cannot operate on its own. She offered encouraging words for computer users by saying that teachers, as operators of computers, should not “feel like unskilled, nonknowers of special formulas or tricks; rather they should feel empowered by the fact that … without mediation by smart teachers, the machine’s role is very limited.” (p. 430).

Research Methodologies Used in the Literature

During the selection of research methodology for the present study, methods used in previous studies were examined and considered. Studies on the topic of technology
use in teaching have used both qualitative and quantitative research methodologies. Each of the method has strengths (Gorard & Taylor, 2004) and how both methods were used in previous studies motivated the present study.

In terms of methodological choices, a qualitative research study conducted by Kim (2008) to “explore ESL/EFL teachers’ perceptions of the role of computer technology in their classrooms” (p. 245) inspired the present study because of a similarity in the topic. In her study, interviews were the sole instrument for data collection. Kim (2008) interviewed ten ESL/EFL graduate students who were enrolled in a TESOL program at a Western New York university while at the same pursuing an educational technology certificate. She further explained that the interview was semi-structured and each participant was interviewed once for approximately 50 minutes. Kim’s (2008) methodological choice seemed appropriate for the topic of the present study. It therefore was considered and adapted to fit the present study. In addition to employing interviews, in order to enrich the qualitative data, classroom observations and data analysis were also chosen as instruments for the present study.

Because the present study is a mixed-methods project, after the qualitative data collection instruments had been chosen, quantitative data collection procedure and analysis were also selected. In deciding on the quantitative instruments, Yuen and Ma’s (2008) methodology influenced the present study. Yuen and Ma (2008) conducted a study about teacher acceptance toward the use of Internet technologies for learning purposes. To collect data for the study, they distributed questionnaires in hard copies to teachers who were enrolled in an Education program at a Hong Kong university. According to Yuen and Ma’s (2008) description of their research design, the participants
were asked to complete and return the questionnaires within a week. Yuen and Ma’s (2008) use of questionnaires and strategies to collect them were adopted in the present study.

Research designs from previous studies were carefully considered in the methodological decision process for the present study. To answer the questions posed for this study, the researcher decided that employing both quantitative and qualitative methods were appropriate and relevant. To this end, a mixed methods research study was chosen. The description of the research methodology and the rationale behind the choice are described in the Chapter 3 of this dissertation.
Chapter 3
Methodology

In the field of L2 writing, the quantitative and qualitative paradigms are commonly discussed. As two fundamentally different methodological paradigms, both are challenging and useful. As a way to combine elements of the two paradigms and to take advantage of the strengths of both, the mixed methods research has been regarded as a legitimate third paradigm in educational research (Johnson & Onwuegbuzie, 2004). To this end, this study employed a qualitative dominant mixed methods research. Johnson et al. (2007) defined mixed methods research as “the type of mixed research in which one relies on a qualitative … view of the research process, while concurrently recognizing that the addition of quantitative data and approaches are likely to benefit most research projects” (p. 124). As for the design of the study, concurrent mixed method design was used. Creswell et al. (2003) explained that it is a research design in which researchers collect and analyze both qualitative and quantitative data to answer the research questions. The use of mixed methods in this study was appropriate because both qualitative and quantitative methods have strengths and “greater strengths can come from their appropriate combination” (Gorard & Taylor, 2004, p. 1). In this study, data collection and analysis methods from both qualitative and quantitative paradigms were simultaneously used, with emphasis on the qualitative approach.
In the qualitative paradigm that dominates this study, the research methodology was based on the interpretivist views. Interpretive inquiry lies within the postpositivist paradigm in that it reflects the beliefs and values of the participants (Lather, 1986). The interpretive, or naturalistic paradigm, is guided by “the researcher's set of beliefs and feelings about the world and how it should be understood and studied” (Denzin & Lincoln, 2005, p. 22). In the interpretive paradigm, multiple truths are thought to exist. To explain this idea, Lincoln and Guba (1986) stated that “there is no single reality on which inquiry may converge, but rather there are multiple realities” and “these multiple and constructed realities cannot be studied in pieces (as variables, for example), but only holistically, since the pieces are interrelated in such a way as to influence all other pieces” (p. 17).

Additionally, the discourse in the interpretive paradigm is dialogic. The voices of the participants are constantly and carefully heard. Lincoln (1995) posited that “voice not only becomes a characteristic of interpretive work, but the extent to which alternative voices are heard is a criterion by which we can judge the openness, engagement, and problematic nature of any text” (p. 283). Research in the interpretive paradigm “seeks to uncover meaning and understand the deeper implications revealed in data about people” (Somekh & Lewin, 2005, p. 346). One of the features of the interpretive paradigm offers is interactivity (Erickson, 1986). Through interactions with the instructors in the study, how they use technology in teaching ESL writing and their views about its use will be researched. This paradigm was chosen as the foundational methodology of the study because an understanding would be constructed through interactive dialogs with the participants as they help structure the inquiry.
In addition the qualitative paradigm, this study also employed quantitative research methods to gather and analyze data. The quantitative approach used in this study was intended to study a larger number of participants, to provide numerical data, and to increase precision to the narrative (Johnson & Onwuegbuzie, 2004). In this study, while the qualitative data came from a small number of participating instructors, the quantitative data were gathered from a larger number of instructors.

**Research Site**

The study was conducted in the ESL Composition Program at a large Research-1 Midwestern U.S. university\(^2\). From the official website, the ESL Composition Program is “one of the largest post-admission English as a Second Language programs in the United States, offering a broad spectrum of courses which assist students in development of writing skills for them to perform successfully as writers in [university] courses” (ESL Composition Program, 2011, paragraph 1). The university where the study was conducted is one of the largest higher education institutions in the United States and has a growing international population. According to the official university website, the total international enrollment is over 6,000 students as of Autumn 2012.

The ESL Composition Program offers L2 composition courses for non-native speakers of English who have been admitted to the university, but who need extra training in academic writing. When non-native speaking students arrive at the university where the present study was conducted to start their studies, they are required by the

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\(^2\) At the time of the study, the university’s academic calendar operated under the quarter system. However, in Summer 2012, it switched to semesters.
university to take an English writing placement test. The purpose of the test is to
determine “the level or coursework best suited for their preparation and skills” (Crusan,
2002, p. 19). The essays are then read and scored holistically by at least two experienced
raters who are also writing instructors in the program. The aim of holistic scoring is to
rate the overall proficiency of students' writing (McNamara, 2000). Based on the results
of the placement test, many undergraduate non-native English speaking students must
complete ESL writing courses before they enroll in the required mainstream English
composition courses (cf. Hamp-Lyons, 1998). At the university, where the present study
was conducted, the freshman composition course is offered by the English Department as
English 110\(^3\). Similarly, many graduate students are also required to enroll ESL
composition courses based on the results of the test. At both the undergraduate and
graduate levels, students enroll in an ESL composition course concurrently with their
other academic courses.

In some cases, however, students are exempt from taking the placement test when
they meet or exceed a set of criteria based on their official standardized test scores
(TOEFL, IELTS, and/or MELAB) as determined by the ESL Composition Program.
Additionally, a student who scores high on the placements test is deemed to be qualified
to start their study without having to complete ESL composition courses. The program
has a number of other criteria for exemption which are listed on their website\(^4\).

\(^3\) During the university’s conversion from quarters to semesters, English 110 was renumbered as English 1110.
\(^4\) The exemption criteria can be found in [http://esl.ehe.osu.edu/home/placement/esl-composition-testing-and-placement/](http://esl.ehe.osu.edu/home/placement/esl-composition-testing-and-placement/).
At the time of the study, the ESL Composition Program in the university offered a series of three ESL writing courses for undergraduate students: EDU T&L 106 (General ESL writing), 107 (Advanced ESL writing), and 108.01 (Academic writing in ESL) as well as for graduate students: EDU T&L 506 (General ESL writing), 507 (Advanced ESL writing), and 508 (Academic writing in ESL). The study was conducted in Spring 2012, which was the last time the university operated under the quarter system. In Summer 2012, the university converted its academic system from quarters to semesters. As a result, these course numbers have changed. In the semester system, these courses are respectively renumbered to EDU T&L 1901.05, 1901, and 1902 for undergraduate students and EDU T&L 5901.05, 5901, and 5902 at the graduate level. Additionally, the program offered three graduate-level 605 courses, each focusing on different advanced writing topics. These courses have been renumbered to 6910s in the semesters. All of the courses are taught by instructors who have a combination of advanced education and teaching experience. The teaching staff in the program consists of Academic Program Specialists who are full-time permanent instructors and course coordinators; Lecturers who are full- or part-time adjunct instructors; and Graduate Teaching Associates (GTAs) who are degree-seeking graduate students teaching part time in the program. The main focus of this study was on the writing instructors in the program.

Participants

The participants of the study were ESL Composition instructors who taught any of the courses offered in the ESL Composition Program at the major mid-western
university. In the Spring quarter 2012, twenty-one instructors taught in the program. The number of instructors can vary every quarter, depending on the program’s needs and student enrollment. Upon approval from the ESL Composition Program Research Committee, a call for participation was sent to all instructors in the program asking for volunteers.

In this mixed method research study, both quantitative and qualitative data collection techniques were used. To obtain the quantitative data, questionnaires were distributed to all instructors currently teaching in the ESL Composition Program. To gather the qualitative data, from the pool of responders to the call, five instructors were purposefully selected for the study to be interviewed and observed. The reason that five instructors were initially selected is to assure an adequate number of participants for the study and to have a range of participants with different backgrounds. These instructors were chosen to participate in the interviews based on their position in the program, overall years of teaching experience, gender, and the courses they taught in the program at the time of the study. In terms of their positions, the five instructors consisted of one Academic Program Specialist, two Graduate Teaching Associates, and two Lecturers. For teaching experience, three of the interviewees were experienced instructors with fifteen or more years of teaching experience and two were new instructors with less than five years of teaching experience. For gender, two participants were female and three were male. As for the courses they taught at the time of the interview, one instructor both undergraduate and graduate courses, one instructor taught a graduate level course, two instructors taught undergraduate students, and one instructor did not teach. While he was not assigned to teach a class at the time of the study, he was selected because he was a
permanent staff member of the program who also had administrative duties in the program. It is important to note that the instructors were under no obligation to participate in the study and those who agreed to participate were free to opt out at any time during the study.

In terms of the educational background of the participants who participated in the present study, instructors in the ESL Composition Program graduated with at least a Master’s degree in TESOL or related fields from various universities and most have teaching experience both in and outside of the United States. The teaching load varies depending on the instructor’s employment status with the program. Academic Program Specialists normally teach two sections per quarter. Lecturers usually teach one or two sections, depending on the needs of the Program and whether they would work full time or part time, and Graduate Teaching Associates are typically contracted to teach one course each quarter.

Data Collection Instruments

The data collection process began in the beginning of the Spring quarter 2012 after the necessary approvals had been obtained. In this research, both quantitative and qualitative data collection methods and analysis were used.

For the quantitative data, questionnaires were distributed to all ESL writing instructors in the program. The quantitative data were collected before the qualitative data. For the qualitative data, two main data gathering methods typically used in the

5 In the semester system, the teaching load changed as well. To be considered full time, instructors teach three sections per semester.
interpretive paradigm were employed: interviews and observations. A third method, document analysis, was also used to examine materials to supplement the data gathered from the classroom observations. Table 1 summarizes the sources of data collected in this study.

<table>
<thead>
<tr>
<th>Quantitative data</th>
<th>Qualitative data</th>
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Table 1. Sources of data collection

**Survey**

In this study, the data collection process started with the quantitative data. Survey, in a form of questionnaires, was administered as an instrument to collect quantitative data from all instructors in the ESL Composition Program. In the Spring quarter 2012, the program employed 21 instructors. While this may seem like a small sample size, Axinn and Pearce (2006) have argued that surveys can be suitable for a study with a small number of participants. They added that “a key feature of surveys is in standardized questions” (p. 4).

To add precision to the qualitative data, a set of questions were developed to quantify the range, frequency, and central tendency in instructors’ views about instructors’ use of technology in teaching ESL writing at the university level and to gather demographic information including the instructors’ professional profiles (see
Appendix B for the complete survey). The questionnaires were distributed to all instructors teaching in the ESL Composition Program via the department’s internal mail system. Following Cox’s (1996) recommendations, included in the questionnaires were a letter containing a short introduction, a statement describing the purpose of the form, an estimate of the length of time required complete the questionnaire, and a statement ensuring confidentiality.

The questionnaire employed the structured questioning method. According to Peterson (2000), this type of survey “involves asking all study participants exactly the same questions the same way in the same order” (p. 4). In the questionnaires, 30 Likert-scale statements related to instructors’ viewpoints about the use of technology in teaching ESL writing were presented. The statements were grouped into five categories: suitability for teaching writing, compatibility, perceived advantages for students, ease of use, and instructors’ self-assessment about their use of technology. The instructors were asked to read each statement and choose an answer based on how they felt about it. The choices were presented in five response categories as: strongly disagree (1), disagree (2), neither agree nor disagree (3), agree (4), and strongly agree (5). As suggested by Cox (1996), the instructors were asked to provide demographic information for classification purposes at the end of the survey. As indicated in the letter with the introduction to the study, it was estimated that it would take each participant approximately 20 minutes for the participants to complete the questionnaire.

To ensure the validity and reliability of the survey, four former OSU ESL Composition instructors were asked to participate in a pilot test. At the time of the pilot test, these instructors taught writing courses at a local community college, a major
Canadian university, and another public university in the state. The pilot test was conducted electronically via email with the survey sent as an attachment. They were asked to return the questionnaire via email within seven days. Because the goal of the pilot test was to get the instructors’ feedback, they were encouraged to ask questions about the questionnaire. In addition to filling out the questionnaire, they were asked to provide comments regarding the clarity and comprehensibility of the survey. All the instructors in the pilot study returned their surveys and written feedback within two days. Their feedback was used to improve the wording and organization of the survey. For example, a statement originally read “Students should take advantage of what technology has to offer as much as they can.” A participant of the pilot study stated that the purpose of the technology in that particular statement was unclear. Based on the comment, the statement was then revised to read “Students should take advantage of what technology has to offer as much as they can for their learning.”

After the feedback from the pilot test was considered and incorporated in the survey for the study, the questionnaire was distributed to all instructors teaching in the ESL Composition Program in Spring 2012. Each instructor was given a copy of the questionnaire in their office mailbox. As indicated before, the estimated time to complete the survey was 20 minutes. The instructors were asked to return the questionnaire within seven days. To help meet this goal, a campus mail envelope with the researcher’s return address was provided for the instructors. In this study, most questionnaires were returned within three days after they were distributed. According to Fraenkel and Wallen (2000), “in almost all surveys, some members of the sample will not respond” (p. 445). This statement rang true in this study. Of the 21 surveys that were distributed, 18 were
returned, which is equivalent to a response rate of 85.7%. According to The Instructional Assessment Resources (2011), this response rate was “very good”.

Interviews

After the questionnaires had been collected, the qualitative data collection began. The primary data collection method used in this study was the interview. Interviews are commonly used in interpretative research studies (Jones, 2002). According to Fontana and Frey (2005), an interview is more than just a question and answer session; rather, it is when “two (or more) people are involved... and their exchanges lead to the creation of a collaborative effort” (p. 696). They added that a great deal can be learned about people by interviewing them. By conducting interviews, researchers have the opportunity to “reach areas of reality that would otherwise remain inaccessible such as people's subjective experiences and attitudes” (Perakyla, 2005, p. 869). In this study, these data were collected through dialogs, a technique of interpretive inquiry. The interviews provided an understanding of how instructors use technological tools in teaching ESL writing and their viewpoints about them. In essence, their voices were heard, their views were shown, and what they feel about the use of technology in teaching ESL writing could be learned. Voice has been mentioned by qualitative researchers in the literature (e.g., Lincoln, 1995) and the presence of voice is an important component of qualitative research.

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6 The survey in this study was distributed and returned via the campus mail system. Even though it was not exactly the same as traditional snail mail, for the purpose of determining the acceptable response rate, the Instructional Assessment Resources’ classification for mail-in survey was used. According to the organization, a response rate of above 70% for mail-in surveys is categorized as very good.
Five instructors were selected to participate using purposive sampling. According to Teddlie and Tashakkori (2009), this type of sampling can be defined as choosing a small number of select participants in order to obtain useful information to answer the research questions under consideration. The instructors were selected based on their teaching experience, gender, employment position, and the courses they taught in the program (undergraduate- or graduate-level). To this end, a one-on-one semi-structured interview for each purposefully selected participating instructor was conducted in this study. A set of guiding questions to be used during the interview was prepared in advance, but Axinn and Pearce (2006) explained that a semi-structured interview gives researchers the flexibility to ask new or follow-up questions based on the responses given by the research participants.

In this interpretive part of the study, the questions in the interviews were open-ended in order to allow the participants to “put his or her own frame around the experience, and the researcher can pursue each individual's emerging thoughts as it unfolds” (Green & Stinson, 1999, p. 94). The interpretive paradigm is shaped by the kinds of questions that are asked to the participants, not by ontology and epistemology (Green & Stinson, 1999). A set of 22 open-ended questions related to the research questions of the study were developed (see Appendix B). The prepared questions were divided into four categories: teaching experience (3 questions), technological experience (3 questions), viewpoints about the use of technology (12 questions), and how technology is used in teaching writing (4 questions). During the interview, a blank copy of the previously distributed and collected survey were made available and referred to as needed. Because the interview was semi-structured, follow-up questions based on the
instructors’ answers were asked and these questions could not be prepared in advance.
The interviews with the participating instructors played a major and significant role in the study since they were the source of information where instructors' voices and views were represented. The interviews were central and fundamental in answering all of the four research questions of this study.

After agreeing to interview, each of the five selected instructors who consented to participate in this study was asked to choose a mutually convenient time to meet for an interview during the Spring quarter 2012. Each one-on-one interview session lasted for about 45-60 minutes and was conducted in a room with a closed door to protect the privacy of the instructors and to maintain confidentiality of the conversation. With the permission from the instructors, the interview sessions in this study were audio-taped. The audio recordings were transcribed so that the accuracy of the conversation could be maintained. The data were transcribed using VLC Media Player and Microsoft Word.

During the interviews, as recommended by Creswell (2005), brief notes were also taken in an interview protocol that contained instructions for the interviewee, the interview questions, and space to record responses from the interviewee.

**Observations**

In this mixed-method study, observations in the classrooms of the participating instructors were also conducted. Since the qualitative part of this study subscribes to the interpretivist paradigm, observation was employed because, according to Jones (2002), it is a common data gathering method in interpretive research studies. One open
observation was planned for each interviewed instructor. However, one instructor could not be observed because he did not teach. Another instructor was observed twice because her lesson lasted for more than one class meeting and she invited the researcher to visit two class periods. In an open observation, the researcher is expected to come to the research site with openness and without any structured preparation and only with prior knowledge and experience in mind (Jones & Somekh, 2005). In this study, the open observation was employed to give an idea of how the class is set up and how instructors teach with technology, and to expect the unexpected. In other words, the goal is to 'get a feel' of who is being studied. Such an observation can be “interesting, informative and serve as useful data, also for more mundane behavior” (Tjora, 2006, p. 438). The open observation employed in this study functioned as a way to learn about the research site and the participating instructors. In an open observation, Jones and Somekh (2005) suggested that researchers “sit at the side or back of the room and make detailed notes” (p. 140).

For the observations, the participating instructors who had agreed to be interviewed were asked for their consent if they would be willing to be observed during a class session when they were using technology in class. These observations occurred at different points in the quarter, depending on the instructor’s availability and willingness to be visited. Of the five instructors who were interviewed, four were willing to be observed. One of the four instructors was willing to be observed more than once because her lesson spanned over two class periods. In this study, two instructors’ classrooms were visited in the first half of Spring 2012 and the other two classrooms were observed in the second half of the quarter. During the observations in an interpretive inquiry,
unobtrusive data collection is key (Williams, 1986). In this study, the classroom observations were conducted carefully and quietly as to not disturb the class dynamic, and the students and instructors were able to do their daily activities as if they were not being observed. Furthermore, they were not asked to do anything differently. The researcher sat in the back of the classroom to minimize any possible distraction.

Creswell (2005) recommended that, in order to keep the data organized during observations, an observational protocol be used to take field notes. For this study, an observational protocol was created for taking descriptive and reflective notes from the observed classes. To accommodate the notes, as pointed out by Creswell (2005), the protocol was divided in two columns, one for the descriptive notes and the other for the reflective notes. The descriptive notes were taken to record a description of the activities that occur in the classes and the reflective notes were taken to document developing themes that may be used for later analysis (Creswell, 2005). This type of data gathering instrument does not involve asking questions to any of instructors (Weiss, 1998) and the researcher was a nonparticipant observer. The data gathered from the observations were used to provide information about how the instructors used technology in their teaching. As suggested by Creswell (2005), at the end of each observation, the teachers and the students were thanked. As observation is a fundamental data collection technique in a qualitative research design (Angrosino, 2005), the data from these observations contributed to the richness of this study’s data corpus.
Document Analysis

The third qualitative method used in this study was document analysis. Document analysis has been regarded as one of the data gathering tools in the interpretive inquiry (Jones, 2002) and “a valuable source of information in qualitative research” that can help researchers understand phenomena (Creswell, 2005, p. 219).

The documents that were collected for this study were used in conjunction with the classroom observations. Assignment sheets and relevant course materials were collected to provide background of the visited class sessions and were only used for the purposes of this study. Permission was obtained from the instructors in order to gain access to materials that were used in the class sessions during the class visits.

Data Analysis

After both quantitative and qualitative data were gathered, they were analyzed, then interpreted. Parallel mixed data analysis strategy was used in this study. According to Teddlie and Tashakkori (2009), this strategy involves independent analyses of the quantitative and qualitative data, but “each provides an understanding of the phenomenon under investigation” (p. 266). Furthermore, they added that this strategy would allow for combination and integration of understandings. For data organization purposes, the quantitative data were managed in a Microsoft Excel spreadsheet and the qualitative data in Microsoft Word.
Survey

After the completed questionnaires had been returned, the data were entered into a Microsoft Excel spreadsheet for analysis. For efficiency, as soon as each completed survey was received, the data were immediately added to the spreadsheet. Descriptive statistical methods were used in the analysis of the survey data. According to Teddlie and Tashakkori (2009), “Descriptive Statistical Methods include techniques for summarizing numeric data in easily interpretable tables, graphs, or single representations of a group of scores” (p. 258). Consistent with their definition of the methods, the quantitative data in this dissertation are presented with tables and graphs. These tables and graphs are presented in Chapter 4 of this dissertation, where the research findings are reported and discussed.

During the data analysis, the categories of the statements were coded with capital letters A, B, C, D, and E. These letters respectively correspond to suitability for teaching writing, compatibility with teaching, perceived advantages for students, ease of use, and instructors’ self-assessment about technology. The statements were given the numbers 1, 2, 3, 4, and 5 correspondingly within each category. The viewpoints were coded with 1 for strongly disagree, 2 for disagree, 3 for neither agree nor disagree, 4 for agree, and 5 for strongly agree.

The non-numerical data were assigned letters in the Excel spreadsheet. The gender was categorized with F for female and M for male. The job positions of the instructors were abbreviated in the spreadsheet as APS for Academic Program Specialist, Lect for Lecturer, and GTA for Graduate Teaching Associate. For degrees that the instructors obtained, M was given for Master’s degree (including doctoral candidates who
earned a Master’s degree, but was still in their dissertation writing stage) and P was for Doctorate. The years of teaching experiences were divided into six ranges and coded as follows: 0 to 5, 5 to 10, 10 to 15, 15 to 20, 20 to 25 and 25+. Under courses taught, each answer was coded with a Y if the instructors taught the course and an N if they did not. For the types of technology that they owned and the types of technology that they used in their teaching, a Y was the code if they checked the boxes to indicate an affirmative answer and an N was the code for the unchecked boxes. If the instructors wrote in an answer in the field labeled others, their answers were entered in a separate column. The last question in the questionnaire was “If you have to describe in one word what technology is to you, what word comes to mind?” and the responses from the instructors were entered in a new column in the spreadsheet.

In the spreadsheet, the reported views were tabulated and examined for a measure of central tendency and variability. The mean, the standard deviation, and the frequencies of occurrence of the data were presented in the analysis. Microsoft Excel statistical formulas were used to calculate the data. The formula for finding mean was =AVERAGE(first cell:last cell), for the standard deviation was =STDEV.P(first cell:last cell), and for the frequency of occurrences was =COUNTIF(range,cell) For the non-numerical data, the instructors’ responses were counted using the Excel formula =COUNTIF(range,cell) as well.
Interviews

Using the inductive analysis approach, the interview data were analyzed (Creswell, 2005). According to Creswell (2005), the inductive analysis approach starts from the detailed data to more general themes. In the beginning of the analysis process, the data from the audio-recorded interviews were transcribed using VLC Media Player and Microsoft Word. The VLC Media Player allows for playing, pausing and continuing the audio files with keyboard shortcuts. As Creswell (2005) suggested, the audio data were transcribed soon after each interview to minimize the feeling of data overwhelming. While listening to the audio files, a Microsoft Word document was used to type what was heard. After the audio files were transcribed, the documents were carefully read to get a sense of what was expressed in the interviews. Then, the data were then clustered and compared based on the emerging themes discovered from the conversations with the instructors. Additionally, “[clustering] identifies characteristics or processes that seem to group, aggregate or sidle along together” and “comparison is the heart of the evaluation enterprise” (Weiss, 1998, p. 286).
<table>
<thead>
<tr>
<th>Teaching experience</th>
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<tr>
<td>Technological experience</td>
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<tr>
<td>Amount and goals of technology use in teaching</td>
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<td>Impacts of technology on students</td>
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<td>Effects of technology use in teaching</td>
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<td>Benefits of technology in ESL writing courses</td>
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<td>Drawbacks of technology in ESL writing courses</td>
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<tr>
<td>Concerns about technology use</td>
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<tr>
<td>Technology in the future</td>
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<tr>
<td>Instructors’ general viewpoints about technology</td>
</tr>
<tr>
<td>How technology is used in teaching</td>
</tr>
</tbody>
</table>

Figure 2. Themes from the interviews with the instructors

Figure 2 lists the themes that were identified by using categorical strategies (Teddlie & Tashakkori, 2009) to analyze transcripts of the interviews. The themes were created by the researcher based on the prepared and follow-up questions in the interviews. Before the interviews, the participants had received a questionnaire containing statements related to instructors’ view on technology use in ESL writing instruction. Because the response rate of the survey was very good, it was highly likely that the interviewed instructors had responded to it. During the interviews, the questionnaire was provided to each interviewee as a reference. The fact that they had seen the survey before the interview and that it was present during interview may have likely influenced and shaped the responses that the instructors gave for the interviews.
Based on the researcher-provided keywords and phrases, frequently mentioned topics from the interview data were noted and clustered. They were then grouped according to the prepared themes. During this thematic analysis process, unique remarks and interesting quotes from the interviewees were highlighted and incorporated in the write-up of the dissertation when discussing their views about the use of technology in their teaching (see Chapter 4). The coding process gave the data segments and labels to create general themes as well as to make the data manageable for analysis (Creswell, 2005). Then, the themes were compared among all the interviews. The analysis of the interview data gave a picture of the professional profiles of the instructors, showed a pattern of how the instructors use of technology in their writing classrooms, and provided an understanding of the instructors’ viewpoints about it.

**Observations**

After the data from the observations had been collected, they were analyzed. In order to find patterns and themes, the data were clustered and coded for analysis (Jones & Somekh, 2005). As part of the analysis, the data were coded as themes emerged (see Figure 3). The goal of the analysis was to describe how the instructors used technology in their classes. It was also used to look for “a deeper understanding of the phenomenon under investigation and to relate [it] to the theoretical perspectives anchoring the research” (Jones, 2002, p. 468).
Course management system
Computer lab
The use of desktop computer and projector
YouTube
Corpus of Contemporary American English (COCA)

Figure 3. Common uses of technology from the classroom observations

Document Analysis

In the analysis of the documents, the data were not treated separately, but were used in conjunction during the analysis of the classroom observations. Notes and comments were taken during the analysis. The patterns and themes were compared to those found in the observation data. These documents were not the core of this study, but the information gathered from them was used to complement the classroom observations.

Timeline

Preparation of the Study

The topic for the study was selected in the Summer quarter 2011 (June 2011-August 2011). After the topic had been approved, a research proposal for the study was prepared during the Autumn quarter 2011 and the Winter quarter 2012 (September 2011-January 2012). The research proposal is included as part of this dissertation after the necessary modifications have been made. The content in the first three chapters of this dissertation mainly came from the research proposal. At the time the study was
proposed, it was planned to last approximately twelve months from the time the proposal was approved to the completion of the research project.

In January 2012, an Internal Review Board (IRB) application was filed and submitted to the Office of Responsible Research Practices (ORRP) at the university where the research study was conducted for review and approval. Upon reviewing the application, the IRB determined that this study did not require a full review and was eligible for exemption. An email indicating the exemption was granted was received on February 6, 2012.

In February 2012, following the IRB exemption to conduct research, a formal request for access to writing instructors and classrooms in the ESL Composition Program was filed. The request was sent to the Executive Director of the ESL Programs and the Program Coordinator of the ESL Composition Program, which was then forwarded to the ESL Composition Research Committee. The Committee approved the request to distribute questionnaires, interview instructors, observe classrooms, and examine relevant documents for the purposes of this study.

In March 2012, a Dissertation Committee was formed. Following the formation of the committee, the members of the committee met to discuss the study with the researcher. At the meeting, the committee members unanimously gave an approval for the project to begin.

Table 2 displays the research preparation timeline:
<table>
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<tr>
<td>February 2012</td>
<td>Request to access research site</td>
</tr>
<tr>
<td>March 2012</td>
<td>Dissertation committee meeting</td>
</tr>
</tbody>
</table>

Table 2. Timeline of research preparation

**During the study**

In this study, questionnaires, interviews, observations, and document analysis were the instruments used for data collection. The data collection process lasted for approximately one month in the month of April 2012. The questionnaire was distributed first. It was then followed by the interviews with five instructors. After that, classroom observations were conducted in four instructors’ classes (one instructor could not be observed as he was not teaching). At the same time, documents relevant and related to the visited class sessions were collected.

The first data source collected for the study was the survey. Before the questionnaires were distributed to the ESL Composition instructors, an online pilot survey was distributed to former ESL Composition instructors who used to teach at the research time, but at the time of the study taught at other institutions. After the questionnaires had been returned, the comments and feedback were used for revision consideration. The pilot survey participants were given one week to complete and return the questionnaires.
The next step in the study was the distribution of the questionnaires to the study participants. A copy of the questionnaire with a consent form and instructions were placed in each instructor’s mailbox. The instructors were given one week to complete and asked to return the survey within the requested time frame.

After the one week period had passed, the next phase of the data collection began. Five instructors were purposefully selected for the interview. Those willing to be interviewed were also asked to participate in the classroom observation. During the observations, the instructors were asked if they could provide course materials, which would be used for document analysis. These three data sources were collected sequentially. It is important to note that the observation only occurred after the interview had been completed and the documents were collected as part of the classroom observation.

After the data had been gathered, they were analyzed. Table 3 displays the timeline for the data collection and data analysis.
The data collected from the study were used to answer the research questions of the study. As stated in Chapter 1, the research questions that the study attempted to answer were:

1. *What are the professional profiles of university ESL writing instructors who claimed to regularly use technology in their teaching?*

2. *How do these university ESL writing instructors describe their regular use of technology in their teaching?*

3. *What do university-level ESL writing instructors self-report to be their views about their regular use of technology in their instruction?*
4. *What do university ESL writing instructors self-report to be the results of their use of technology to teach their students?*

Table 4 summarizes the relationship between the research questions and the data sources:

<table>
<thead>
<tr>
<th>Question</th>
<th>Survey</th>
<th>Interviews</th>
<th>Observations</th>
<th>Documents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question 1</td>
<td>✓</td>
<td>✓</td>
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</tr>
<tr>
<td>Question 2</td>
<td></td>
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<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Question 3</td>
<td>✓</td>
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<td>✓</td>
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</tr>
<tr>
<td>Question 4</td>
<td>✓</td>
<td></td>
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</table>

Table 4. Correlation of the research questions and data sources

The last stages of the completion of the dissertation took place during Autumn semester 2012, which was the time the dissertation was anticipated to be completed. The final version of the dissertation was finished in December 2012.

**Issues of Research Ethics**

In this study, ethical issues were taken seriously. As Erickson (1986) recommended, the study participants were protected and were not subjected to physical or psychological harm throughout the duration of the study as well as after the study was completed. To protect the participants, the following information was provided before
anyone participated in the study. Informed consent and confidentiality issues are described below:

**Informed Consent**

Before an instructor from the ESL Composition Program at the research site agreed to participate in the study, he/she received a detailed explanation about what the study entailed, risks that might be involved, and how the data would be handled. The participants were also given a chance to ask questions and clarifications about the study prior to their participation. Also, the instructors were informed that by participating in the study, their current university employment would not be either negatively or positively affected. In other words, participation in the study does not impact their job in any way. Christians (2005) advised that “[the participants'] agreement must be based on full and open information” (p. 144).

After the instructors agreed to participate, they received a printed copy of a consent form (Appendix A), which contained a description of the study that included the purposes of the study, what participation in the study entailed, and ways to contact the researcher in case there were any questions regarding the study. In addition, the form contained third-party university contact information that the instructors could use for questions or complaints. They were asked to sign the form to indicate that they had agreed to participate in the study and that they may withdraw from the study at any time without penalty. Although the risks were predicted to be minimal, they were informed that psychological risks might occur. Since it was difficult to predict what would happen
in the study, a rolling informed consent procedure was employed. This is a concept to ensure that “the renegotiation of informed consent once the research is underway and a more realistic assessment of the risks to participants can be made” (Piper & Simons, 2005, p. 56). This technique would ensure that the participants were continually protected throughout the research process.

**Confidentiality**

In this study, anonymity of the participants and confidentiality of the data were protected. Piper and Simmons (2005) suggested that “the two concepts require separate consideration” (p. 57). To ensure anonymity, pseudonyms were used to report the qualitative data and no names were used in reporting the quantitative data. The instructors’ names are not revealed in the dissertation. To maintain confidentiality, the only persons who have access to the data are the researcher (co-investigator) and the Principal Investigator (doctoral faculty advisor) of the study. The data from the study were digitized and stored in a password-protected computer. Through confidentiality and anonymity, participants can communicate in confidence and be sure that their privacy is protected (Piper & Simons, 2005). Christians (2005) emphasized that “all personal data ought to be secured or concealed and made public only behind a shield of anonymity” (p. 145). It was important to disclose the issues of confidentiality and anonymity before the instructors agreed to participate and the study accomplished this objective.
Issues of Trustworthiness

In any research, building a positive and trusting relationship with research participants is essential. Erickson (1986) noted that one of the challenges in building trust is that there is “the tendency for informants to assume, whatever the researcher’s presentation of the purposes of research was during the initial stages of negotiation of entry, that the researcher's purposes are in some way evaluative” (p. 142). To mitigate this problem, the instructors were informed that this study was not meant to evaluate their performance or to assess their teaching practices. In this study, the comfort of participants was sought throughout their participation in the study. In addition, it was made clear by the researcher to the participants that they were allowed to withdraw from the study at any time with no negative outcome. The information gathered from the instructors was confidential, and their privacy was protected.

Time was also an important factor to build trust. Since the study lasted for approximately ten weeks, it was hoped that a positive relationship could be established during the study, which could help the instructors feel comfortable while participating in the study. The multiple meetings with the participants through the one-on-one interviews and the observations of their classrooms helped build trustworthiness. As Williams (1986) stated, “the researcher needs to be on site frequently and long enough to penetrate beyond surface understanding” (p. 91). The interpretive inquiry regards communication as transaction. In order to start exchanging ideas, a positive relationship between the researcher of the study and the participants has to first be established. In the present study, such relationships were sought, in an effort, to have been established before data collection commenced.
In an interpretive inquiry, in order for the report of the study to be deemed trustworthy, there has to be evidence that “issues have emerged during the study and analyses have been inductive” and “there should also be evidence that participants have helped define issues” (Williams, 1986, p. 91). Williams (1986) also added that the emic perspective of the researcher should be included in the report to ensure that readers are aware that the researcher's opinions were not the determining factor in the research. Williams' (1986) recommendations about trustworthiness were applied in the present study.

In the qualitative part of the study, member checks were performed to improve the accuracy of the participants’ account (Creswell, 2005). During the write-up of the study, the participating instructors were informally asked if the researcher’s interpretation of the interview data represented their views.

**Summary**

In summary, this mixed-method study attempted to investigate ESL writing instructors' perspectives about the use of technology. The participants of the study were instructors who, at the time of the study, were teaching in the ESL Composition Program at a major mid-western Research-1 university in the U.S. The research procedures employed to collect data were questionnaires with likert-scale statements for quantitative data, and one-on-one interviews, classroom observations, and document analysis for qualitative data. Quantitative and qualitative data were analyzed using Microsoft Excel.
and described with Microsoft Word software. To maintain high ethical consideration, confidentiality and anonymity were sought throughout the study.
Chapter 4
Data Analysis and Discussion

As stated in Chapter 1, the present study examined how instructors teaching in post-admission university-level ESL writing courses regularly use technology as a pedagogical tool, and investigated these instructors’ self-reports about the use of technology in their teaching. In order to achieve the goals of the study, both quantitative and qualitative data were collected. As Creswell (2005) suggested, quantitative data provide a big picture of the research and qualitative data are meant to provide information through explanations. In this chapter, the findings from the data collected in the study are presented in three parts. Part 1 provides answers to the research questions and is based on all data collected in the study. The next two parts present the quantitative and qualitative data separately. Part 2 describes the quantitative data set. Part 3 is the presentation of data from the qualitative data set. In this part, the data set is further divided into two sections: interviews and classroom observations with document analyses. All parts of the chapter describe the participants and how they used technology in their teaching practices, present the reported perspectives of the instructors about their use of technology in the teaching of ESL writing to university students and demonstrate the perceived impact of technology use on the students.
Part 1: Answers to the Research Questions

In this part, the findings from both the qualitative and quantitative data are presented as a synthesis. Both qualitative and quantitative data were analyzed in an effort to answer the research questions posed in the present study. This part of the chapter draws on that analysis to answer these questions:

- What are the professional profiles of university ESL writing instructors who claimed to regularly use technology in their teaching?
- How do these university ESL writing instructors describe their regular use of technology in their teaching?
- What do university-level ESL writing instructors self-report to be their views about their regular use of technology in their instruction?
- What do university ESL writing instructors self-report to be the results of their use of technology to teach their students?

This synthesized part of the chapter is organized as follows. First, the discussion starts with the professional profiles of the participating instructors. Then, important findings regarding the use of technology as a tool are presented. It is then followed by the discussion on instructors’ views about the use of technology in their ESL writing classes. At the end of Part 1, the impact of technology in students as reported by the instructors is presented.
Professional profiles of the participants

In the present study, the first research question was, “What are the professional profiles of university ESL writing instructors who claimed to regularly use technology in their teaching?” The present study found that all instructors who participated in this study reported the use of technology in their classrooms regardless of their gender, employment position in the program, number of years of teaching experience, and other demographic categories that were included on the questionnaire. The widespread use of technology may be attributed to the university push to the implementation of learning technology for teaching purposes, which is common among educational institutions (Yunus, 2007). Although all instructors reported that they used technology in their classrooms, interviews with five of the instructors showed that the reported frequency of technology use varied with years of teaching experience and age. The degree to which technology was used differed from instructor to instructor. Two of the five instructors reported that they considered themselves to be “regular” technology users. These two instructors stated that they had less than five years of teaching experience and they were younger in age (approximately 23 to 26 years old). Based on what was observed from an analysis of the data, these instructors may be classified as digital natives because, according to them, technology has always existed for them throughout their lives. Prensky (2008) used the term “digital natives” in describing those who grew up with technology and, as a result, were naturally comfortable with technology. The findings of this study seem to corroborate this perspective. These two instructors reportedly were very comfortable in using technology and it seems that their comfort levels might have positively affected their decisions to use technology in their teaching. The instructors
also reported that they frequently refer to the Internet to create teaching materials. In regards to the relationship between comfort levels and the use of technology in teaching, the survey results appeared to also support this perspective. A majority of the instructors who returned the questionnaires (n=13) indicated that they were generally comfortable in using technology in their ESL composition teaching.

Additionally, two out of the five interviewed instructors, who had many years of teaching experience, reported that they saw themselves as “50/50” technology users. This was interpreted to mean that they used a roughly equal mix of both digital and non-digital teaching materials, and another instructor reported using technology in teaching on a limited basis. These three instructors seemed to have had much more teaching experience that the digital native instructors described in the previous paragraph. The fact that they were more experienced instructors may explain why they could rely more on their teaching practices than relying on technology. It is also possible that these instructors have a larger repertoire of teaching resources that they have accumulated over the years, and that they selectively use technology in their teaching.

Additionally, the interviews also revealed that the three more experienced instructors were be more selective in the types of technology they reportedly used than the less experienced instructors. One instructor stated that he used an eclectic approach, where paper-and-pencil work performed by students is mixed with computer technology. This claim seems to support his statement that he was a 50/50 user of technology in teaching. His view about giving paper-and-pencil assignments, however, was not shared by all the instructors who participated in the survey. The majority of the instructors
reported that they disagreed with using more paper-and-pencil assignments in ESL writing classrooms or they reported neutral opinions on the topic.

Moreover, in regards to being selective, in the interviews, another instructor, Brenda, reported that she picked and chose the features that the online course management system offered according to what she thought was appropriate for her teaching. For example, she reported that she was reluctant to use the discussion board feature because of its lack of real interactivity in the e-tool. Her view was in alignment with what Comeaux and McKenna-Byington (2003) discussed on instructors’ perceptions. According to them, some faculty members were skeptical about using technology for online interaction because it can “deprive students of meaningful interaction with their peers” (p. 352). Brenda, one of the interviewed instructors who will be introduced in Part 3, regarded interaction as an important component of teaching ESL writing, and therefore seemed to avoid using a technological tool that could hinder authentic interaction among her students. Her view was an example of how interaction, a feature of the Communicative Language Teaching (CLT) method (Khalsa et al., 2007), came into play in her teaching. The CLT is a language teaching approach that emphasizes learner interaction (Khalsa et al., 2007). It is often times associated with the discussion of technology and language learning in CALL. Brenda’s case is interesting because she seemed to value “real” interaction over the use of technology, which appeared to influence her decision to not adopt the online discussion board in her teaching. For Brenda, “real” interaction may mean a face-to-face meeting with instantaneous turn takings, a category that she seemed to give for this type. In retrospect, a question about online synchronous interactions should have been explored in more
depth with Brenda. Online interactions via a discussion board, while seemingly real, are text-based and asynchronous, which do not have audio or video features. This may be regarded as less ideal than face-to-face meetings or synchronous online chats (e.g. via Skype or instant messaging system). This is not to undervalue online discussion boards, but it may be a reason for Brenda to not use it in her teaching. Her decision may also have been influenced by the fact that she met her students in person in the classroom, which could make the use of discussion board superfluous. She, however, reported using other features of the course management system.

The stories told by the three more experienced instructors seemed to indicate that their teaching experiences informed their decisions about how much and what kinds of technology were used in their teaching. Their viewpoints corroborated Kim’s (2008) and Wang’s (2002), who found that technology selection is considered to be a teacher-centered approach. Kim (2008) demonstrated that the teachers who participated in her study were generally in control of how computers should be used in their classrooms. Similarly, Wang’s (2002) indicated that the teachers in her study made a determination about computer use for their students. In this case, Wang (2002) contributed this action to the teachers’ background in technology that they received in their teacher education.

In regards to the professional profiles of the instructors, the results from the survey showed that all participating instructors had earned a Master’s degree and 39% of the participants (n=7) also had a doctorate at the time of the study. This profile was certainly expected as the minimum degree requirement to teach in the program is a Master’s degree in TESOL, linguistics, or other related fields.
In terms of years of teaching experience, the present study found that the majority of the instructors had either less than five years of experience or 25 or more years of experience. Both groups combined made up more than half of the teaching staff in the ESL Composition Program. The rest of the instructors fell between these two categories. The ESL Composition Program at the research site is one of the largest in the U.S. and it seems natural that they employ instructors with different numbers of years of teaching experience. The combination of experienced and novice instructors appears to be advantageous for both groups. In such a situation, there would be opportunities where the experienced teachers guide and transfer their wealth of knowledge to those who are new to the profession or to the field, and the incoming instructors learn from their more experienced colleagues.

When it comes to teaching opportunities in the program, the courses the instructors have taught was varied. This finding revealed that all but one instructor reported having taught at least one undergraduate-level course and 15 out of 18 instructors reported having taught at least one graduate-level course in the ESL Composition Program. This result can be expected since when an instructor starts teaching in the ESL Composition Program, he/she tends to be assigned to teach an undergraduate-level course at first. After that, an instructor could move to the graduate level as determined by the Program Coordinator. The number of instructors who reportedly have taught graduate-level courses is high. One explanation may be because, at the time of the study, most of the instructors had worked in the program for at least a year, giving them the opportunity to move from the undergraduate to graduate teaching level.
To add to the professional profiles of the instructors and their technology use, the study found that all instructors reported that they personally owned at least one type of computer (desktop, laptop, notebook, or tablet). With the ubiquity of computer technology and the relatively affordable cost to obtain one, this statement is hardly surprising. Only five out of the 18 instructors, however, reported that they owned a smartphone.

While smartphones have gained popularity in the public market and many cell phone users use them, the trend does not seem to have caught on with the instructors who participated in the study. A possible reason is because the smartphone market is still growing and the instructors may not be early adopters of technology, or they are unaware of how a smartphone can be used as an instructional tool. Another possibility is that these instructors have made a conscious decision not to purchase a smartphone at this time because it does not serve their needs. With the rapid progress of smartphones and extensive marketing of such devices, it is likely that this number will increase if the instructors are surveyed again in the near future. However, the study data and findings do not support any additional interpretations.

**Technology as a tool**

The second question posed in this research study was, “How do these university ESL writing instructors describe their regular use of technology in their teaching?” The study found that the instructors used technology as a tool in teaching ESL composition courses. While this is not surprising, the views on technology as a tool have been
previously discussed by many scholars. Technology as a tool has been described to function as a medium or facilitator for student learning (Becker & Ravitz, 1999), for writing (Braine, 1997; Kim 2008), for simulation-based activities (Coleman, 2002; Ince, 2002; Salies, 2002), for teachers’ professional development (Ertmer, 2005), and for communication (Kim, 2008). While many scholars have discussed this topic, not much attention was given to university-level ESL writing instructors. The present study serves to add to the discussion by presenting the views of university ESL writing instructors about technology as a tool, which may be different than those teaching in other contexts such as EFL or K-12. When technology is regarded as a tool, it means that the existence of technology cannot and should not replace the instructors. But, the tool plays an important role to support the teaching and learning process. As illustrated in Figure 4, in the present study, the instructors’ responses can be classified into two categories: unidirectional tool and bidirectional tool. As a unidirectional tool, technology has instructor-centered functions, and as a bidirectional tool, it goes both ways, from instructors to students and from students to instructors.

Figure 4. Technology as a tool
Unidirectional tool

In the present study, the instructors reported their use of technology as a unidirectional tool. In relation to the Sociocultural Theory of language teaching, technology as a unidirectional tool can be regarded as a mediator (Thorne, 2007). In the context of an instructional setting, a mediator is any physical or conceptual means by which the instructor influences his/her students’ behaviors or thoughts (Lantolf & Thorne, 2006). The invention and use of technology and its ability to transform our behaviors socially, psychologically, cognitively, and probably genetically is a vivid example of how social construction works. Such views were also shared by the participating instructors in the present study. As illustrated in Figure 5, in the interviews, the instructors described how technology acted as a unidirectional tool that complemented their teaching in the use of the course management system, word processing, and online corpora.

Figure 5. Examples of technology as a unidirectional tool
One reported notable widespread use of technology as a unidirectional tool was the integration of course management systems (CMS) as part of the participants’ teaching. All interviewees reported using the course management system (e-Course) in teaching ESL writing and their use of CMS was seen during the class visits at the research site. The survey results showed that all instructors either agreed or strongly agreed ($\bar{x}=4.72, s=0.45$) that CMS could be used in the teaching of writing as a mediator. In this situation, CMS appeared to act as a virtual mediator for instructors to provide information. Mediation is an element of the Sociocultural Theory (Thorne, 2007). In many of instructors’ cases, CMS was reported to replace the distribution of hard copies of course handouts as the participating instructors reported posting these handouts online. The dynamic of handout distribution changed as a result of the use of CMS. Instructors did not need to wait until the next class time to distribute handouts since these materials could be uploaded online at any time. The wide utilization of CMS to serve as a mediator can be attributed to the fact that the university provides support and frequent hands-on workshops for instructors to adopt this tool in their teaching. Another possible explanation is that the ESL Composition Program at the research site also provides in-house training and as-needed support to its teaching staff. However, the extent to which it was reported by study participants to be used differed from instructor to instructor. Posting course materials and class announcements were two frequent ways that the CMS was reportedly used by the instructors as a unidirectional tool. The postings may serve several purposes such as helping students with lessons and reminding students of course assignments. These particular uses of the CMS, as a mediating tool, create a social environment which connects instructors with their students via the Internet. In addition,
CMS can also be used, as the instructors described, as a one-stop location for record keeping (e.g., students’ grades) and storage (e.g., students’ assignments), and they saw it as an appropriate online mediating tool for teaching purposes. This function seemed attractive to the instructors possibly because it served the purpose of informing students of their achievement and because the content was accessible wherever they could use the Internet. Also, the ability to save information in the cloud\(^7\) could prevent data loss that sometimes occurs with using personal computers. These are instances of how the instructors conceptualized an aspect of the Sociocultural Theory, where technology is used as a mediator with “multiple purposes and multiple participants” (Lantolf & Thorne, 2006, p. 67).

Adding to the discussion of technology as a unidirectional tool, the interviewees described that word processing software, such as Microsoft Word, was also seen to be advantageous. The particular function that was mentioned by study participants was the comment feature. This is the type of digital feedback similar to what Tuzi (2004) described and discussed in his study. He described it as an alternative method of commenting on students’ written work. As a condition for optimal learning environment, Egbert et al.’s model (2007) stressed the importance of the appropriate amount of feedback for students to promote language learning. The results of the interviews revealed that the track changes and comment functions in Word were reportedly deemed useful for grading and providing customized feedback on writing assignments. When instructors give comments, a negotiation of meaning, which is a basic principle in SLA,

\(^7\) Cloud is used metaphorically to refer to a cyberspace location where data reside on the Internet as opposed to being saved in a local (personal) computer.
takes places in a digital environment. In the present study, the comments feature in word processing software served as a unidirectional mediating tool for the beginning and the basis of the negotiation of meaning. The negotiation itself would be conducted in face-to-face tutorials that instructors scheduled with the students at a later time. In contrast to the findings from the interviews, the survey results, however, were not as positive. With a $\bar{x}=3.50$ and $s=1.54$, most of the instructors showed strong agreement or agreement about using the comments feature because it could save them time in grading and providing feedback. This finding is similar to those of Braine’s (1997) study, which found that the teacher teaching in a technologically-networked classroom spent less time giving feedback, but the amount of feedback increased. About a third of them participants ($n=6$), however, did not appear to consider this feature to be a time-saving tool. One explanation to this apparent discrepancy may be that not every instructor or student is comfortable with reading and grading/providing feedback on a computer screen. Using the comments feature requires the use of a computer, and accessibility depends on the availability of a computer for both instructors and students. Because of this reason, the comments feature of a tool such as Microsoft Word or other word processing technology tools may be somewhat limiting. It is certainly not as portable as having hard copies of class assignments. This notion was supported by one participating instructor, who stated in his interview that he preferred the flexibility of grading printed papers (hard copies as opposed to electronic copies). Although essentially unidirectional, providing feedback either via technology or hard copies can be regarded as a suitable approach that can facilitate and foster interaction between an instructor and his/her students, a concept that the CLT approach emphasized (Khalsa et al., 2007).
Supporting the notion of technology as a unidirectional tool, the present study also found that the participating instructors viewed technology use to be a facilitator to help students acquire the composition skills being taught. This idea supports an element CALL as well as the SLA theory. As Egbert et al. (2007) reported, the CALL concept fosters the connection between technology and language acquisition. Technology as a facilitator can be viewed as a Zone of Proximal Development (ZPD) formulation of scaffolding (Lantolf & Thorne, 2006), where instructors, with the use of technology, assist students to help them ready for the task at hand. The findings from the interviews in the present study showed that CMS, the most widely used technology tool reported by the participating instructors, was viewed as being a helpful facilitator e-tool for learning ESL writing. One instructor, in his interview, reported the practice of scaffolding through their ability to post handouts and direct students to relevant websites was seen as a way to help students learn the course objectives. After receiving instructor’s guidance and assistance, the students ultimately would have to work on their own and submit their work. From this comment, it can be inferred that if students respond to the scaffolding, there is a potential use to accelerate the acquisition of ESL writing skills through self-motivated learning (Khalsa et al., 2007).

In further support of the CALL concept, the present study also found that concordancing was seen as a way to facilitate students’ acquisitions of writing skills as well, particularly grammar and word usage. A concordancing program allows its users to search a database for sentence collocations (Bloch, 2008). In the present study, the concordancing database that the instructors used was the Corpus of Contemporary American English (COCA), a website which is maintained by Brigham Young University.
and charges no usage fee to any registered user. COCA, in this case, acts as a mediating tool. The survey results of the present study indicated that a large majority of the instructors either agreed or strongly agreed that COCA should be used to teach ESL writing. This perspective was also supported by the interviewed instructors. During the interview, one instructor explained that COCA was a powerful and useful tool, especially to facilitate the improvement of English syntax. During a class observation by the researcher, one instructor showed his students how to use the online corpus and then gave an assignment to his students. The assignment asked students to use COCA to fix grammatically incorrect sentences. Because COCA can sometimes be regarded as a complex program, especially for first-time users, the in-class assignment seemed to help students feel more at ease in using this tool. All of these activities support the SLA theory in which COCA was used a formulation of the ZPD. The ZPD came into conceptualization as the instructor guided the students when using COCA. In this situation, the instructor had knowledge beyond what the students knew and he helped his students with their learning of using COCA. Because the students were also involved in the process, this can be considered a joint activity. In Egbert et al.’s (2007) views, this may be considered a condition for optimal learning environment where students are guided to work on a task in a learning situation. On the topic of technology as a learning facilitator, another instructor, during her interview, reported an optimistic perspective. According to her, technology not only facilitated learning, but it also enhanced it. The researcher took this comment to mean that using technology could serve multiple teaching purposes, such as basic teaching of a composition skill, and it could also differentiate instruction when needed.
Bidirectional tool

In further discussing their view of technology as a tool, the participating instructors also reported the bidirectional functions of technology. These functions go in both directions, from instructors to students and from students to instructors. To describe the bidirectionality of technology as a tool, the study revealed another perspective in that technology was viewed as a means of communication. Kim (2008), in her study about teachers’ perception and computers, also regarded the computer to be a tool for communication. In such a situation, communication is a conceptualization of interaction (Khalsa et al., 2007). The present study, based on the views of the instructors who participated in the interviews, found that the participants viewed communication as an important aspect of teaching. Egbert et al. (2007) saw this as one of the conditions of optimal learning environment, where teachers and students have the chance to interact in the target language. In this regard, technology reportedly helped them to maintain regular communication with their students. For the interviewed instructors, technology was reported to allow them to give their students on-going access to contact them about the course and its content. In the age of digital technology, quick and on-going communication seems to be expected. As shown in Figure 6, Cellphone, email, and the dropbox feature of the course management system were examples of how technology was used by the participating instructors in describing technology as a bidirectional tool.
In this study, cellphone and email were the two additional types of technology reportedly used to achieve the communication objective. One participating instructor reported that she allowed her students to contact her by cellphone. This is surprising since many people, including some instructors, generally seem to guard their cellphone numbers and usually only give them to friends, family, or colleagues. This particular instructor added that her students were respectful about using her cellphone number and mostly only texted her. Her comment is a conceptualization of an element of Katz’s (1960) functional theory of attitudes, where the cellphone is instrumental to facilitate communication with her students without risking her personal privacy. Additionally, she might also help dispel skepticism about the practice of giving personal phone numbers to students. While the use of personal cellphone seemed to be an exception, in contrast, all of the participating instructors reportedly used email regularly to maintain
communication with their students and to make themselves available to their students. Since email is one of the most common ways for people to communicate in the digital age, this finding was not surprising. In addition, for those who are concerned about personal privacy, the instructors reported that they did not need to use their personal email accounts to communicate with students because the university automatically provides an account for each instructor. Likewise, the students do not have to use their personal accounts since each enrolled student is provided with a university email account.

While the interviews yielded pertinent results about the topic of technology as a communication tool, the survey did not reveal much information.

While course management systems were generally seen as a unidirectional tool, they also have limited bidirectional functions. The course management system at the research site (e-Course) has a feature called Dropbox, where students can upload files. The instructor can then download them and post comments. However, unlike email and phone uses that allow multiple turns for communication, the bidirectional function of CMS stops there. In the present study, the Dropbox acted as a mediator (Lantolf, 2007) for assignment submissions. Similar to how the concept of mediation worked in the discussion of technology as a unidirectional tool, the existence of a tool such as the Dropbox seemed to also have changed the ways instructors and students received and submitted class work in that time and location were no longer seen as constraints for submitting an assignment. In the present study, two of the five interviewed instructors reported having used the Dropbox in their teaching. One instructor stated that her students liked the fact that they could submit their assignments online. A likely reason for this is because electronic submissions gave their students flexibility in terms of time
and location. They could submit their work from anywhere they had access to the Internet. This particular instructor also used the Dropbox to keep record of her students’ submissions.

Instructors’ views about the use of technology in teaching ESL writing

The next question posed in the present study was, “What do university-level ESL writing instructors self-report to be their views about their regular use of technology in their instruction?” In the present study, a majority of the instructors reported having positive viewpoints about the use technology in teaching ESL writing at the university level. The generally positive views may be seen as a conceptualization of Katz’s (1960) functional theory of attitudes’ knowledge function, which argues that attitudes give a benchmark for organizing thoughts. In the instructors’ case, because they seemed to have had positive experiences with technology, it was not surprising that they had positive views when asked about technology use during the present study. The instructors’ positive views seem to also support the findings of previous studies about technology (e.g. Braine, 1997; Yunus, 2007). In Braine’s (1997) study, one of the positive views that he demonstrated was that teachers found technology to be a time saver, especially in terms of managing the load of correcting students’ papers. Yunus’ (2007) study, which was conducted in an EFL context, showed that teachers viewed technology positively because it could help their students to better understand the English language. As shown in Figure 7, the viewpoints that instructors in the present study reported were shown in
terms of the usability of technology, the perceived advantages for students, and the instructors’ assessment about technology.

Figure 7. Instructors’ views about technology use

**Usability of technology for teaching**

When asked about the usability of technology for teaching, the survey respondents and interviewed instructors both reported generally positive views. As shown in Figure 8, these views were expressed in terms of the benefits of technology for students and instructors, instructors’ increased productivity, technology’s compatibility for teaching, and its ease of use.
The interviews further revealed that the instructors reportedly used CMS because of the benefits it offers to both students and instructors. This view aligns with Katz’s (1960) functional theory of attitudes’ instrumental function. It argues that favorable attitudes toward something may be influenced by the potential rewards or benefits of the phenomenon and the minimization of punishment. Based on their reports, instructors described the ability to post course materials, make announcements, and communicate with students via email. This is a conceptualization of mediation as discussed in the Sociocultural framework, a theory that the CALL concept draws from. The CMS is a mediating tool that allows instructors and students to interact and negotiate meaning. The presence of the CMS has changed the ways course materials are distributed. Instructors can give course materials to students at any time without having to wait until they meet their students in class. An announcement can now be given through the CMS and
students have a written record of it. With email, communication seems to be accelerated as well.

Additionally, it can be used to help increase productivity with course-related administrative tasks such as keeping track of students’ grades. One instructor reported that technology helps his teaching become more efficient. In this case, efficiency can be interpreted as the instructor’s ability to manage non-teaching tasks that complement and are important for the teaching itself. When efficiency is achieved, both the instructor and his/her students could potentially reap the benefits. In such a situation, the instructor could focus more on the teaching and on meeting the students’ needs. Being an efficient instructor may be a reason that the instructors viewed technology positively. Other usable tools mentioned in the interviews and survey were Web 2.0 technologies and online corpora. The instructors’ viewpoints on these tools were also reported to be positive.

When discussing the usability of technology, the instructors related it to technology’s compatibility to teaching. This was another area where the instructors’ viewpoints were found to be positive. The results of the survey illustrated this finding since a little over three quarters of the instructors reported that technology increased their productivity. Evidence of this finding was also found in by the stories described by three instructors during their interviews. They all stated that technology helped them with lesson planning and class preparation. Because preparation before class is crucial for any instructor, technology seemed to be instrumental in this regard for the study participant interviewees. For instance, software programs such as Microsoft Word were reported to have been used to outline lesson and to write lecture notes. It can be argued that if an
instructor owns a tablet computer, a computer file can conveniently be viewed on it, perhaps also without printing the content in hard copy format. Additionally, prior to a particular class session, tools such as Powerpoint or Prezi can be used to create slideshows that can be shown during the class lectures. Other evidence to illustrate the compatibility of technology with instruction was found when a majority of the surveyed instructors reported high agreement about technology being well-suited to access relevant teaching materials and resources on the Internet. Commenting on this topic, one instructor reported that the Internet with its abundance of content allowed him to supplement his own teaching materials and enrich the learning of his students. To this end, he reported purposeful use of YouTube and Wikipedia. As two of the most popular websites, these two tools offer an unlimited amount of video and content that can be adapted when teaching ESL writing. Once again, these study participant views were in alignment with Katz’s (1960) argument about what influences teachers’ favorable views about their instructional practices.

The usability of technology in teaching was also linked to its ease of use. With the respect to the ease of use of technology, the instructors also reported their own generally positive views. The survey results revealed that almost three-quarters of the instructors reported that it was generally easy for them to use technology to teach university ESL writing and that, on the whole, they felt comfortable using technology in their teaching. These views seemed to also be shared by the interviewed instructors as well. Two of the latter instructors reported that they were accustomed to technology and were comfortable using technology in their teaching. These positive viewpoints may be attributed to the easy-to-use computer interface, the availability of help files, and tech
support that the instructors could easily access at the research site. The university where this study was conducted has a department and dedicated phone number for faculty, staff, and students who need help with technology instruction-related issues. In fact, about two-thirds of the study respondents reported that technology was “user friendly” for them and that they did not feel intimidated by technology. Three of the interviewed instructors also echoed these views, self-reporting that they learned to use technology through self-instruction. These views were interpreted by the researcher to indicate that technology for the study participants was not something that was intimidating and that the participating instructors had existing technological knowledge prior using it for teaching ESL writing. These favorable views align with Katz’s (1960) knowledge function of the functional theory of attitudes. Also, the reported fact that they self-taught themselves may mean that it was relatively easy for them to understand how to use technology in teaching on their own. Self-learning is a common process for becoming familiar with particular technology tools by teachers. However, in order to improve one’s technological knowledge, Beach et al. (2009) suggested that instructors reflect on their teaching by writing personal reflections. Zeicher and Liston (1996) also described this practice as a way for instructors to show that they are committed to developing themselves professionally.

**Perceived advantages and disadvantages of technology for students**

The study instructors also reported that they perceived their use of technology as being beneficial to their students even though there were some drawbacks (see Figure 9
for illustration). It must be acknowledged that the present study did not focus in any direct way on student achievement. Instructors’ views about using technology were mainly positive, but they did report some concerns. In the survey, most of the instructors reported that their students should, as much as possible, take advantage of what technology has to offer. To illustrate their perspectives, these instructors stated that the available technology, such as Internet resources, grammar- and spell-checker tools, online dictionaries, and online corpora, all seemed to be helpful for students who are studying writing in their university ESL composition courses. In the Sociocultural framework, these are mediating tools for learning (Thorne, 2008).

Instructors also reported some reservations about the use of technology in teaching writing. Distraction was one of the reported possible disadvantages of the use of technology for these instructors’ students. One instructor reported that students who are connected to the Internet while doing homework could very well be tempted to do unrelated activities, such as check their Facebook account. Also, two instructors reported that while grammar- and spell-checker and online dictionaries can be helpful in some cases, students sometimes indiscriminantly rely on them without verifying the accuracy of the results or suggestions from these tools. Both the positive and negative views reported in all the interviews seem to also be in line with what the surveyed instructors reported. In the survey, only half of the instructors (n=9) reported that students should automate their classwork. This finding suggests that study instructors recommend selectivity in which technology tools their students use for writing purposes. Thus, it can be concluded that perhaps training the students to selectively use certain technology tools could help optimize the potential of the effectiveness as pedagogical tools.
Instructors’ self-assessment about technology use

The final topic in this section is related to the instructors’ self-assessments about using technology. It was interesting to discover that almost 90% (n=16) of the surveyed instructors reported that they regularly used technology in their university ESL teaching and that the instructors had generally positive views about the use of technology in teaching ESL composition. However, only less than one third of them (n=5) reported that they considered themselves as a “tech person,” which the researcher assumed to mean that the respondents mean to describe a generally comfortable level of use technology in teaching their university ESL composition classes. Almost half of the respondents reported the opposite. In other words, the instructors perhaps associate a “tech person” with someone who is comfortable with technology or who can troubleshoot technological problems. A similar view about “tech person” was also reported by the interviewed
instructors. In the interviews, only two instructors reported feeling “very comfortable” with using technology in teaching university ESL writing. Two other instructors reported that they were “average” in terms of their comfort level with using technology. While the latter two instructors were reportedly able to use technology, they seemed to feel comfortable when the technology was a mainstream type (e.g., email, course management system, and word processing software). A possible strategy that might help increase the university ESL composition instructors’ comfort level might be to provide workshops or training programs (Fook et al., 2011; Liu and Szabo, 2009, Yunus, 2008). Yuen and Ma (2008) suggested that teachers’ confidence in the use of technology should be continually built. This study results corroborate this recommendation.

**Impact of technology use on ESL composition students**

The final question investigated in the study was, “What do university ESL writing instructors self-report to be the results of their use of technology to teach their students?” In this topic, study instructors reported their view that their use of technology in their instructional practices had both positive and negative effects on their ESL writing students. The findings from the survey revealed that most of the study instructors seemed to believe that their ESL composition students use technology to develop their writing performance. The study found that the positive impact of using technology included students’ ability to become more independent learners, and the negative effects included lower quality writing products. The next section describes the basis for the previous sentence.
Positive impact of technology use

The interviews revealed that the availability of the Internet and its related computer technology have made it possible for students to gain the skills to be able write research papers and search the Internet for appropriate resources and documentation. The responses about this topic are examples of how the participating instructors conceptualized Egbert et al.’s (2007) conditions for optimal language learning environments as are pointed in the discussion of the CALL concept. For instance, the university library website in the research site provides relatively easy access for students to read or download English language academic and non-academic resources (e.g., journals, webpages, and databases). Through the website, students can conduct their own professional literature searches.

They can also routinely obtain magazine, newspaper, and journal articles through the use of the library website. According to Egbert et al.’s (2007), the students are involved in authentic tasks in the target language with authentic audience in mind. One of the benefits of conducting database searches through the library website is that these sources are more likely to be both credible and trustworthy. In contrast, Internet searches via search engines, such as Google, may yield results that ESL students need to first evaluate for their credibility and trustworthiness and then make appropriate selection related to their ESL writing assignments. Murray (2005) stated that it is important for students to be able to effectively navigate the web. This ability may further encourage students to be independent users of technology, where an optimal learning environment through learner autonomy (Egbert et al., 2007).
On the same note, the present study showed that a majority of the surveyed instructors reported that technology can make learning more effective for students where they can produce varied tasks with technology. In Egbert et al.’s (2007) view, this is another condition for creating an environment that is optimal for language learning. Again, the researcher is aware of the fact that conclusions cannot be made about student performance given the focus and limitation of the present study. Thus, a recommendation about student outcomes is made subsequently in the “recommendations for further research” section which can be found later in Chapter 5.

In the present study, students’ opportunities to learn faster was also seen by the researcher as a possible positive result of the use technology in university ESL writing classrooms. The instructors who participated in the interviews reported that the availability of online resources (e.g., online dictionaries) and software (e.g., word processors) may have assisted their students to finish course writing assignments in less time. This can be interpreted to mean that these resources may be helpful in reducing the time the students would spend to complete their papers since the resources can give the students answers to their questions rather quickly. Compared to typing using a typewriter and finding the meaning of a word in a paper dictionary, the use of technology seems to have more advantages in terms of saving time. To illustrate this notion, Brenda used the use of online dictionaries as an example and remarked:

Sure, [the students] consult dictionaries, they can get answers faster. I think maybe people are learning faster. If faster is good, then it is positive in that way. They learn faster. They get things quicker.
In a situation where online resources are used, the teaching and learning process was distributed among the student, teacher, and online resources. This notion is known distributed cognition (Cole & Engestrom, 1993), to which the improvement of the writing skills can be attributed. To illustrate how distributed cognition is applicable in this scenario, the student, the teacher, and the technology each had a separate function, but all had the goal of improving the student’s writing skills. When students asked for the meaning of a word, the teacher would direct them an online dictionary, which not only gives the answer, but other related information such as how the word is used in a sentence and how the word is pronounced. In this situation, the cognitive load was distributed among the involved entities in an effort to help the students improve their writing skills, which at the same also increased the efficiency of the teaching and learning process. To illustrate this, Steve in his interview remarked: “their use of the technology that they own … makes it much easier for them and much less time consuming than it would have been 20-30 years ago.” Since this is an outcome of using technology for ESL composition students, it corroborates Braine’s (1997) and Sullivan and Pratt’s (1996) study on the improvement of students’ writing as a result of computer use.

With regards to online resources, the present study suggested that students could possibly now find answers to their questions quickly and easily on the Internet. For example, when a student wants to find the meaning of a word, an online dictionary could provide word definitions in a timely fashion. The advent of mobile technology, such as smartphones and tablet computers, appears to allow such tools, through the various available apps, to become even more readily accessible. For instance, a web-based dictionary, Dictionary.com, now has an app available for free download to iPad/iPhone,
Android, and Blackberry users. Two CALL-related concepts are conceptualized in this instance. The various technologies that the students used were mediating tools that assisted them with learning how to write. Mediation is a concept that is emphasized in the Sociocultural theory (Thorne, 2007). In this case, the availability of apps has made finding answers even quicker. Students do not need to wait until they could access a desktop computer because the apps are readily available on their phones or tablet computers, which are portable. Developers created these apps and the use of apps as a mediating tool has changed the ways students find answers to their questions. Using the apps is also not constrained to a particular location as they can be accessed from the classroom, in the hallway, or on the bus. Furthermore, technology may also be a motivating factor for students to write because of the features it offers. Motivation is a fundamental element of the Communicative Language Teaching method (Khalsa et al., 2007), which CALL draws upon. Because many apps are designed for not only their functionality, but also their looks, the apps may be have a more user-friendly interface in that students may be more interested in using.

In terms of computer software that can help ESL students with their writing tasks, the present study found that the instructors reported that features in word processing programs, such as Microsoft Word, seemed to be helpful for university ESL composition students to improve their writing skills. In the interviews, one instructor remarked that writing via Microsoft Word allows students to revise their compositions with relative ease. With the above computer programs and software, gone are the days where someone has to rewrite or re-type a document each time corrections need to be made. Students can now use the software program as a canvas to save their thoughts. Their ideas can be
written down first and they can later be revised. Additionally, during the study interviews, Microsoft Word, a particular word-processing program, was also seen as an appropriate tool to help ESL composition students correct their spelling and grammatical errors. This opinion aligned with an aspect of Egbert et al.’s (2007) optimal language learning environment, “learners work in an atmosphere with an ideal stress/anxiety level” (p. 7) and was supported by the findings from the survey, but only by 50% (n=9) of the instructors. These nine instructors reported that they either agreed or strongly agreed with the use of technology in ESL composition student instruction.

**Negative impact of technology use**

While the positive impact of technology on students may indeed make the use of technology in ESL composition promising, it also comes with some drawbacks. The findings from some of the interviewed instructors revealed that technology might also distract students from producing quality compositions. Several instructors reported that students sometimes used cellphones, tablet computers, or laptops in class but for the wrong purposes. They reportedly caught their students texting, playing games, checking email, or surfing the Internet. These activities seemed to distract the students from focusing on the instructors’ lectures, which might also result in their inability to produce the best quality compositions because of the students’ possible lack of focus on class content. This may create a dilemma for instructors and their students. On one hand, technology is useful to help their ESL students write, but on the other hand, it might be hard to monitor what the students do with technology in class. One ESL composition
instructor stated that while students were free to use Internet resources when completing their assignments, they sometimes spent a lot of their time checking their Facebook accounts, not the assignment. This unintended activity may also result in wasted time that could otherwise have been used to revise or proofread their composition. The study interview results were also supported by the findings from the survey. Over three quarters (n=18) of the participating instructors reported that they “agreed” or “strongly agreed” that students sometimes used technology for the wrong purposes during class sessions. To mitigate this problem, instructors might create a class policy to prohibit students from using technology for unintended purposes (e.g., checking email or Facebook accounts during class). However, enforcing the policy may come with challenges. Admittedly, this topic is outside of the scope of the present study and will not be discussed further.

Part 2: Quantitative Data

After presenting the data thematically in Part 1, this part presents the quantitative data from the study. It is important to note that while this part focuses on the quantitative data, references to qualitative data mainly from the interviews are made in parts of the discussion when applicable. The interviewed instructors were Steve, Matt, Tom, Lin, and Brenda, whose names are used in this part. Detailed descriptions of their profiles can be found in Part 3 of this chapter. In this study, the instrument employed to gather quantitative data was a questionnaire (see Appendix C). The survey data were compiled and then analyzed to answer three out of the four research questions posed in this study. The three research questions were:
• What are the professional profiles of university ESL writing instructors who claimed to regularly use technology in their teaching?
• What do university-level ESL writing instructors self-report to be their views about their regular use of technology in their instruction?
• What do university ESL writing instructors self-report to be the results of their use of technology to teach their students?

In the data collection process, 21 copies of the questionnaire were distributed via the internal campus mail system. All instructors teaching in Spring 2012 in the ESL Composition Program were invited to participate in the present study and were given a copy of the questionnaire in their campus office mailbox. Each questionnaire was placed in an envelope with a return-addressed envelope. A cover letter inviting the instructors to participate and explaining the goals of the study was attached to the front of the questionnaire. The questionnaire was divided into two parts, the first of which consisted of 30 technology-related statements in which the participants were asked to rate their viewpoints from strongly disagree, disagree, neutral, agree, to strongly agree. The 30 items were grouped into five topics related to educational technology: suitability for teaching writing, compatibility with teaching, perceived advantages for students, ease of use, and instructors’ self-assessment about technology. In the second part of the questionnaire, the participants were asked to provide demographic information and teaching experience information. It was estimated that the survey would be completed in approximately 20 minutes and the instructors were requested to return the completed survey to the researcher within seven days via the internal campus mail system.
Eighteen of the twenty-one instructors who received the questionnaire returned it within the specified time frame. The response rate was thus 85.7%, which, according the Instructional Assessment Resources (2011), was categorized as a very good response rate. The data collected from the questionnaires were summarized using descriptive statistical methods. The features of descriptive statistical methods employed in the present study were as follows: frequency of occurrence, measures of central tendency (mean), and measures of variability (standard deviation). Teddlie and Tashakkori (2009) explained that “the goal [of analyzing statistical summaries of data] is to be able to understand the data, detect patterns and relationships, and better communicate the results. These goals are achieved through images, graphs, and summaries that can help the reader understand the nature of the variables and their relationships” (p. 258). To this end, tables and graphs are presented in this section.

The discussion in this part follows the three research questions that the quantitative data set attempted to answer. In order to describe the participating instructors, the demographic information about the participating instructors is presented first in the next section. It is then followed by the self-reports on the participants’ viewpoints about the use of technology in teaching ESL writing at the university level. This part ends with a discussion related to the perceived advantages and disadvantages of technology for students.
Description of participating instructors

To answer the research question “what are the professional profiles of university ESL writing instructors who claimed to regularly use technology in their teaching?,” the participants of the study were asked to provide demographic information about themselves. Demographic data are commonly requested in surveys and are used to “provide information about the study participants” (Peterson, 2000, p. 84). In the questionnaire, the demographic questions included gender, employee position in the ESL Composition Program, degree(s) earned, years of teaching experience, courses taught in the ESL Composition Program, types of technology personally owned, types of web-based tools used in teaching their courses, and words that come to mind about what technology means to them. The data results from these questions are presented in the following section of this chapter.
Figure 10 shows that the gender of the 18 instructors who volunteered to participate in the questionnaire. Of the 18 instructors, the gender was evenly distributed, with 9 (50%) males and 9 (50%) females. Compared to the data from the qualitative data set, this distribution is the exactly same as that of the participants of the classroom observations with two male instructors (50%) and two female instructors (50%). However, it is slightly different if compared to the instructors who participated in the interviews. For the interviews, three instructors were male (60%) and two instructors were female (40%). In general, the distribution of gender in both quantitative and qualitative datasets is similar.
Employee position in the ESL Composition Program

As displayed in Figure 11, at the time of the study, the majority of the instructors who responded to the survey were employed as lecturers (ten instructors/55%). This large percentage of lecturers may be attributed to the program’s needs for adjunct instructors as a result of increased student enrollment in the Spring quarter of 2012. The lecturers’ main responsibility is teaching ESL writing courses. The rest of instructors self-classified their positions as Academic Program Specialists (five instructors/28%) and Graduate Teaching Associates (three instructors/17%). The number of Academic Program Specialists and Graduate Teaching Associates seemed lower and the reason may be because the program can only hire a limited number of instructors in these categories. Academic Program Specialists teach as well as serve as course coordinators. As teachers, they deliver course content and work with students. In their capacity as coordinators,
they have responsibilities such as designing courses offered by the ESL Composition Program, working with and mentoring a group of instructional staff who teach the course(s) that they design, serving in various committees, and creating course and departmental policies. Graduate Teaching Associates are degree-seeking doctoral students who are teaching as part of their contract with the college or the university. As part time instructors, their appointment typically consists of teaching only one section of a course.

In comparison to the qualitative data set, the participants of the interviews were distributed as follows: one Academic Program Specialist (20%), two Graduate Teaching Associates (40%), and two Lecturers (40%). All of the instructors, except for the Academic Program Specialist, also agreed to have their classes observed. The numbers from the qualitative data set look significantly different compared to those from the survey because the survey participants consisted of all the instructors teaching in the program, while the interviewed instructors were purposefully selected.
Figure 12 shows that of the 18 survey participants, 11 instructors (61%) reported that they earned a Master’s degree and 7 instructors (39%) earned a doctorate degree.

One explanation for why Master’s degree holders outnumbered doctoral degree holders is that the program requires ESL instructors to have a Master’s degree, but the doctoral degree is optional. In the qualitative data set, all of the participants (100%) earned a Master’s degree, two of whom (40%) were doctoral candidates.
As shown in Figure 13, the instructors’ years of teaching experience varied as evident in the survey data. At the extreme ends, six instructors (33%) had over 25 years of teaching experience and four instructors (22%) taught for less than five years. Distributed between the two groups were instructors who taught between five to 20 years. Among them, three instructors (17%) taught between five and ten years and another three instructors (17%) taught between 15 and 20 years; and one instructor taught between 10 to 15 years and one other instructor taught between 20 and 25 years. The spread in the years of teaching experience suggested that the program employed both new and experienced instructors at the time of the study. Also, the combination of new and experienced instructors could perhaps give opportunities for the seasoned teachers to guide and transfer knowledge to the novice teachers as well as for the new teachers to
learn from and work together with someone with more expertise. The benefits seemed to go both ways.

In comparison to the qualitative data, the interviewed instructors did not differentiate themselves as precisely in terms of the number of years of experience. Instead, they considered themselves as experienced or new instructors. Of the five participating instructors, three (60%) reported that they had many years of teaching experience and two (40%) reported having taught for five years or less. The data from the interviews cannot be directly compared to those from the survey as they were categorized differently.

**Courses taught in the ESL Composition Program**

![Figure 14. Courses taught in the program](image)

- Have taught
- Have not taught
Figure 14 displays the courses that the participating surveyed instructors taught in
the ESL Composition Program at the time of the study. The 106, 107, and 108.01
courses were offered for undergraduate students and the 506, 507, and 508 courses were
taught to graduate students. As a result of the university’s moves from quarters to
semesters in the Summer of 2012, these course numbers no longer exist and have since
been replaced with new numbers. The new numbers are 1901.05, 1901, and 1902 in the
undergraduate course sequence and 5901.05, 5901, and 5902 in the graduate course
sequence. The Summer of 2012 marked the beginning of the semester system at the
research site.

As shown in Figure 14, at the undergraduate level, almost all instructors reported
having taught the 107 (89%) and 108.01 (83%) courses at some point in their tenure with
the program. Exactly 50% of the instructors reported that they have taught the 106
course. These numbers suggested that most instructors in the program may have first
started teaching at the undergraduate level. At the graduate level, most instructors
reported that they have taught the 507 course (78%) and many of them (67%) have taught
the 508 course. However, only a small number of instructors reported having taught the
506 course (39%). The lower numbers at the 106 and 506 levels were because the
program offered a small number of sections of these levels compared to the other levels.

In comparing the survey findings with those in the qualitative data set, the data
about the courses taught from the interviews had a different composition. The
breakdown is as follows: at the undergraduate level, two of the five interviewed
instructors (40%) taught the 106 course at some point in their appointments with the
program, all (100%) taught the 107 course, four (80%) taught the 108.01 course, and at
the graduate level, two of the five participants (40%) taught the 506 course, three (60%) taught the 507 course, and one (20%) taught the 508 course.

Types of technology owned (based on self-report data)

Figure 15. Technology owned by the instructors

Figure 15 displays the types of technology that the instructors reported that they owned at the time of the study. As can be seen, the majority of the instructors (89%) reported that they owned laptop computers and slightly over half of them (56%) owned desktop computers. The percentage of netbook computer owners (28%) slightly exceeded that of tablet computer (22%). While smartphones have become ubiquitous in the market, of the participants of this study, only 28% of the instructors reported that they owned smartphones. Other instructors indicated that they owned other types of technology, such as Kindle and iPod. From the data, it appeared that most instructors
owned commonly used computing devices, such as desktop and laptop computers, which were expected, but not many of them reported that they owned the newer types of technology, such as tablet computers and smartphones.

This particular survey question was not directly asked to the interviewed participants. However, the findings from the interviews showed that the instructors reported owning several types of technology. The types that were mentioned during the interviews included desktop computers, laptop computers and smartphones.

Types of web-based tools used in teaching (based on self-report data)

![Figure 16. Technology used in teaching](image)

Figure 16 shows the types of technology that were reportedly used by the instructors as teaching tools. As shown, almost all instructors (94%) reported that in their teaching, they used the course management system (CMS), a technological tool with both

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unidirectional and bidirectional functionalities. It is almost certain that the large percentage of users could be attributed to the availability of CMS at the university and the support that the university provides to instructors using it. Additionally, videos, such as YouTube, seemed to be used by more than half of the instructors (61%) as well. In addition, blogs (39%) and wikis (33%) appeared to be the Web 2.0 tools that were reportedly used by the instructors. These results suggested that Web 2.0, as an internet-based technology that gives users the ability to create and post content without going through formal editorial process (Nakamaru, 2011), seemed to start gaining traction in ESL writing classrooms. While YouTube appeared to be a popular tool among the instructors, audio and video podcasts (28%) were reportedly used by only a small percentage of instructors. It seemed logical to assume that YouTube was a more prominent, popular site for videos and could easily be accessible through an Internet browser. While social networking has gained popularity outside of education, only a small percentage of the study instructors (11%) reported using it in their teaching. However, this was not surprising to the researcher given the fact that social networking is mostly used for personal purposes. In addition to what was listed on the survey, under other tools, three instructors wrote in COCA (web-based corpus)\(^8\) and one mentioned digital story.

Similar to the previous survey question about the types of technology that the instructors owned, this particular survey question was not directly asked to the instructors participating in the interviews. However, from the conversations, it could be concluded that they instructors used various types of technology such as the course management

\(^8\) The URL is [http://corpus.byu.edu/coca](http://corpus.byu.edu/coca).
system, YouTube, digital story, and blogs. In-depth discussion about this can be found in Part 3 of this chapter.

**Words that come to mind about what technology means to them**

Figure 17. Words associated with technology

Figure 17 was created in wordle.net. The application determines the size of a word by its frequency of use. The bigger the size of the word means that the word appears more times on the list or in the text. All the words that the survey participants wrote in the last question of the questionnaire were entered into wordle.net to create a graphical representation of their responses. As can be seen in Figure 17, *useful* seemed to be the word that came to most instructors’ minds about what technology was to them. The words *convenience, tool* and *overrated* appeared to be the second largest ones in the figure, which indicated that many instructors had positive, neutral and negative views about technology. Of the words provided by the instructors, seven were interpreted to be positive: convenience, creativity, expansive, fun, helpful, treasure, and useful; four were interpreted to be negative: disruptive, overrated, unwieldy, and unnecessary. This survey question cannot be compared to the qualitative data findings as there was no direct
similarity to what was asked during the interviews and what was seen in the classroom observations. However, the word “tool” was mentioned frequently during the interviews. As discussed in Part 1 of this chapter, technology as a tool was regarded as an important finding in this study.

**Reported instructors’ views about the use of technology**

The questionnaire was designed to gather data on instructors’ viewpoints about the use of technology in their composition teaching. To this end, 30 statements were developed to collect the instructors’ views. The 30 statements were divided into five general categories: suitability for teaching writing, compatibility with teaching, perceived advantages for students, ease of use, and instructors’ self-assessment about their use of technology. For each statement, the instructors were asked to choose from: strongly disagree (1), disagree (2), neither disagree nor agree (3), agree (4), and strongly agree (5). The mean, standard deviation, and frequency for each statement were calculated using statistical formulas in the Microsoft Excel software. The data set is organized in a table and a chart. Each table presents the six statements from the category. Within the table, each statement contains the mean and standard deviation. Following the table, a bar chart is presented to display the frequency of occurrence of each statement.

Four of the five categories were used to answer the research question “What do university-level ESL writing instructors self-report to be their views about their regular use of technology in their instruction?” These categories are suitability for teaching
writing, compatibility with teaching, ease of use, and instructors’ self-assessment about their use of technology.

**Suitability for teaching writing**

<table>
<thead>
<tr>
<th>Statement</th>
<th>Mean$^9$</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I know that course management system (such as e-Course) is an online tool that can be used in my teaching.</td>
<td>4.72</td>
<td>0.45</td>
</tr>
<tr>
<td>2. Web 2.0 (such as blogs, wikis) can be used for teaching students how to write.</td>
<td>4.17</td>
<td>0.83</td>
</tr>
<tr>
<td>3. Social networking sites (such as Facebook, Twitter) are suitable for teaching writing.</td>
<td>3.22</td>
<td>0.71</td>
</tr>
<tr>
<td>4. Video-link (such as to the connection to Wooster campus) is an appropriate technology to teach writing.</td>
<td>3.72</td>
<td>0.80</td>
</tr>
<tr>
<td>5. Online corpus (such as COCA) is a tool that teachers should use when teaching writing.</td>
<td>4.00</td>
<td>1.05</td>
</tr>
<tr>
<td>6. Technologically-advanced equipment (such as smart board, clicker) is readily available for teaching.</td>
<td>2.67</td>
<td>0.88</td>
</tr>
</tbody>
</table>

Table 5. Suitability for teaching writing

$^9$ The total number of respondents was 18, so 4.72 can be considered to be an average response for item 1, for example.
The first part of the questionnaire asked instructors to rate how well they agreed with statements concerning the suitability of certain technologies for teaching ESL writing. The participating instructors reported a variety of responses. As displayed in Table 5 and Figure 18, course management system (CMS) appeared to be the only tool that was reported by all of the instructors (n=18), with 100% of the instructors showing either strong agreement and agreement that CMS can be used to teach ESL writing. This is in agreement with the findings from the qualitative data findings, in which all of the interviewed instructors (100%) used CMS in their ESL composition classes. In the survey, with $\bar{x}=4.72$ and $s=0.45$, the positive view about the use of the CMS may be attributed to the fact that this tool was provided and supported by the university for instructors to use. The high degree of agreement in the instructors’ responses about suitability for teaching writing was slightly higher than those given in the demographic
section of the questionnaire, where 94% of the instructors reported that they used the CMS.

With this reported high usage of the CMS and the high level of agreement among instructors, it seems that instructors valued the CMS as an instructional tool, but this is not to say that the CMS was the only tool used by them. For example, of the instructors participating in this study, with $\bar{x}=4.17$ and $s=0.83$, most instructors (72%) reported that they strongly agreed or agreed that the value of Web 2.0 technologies, such as wikis and blogs, were suitable teaching university-level ESL composition. 28% of the instructors reported neutral feelings about using Web 2.0 technology in their own teaching of writing. No one expressed disagreement or strong disagreement about Web 2.0 technologies. The result showing the positive views from the survey was higher when compared to what the instructors described in the interviews, where only 60% of the instructors commented positively about the suitability of Web 2.0 technologies in teaching ESL writing.

As illustrated in Table 5 and Figure 18, the use of online corpora, mainly the Corpus of Contemporary American English (COCA), was viewed as a recommended suitable tool in teaching university-level ESL writing, with 83% of the instructors reporting either strong agreement or agreement about using this unidirectional tool. The rest of the survey instructor (18%) reported neutral, disagree, or strongly disagree responses when asked about their views about the use of online corpora in teaching ESL writing. The high percentage of strong agreement or agreement of the use of online corpora, however, did not seem to correlate with its use. In the demographic question of the survey, only 17% of the instructors reported using COCA in their teaching. In the
interviews with purposefully selected instructors, when asked about whether they used COCA in their classes, only two instructors (40%) reported using COCA regularly in their teaching ESL writing. Another two instructors (40%) reported having heard about it but using it infrequently. One instructor (20%) did not mention COCA during his interview. Even though the use of corpora in L2 is an approach that is commonly discussed in CALL (Johns, 1994), both quantitative and qualitative datasets in present study did not show a particularly heavy use of the tool. A possible reason is that COCA, while it is relatively easy to use and learn, has an interface may look complicated at a glance because it has many fields that can require user’s input.

This part of the questionnaire also stated that while social networking sites (e.g., Facebook and Twitter) have gained wide popularity in society outside of academia and have been seen as something that educators could explore (Merchant, 2007), most instructors (61%) reported neutral views regarding the suitability of these sites in teaching ESL writing. Less than a third of the participating instructors showed agreement and strong agreement to this statement. The other instructors did not seem to agree that social networking was useful for teaching ESL writing at the time of the study. The number from the survey seemed to agree with that of the reports from the interviewed instructors, which showed that while (40%) actively used Facebook, they mostly used it for personal purposes and not for teaching purposes. To illustrate this, one of the participating instructors, Matt, said “Facebook has been very positive for me, being able to contact and follow a little bit tons of past friends that I lost contact with.” Although the integration of social networking sites may not be seen as pedagogically appropriate at
this time, it is highly possible that such a tool will be more accepted if more educationally-relevant features become available.

More than 60% of instructors agreed or strongly agreed that long distance learning technology, such as video-link used to connect to other campuses, was suitable in ESL writing instruction. This higher-than-expected level of agreement was surprising to the researcher because the ESL Composition Program at the research site only offered one or two video-linked courses per academic year. Of the interviewed instructors, only one, Tom, taught a video-linked course, but he did not discuss his view about it. However, he noted that “I got the impression from talking to students that they essentially don’t really like the distance education as much. They can get by and they can do it and fulfill the requirements, but they prefer physical face-to-face.” In retrospect, a follow up question on his thought on his students’ reaction would have yielded an interesting and thought-provoking discussion.

In contrast, technologically-advanced equipment, such as clickers and the smartboard, were not reported as being suitable for teaching ESL writing. Only a small percentage of the instructors (11%) reported that they agreed and strongly agreed that this newer technology was useful. This result was also unexpected by the researcher because the university and a number of departments on campus at the research site maintained several smartboard-equipped classrooms that could be reserved by instructors. The low degree of agreement may be attributed to the instructors’ lack of awareness about the availability of smartboards or to the lack of advertising about such classrooms availability to the larger university community.
Compatibility with teaching

<table>
<thead>
<tr>
<th>Statement</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Technology helps increase my productivity in lesson planning.</td>
<td>4.00</td>
<td>0.94</td>
</tr>
<tr>
<td>2. Using technology to grade papers (e.g., using the comment feature in MS Word software) can save me time.</td>
<td>3.50</td>
<td>1.54</td>
</tr>
<tr>
<td>3. I can use technology to access additional teaching materials and resources (such as YouTube videos, textbook publishers' websites).</td>
<td>4.44</td>
<td>0.60</td>
</tr>
<tr>
<td>4. I prefer to teach without technology.</td>
<td>2.17</td>
<td>1.17</td>
</tr>
<tr>
<td>5. I don’t have time to incorporate technology in my teaching.</td>
<td>1.78</td>
<td>0.85</td>
</tr>
<tr>
<td>6. The use of technology doesn’t positively affect the quality of my teaching.</td>
<td>1.83</td>
<td>0.90</td>
</tr>
</tbody>
</table>

Table 6. Compatibility with teaching

Figure 19. Frequency of occurrence for compatibility with teaching

---

10 The total number of respondents was 18.
Following the section about the suitability of technology for teaching writing, the second part of the questionnaire asked the instructors to indicate their level of agreement with statements about compatibility of technology in teaching ESL writing. As Table 6 and Figure 19 show, 61% of the instructors (n=18) appeared to prefer teaching with technology, while only a small number of instructors (12%) reported preference for teaching without technology. When asked about whether they had time to incorporate technology into their teaching, the majority of the instructors (83%) reported that they did. Only a small percentage of the instructors (6%) reported that they did not have time to do so. Furthermore, over three-quarters of the instructors reported that the use of technology positively affected the quality of their teaching and once again only 6% stated the opposite. The improvement of the quality of teaching reported in the survey was supported by at least one interviewed instructor, Lin, who stated:

I think [the use of technology] positively affects my teaching, for feedback for instance. I get comments from students very frequently saying they like the way in which I give feedback. I think it’s because I’m able to separate the different types of feedback. With the highlighting, it’s very clear. A lot of my students like the colored highlights because they can see they have 20 word form issues, one article easy. If I do it on paper, it’s hard.

The attitude expressed by the survey as well as interviewed instructors seemed to support Katz’s (1960) theory about people’s attitudes. He argued that people tend to have positive attitudes toward an idea when there are benefits associated with it.

Moreover, in this part of the questionnaire, the instructors were asked about their views about whether technology helped with their productivity in planning lessons. A high percentage of the instructors, almost 80%, reported that they agreed or strongly
agreed that using technology to grade papers helped to save time. Only 11% of them showed disagreement. Concerning the use of technology to access additional teaching materials, nearly all of the instructors (95%) reported that they agreed and strongly agreed with the statement; no one disagreed with the statement. The same was also expressed by one interviewed instructor, Steve, who stated, “It’s very easy to search for something if you’re missing something or if you want to add something to a class, especially with YouTube and Wikipedia.” This high level of reported agreement may be explained by the relatively easy access to teaching materials on the Internet and the wide availability of computer software that can be manipulated for instructional purposes.

While technology can be used as a tool in grading papers, 61% reported that they agreed or strongly agreed that it could save time and 34% reported that they disagreed or strongly disagreed. The comments feature in Microsoft Word was an example of such a unidirectional tool. On this topic, one interviewed instructor, Tom, said:

When I’m commenting on students’ drafts, I usually do hard copy. That way I can be in lots different places and settings and do the grading, I believe it’s faster. But occasionally in some circumstances, I use the comment function. If a student is far away, I can get them faster that way. But, at least for me, it’s faster if I do hard copy.

Tom’s comments give a possible reason for the difference in attitudes. Once again, the percentage of the surveyed instructors who reported positive viewpoints was much higher, in this case almost double, compared with those reporting negative views. However, it is important to note that while \( \bar{x}=3.50 \), the data had a \( s=1.54 \), which indicated that the responses were distributed widely across the scale. As displayed in Table 6 and
Figure 19, the generally positive views of instructors further suggested that technology might play a positive role in their ESL writing classrooms.

Ease of use

<table>
<thead>
<tr>
<th>Statement</th>
<th>Mean(^{11})</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Technology is easy to use to teach writing.</td>
<td>3.83</td>
<td>0.90</td>
</tr>
<tr>
<td>2. Technology is user friendly.</td>
<td>3.72</td>
<td>0.99</td>
</tr>
<tr>
<td>3. It is easy for me to learn new types of technology.</td>
<td>3.78</td>
<td>0.85</td>
</tr>
<tr>
<td>4. I feel intimidated by technology.</td>
<td>2.11</td>
<td>0.87</td>
</tr>
<tr>
<td>5. I feel uncomfortable when using technology.</td>
<td>2.06</td>
<td>0.85</td>
</tr>
<tr>
<td>6. If there is something wrong with technology, I don’t know how to get help.</td>
<td>1.83</td>
<td>0.76</td>
</tr>
</tbody>
</table>

Table 7. Ease of use

---

\(^{11}\) The total number of respondents was 18.
The next section of the questionnaire contained statements related to views about the ease of using technology for teaching ESL writing. As Table 7 and Figure 20 show, of the participating instructors (n=18), 68% of the instructors reported that they agreed or strongly agreed that technology was user friendly, while only 17% reported the opposite views. Furthermore, 72% reported that they agreed or strongly agreed that technology was easy to use in teaching ESL writing, as opposed to 11% who reported that they disagreed. Of the participating instructors, 61% of the participating instructors reported that learning new types of technology is easy and only 6% reported the opposite. The view of the majority of the survey participants on this particular statement was in agreement with an interviewed instructor, Steve, who stated “I know how to use pretty much anything you put in front of me and if I don’t know how, it’s not difficult for me to figure it out.” These numbers showed that many instructors had generally positive views and they seemed to be saying that technology was not something that was hard to use.
Katz’s (1960) functionalist theory may come into play here. Katz (1960) argued that it was likely that instructors’ positive views were attributed to the potential perceived benefits of technology.

When asked about their comfort level in using technology in instruction, the majority of the instructors (72%) reported that they felt comfortable and only a small number (6%) felt uncomfortable. The comfort level may be related to one’s intuition as was found in the interviews. Steve, an interviewed instructor, illustrated it with an example from his childhood, in which he expressed:

When I was 6 or 7, my parents bought me an original Nintendo. My dad got out the manual and started telling me how to do everything. I was like, no, just go. And I immediately picked it up. I am able to really figure things out very easily.

Furthermore, 67% of the instructors reported that they were not intimidated by technology and similar to the comfort level, only 6% reported that they were intimidated. These percentages supported the findings of the interviewed instructors when asked about the same topic. 60% of the instructors in the interviews reported that they felt comfortable with technology and 40% of them reported neutral views.

With respect to soliciting help if there was technology problem, almost 90% of the instructors reported that they knew how to seek help. The results once again showed that a majority of the instructors reported that they did not feel that technology was burdensome. The findings from the interviews also supported this view. All of the interviewed instructors reported that they knew how to seek help in the event that problems arose. Brenda in her interview in particular remarked:
I’m pretty good at fixing problems. I’m pretty good at knowing when I’ve reached the end of my rope. When I’ve reached the end of my rope and exhausted all my solutions, I just call for help.

While this remark was personal to Brenda, this view was typical when compared to the other interviewed instructors. They all reported that they knew who to call for help and how to find help files that can usually be found within a computer program or on the Internet.

**Instructors’ self-assessment about technology**

<table>
<thead>
<tr>
<th>Statement</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I consider myself as a tech person.</td>
<td>2.83</td>
<td>1.17</td>
</tr>
<tr>
<td>2. I use technology regularly in teaching.</td>
<td>4.22</td>
<td>0.79</td>
</tr>
<tr>
<td>3. I generally enjoy using technology.</td>
<td>4.00</td>
<td>0.88</td>
</tr>
<tr>
<td>4. I prefer to grade papers as a hard copy.</td>
<td>2.78</td>
<td>1.40</td>
</tr>
<tr>
<td>5. I am concerned about my privacy when using technology.¹³</td>
<td>3.00</td>
<td>1.14</td>
</tr>
<tr>
<td>6. I tend to use more time when using technology.</td>
<td>3.06</td>
<td>1.13</td>
</tr>
</tbody>
</table>

Table 8. Instructors’ self-assessment about technology

¹² The total number of respondents was 18, except for Statement 5.

¹³ Statement 5 is the only one where the number of responses was 17, which was one response less than the total number of participants who returned the questionnaire. One respondent did not answer this questionnaire item.
The last section of the questionnaire consisted of general statements related to technology. These statements were meant to elicit how the instructors self-assessed themselves in their technology use. With mostly positive responses in the previous sections, it was surprising that only 28% of the instructors (n=18) reported that they considered themselves as a “tech person” (Table 8 and Figure 21). Almost twice as many instructors (44%) reported themselves to be someone who was not a “tech person.” In her interview, this view was shared by Lin who reported that she also did not consider herself to be a “tech person.” The rest of the instructors (28%) reported a neutral opinion regarding their own technological skills.

A majority of the surveyed instructors (89%) reported using technology on a regular basis in their teaching of ESL writing. Only 6% reported that they did not regularly use technology in their ESL teaching. This high percentage may be explained by the feelings of enjoyment about using technology. In regards to enjoyment, 72% of
the instructors reported that they enjoyed using technology and only 6% did not claim to enjoy using technology. These numbers matched the views expressed by the interviewed instructors. In the interviews, 80% of the instructors reported themselves to be regular technology users. One of these instructors was Steve, when asked about how much he used technology, commented: “As much as I can. I use [e-Course] all the time. I post handouts, or direct people to maybe a website or resource they can find useful. Of course, I use the grade management.”

Even though instructors reported enjoying using technology, a small number (34%) reported a preference for grading papers as a hard copy. Half of the instructors, however, did not report preferring hard copies. This viewpoint may be related to the time required when using technology. 39% of the instructors reported that they tended to use more time. The reason of this particular view can be explained by what Lin expressed in her interview. She stated:

For in class short activities, I prefer paper-and-pencil, short activities where they don’t have to write much. It’s more about whether they understood a concept, like a short paraphrase, a short summary. But, they’re writing a complete paper, I prefer a digital version because they can use Word to present something that they have thought through. They don’t have to worry about their handwriting, misspellings, typos.

Another issue described in the questionnaire was privacy when using technology. Almost half of the instructors (47%) did not report much concern about it, while 30% reported that they had concerns. The topic of privacy was also discussed in the interviews. However, the percentage of instructors concerned about privacy was more
than double (80%) in the interviews compared to the results from the questionnaire.

About the topic of privacy, Tom noted:

Probably there’s a privacy issue, so a lot has been written and discovered about privacy. There are a lot of ramifications for the things, for example, if a teacher has set up a blogging thing, some student might write something that’s unwise, it’s out there and it’s permanent.

Perceived advantages and disadvantages for students

The research question “what do university ESL writing instructors self-report to be the results of their use of technology to teach their students?” was also answered by the data collected via the questionnaire. In the questionnaire, the statements that were categorized as perceived advantages and disadvantages for students were applicable in addressing this research question.
<table>
<thead>
<tr>
<th>Statement</th>
<th>Mean(^{14})</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. For students, technology makes learning more effective.</td>
<td>4.06</td>
<td>0.62</td>
</tr>
<tr>
<td>2. Students should take advantage of what technology has to offer as much as they can.</td>
<td>4.22</td>
<td>0.71</td>
</tr>
<tr>
<td>3. Technology should be used to help students automate class work (e.g., correcting spelling errors, creating a list of references).</td>
<td>3.50</td>
<td>1.12</td>
</tr>
<tr>
<td>4. Students rely too much on technology.</td>
<td>2.89</td>
<td>1.10</td>
</tr>
<tr>
<td>5. Students sometimes use technology for the wrong purposes (such as texting while in class, checking Facebook on their laptop during lectures).</td>
<td>4.06</td>
<td>0.97</td>
</tr>
<tr>
<td>6. Students should do more paper-and-pencil assignments.</td>
<td>2.28</td>
<td>0.87</td>
</tr>
</tbody>
</table>

Table 9. Perceived advantages and disadvantages for students

![Bar chart showing frequency of occurrence for perceived advantages and disadvantages for students](image)

Figure 22. Frequency of occurrence for perceived advantages and disadvantages for students

\(^{14}\) The total number of respondents was 18.
Table 9 and Figure 22 show the results obtained from the section of the questionnaire about perceived advantages and disadvantages of technology for students. For all instructors combined (n=18), the majority (83%) seemed to agree or strongly agree that students should take advantage of what technology has to offer. Furthermore, for this statement, 17% reported neutral feelings, and no instructor expressed disagreement. Similarly, the same percentage of instructors (83%) either reported that they agreed or strongly agreed that technology could make learning more effective for students. Of the respondents, 17% reported neutral feelings about this statement. These responses, which were related to benefits of technology for students, continued to show that the instructors reported generally positive views.

Another statement in the survey was presented to elicit instructors’ views in regards to whether students should use technology to automate class work. Exactly half of the participating instructors reported that they agreed or strongly agreed with the statement and 17% reported that disagreed or strongly disagreed. The percentage of instructors who reported that they disagreed or strongly disagreed was much lower than those who stated the opposite, but was in line with what the interviews revealed. In the interviews, only one instructor reported work automation to be negative and one with a neutral view. The instructor, Matt, stated that “they may not learn in their own mind, like all the spelling that well, or some of the grammar points that well, because they can just go to the software for spell check and grammar check.” In expressing Tom’s neutral views, he said, “A lot of technology can make people lazier. I don’t know if I would say all or nothing, or it’s all good or all bad.”
Since the instructors overwhelmingly seemed to favor the use of technology in their ESL writing classes, 55% of them reported that students could use less paper-and-pencil assignments. Only 6% stated the opposite views. The agreement on giving less paper assignments may have been influenced by the department encouraging instructors to do so.

With mostly positive responses about advantages of technology for students, there are also drawbacks. Almost 80% of the instructors reported that students sometimes used technology for the wrong purposes. This included activities such as texting or checking Facebook during class. The percentage, however, was not as high as what instructors expressed during the interviews, where 100% of them reported that technology was sometimes used inappropriately by students.

In terms of over reliance on technology, some of the instructors (33%) reported that they did not feel that students relied too much on technology. Many respondents (44%) had a neutral viewpoint on this particular topic. The opinions of the interviewed instructors were dramatically different. None of them (0%) reported that students relied too much on technology.

**Part 3: Qualitative Data**

As a continuation of the data discussion, this part focuses on the presentation of the qualitative data from the study. While the discussion is mainly generated from the data gathered from the interviews and classroom observations, references to the quantitative data are made when relevant and applicable. As part of the qualitative data
set for the present study, five instructors were interviewed. The instructors were chosen based on their position in the program, the number of years of teaching experience, their gender, and the courses that they taught at the time of the study. Of the five interviewees, four also agreed to visits for classroom observations by the researcher. One of the instructors who had volunteered to be interviewed did not teach during the data collection period for the study (Spring 2012); therefore that instructor could not be observed. The interviews were conducted after the questionnaires were completed. The questionnaires had been disseminated to participants prior to the interviews. For the four instructors who were observed, visits took place after the interviews were conducted. During the interviews, the instructors told their stories about teaching. In presenting the results of the interviews, their stories are used, some in the form of direct quotes and others in paraphrases. Elbaz (1991) argued that a story “is primarily a device which allows for the effective presentation of data that is rich and voluminous and would otherwise be difficult to convey” (p. 3). In further discussing how stories can be used in research, she added that “story is the very stuff of teaching, the landscape within which we live as teachers and researchers, and within which the work of teachers can be seen as making sense” (p. 3). The results of the qualitative data collected in this study are presented in two parts: interviews, and observations and data analyses. The data from the interviews are presented and described first, and then the data from the classroom observations follow.
Interviews

The purpose of the interviews was to gather data to answer all of the research questions posed in this study. The data were analyzed using an inductive data analysis approach. According to Teddlie and Tashakkori (2009), this approach starts with the analysis of specific data, which will then generate a general theory. As listed in Chapter 1, the present study attempted to answer the following four research questions:

- What are the professional profiles of university ESL writing instructors who claimed to regularly use technology in their teaching?
- How do these university ESL writing instructors describe their regular use of technology in their teaching?
- What do university ESL writing instructors self-report to be their views about their regular use of technology in their instruction?
- What do university ESL writing instructors self-report to be the results of their use of technology to teach their students?

This section of Part 3 is organized based on the above research questions.

Profiles of the interviewed instructors

One of the research questions posed in the present study “what are the professional profiles of university ESL writing instructors who claimed to regularly use technology in their teaching?” is answered in this section of Part 3. In order to maintain confidentiality for the participating instructors, pseudonyms were used to present the
data. The five instructors (three males and two females) who participated in the interviews were assigned the following pseudonyms: Steve, Matt, Tom, Lin, and Brenda. The gender distribution was a slightly different than that of the survey, which had exactly 50% male and 50% female participants. In discussing the findings related to this research question from the interviews, their profiles, teaching experience, and technological experience are presented here to give a picture of who the interviewed instructors were as teaching professionals.

**The interviewees**

At the time of the interview, Steve considered himself a new instructor in ESL Composition Program as he started working as a lecturer in Autumn 2011. He earned a Master’s degree in TESOL from the same institution where the present study was conducted. During his first year of teaching with the program, he taught two courses, 107 and 108.01. In addition to teaching ESL composition courses at the university, he also taught functional literacy at a local ESL setting. Growing up in the 1980s and 1990s, Steve reported that he always used computers in some form and felt comfortable using new types of technology.

The second instructor who participated in the study was Matt. He was an experienced instructor who had more than 25 years of teaching. This was the second time he taught with the ESL Composition Program. Matt had been an instructor in the program before he moved to a local university to teach intercultural communication.
courses. Additionally, he taught in China for three years. Matt possessed two Master’s degrees, one in TESOL and the other in intercultural communication.

Another participating instructor was Tom, who held a permanent position in the ESL Composition Program. Tom was an instructor with many years of experience in teaching writing. In addition to teaching, he was in charge of coordinating courses offered by the ESL Composition Program. Like Matt, Tom also taught overseas during his teaching career.

Lin also participated in the study. She was a Graduate Teaching Associate, who considered herself a new instructor. She started teaching in the program in 2008. Since then, Lin taught both undergraduate- and graduate-level courses. While teaching in the program, she was pursuing a Ph.D. in Foreign and Second Language Education. At the time of the study, she was also collecting data for her dissertation.

Another Graduate Teaching Associate who participated in the study was Brenda. She was another experienced teacher who participated in the present study. Even though Brenda came with many years of experience, she considered herself new to teaching ESL. Before joining the ESL Composition Program, as a multidisciplinary person, Brenda had taught dance and worked at an aerospace institute. Like Lin, Brenda was also a doctoral student at the time of the study.

The instructors provided rich and meaningful data during their interviews. As shown in Figure 2 in Chapter 3, the data from the interviews were clustered and categorized based on themes that emerged during the conversations. The themes are presented in the next section of the chapter, with the following categories: teaching
experience, technological experience, viewpoints about the use of technology in teaching, and how technology is used in teaching.

Teaching experience

In the continuation of the discussion on the interviewees’ profiles, their teaching experiences are presented and described in this section. At the start of each interview, the instructors were asked to describe their teaching experience. Unlike the survey, the interviews provided detailed descriptions of the participants. Two of the instructors, Matt and Brenda, reported having taught for over 25 years, but not all of their experiences were in teaching ESL/EFL. Prior to teaching in the ESL Composition Program at the research site, Matt reported having taught Intercultural Communication courses at another local university and Brenda reported having taught a variety of subjects, such as dance, science, and writing in various schools and universities in both Ohio and New Mexico. She reported considering herself to be a multidisciplinary person who sometimes “felt like an oddball.” During the present research study (Spring 2012), Matt was a Lecturer. He had taught for many years in the program. In contrast, Brenda was a first-year Graduate Teaching Associate who had less than one year of experience teaching in the program since in Autumn quarter 2011.

One instructor, Tom, also reported having many years of teaching experience. At the time of the interview, he had already taught for over 15 years. Tom’s teaching experiences were mostly related to ESL and EFL, and they included teaching overseas in China and Korea. During the present study (Spring 2012), he held a full-time permanent
position as an Academic Program Specialist whose responsibilities included coordinating the ESL writing courses in the ESL Composition Program.

The other two instructors interviewed for this study were relatively new teachers. Both Lin and Steve reported having had less than five years of teaching experience. Prior to teaching in the ESL Composition Program at the research site, Lin, a native of China, reported having tutored different levels of English language students ranging from middle school through the university level. She started working as a Graduate Teaching Associate (GTA) with the composition program in 2008 and the year of the data collection for the present study was her final year as a GTA. Steve was one of the newest members of the composition program. He started teaching in September 2011. In addition to working as a Lecturer, at the time of the interview, he also taught ESL courses in a local ESL setting.

**Technological experience**

In addition to presenting the instructors’ teaching experience, their familiarity with technology is also worth discussing. One key discussion topic in all the interviews was the instructors’ experience with technology, both for personal and for professional purposes. When asked about how they acquired their own technological skills, three instructors reported that they learned them mainly through self-teaching and two instructors took formal computer courses. Tom, Steve, and Brenda reported primarily having learned computers on their own. They had not completed any technology courses. In contrast, Lin reported having learned computers through a course to satisfy academic
requirements while in school. She also stated that her high school had offered computer courses and that the students had to take exit exams to prove that they could use computers. On a similar note, Matt reported that he took a university-level introduction to computer course as formal training while he was pursuing a Master’s degree.

In terms of comfort levels when using technology, two instructors reported neutral answers. Tom claimed that he was average and so did Matt. They reported that they knew how to operate what was considered to be mainstream technology (e.g. word processing software and course management system). Matt further explained that he felt comfortable with aspects of technology that he already knew, but not so much for newer technologies.

When it came to their comfort levels in using technology, the other three instructors reported that they were “very comfortable” with using technology. Lin and Steve reported that they had some type of “intuition” and felt very comfortable with technology in their professional lives. They both were reportedly familiar with different types of technology and they would be able to learn new technologies relatively quickly. Brenda self-reported being someone who could figure out technology with minimal problems.

As a point of comparison, the survey results showed that 72% of the participants felt comfortable using technology in teaching, 6% felt uncomfortable, and the rest (22%) reported neutral feelings. The spread of the responses was quite different compared to that from the interview data, which consisted of 60% of instructors who reported feeling very comfortable and 40% who gave neutral answers.
In interviews with the participating instructors, technology was discussed in two categories: for personal use and for professional purposes. A majority of the five instructors overwhelmingly reported that technology was useful for their personal needs in their lives. Facebook, for example, had a positive impact on Matt, an Ohio native, to connect with past friends from many different places and some acquaintances with whom he had initially lost contact. While not a fan of Facebook, Lin reported that she enjoyed reading other people’s blogs. Brenda, who reported receiving an iPhone as a gift, played Word with Friends, a scrabble-like online game, with her son-in-law and that she had used it to maintain interactions with her family. On Word with Friends, she commented:

I’m obsessed with it. I wake up and I’ll check to see if he’s changed a word first thing in the morning with my coffee. That’s like reading the newspaper. I’d probably pick some kind of newspaper with a game on it if I didn’t have it.

Steve, who considered himself to be a digital native, reported that he believed that technology afforded many opportunities in his personal life that would not otherwise have been available. Elaborating on his being a digital native, he stated:

I would say probably digital native, but although not as much as other people. I know how to use pretty much anything you put in front of me and if I don’t know how, it’s not difficult for me to figure it out.

Among the instructors, Tom, in his interview, did not mention much about his personal uses of technology.

For professional uses, all of the instructors reported that technology was a useful tool. The word “tool” was repeatedly mentioned across all the interviews with the five instructors. When discussing technology as a tool, the instructors brought up different types of technology that they reportedly used in their teaching, such as word processors,
course management system, and various Web 2.0 technologies. In the survey, when they instructors were asked about a word or phrase that came to their minds about what technology meant to them, the word “tool” was one of the second frequently written words in their responses. The other words that were ranked the same were “convenience” and “overrated.”

How technology is used in teaching

The data from the interviews were subsequently used to answer the research question “how do these university ESL writing instructors describe their regular use of technology in their teaching?” When the topic of the integration of technology in teaching ESL writing was raised during the interviews, all of the instructors acknowledged that they taught with technology. However, the types of technology integrated into the study participants’ teaching differed from one instructor to another and the extent to which technology was used varied.

Types of technology used in teaching

Use of the course management system at the research site was the most widely used technological tool. The university contracts with a private company, Desire2Learn, to provide instructors with access to this particular system. e-Course is what the system is called in the research site. Figure 23 shows an example of an e-Course site. Parts of the image are obscured to protect anonymity. e-Course is an example of a technological tool with both unidirectional and bidirectional features. Even though all of the instructors
(100%) reportedly used e-Course in their teaching, they stated that they used it differently. In the survey, however, the percentage of the instructors who used e-Course was 94%, which was slightly lower than that of the interviewees. It would be interesting to discover the types of technology that the 6% of the surveyed instructors used in place of e-Course. While not specifically stated, Moodle\textsuperscript{15}, an open-source course management system, might have been used as an alternative to e-Course.

Figure 23. e-Course main page

Steve, for instance, reported having adopted e-Course for many purposes in his teaching. He stated that he uploaded handouts, added links, and provided learning resources on his class website. He reportedly used the dropbox feature for students to submit assignments. Lin, who reported having gone almost 100% paperless with her undergraduate students, Tom, and Matt all stated that they used e-Course as a

\textsuperscript{15} For more information about Moodle, visit http://moodle.org.
requirement as well. Another feature mentioned was the grade management tool of e-Course. Steve reported that he used the online gradebook where students could routinely check their achievement. He also said that he posted announcements in a regular basis to keep his students informed of what needed to be done for the course. On a similar note, Brenda and Matt also reported that they used e-Course to communicate with their students. To illustrate this, Matt said, “If I need to make an announcement to the whole class, it’s easy to email the whole class through e-Course.”

Although Brenda stated that she considered e-Course to be an effective and fast communication tool, she reported that she did not think the discussion board feature was a productive way to communicate. This is probably because the discussions on the online board are conducted asynchronously. She added that, in her view, real-time chats might be more useful and could provide natural dialogues that allow participants to have a synchronous conversation.

Web 2.0 technologies, such as blogs and wikis, were discussed in the interviews as well. The instructors, however, reported that they had differing views on the effectiveness of such tools in teaching ESL writing. Matt reportedly used blogs in one of his courses in the past and felt that it was a good tool for students to write in a relaxed, less academic environment. He added, “It’s a good tool for motivating them just to express something and not worry too much about the grammar.” Steve echoed Matt’s opinion and stated, “A blog or a wiki could be good because it is a way to take risks without as much consequences.” To compare with the quantitative data set, the surveyed instructors reported that 39% of them also used blogs and 33% used wikis.
Lin shared her experience in using wikis. She said when she taught an undergraduate course, she asked her students to use a wiki to brainstorm for a group project. On the opposite, Tom, however, stated that he believed that the wikis may be novel and fun, but the tools were not yet proven to him to be useful for his students. He reported that he considered the use of wikis in teaching writing to be in the experimental stage and he preferred to use tools that had already gone mainstream. Brenda shared Tom’s view on this particular topic. She stated that she found wikis to be uncreative. To her, a wiki worked like a template that could take away people’s creativity and imagination. She said that she preferred not to use it with her students.

Another type of technology that was noted in the interviews was online corpora, a unidirectional tool commonly used for teaching grammar. The Corpus of Contemporary American English (COCA) is a free online corpus that contains 425 million English words and is housed at Brigham Young University. Many of the courses offered in the ESL Composition Program have made use of online corpora as part of their curricula. Of the instructors who participated in this study, two of them (40%), Tom and Steve, reported having used the online corpus in their teaching, two other instructors (40%), Brenda and Lin, stated that had heard about it but used this unidirectional tool infrequently, and one instructor (20%), Matt, did not mention it during the interview. The percentage of COCA users in the interviews was much higher than that of the survey participants, only 17% of whom reported having used it. The reason may be that the survey did not list online corpora as one of the choices in the question that asked about

\[ The\ URL\ is\ \texttt{http://corpus.byu.edu/coca}. \]
the types of web-based tools have you used in teaching. The 17% wrote in COCA in the blank provided for other answers.

Tom seemed to be the most enthusiastic about using COCA in his teaching. According to him, from the comments he received from his students, he reported that his students found this particular unidirectional tool to be extremely useful. He stated that he exposed his students to this tool so that they could use it themselves to help correct their usage and grammatical errors. Like Tom, Steve also reportedly introduced COCA to his students. Even though he said that he did not use it as extensively as Tom, he reported that he believed that COCA made students more autonomous in helping them check their work and fix errors. Similar to the other instructors, both Brenda and Lin reported having introduced COCA to their students as well. However, they stated that they did not make the online corpus as part of their course assignment.

Amount and goals of technology use in teaching

When discussing the amount of technology use in their ESL writing classrooms, two instructors (40%) reportedly considered themselves as regular users. Steve and Lin remarked that they try to use as much technology as they can in their teaching. e-Course, the course management system provided at the research site, was a unidirectional/bidirectional tool that they reported using frequently for their ESL writing courses. Steve commented that he used this device to facilitate both learning and communication for his students. On e-Course, he reported posting handouts and directing his students to additional resources related to the composition courses. Even though he
had mostly positive impressions about e-Course, in the interview, he explained that he had to deal with technical issues when e-Course was being upgraded to a newer version (in December 2011). Despite technical issues that reportedly he had encountered, Steve still reported that e-Course was a very useful tool for him as a teacher. Lin, who also was a frequent user of educational technology, stated that she had gone to almost 100% paperless assignments for her undergraduate-level composition courses, especially for major writing assignments. In explaining her reasons, she said:

If they’re writing a complete paper, I prefer a digital version because they can use Word to present something that they have thought through. They don’t have to worry about their handwriting, misspellings, or typos.

She reported that she was able to accomplish the objective of giving paperless assignment by using e-Course, to which students can use to upload their submissions. She also reported that she used e-Course as a record-keeping tool. In addition to using e-Course, both Steve and Lin stated that they used email extensively to maintain communication with their students.

Tom and Brenda reported different practices in the amount of technology used in their composition courses. Both of them (40%) claimed to be “50/50 users”, by which they seemed to mean that they used a combination of computer-based and paper-and-pencil resources and materials. Tom further explained the reasons why he considered himself as a “50/50 user.” When grading students’ compositions, he usually commented on the printed drafts which gave him flexibility. He said “I can be in lots of different places and settings.” But, he reportedly occasionally used the comment function in Microsoft Word to facilitate grading for students who were geographically far away,
which was the case for his video-linked courses. Brenda reported similar experience in how much she used technology with her students. An example of how she used technology could be seen in the fact that she reported relying on e-Course for reading assignments in her courses. She also stated that not all technological tools could be equally used in different situations. She gave discussion boards as an example of a tool that would not be suitable for her classes that meet face-to-face. She reported that she found the tool to be “very constricting and forced.” Her viewpoint was in agreement with Comeaux and McKenna-Byington’s (2003) discussion about instructors’ perceptions about technology. They pointed out that some instructors may see live interactions as not being the same as online interactions. While Brenda stated that she did not currently use online discussion boards, she said that she would take advantage of them if asked to teach a distance learning course.

Compared to how the other instructors reported using technology in their teaching, Matt seemed different in this regard. He claimed that he used technology on a limited basis, but that he would use it more if it were a course requirement. For instance, he stated that he taught his students how to compose a digital story, a type of writing with technology that initially he was not familiar with. In the academic term that the interview was conducted, he reported that he held several lab sessions for the courses he taught. However, as far as technology use in his teaching, he stated that he mainly used email and not much more. Despite his infrequent use of technology, he reported that he still views technology as a useful instructional tool.

In the survey, 89% percent of the instructors reported using technology in a regular basis. This percentage is more than twice of that (40%) reported in the
interviews. The discrepancy may be explained by the nature of responses given by the participants. In the survey, the instructors were given choices that may have limited their ability to express their opinions or that may not have given the appropriate continuum. On the other hand, the interviews gave the instructors freedom to express how much they used technology. The term “50/50 user” was generated by two instructors who were interviewed separately. The survey did not provide the option to accommodate this view.

Viewpoints about the use of technology in teaching

The interviews with the instructors were instrumental in addressing the research question “what do university ESL writing instructors self-report to be their views about their regular use of technology in their instruction?” The greater part of the interviews with all instructors contained discussions related to their views about technology use in teaching ESL writing. In the following section, the results of these discussions are summarized based on themes discussed during various instructor interviews. While their responses varied, the instructors generally reported positive viewpoints about technology. The viewpoints are presented in terms of the effects of technology use in teaching, the benefits of technology use for teaching ESL writing, the drawbacks of the use of technology in ESL writing instruction, instructors’ concerns about technology use, instructors’ opinions about technology in the future, and instructors’ general views about technology.
Effects of technology use in teaching

In the interviews with the instructors, they were asked about their opinions on whether the existence of technology influenced their teaching or whether their teaching affected the way technology was used. They had differing points of views. Two instructors (40%) reported that teaching and technology use influenced each other, two instructors (40%) reported that their teaching affected how technology was used, and one instructor (20%) did not report that his teaching was affected much by the use of technology. In discussing this topic, the instructors’ points of view were spread widely. The views of the interviewed instructors were different that those of the surveyed instructors. In the survey, over 75% of the instructors reported that the use of technology had positive effects on the quality of their teaching.

On this topic, Steve and Lin were the two instructors who reported that the influence went both ways between technology use and teaching. In his classes, Steve reportedly observed that technology affected his teaching and vice versa. He stated:

I would say it does definitely affect my teaching, at least in the sense that something becomes more efficient. But, I would also say that my teaching would also affect the use of technology because I use in ways I wouldn’t otherwise. It changes the way I use it. It’s definitely both ways. They affect each other.

While sharing Steve’s view, Lin had her own views on this topic. She reported that it would be ideal to find a midpoint between technology use and her teaching style. In other words, the two factors should accommodate one another.
In contrast to Steve’s and Lin’s opinions, Brenda and Matt reported sharing similar views on this topic. Both of them said that their teaching shaped the way technology was used in their classrooms. As a language teacher, Brenda said:

I think my teaching shapes the way technology is used. If I were teaching a computer class, the technology would shape it because it would be topic. But, since the topic is language and it’s abstract and it’s not computer, I feel that it enhances my teaching. But, I shape it; I use it as a tool to be what I want it to be.

Matt reported that he did not base his lesson plans on technology, but he would use if it was convenient to incorporate technology into the plans.

During his interview, Tom explained how technology had not had a big impact in the way he taught. He stated that he would adopt a new type of technology after it had been proven that it would work for teaching writing. He reported consulting research studies when making decisions on whether he should adopt some new technology. He said that research should inform teaching practices.

**Benefits of technology in ESL writing courses**

The discussions on the advantages of technology use for the instructors yielded differing, yet interesting results. While the participating instructors reported that the use of technology was beneficial in their teaching, they expressed different opinions about the benefits of this medium. Easier communication, increased interaction, and increased productivity were the three most frequently reported advantages as using technology for English composition instruction.
Two instructors, Brenda and Steve, concurred that technology was a helpful bidirectional tool for communication. To take advantage of technology, Brenda reported that she gave her cell phone number to her students so that they could text her with questions. This practice seemed to expedite communication between Brenda and her students. She admitted that she took a risk on this since it was her cell phone personal number. To give an example of how the phone number was used, she said:

I’ve had a couple students ask questions about an assignment during the weekend on a text. I’m fine with that. They’re so precious. They’re such good kids. How can I not do that?

But, she reported that her students were respectful and only called the number when necessary. She also reported that she allowed her students to text her if they were coming late to a scheduled appointment with her. Agreeing with Brenda, Steve reported that technology fostered communication between a composition instructor and the students. Unlike Brenda, however, he said that he did not give his cell phone number to his students, but he reported using email as a primary means of communicating with them. With email being a quick way to contact him, he stated that he felt that he made himself accessible to his students without crossing personal boundaries via phone usage. While the use of phone and email was not asked in the survey, it was assumed that most, if not all, surveyed instructors used these types of bidirectional tools to a certain extent.

Another advantage frequently discussed in the interviews was the opportunity for more interaction. In this regard, similar to what Beauvois (1997) found in her study, two instructors, Steve and Tom, reported that using technology could increase the opportunity for interaction. Steve described it as a way for students and their instructors to have
increased opportunities to discuss a topic via email without needing to have a face-to-face meeting. He said:

I think it increases the opportunity, because you can send someone an email in 5 minutes. But, I think technology is kind of used in place of something that would require us to interact in a more direct manner… I remember as a student, we had to go the professor’s office to ask questions. This was in the 90s. Now, it’s not necessary anymore.

Tom stated that he agreed with Steve, and added that with technology, the nature of interaction with students could possibly change too. He gave an example of his video-linked course, where he taught in one university classroom for both his local campus students and satellite campus students. In the survey, more than 60% of instructors reported agreement or strong agreement that video-link was suitable in ESL writing instruction. In that particular course, students from both campuses were able to interact with one another in a virtual manner. Without the technology with video-link capability, the interactions might not have taken place as efficiently as what he reported.

Increased productivity was also mentioned as an advantage by three of the participating instructors (60%). In comparison, a little over three-quarters of the surveyed instructors agreed or strongly agreed with the notion that technology helped increase their productivity. Productivity in these discussions seemed to focus on lesson planning and class preparation. Lin and Steve reportedly felt strongly positive about this. They both reported that technology helped them in planning for their composition classes. Lin reported using the revision function in Microsoft Word to brainstorm activities that she could do in her classes and Matt reported taking advantage of internet resources to supplement his teaching materials. He mentioned YouTube and Wikipedia
as examples of websites he frequently visits for his composition classes. One instructor, Tom, reported a more neutral viewpoint on whether technology increased productivity in his composition classes. He reported the ability to store files as well as the copy and paste function to be helpful in his lesson planning, but he did not elaborate with details or examples. Another instructor, Matt, reported that he did not use enough technology in preparing his classes to comment on this particular topic. Brenda, while enthusiastic about technology use in her teaching, did not discuss the topic of increased productivity in her comments.

However, when further discussing the benefits of technology, Brenda reported that technology not only facilitated learning, but she stated that it also enhanced learning. She provided an example of her students’ reaction when she used Prezi, which is a web-based animated presentation tool, in her composition teaching. Since she reported that her students did not learn easily from just her lectures, the colorful visuals from Prezi, she reported, engaged the students. She described it as similar to having a dessert after a meal.

**Drawbacks of technology in ESL writing courses**

In the interviews, the instructors also described issues about the drawbacks that technology might bring to their teaching of ESL writing courses. Even though all of the instructors reported either generally positive or neutral views about the use of technology in their classrooms, it seemed inevitable to discuss its disadvantages. During the interviews, distraction was the most common classroom problem that the instructors
reported to have significant adverse effects on their ESL composition students. The
distraction mostly came from the inappropriate use of portable electronic devices during
class. The survey participants seemed to have similar views, with 80% of them agreed or
strongly agreed that students sometimes used technology for the wrong purposes.

The increase in portable handheld devices has made it easier for university
students to become distracted during lectures because they sometimes use those devices
for non-course related purposes. All the participating instructors agreed that these
devices could interfere with students’ ability to focus in class. Two of the instructors
reported that these devices were bothersome, but the other three did not report their use to
be problematic. Steve observed that almost all of his students owned a smartphone (e.g.,
Blackberry, iPhone, Android), a tablet computer (e.g. iPad), or both, and brought them to
class regularly. While these devices could be good resources to support and supplement
learning, especially with the availability of educational apps (e.g., electronic
dictionaries), the students reportedly used them for texting or even playing games in
class. He stated:

I am of two minds. On one hand, especially with iPhones, I think 18 out 20
students in a class have an iPhone or iPad or both, and that is such a good
resource. They can have dictionaries; they can use all sorts of different apps on
there that help them. But, when they’re in the third row and on their phone while
we’re supposed to be reading something or doing something else, I don’t know
what they’re using it for. So, I tell them that I will let them use it until they prove
to me that they shouldn’t. I let them use if, but if I see someone texting or playing
Angry Birds or something that is not on task, I’m just going to get rid of that.
Tom echoed Steve’s view in that smartphones were sometimes used for the wrong purposes in composition class by his students. Additionally, he reported that playing with electronic devices in class could also be regarded as disrespectful to the instructor. It could also interfere with this instructor’s ability to concentrate on his teaching. He went on to say:

They use smart phones to do other things not related to class… I try to make hand motion or I stand over by them until they put it away. Maybe I need a more strict policy announcing that they shouldn’t have those out… Students need to know. There is this addiction thing. It might be good to say, put away all gadgets, I don’t want to see them on your desk.

In this regard, both Steve and Tom reported that they were bothered by their students’ behaviors and that they sought ways to prevent students from using electronic devices for the wrong purpose during composition class sessions.

On the other hand, while the other three instructors agreed that electronic devices could distract students from paying attention in their composition class, they did not appear to object to their students’ use of these devices in their classes. When Brenda and Lin saw their students play with their smartphones or table computers, they reported that they saw it as a possible hint that their lesson needed adjusting. Brenda’s reported strategy was to change what she was doing to something that she reported would better engage her students. Similarly, Lin stated that she felt compelled to pull her students’ interests back to the lesson. Dealing with the same issue, Matt said that he approached it differently. He reported that he believed that it was the students’ responsibility to pay attention. In his view, playing on the smartphones or computers could mean that they would miss important information from the class and this could possibly result in a lower
grade. He reported that he saw it as students being irresponsible and making a bad choice. He went to say that he regarded it as more of the students’ problems than his.

_Concerns about technology use_

While technology was reportedly seen as a generally positive tool, the instructors expressed a concern about its use in their teaching. The primary concern reported by four of the participating instructors (80%) was privacy. One of the instructors (20%), Brenda, however, did not report it as a concern. Compared to what was reported in the survey, only 30% of the surveyed instructors agreed and strongly agreed that privacy was a concern. The rest of the surveyed instructors did not see privacy as a concern.

Privacy appeared to be an important issue that the majority of the interviewed instructors reported to be concerned about. Tom’s stated concerns on privacy seemed to be based on what he had seen written and discovered in the professional literature and media. On the privacy issue, he elaborated, “There are a lot of ramifications, for example, if a teacher has set up a blog, some student might write something that’s unwise, it’s out there and it’s permanent.” He suggested that to protect the privacy of the students and instructors, university administrators should adopt policies and guidelines, such as the routine deletion of data-based content after a certain period of time. He stated that his thoughts came from what he knew about how privacy was handled in the business world. Speaking on this topic, both Matt and Lin reported to be more concerned about privacy not just in teaching, but also in general. Matt seemed to be concerned with big business or government being able access individuals’ Internet history. For Lin,
because of her concerns about privacy risks, for her personal use, she reported not participating in social networking, such as Facebook. Steve said that while privacy was an issue for him, he reported that he believed that the system was built with fail-safe protections so that it would not cause much damage if it were breached. He, however, stated that it would be an inconvenience to repair the damage if privacy was compromised. On this topic, Brenda was the only instructor who reported that she did not feel that privacy was a concerning issue as an instructor. She seemed comfortable with the security measures that were in place at the research site for composition instructors and their students.

**Technology in the future**

Because of the pervasiveness of technology in society, four of the instructors (80%), Steve, Brenda, Lin, and Matt, reported that they planned to increase their use of technology in teaching in the future. One instructor (20%), Tom, however, stated that did not plan to change the amount of technology use in his future teaching. This topic was not asked in the survey. Therefore, no comparison can be made.

When discussing this topic, Steve said that technology would be used more widely in education in the future. He stated that the electronic format of textbooks with video capabilities would probably become the norm in the future. In his view, the technology might become more portable and useful in newer ways. Speaking on a similar note, Brenda stated that in the future students would sit with their own pad, and when called on, they could put their answers on the pad, which might then appear on a
classroom smartboard. Agreeing with Steve’s opinion about e-books, she added that printed textbooks might become obsolete and might be replaced with web-based texts that could perhaps be accessed through an electronic reader or a tablet computer in the future. Adding to the discussion, Lin stated that she saw the future as an environment with more video functions. On this topic, she elaborated:

Students can see me and I can see them. Not in the same room. We can talk. I don’t have Facebook, but there might be an educational system where the students can find me instantly or I can find them instantly if they are online.

While Matt shared similar thoughts about the future of technology in ESL writing classrooms, he did not elaborate on this topic.

Of the five instructors, only one person, Tom, indicated that he would likely use the same amount of technology in his classes in the future as compared with his present level of use. While Tom reportedly felt that his use of technology would probably not change much in the future, he estimated that educators would probably adopt technological advancement that was already in existence in industry or the larger society and then implement it in their composition classrooms.

**Interviewed instructors’ general views towards technology**

During the interviews, four of the instructors (80%) reported positive views about technology and one instructor’s (20%) views were described as neutral. Steve, Lin, and Brenda reportedly regarded technology to be very positive and Tom stated that he saw it as positive. Tom added that instructors should have a nuanced approach in using technology. In explaining his thought about balancing technology use, he said:
Is this useful for the students? Is there empirical research that supports this? It is always in the news, something like some schools got laptops for every single student and it’s unclear if that helps them learn. It’s really a mixed bag as far as results show. Probably, if some teachers use pencil and paper stuff, there are probably some benefits.

Different from how others felt about technology, Matt was the only instructor who reported neutral views about the use of technology in teaching ESL writing. While he did not explicitly express that technology was positive or negative, he still stated that it could be a useful instructional tool when used properly.

**Perceived impacts of technology on students**

Even though the focus of the interviews was on the instructors, it was pertinent to also discuss how the participating instructors reported that technology affected their students. The research question “what do university ESL writing instructors self-report to be the results of their use of technology to teach their students?” is addressed in this section. All five of the instructors reported both positive and negative impressions on this issue.

On the positive side, Steve described how teachers might assign writing assignments and instruct students to find resources on their own with the help of technology. He reportedly used the library as an example of how easy it was currently for students to read academic articles from websites. The articles that students obtain can be incorporated into the writing assignments, which would then satisfy the requirements of the instructor-designed assignments. Discussing the same topic, Matt stated that using
grammar and spell checker could save students time, a view that was shared by 50% of the surveyed instructors. According to him, the time saved would allow them to focus on the higher order concerns, such as rhetorical issues or organizational patterns. Another instructor, Brenda, observed that when students used online or electronic dictionaries, they seemed to find the meaning of a word faster compared to using printed dictionaries. In discussing the positive impacts of technology on students, Lin commented that the benefits of using Microsoft Word to compose a paper. She stated:

> If you do it on paper, it’s hard, you have to erase it and it could get messy. I think using Word helps them put their thoughts as they flow. They don’t have to think too much. The ideas are out first. Then, they can revise the ideas. If you do it on paper, it’s difficult.

Adding to the positive aspects of technology, Tom stated that he used the online corpora as an example of a technological advantage for students. He described introducing the Corpus of Contemporary American (COCA) English website to his students and asking them to conduct practical searches. He said that the goal of using this tool was to improve syntax. He also stated that the feedback that he received from students about using COCA to help them with writing seemed to indicate that it was both a powerful and a useful tool for them. COCA seemed to enable students to find the correct usage of a word or phrase. Overall, the positive aspects of educational technology were reported by all of the participating instructors, although individual differences were seen by the researcher in their reported views.

Even though the positives seemed to outweigh the negatives, the instructors acknowledged that technology came with certain drawbacks as well. Three of the
instructors expressed their feelings about the negative impacts of technology on students. For example, while Steve reported that he believed that using the Internet to conduct library searches was a time saver, he reported some reservations. According to him, students often times were distracted by other unrelated activities that could simultaneously be conducted online. He gave a concrete example of students frequently checking Facebook while doing homework. This perspective was shared by almost 80% of the surveyed instructors. In Steve’s view, distraction could sometimes result in a lower quality of work. Brenda, who earlier remarked that online dictionaries could save time, also observed that students would sometimes plug in a word from a dictionary without looking at the context. She went on to say that, with technology, the students could get what they thought was the answers fast, but not always correctly. Echoing his colleagues, Matt also described some negative effects of technology use in his students’ work. While he agreed that grammar and spell checker could be useful, he stated that students may not learn simply because of the availability of such a technological tool. The two other instructors, Tom and Lin, did not elaborate on the negative effects of technology for their students.

**Classroom observations and document analyses**

In addition to the interviews with the instructors, their classrooms were visited to be observed and documents from the class sessions were collected from the instructors. During the each visit, the researcher sat in the back of the classroom to note and observe the instructor’s use of technology in the class session. The classroom observations were
conducted after the interviews so that the researcher came to the class with some background information about the instructor’s use of technology. In regards to documents, any handout that was distributed during the class visit was collected. Additionally, the researcher also asked for permission to access the instructors’ e-Course sites. All of the participants agreed to give access to their sites. The focus of the classroom observations and document analyses was to observe technology use in the instructors’ teaching and the data were to answer one of the questions posed in this study. The results from these two instruments are presented here to complement the answer to the question: “how do these university ESL writing instructors describe their regular use of technology in their teaching?”

Four out of the five instructors, Lin, Steve, Matt, and Brenda, agreed to be observed. Tom’s classroom could not be observed because he did not teach during the quarter. During the observations, handouts that were distributed by the instructors for the students were collected to help describe the situations in the classrooms. In addition to handouts, in all of the observed classes the course management system (CMS) was the type of technology that was used across the board. This finding was consistent with the interview data and similar to those of the survey (94% reportedly used CMS). e-Course, the system provided by the university, seemed to be a necessity in all of the instructors’ classes. During the classroom observations, however, the ways the instructors used it varied. Other tools that were employed during the classroom visits were YouTube and COCA. In the survey, YouTube was reportedly used by 61% of the instructors and COCA by 17%. In addition, the equipment used in the classrooms included desktop computers and projectors. The instructors used them in conjunction with e-Course. The
following section describes how the tools were used by the four instructors: Lin, Steve, Matt, and Brenda.

Lin was a regular e-Course user and when her graduate-level class was visited, she used the dropbox, a bidirectional tool within the CMS. In the beginning of this class session, the students were asked to work on a short paragraph writing exercise. When introducing the assignment, Lin instructed them to submit the assignment to a dropbox on e-Course when finished. On a handout distributed by Lin, the exercise asked them to write a paragraph with a topic sentence as explained in the prompt. The information in the exercise came from a passage about pollution in Antarctica, which was taken from a textbook by Bailey (2006) and was printed on the handout. The students were asked to paraphrase the information and give proper documentation. For this exercise, the students were allowed to work with others in a small group. Meanwhile, Lin walked around to help those who had questions. The class was held in a computer lab and the students completed the task on the computers. In the lab, Lin also made use of the computer and projector to show her students how to document sources.

Another example of the use of e-Course was seen in Steve’s class. At that time, e-Course was used in conjunction with an online corpus. This class was also held in a computer lab on a Friday afternoon. In his undergraduate-level ESL writing class, he introduced the Corpus of Contemporary American English (COCA) website to his students and taught them how to use the online corpus.
In this exercise, you will look at incorrect sentences, identify the errors and correct them. With the help of COCA, correct the following sentences and provide an analysis.

Example:
Incorrect sentence: I learned valuable knowledge when I did my internship in the summer.
Revision: I acquired valuable knowledge when I did my internship in the summer.
Analysis: Acquire seems to be the verb that is commonly used with knowledge. The meaning of acquire is closest to learn. Alternatively, gain is another verb that would fit in this context.

1. They elaborate at two different aspects.
   Revision:

   Analysis:

2. The study shows strong evidence to the assumption.
   Revision:

   Analysis:

3. He missed to include several other important variables.
   Revision:

   Analysis:

4. These reasons cause language learning inefficient, boring, and discouraging.
   Revision:

   Analysis:

5. This approach contradicts to other approaches.
   Revision:

   Analysis:

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Figure 24. Snippet of the COCA Exercise

Before he started his lecture, he directed his students to e-Course to click on a link that took them to the COCA website. As shown in Figure 24, the task asked the students to correct the incorrect sentences by using COCA. Steve showed his students how to use
the commands in COCA and how to interpret the results. After the lecture, he asked students to start working on the assignment. During his class, students seemed to ask many questions related to COCA. This may be because COCA was a bit complex for first-time users. However, Steve patiently helped his students. At the end of the class, he allowed the students to continue working on the assignment at home and bring it to the next class on Tuesday.

In Matt’s class, e-Course was also used. Just like Lin’s and Steve’s class sessions, Matt’s was also a computer-lab session. In this class session, the main type of technology used was YouTube with e-Course as a secondary tool. In the beginning of the class, Matt introduced a commencement video on YouTube. As shown in Figure 25, the commencement speech was delivered by comedian Ellen DeGeneres at Tulane University in 2009.
From the lecture that Matt gave in his class, it could be implied that the students had watched another commencement speech since he discussed another one delivered by Denzel Washington to students at the University of Pennsylvania. Because DeGeneres’ speech contained many idiomatic expressions and American cultural references, before he started playing the video, he explained a few of DeGeneres’ expressions, such as “school of hard knocks” and “Mardi Gras” to help the students understand the speech. A few minutes after Matt played DeGeneres’ speech, he stopped it and asked the students to
go to e-Course to download the transcript of the speech that they could follow along. At the end of the video, he asked the students to write a summary of the speech.

e-Course was used in Brenda’s class, too, but she used it differently compared to the other instructors. In addition, YouTube, PowerPoint, a computer, and a projector were also used in her class. In this study, Brenda’s class was visited by the researcher twice because the lesson spanned over several weeks. Her class was visited on the first and last days of the lesson. Both class sessions were held in a computer lab, like the other three instructors. On the first day of the visit, Brenda distributed a handout to her students and introduced the reflective journal assignment, where the students were asked to tell a story about their journey as a writer in English. She projected the assignment sheet on the screen to explain the details and the students could follow along with the paper handout. For this assignment, Brenda asked the students to create a multimodal or digital composition, where they combined text, images, and/or audio. Merchant (2007) argued that “multimedia allows for a rich interplay of modes” (p. 122). To clarify the assignment, she showed an example of a digital composition on YouTube that she created with her colleagues for a graduate course assignment (Figure 26). The clip told a story and was filled with pictures, symbols, words, moving images, and voiceovers. Brenda showed the example to give her students an idea of what a digital composition could look like. The students seemed engaged during the showing of the clip.
After showing the video, Brenda asked her students to start writing two paragraphs that would become part of the multimodal composition. When finished, the students submitted the assignment to the appropriate e-Course dropbox. The students worked on the project for a few weeks. Four weeks later, during the second visit, the researcher observed Brenda showing the finished products of the project to the class. She downloaded the files submitted by her students from e-Course and asked her students to present their multimedia compositions. In this class session, the researcher observed technology being used in a variety of ways. Some students uploaded their work to
YouTube while others created PowerPoint presentations. Throughout the class session, the students in the audience seemed to be entertained by their peer presentations created with digital technology.

**Summary**

This chapter presented the results from the quantitative and qualitative data collected in this qualitative dominant mixed methods study. The study was conducted in the ESL Composition Program at a major Research-1 university in Spring 2012.

The first part of the chapter provides answers to the research questions based on the findings in both quantitative and qualitative datasets. It starts with the description of professional profiles of the instructors, which is then followed by the discussions of technology as a tool, instructors’ views about the use of technology in teaching university-level ESL writing, and impact of technology on ESL composition students.

The next section of the chapter contained the descriptions of the quantitative data gathered via questionnaires that were distributed to all instructors teaching in the ESL Composition Program in Spring 2012. Eighteen out of 21 instructors returned the survey. In this chapter, the survey data were analyzed using descriptive statistical methods and are presented in three parts: description of the participating instructors, reported instructors’ views towards the use of technology, and perceived advantages and disadvantages of technology for students.

The qualitative data were gathered using three procedures: interviews, classroom observations, and document analysis. The interviews were the main data collection
procedure and observations were conducted as a follow-up. The documents were not the core of the study, but were gathered as a supplement to classroom observations. Five instructors volunteered to be interviewed and four were willing to be observed in their ESL writing classrooms.

In the presentation of the findings, using an inductive analysis method, the interview data were divided in three major sections: the profiles of the interviewees, how technology is used in teaching, and instructors’ viewpoints about the use of technology in teaching. Following the findings from the interviews, the classroom teacher observation data are presented, including the document analysis.
Chapter 5
Summary of Findings, Implications, Recommendations for Further Study, and Limitations

This study examined how instructors in post-admission, university-level ESL writing courses described their regular use of technology as a pedagogical tool and investigated these instructors’ self-reported views about how they use technology in their teaching. These purposes were expressed as a set of four research questions for investigation. As previously listed in Chapter 1, the research questions in the present study were:

1. What are the professional profiles of university ESL writing instructors who claimed to regularly use technology in their teaching?

2. How do these university ESL writing instructors describe their regular use of technology in their teaching?

3. What do university-level ESL writing instructors self-report to be their views about their regular use of technology in their instruction?

4. What do university ESL writing instructors self-report to be the results of their use of technology to teach their students?

The first four chapters of this dissertation provided an introduction to the study, a review of relevant literature, a description of the methodology used to collect data and the results from the data collection. This chapter begins with the answer to each research
question posed in the study. The present chapter also serves as a place to discuss the unanticipated results, to show how the theoretical foundations were used in this study, to present the implications of the study, to provide recommendations for future research, to address the study limitations, and to end the study with an epilogue.

**Research Questions Answered**

Using the data from this qualitative dominant mixed methods study, this section of the chapter, where the summaries of findings are presented, is divided into four subsections and is organized according to the research questions posed in this study.

**Research Question 1**

In the present study, the first research question was, “What are the professional profiles of university ESL writing instructors who claimed to regularly use technology in their teaching?” As shown in Table 4 in Chapter 3, questionnaires and interviews were the main research instruments used to address this research question. A 30 item-questionnaire was disseminated to all instructors (n=21) who taught in the ESL Composition Program in the Spring Quarter 2012 at the research site and eighteen returned the questionnaire. Of these instructors, five instructors were subsequently purposefully chosen and asked to participate in one-on-one interviews (n=5). The present study found that all participating instructors used technology in their teaching regardless of their educational background, their position in the program, and the number of years of teaching experience. This information was provided during in the questionnaire.
The results from the questionnaire provide an overview of the professional profiles of the participants. In terms of their educational background, a majority of the instructors (61%) earned a Master’s degree and 39% earned a doctorate degree. At the time of the study, over half of the participants (55%) worked in the program as Lecturers. The rest of them held the positions of Academic Program Specialists (28%) and Graduate Teaching Associates (17%).

When asked about the number of years they taught, about a third of the participating instructors (33%) taught for over 25 years and 22% of the instructors were considered new teachers with less than five years of teaching experience. The rest of the instructors had five to ten years of experience (17%), fifteen to twenty years (17%), twenty to 25 years (6%), and ten to fifteen years (5%).

**Research Question 2**

The second question posed in this research study was, “How do these university ESL writing instructors describe their regular use of technology in their teaching?” As displayed in Chapter 3, the data from the interviews, classroom observations, and document analysis were used to address the second research question. Interviews with five instructors were followed by classroom observations. One instructor, however, did not participate in the observations because he was not teaching at the time of the study. Additionally, teaching-related documents used by the instructors when their classes were observed by the researcher were also collected as part of the data corpus.
In answering this second research question, the present study found that the participating instructors regarded technology as a tool for teaching ESL composition courses. Their responses regarding technology as a tool can be classified into two categories: unidirectional and bidirectional tool. When technology is a unidirectional tool, it is mostly used by the instructor for the students. Examples of this type of tool are the course management system (except for the online dropbox feature), the comment feature in word processing software, and online corpora. In contrast, when technology is used a bidirectional tool, it goes both ways, from the instructor to the students and vice versa. Email and the online dropbox feature within the course management system are examples of bidirectional tools that were reported by the instructors.

**Research Question 3**

The next question posed in the present study was, “What do university-level ESL writing instructors self-report to be their views about their regular use of technology in their instruction?” Table 4 in Chapter 3 showed that this question was to be addressed by the data collected mainly through the survey responses and interviews. In the present study, a majority of the instructors reported that their use technology in teaching ESL writing at the university level was viewed positively. The perspectives that instructors reported can be broadly categorized into: the usability of technology, the perceived advantages of technology use for students, and the instructors’ self-assessment about technology.
In the present study, both the survey respondents and interviewed instructors were asked about their views on the usability of technology. In general, all of the instructors viewed it positively. The positive perspective was manifested in the wide-spread use of the course management system that was provided by the university. Moreover, the instructors reported that technology use in their teaching was perceived to be advantageous for their students as well. Even though the general view of technology use was positive, the instructors also reported having some concerns. One of the concerns reported by the participating instructors was distraction. The examples of distraction that were reported included their students playing games during class and constantly checking their Facebook accounts on their phones. According to them, when students were distracted, they could not pay full attention to the subject matter being taught.

**Research Question 4**

The final question investigated in the study was, “What do university ESL writing instructors self-report to be the results of their use of technology to teach their students?” As was presented in Chapter 3, both interview and survey data were used to address this research question. The participating instructors reported that technology use in their teaching affected their students both positively and negatively. One of the reported positive effects was that students became more independent when technology was used. On the other hand, one of the reported negative effects was that using technology for the wrong purposes could lower the quality of the students’ writing products.
Unanticipated Findings

As the present study revealed many interesting aspects of technology use in a university-level ESL writing program, several surprising results are worth discussing. The first unanticipated result was about the lack of interest in the use of online discussion boards. According to Merchant (2007), discussion boards are one of the technological tools suitable for use in education. As one of basic functions of the course management system, discussion board was surprisingly not used by the participating instructors in the present study even though interaction was an element of teaching that was valued by the instructors. The absence of discussion board use may be because the instructors conducted their classes face-to-face multiple times a week. The frequent meetings with students may not necessitate the use of additional venue for discussion.

Similarly, another surprising result was the lack of discussion about plagiarism. Bloch (2008) indicated that plagiarism is one of the controversial effects of the use of technology. However, the participating instructors did not mention plagiarism as a negative effect of technology use in the courses they taught. One possible reason is because the focus of the discussions was on their views about technology use and about the instructors themselves, not the students.

In the present study, the use of personal cell phone with students for communication was also surprising. While cell phones are usually used for personal purposes, one of the interviewed instructors reported that she gave her number so that her students could contact her via text messaging easily. She added that her students were respectful and did not abuse the privilege.
Discussion of Theoretical Foundations of the Study

In the present study, three theoretical frameworks were selected as foundation. These three theories were the theory of technological determinism, the functional theory of attitudes, and the concept of Computer-Assisted Language Learning (CALL).

Technological determinism has been seen as one of the more dominant theories in contemporary technology discourse. This theory assumes that technology impacts and influences changes in society (Friedman, 2005; McLuhan, 1965; Winner, 1997; Ong, 1982). The survey results of the present study found that most of the participating instructors reported generally positive views about the use of technology in their ESL writing instruction. In this context, changes in participating instructors’ composition teaching as a result of their use technology for instructional purposes may not have been necessarily be radical, but their views may be justifiably argued as contributing to technology first having a positive impact on themselves as users. It can also be logically argued that their own use of and comfort level with technology therefore influenced them to adopt it for use. This adoption of technology may have changed the way their ESL composition classes were run, particularly in comparison with a similar teaching context where technology was not routinely used. These practices can be viewed as an indirect result of technological determinism. In the present study, however, the interviewed instructors’ views did not seem to align with this theory, a result that surprised the researcher. Two instructors during the interviews reported that they shaped their ESL composition technology use to meet their needs and those of students. The researcher interpreted this perspective to be more in alignment with a social constructivist viewpoint. This argument was raised by those who disagreed with the technological
determinism (Johnson, 1998; Pinch and Bijker, 1987). Two other interviewees stated that technology influenced their teaching and vice versa. The researcher would argue that this view correlates with a technological momentum perspective that seems to situate itself with an alternative midpoint between determinist and social constructivist views about technology (Hughes, 1994). In other words, the researcher has concluded that the theory of technological determinism was only partially at work in the present study.

The second underlying theory in the present study was the functional theory of attitudes. The functionalist theory is discussed in the topic of attitudes (Katz, 1960). The theory identifies the functions that attitudes serve for an individual. In Katz’s (1960) views, the instrumental function of attitudes assumes that humans generally lean towards having positive attitudes about certain phenomena when these attitudes or beliefs can help them achieve a rewarding goal and minimize a punishment. The knowledge function helps humans react based on their prior knowledge about a phenomenon. The attitudes can be both personal (Pajares, 1992) and influential (Ertmer, 2005). The results of the present study are in alignment with this theory. Both the surveyed instructors and those who interviewed reported that their positive views about technology were influenced by the benefits that they reported to believe that technology could offer them in their teaching of ESL composition and their students. It is important to note that the instructors in the present study reported that when they adopt and use particular types of technology, they attempt to keep their students’ needs in mind.

Another concept that served as a foundation in the present study was the Computer-Assisted Language Learning (CALL). While the previous two theories were drawn from fields outside of ESL/EFL teaching, this particular concept is specific to
second language contexts (e.g., ESL and EFL). CALL is still considered to be a developing concept that draws from other relevant theories and it often focuses on a combination of language learning and technology (Hubbard, 2008). The Second Language Acquisition (SLA) theory is one of the dominant concepts that CALL is connected to. Because the SLA theory is broad and diverse, the present study used only the Sociocultural Theory (SCT), which is a subset of the SLA theory. Thorne (2008) saw a close relationship between the SLA theory and the CALL concept in that technology in various contexts has changed how people communicate. Adding to the discussion, Egbert et al.’s (2007) presented a pedagogical model for conditions for optimal language learning environments, which are based on the SLA. The findings of the present study suggest that the participating instructors’ views were also aligned with one of the key assumptions of the CALL concept related to the SLA, which is the integration of technology to promote language acquisition. In the present study, the instructors reported that they viewed technology as an integral part of their ESL composition teaching. This integration of technology was evident in the study and can be exemplified in the use of the course management system by the instructors (both those who were surveyed and those who were interviewed). The participating used CMS to post news items, upload course materials, and accept submissions from their students. The use of CMS in the context of the present study seemed to aim to assist students with their writing tasks with the goal of acquiring the necessary writing skills. In terms of language acquisition, moreover, Bloch (2008) and Johns (1994) advocated that in L2 writing, the use of concordancing tools is particularly applicable for learning grammar. In the present study, a majority of the surveyed instructors’ (n=15) views correlated with these theorists. They
reported that online corpora were applicable for teaching ESL writing especially for grammatical competence. One instructor stated that the use of online corpora might also be helpful to improve students’ syntax in their written ESL compositions. However, further research is needed to document the instructor’s viewpoint.

**Implications of the Study**

While the present study only scratches the surface of research about the use of technology in teaching university-level ESL writing courses, the findings have pedagogical implications for university-level ESL writing instruction. The major findings of the present study suggest several courses of action for ESL teaching professionals and for incorporating technology into university ESL composition programs.

The first implication of the study is that instructors’ perceptions of the usefulness of technology is a factor in their decision to use technology in their teaching and that technology can be a useful instructional tool for ESL composition instructors regardless of gender, teaching experience, educational background, or staff position in the instructional program. While technology is widely available on an increasing basis at the time of this study (2011-2012), instructors need to be selective in the types of technology they adopt and use in their ESL composition teaching. It seems that their decisions might be influenced by their own comfort levels and by their knowledge about technology. In order to optimize the use of technology and maximize its advantages, it is important for instructors to feel comfortable with and be knowledgeable about instructional technology.
They are encouraged to review, try, and evaluate particular types of technology that they intend to use before incorporating the technology into their ESL composition teaching.

The results of this study also imply that pedagogical use of technology is likely to vary from instructor to instructor in terms of using technology a tool. This function was reported to be appealing to the instructors in the present study technology used during instruction in these ways have the clear potential of helping ESL composition instructors to achieve their teaching objectives. An important implication of this study is when adopting any type of instructional technology, students’ needs should be considered. The mere existence and availability of technology does not always translate into it being useful and appropriate for ESL composition students.

Another implication of the present study is that when instructors’ general views about technology are positive, technology can be a helpful learning tool. Technology seemed to be seen by study participants in a positive light when it was used for the purposes of teaching university ESL writing. When instructors’ professional and personal goals were matched with advantages for their ESL composition students, a clear implication of the study was to support instructors as they select and adopt types of technology (e.g., e-dictionaries) in the teaching of ESL composition at the university level.

The findings of the present study also imply that technology may have an impact not only on the ESL composition instructors, but on their ESL students as well. Technology may facilitate students to be independent writers and perhaps learn faster. In contrast, however, technology might also distract them. However, as previously stated,
student achievement and performance were not the focus of this study, so clearly the implications for students is an area in need for further study.

When an instructor decides on using technology for teaching, external factors are also implicated. The availability of tech support and equipment is an example of these factors. Instructors seem to be more willing to adopt technology for their teaching purposes if they know how to get help when there is a problem. At the university where the study was conducted, tech support was available and accessible to all faculty, staff, and students. This factor could help encourage instructors to use, or at least attempt to use technology, knowing that there is a support system at the institution. In addition to having tech support, the availability of equipment can be a determining factor. For instance, an instructor who is a Mac user may be more inclined to use technology if the university provides Mac computers in classrooms or computer labs. The same can be said for Windows-based computer users who prefer to use PC computers.

In this study, the use of technology as a tool seems more dominant than as a form of literacy. Instructors still largely gave the same assignments, but they used technology to create and develop them. Their students also used technology to complete the assignments. For example, in many instructors’ classes, students typed their papers using a word-processing program and uploaded them to a course management system. Their instructor then downloaded the assignments and graded them. However, one instructor, whose class was visited for observations, assigned her students to create a multimodal composition, which consisted of text, images, and/or sound. In such a composition, “the text is no longer contained between the covers or by the limits of the page” (Merchant,
2007, p. 122). While this type of assignment was not generally observed in this study, this may be the direction for ESL writing in the future.

The last implication of the study is related to how technology may change teaching culture, especially in terms to time and space. Instructors seem to gradually be adapting their assignment requirements to work with technology. An example for changes in how time works may be illustrated by the availability of the online dropbox within the course management system. With it, instructors may setup due dates outside their regular class times (e.g. at midnight or on a Sunday) and have a record on the exact time the assignment was submitted. This allows instructors to keep track of who submitted the assignment on time or late. In terms of space, technology appears to give instructors flexibility. The course management system can function as a virtual classroom. Feedback can now be given online without having to wait until the instructors see their students in the physical classroom. Many instructors in the present study took advantage of the comment feature that is available in Microsoft Word for giving e-feedback, which was then uploaded to the course management system. Teaching ESL writing is now less restricted by time and space.

**Recommendations for Further Research**

This study provided a description of how some ESL instructors viewed technology in university-level ESL composition courses. However, because of rapid developments and changes in technology, research on technology-related topics needs to be conducted. For future study, recommendations are provided as follows:
1. When the present study was conducted, technology centered on the technology that was available at the time of the study in 2012 (e.g., online corpora, wikis, blogs, and course management systems). However, these particular types of technology may change or disappear as newer technologies (e.g., mobile devices and mobile apps) and perhaps new types of social networking will also likely emerge. The rapid development of technology makes it difficult to predict what may be next in available technology. If the present study were replicated, future researchers should explore the types of technology that will be commonly used at the time of future study. In order to produce timely and relevant technology studies for ESL composition, it is recommended that future research investigate the future technologies. Specially, a needed follow-up to the present study is research that examines ESL composition instructors’ adoption of corpora in an ESL program such as the research site of the present study.

2. The present study employed a qualitative-dominant mixed method research design. If the goal of the research is to tell more in-depth stories from the participants, it is recommended that future studies be conducted using qualitative methods such as case and ethnographic studies. Multiple interviews and multiple classroom observations with selected ESL composition instructors should be conducted. If the goal of the study is to generalize the study results, it is suggested that quantitative methods with a large number of ESL composition instructors be conducted. For generalization to other contexts, a positivist, in-depth and perhaps longitudinal
follow-up research study of instructors’ views about technology use in a university ESL context should be conducted in the future.

3. This study was conducted in a university-level ESL composition program in the U.S. Future researchers should consider investigating instructors’ views in other contexts, such as university-level EFL writing programs, secondary-level ESL/EFL writing programs, and perhaps intensive English programs in other countries.

4. This study did not investigate correlations between instructors’ use of particular technology tools in teaching ESL writing and students’ writing improvement. This type of research is definitely recommended as it is important to investigate how instructors’ views manifest themselves in practice. In particular, research that investigates the impact of ESL instructors’ use of particular technology tools (e.g., spell-checker and grammar checker) on ESL students’ composition. In other words, what impact does an ESL instructor’s intentional adoption and use of particular technology tools seem to have on their students’ writing performance.

5. Future study should investigate how ESL writing instructors teach ESL writers write on Internet sites, such as blogs, wikis, or websites. In this study, while instructors gave assignments for students to use technology, these assignments still reflected traditional writing, with the instructor and/or the class as the only audience. When writers write for a larger audience on the Internet, the ways they write and the products likely need to be adapted. A research project investigating such an area is worth pursuing.
Limitations of the Study

As with most research, the present study had limitations. One limitation of was the fact that the data for the study were collected in a relatively short period of time (one academic quarter that lasted ten weeks). This short time frame did not allow for follow-up data collection with the participating ESL instructors.

A second limitation was the small number of study participants. Five instructors participated in the interviews and four were also visited in classroom observations. In addition, although all the participating instructors were asked to complete a study questionnaire, the ESL Composition Program employed twenty-one instructors during the time data were collected and eighteen instructors completed the survey instrument. Thus, the results of this study probably do not provide representation for all ESL writing courses and generalization is not warranted. As with post-positivist and interpretive inquiries, however, the results of the study were not meant to be generalized. Instead, the objective was to collect data and provide a description of the perspectives of ESL composition instructors at the research site.

Epilogue

This study was personally and professionally meaningful to the researcher. As a composition instructor and a regular technology user, this study was personally enriching. The topic of this dissertation had been contemplated for quite a long time before it finally
came into fruition. At the personal level, the discussions about ESL writing and technology were exciting and thought-provoking.

As a professional in the field of ESL composition, this study was edifying. During the conversations in the interviews, the participating instructors were candid and open in their responses. They expressed their thoughts, ideas, concerns, and reservations about technology. The present study gave the researcher a new understanding about the use of technology in ESL writing instruction as it revealed the fascinating and interesting views of fellow ESL composition instructors. The research process of this dissertation from the beginning to the end was a fulfilling and rewarding experience.

It is hoped that this dissertation can bring new insights and perspectives to the field of ESL teaching, in particular the teaching of writing at the university level linked to technology. Technology always moves forward and the present study gives a glimpse at the current state of the use of instructional technology in the teaching of university-level ESL composition. The use of technology may have broadened the meaning of L2 writing. Writing is no longer a linear process. With the availability of word processing, ESL writers can write their thoughts out and rearrange their ideas later in the process. A paper can be revised multiple times (Merchant, 2007) and the changes made to it can be easily tracked. Furthermore, even though the present study only saw a small example about multimodal composition, this may be the directions L2 writing take. With multimodal composition, ESL writers can add images and sound to their writing. Learning how to write also may mean learning how to take advantage of technology. In the end, an ESL writer would acquire both writing and technological skills.
At this time, it is also important to think about what’s next as this dissertation is only the beginning of what we can pursue in researching technology and L2 writing. To continue the conversation, how technology is changing our concept of literacy and how this change will affect language acquisition, composition and L2 pedagogy should be investigated.
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Appendix A: Consent Form

The Ohio State University
Consent to Participate in Research

Study Title: Instructors’ attitudes towards the use of technology in teaching L2 writing at the university level

This is a consent form for research participation. It contains important information about this study and what to expect if you decide to participate. Your participation is voluntary. Please consider the information carefully. Feel free to ask questions before making your decision whether or not to participate. If you decide to participate, you will be asked to sign this form and will receive a copy of the form.

The purposes of the study are (a) to examine how instructors teaching in post-admission university-level L2 writing courses regularly use technology as a pedagogical tool, and (b) to investigate these instructors’ self-report attitudes about technology in their writing programs.

To participate in this study, you will be asked a set of questions in an interview and your responses will be audio-recorded. The interview will last for approximately 45-60 minutes.

You may leave the study at any time. If you decide to stop participating in the study, there will be no penalty to you, and you will not lose any benefits to which you are otherwise entitled. Your decision will not affect your future relationship with The Ohio State University.

Efforts will be made to keep your study-related information confidential. However, there may be circumstances where this information must be released. For example, personal information regarding your participation in this study may be disclosed if required by state law. Also, your records may be reviewed by the following groups (as applicable to the research):

- Office for Human Research Protections or other federal, state, or international regulatory agencies;
- The Ohio State University Institutional Review Board or Office of Responsible Research Practices;

**Incentives:** You will receive a $25 gift card as a thank you for participating in the study. Please allow up to 2 weeks for the gift card.

**Participant Rights:** You may refuse to participate in this study without penalty or loss of benefits to which you are otherwise entitled. If you are a student or employee at Ohio State, your decision will not affect your grades or employment status. If you choose to participate in the study, you may discontinue participation at any time without penalty or loss of benefits. By signing this form, you do not give up any personal legal rights you may have as a participant in this study.

**Contacts and Questions:** For questions, concerns, or complaints about the study you may contact the Principal Investigator, Dr. Charles Hancock at hancock.2@osu.edu or by phone at 614-292-8047, or co-investigator, Ivan Stefano at stefano.4@osu.edu or by phone at 614-292-6360. For questions about your rights as a participant in this study or to discuss other study-related concerns or complaints with someone who is not part of the research team, you may contact Ms. Sandra Meadows in the Office of Responsible Research Practices at 1-800-678-6251.

**Signing the consent form**

I have read (or someone has read to me) this form and I am aware that I am being asked to participate in a research study. I have had the opportunity to ask questions and have had them answered to my satisfaction. I voluntarily agree to participate in this study. I am not giving up any legal rights by signing this form. I will be given a copy of this form.

<table>
<thead>
<tr>
<th>Printed name of participant</th>
<th>Signature of participant</th>
</tr>
</thead>
</table>

AM/PM

Date and time
**Investigator/Research Staff**

I have explained the research to the participant or his/her representative before requesting the signature(s) above. There are no blanks in this document. A copy of this form has been given to the participant or his/her representative.

<table>
<thead>
<tr>
<th>Printed name of person obtaining consent</th>
<th>Signature of person obtaining consent</th>
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<tbody>
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<td>AM/PM</td>
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<td></td>
<td>Date and time</td>
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</table>
Appendix B: Interview Protocol

Project title: Instructors’ attitudes towards the use of technology in teaching L2 writing at the university level

Time of interview:

Date of interview:

Place:

Interviewer: Ivan Stefano

Interviewee:

Preferred pseudonym:

I appreciate your willingness to participate in the interview. The purposes of the study are (a) to examine how instructors teaching in post-admission university-level L2 writing courses regularly use technology as a pedagogical tool, and (b) to investigate these instructors’ self-report attitudes about technology in their writing programs. The study is to be conducted in the ESL Composition Program at The Ohio State University in Columbus, Ohio. In this study, the anonymity of the participants and the confidentiality of the data will be protected. To ensure anonymity, only pseudonyms are used in the qualitative data and no names will be used in the quantitative data. The instructors’ names are never revealed in the research report. To maintain confidentiality, the only persons who have access to the data are the researcher and the Principal Investigator of the study. The data will be stored in a computer that is password-protected. The interview should last from 45 to 60 minutes and will be audio-recorded. As a thank-you, you will receive a $25 gift card in about 2 weeks after the completion of the interview.

I have prepared a consent form as required by the university. Please read and sign the consent form. After you have read and signed it, I will turn on the recorder and we will begin the interview.
A. Teaching experience

1. Can you talk about your experience teaching in ESL/EFL contexts?

2. How long have you taught second language writing? Where and when did you start?

3. What is your position in the ESL Composition Program? How long have you taught in the program? What course(s) have you taught in the program?

B. Technological experience

1. Can you tell me about your background in regards to technology?

2. How did you learn the skills? Did you take any course, training, or workshop?

3. What do you feel about using technology in general for both personal and professional purposes? What is your comfort level?
C. *Attitudes towards the use of technology*

1. Do you regularly use technology in your teaching? If yes, how much? What are your goals in using technology?

2. What is your general impression of educational technology?

3. Do you see technology as something positive, neutral, or negative? Why?

4. What are the impacts of technology use for you as an instructor and for your students?

5. What are the roles of technology in L2 writing courses?

6. What are the benefits and drawbacks of using technology in L2 writing courses?
7. Do you have any success story to tell? How about the opposite?

8. Do you plan to continue using technology in the future? What do you think educational technologies will look like in the future?

9. Do you have any concerns about using technology in your teaching?

10. Without technology, what do you think your classes would look like?

11. How does technology affect your teaching style and you as a teacher?

12. Do you have any additional comments?
D. How technology is used in teaching

1. How do you integrate technology in your course(s)?

2. What kinds of technology do you use? Can describe how you used them in
detail? Do you have any reason why you chose them?

3. If you experience technical problems, who do you contact to get help?

4. Do you have any additional comments?

Thank you for your cooperation and participation in this interview. In the research
report, your name will never be revealed and only pseudonyms will be used.
Appendix C: Questionnaire

April 9, 2012

Dear Colleague,

I am conducting a dissertation research to investigate instructors’ attitudes towards the use of technology in teaching L2 writing at the university level. The purposes of the study are (a) to examine how instructors teaching in post-admission university-level L2 writing courses regularly use technology as a pedagogical tool, and (b) to investigate these instructors’ self-report attitudes about the use of technology in their teaching.

Your participation in this study is voluntary. Your confidentiality and anonymity are protected. No names will be used in this questionnaire and you will not be identified. Please be assured that the data from this research will be stored in a computer that is password-protected. The only persons who have access to the data are the Principal Investigator and the Co-investigator of the study. For questions, concerns, or complaints about the study you may contact the Principal Investigator, Dr. Charles Hancock at hancock.2@osu.edu or by phone at 614-292-8047, or myself, as Co-investigator, at stefano.4@osu.edu or by phone at 614-292-6360. For questions about your rights as a participant in this study or to discuss other study-related concerns or complaints with someone who is not part of the research team, you may contact Ms. Sandra Meadows in the Office of Responsible Research Practices at 1-800-678-6251.

I greatly appreciate your willingness to participate in the study. The questionnaire will take approximately 20 minutes to complete. Please return the completed questionnaire within 7 days in the enclosed campus-mail envelope to my mailbox in 60 Arps.

Thank you for your time and participation in this study.

Sincerely,
Ivan Stefano
**Questionnaire**

Please read each statement and choose an answer based on how you feel about it. In this questionnaire, *technology* refers to any computer (including tablet computers such as iPad), audio, video, or multimedia devices. It also refers to the Internet and the World Wide Web (including Web 2.0). It will take approximately 20 minutes to complete this questionnaire.

<table>
<thead>
<tr>
<th></th>
<th>For each statement, please circle the number that best shows how you feel</th>
<th><strong>Strongly disagree</strong></th>
<th><strong>Disagree</strong></th>
<th><strong>Neither agree nor disagree</strong></th>
<th><strong>Agree</strong></th>
<th><strong>Strongly agree</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>A1.</td>
<td>I know that course management system (such as e-Course) is an online tool that can be used in my teaching.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2.</td>
<td>Web 2.0 (such as blogs, wikis) can be used for teaching students how to write.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3.</td>
<td>Social networking sites (such as Facebook, Twitter) are suitable for teaching writing.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4.</td>
<td>Video-link (such as to the connection to Wooster campus) is an appropriate technology to teach writing.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5.</td>
<td>Online corpus (such as COCA) is a tool that teachers should use when teaching writing.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6.</td>
<td>Technologically-advanced equipment (such as smart board, clicker) is readily available for teaching.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>B1.</td>
<td>Technology helps increase my productivity in lesson planning.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Using technology to grade papers (such as using the comment feature in Word) can save me time.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<tr>
<td>2.</td>
<td>I can use technology to access additional teaching materials and resources (such as YouTube videos, textbook publishers’ web sites).</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3.</td>
<td>I prefer to teach without technology.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4.</td>
<td>I don’t have time to incorporate technology in my teaching.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5.</td>
<td>The use of technology doesn’t positively affect the quality of my teaching.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6.</td>
<td>For students, technology makes learning more effective.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>C1.</td>
<td>Students should take advantage of what technology has to offer as much as they can for their learning.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2.</td>
<td>Technology should be used to help students automate class work (such as correcting spelling errors, creating a list of references).</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3.</td>
<td>Students rely too much on technology to complete their schoolwork.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
5. Students sometimes use technology for the wrong purposes (such as texting while in class, checking Facebook on their laptop during lectures).

6. Students should do more paper-and-pencil assignments.

**D1.** Technology is relatively easy to use to teach writing.

2. Technology is generally user friendly.

3. It is easy for me to learn new types of technology.

4. I feel intimidated by technology.

5. I feel uncomfortable when using technology.

6. If there is something wrong with technology, I don’t know how to get help.

**E1.** I consider myself as a tech person.

2. I use technology regularly in teaching.

3. I generally enjoy using technology.

4. I prefer to grade papers as a hard copy.

5. I am concerned about my privacy when using technology.
6. I tend to use more time when using technology.

Demographic information

Gender:

_____ Male    _____ Female

Position in the ESL Composition Program:

_____ GTA    _____ Lecturer    _____ Academic Program Specialist

What degree(s) did you earn?

_____ Bachelor’s    _____ Master’s    _____ Doctorate

How many years have you taught?

_____ 0-5 years    _____ 5-10 years    _____ 10-15 years    _____ 15-20 years

_____ 20-25 years    _____ more than 25 years

Courses that you have taught in the ESL Composition Program:

_____ 106    _____ 107    _____ 108.01

_____ 506    _____ 507    _____ 508

_____ others (please specify _____)

What types of technology do you own?

_____ desktop computer

_____ laptop computer

_____ netbook computer (i.e., lightweight and compact computer)

_____ tablet computer (such as iPad, Kindle Fire, Samsung Galaxy)

_____ smartphone (such as iPhone, Blackberry, Android)

What types of web-based tools have you used in teaching?

_____ blogs

_____ social networking sites (such as Facebook, Twitter)

_____ course management systems (such as e-Course, Moodle)

_____ wikis

_____ video sharing (such as Youtube)

_____ podcasts (either audio or video)
If you have to describe in one word what technology is to you, what word comes to mind? __________

Thank you for your time!
Appendix D: Observational Protocol

Project title: Instructors’ attitudes towards the use of technology in teaching L2 writing at the university level

Time of observation:

Date of observation:

Location:

Observer: Ivan Stefano

Instructor being observed (pseudonym):

Duration: 1 class period (48 minutes)

Number of students:

Technology used during class:

Script:
I appreciate your willingness to participate in the observation. The purposes of the study are (a) to examine how instructors teaching in post-admission university-level L2 writing courses regularly use technology as a pedagogical tool, and (b) to investigate these instructors’ self-report attitudes about technology in their writing programs. In this study, the confidentiality of the participants and the data will be protected. To ensure confidentiality, only pseudonyms will be used in the report. The instructors’ names are never revealed in the dissertation. To maintain confidentiality, the only persons who have access to the data are the researcher (myself) and the Principal Investigator of the study (Dr. Charles Hancock). The data will be stored in a computer that is password-protected. This observation will only last for 1 class period (48 minutes) and field notes will be taken. Do you have any questions?

(If the instructor has questions, I will answer them. If not, I will sit at the back of the classroom to observe)
Technology used during class:
Observational Field Notes

<table>
<thead>
<tr>
<th>Time</th>
<th>Description of activity</th>
<th>Notes</th>
</tr>
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</table>

Appendix E: Sample Interview Transcription

In order to give a complete picture of what took place in the interview, a sample transcription of an interview is included in this appendix. In this sample, the interviewer’s questions and comments are italicized and the interviewee’s responses are in normal font. Some utterances are redacted in order to protect the identity of the interviewee.

Interview with Lin

Researcher: Today I will ask some questions about your attitudes towards the use of technology in teaching second language writing at the university level. Can you talk a little bit about your experience teaching in ESL/EFL contexts?

Lin: I didn’t have much teaching experience in [redacted to protect the identity of the instructor], but in my junior and senior years, I worked as an English tutor. It was not a regular classroom, but I tutored different levels of students. Speaking, writing. I worked with middle school, high school, and college students. And also I was a writing consultant at a private agency where I helped college students with resumes and stuff. Then, after I got here I started teaching in ESL Comp since 2008.

Did your background in teaching writing influence your interest in teaching writing here?

Yeah, I was always interested in literacy, reading and writing back in [redacted]. When I got here, I was hoping that I would get a chance to really teach a class about writing.

What have you taught in this program?

I taught [undergraduate courses] and now I’m teaching [a graduate level course].

In your opinion what are the differences between undergrad and grad?
Undergrads are younger; they’re less mature than the grad students. Sometimes, you need to really let them see why we do certain things in class. A lot of them don’t seem to have an idea of how to write and why writing is required in this context. And when I taught the undergrad courses I felt like I had to teach them the academic way of thinking because when you write a paper you need to think about what sorts of things or information are expected for this particular audience. For the graduate students, they’re experts in their disciplines and they know the content. The course is more about facilitating them with the writing, really the writing itself, the style, the organization. It’s not really about developing idea because they already know what they want to put.

Now, I want to talk about technology. Can you tell me more about background in terms of technology? Your comfort level, your interest, anything related to technology.

I don’t object to technology. I’m pretty familiar with a lot of technology. I started using computers in high school and continue using it afterwards. We’ve had to do emailing and stuff.

Would you say technology is like second nature to you?

Hmmm, yeah, yeah. I don’t like it that much. But I can use it with no problem.

Did you learn how to use the computers? Did it come to you automatically? Did you take any course or training?

I did. My high school offered courses about computers and we had to take exit exams. Then, we got a certificate that proves that we can use computers.

You use technology for both personal and professional purposes, right? What do you think about the use of technology for different purposes, professional and personal?

Personal, I’m not a very tech person. I actually prefer the old ways. I know a lot of people don’t like this. I still use technology, like MSN. I don’t have a Facebook account. I refuse to have one. I use a phone, but not a smartphone.

Do you choose not to have Facebook account? What is the reason?

I feel it’s weird to put little things about you every day on that page and a lot people can see you. It’s just your friends, but your friends’ friends too.

So, you’re not into social networking?

Right. I don’t feel connected to people on that page.
What do you think about other web-based technology, like Web 2.0, such as blogs, wikis. Do you use or read those?

I read other people’s blogs.

What do you think about user-generated Web 2.0? Is it good or bad?

I think it’s good. I think the technology really helps people to say what they really want to say. Before we had the technology, it was difficult to let people what you think and what you are capable of doing. Now, with blogs and wikis, people are able to post their videos or messages. There are a lot of people who want to be writers and post their fiction and short stories online. Many people become fans of the authors.

Do you regularly use technology?

Yes, e-Course and email.

How much do you use technology in your teaching?

For my undergrad course, I almost use 100% electronic. I didn’t request any paper copies; I would send the articles through email. For grad students, I’m moving towards paper based a little bit because they seem to prefer to receive hard-copy feedback. I’m still using e-Course dropboxes to keep record.

What is your impression about educational technology that exists right now, like e-Course, Moodle, smart board, COCA?

I have a pretty positive attitude towards these types of technology. I think they really help with teaching.

Does technology change the way you teach? Does the way you teach influence how you use or adopt technology? Which influences which?

For me, it’s not one influencing the other. It’s finding a midpoint. I know there are these technologies out there and I think they would help so I try to incorporate them in my teaching. Since I don’t have any special training about how to incorporate them, I just stick to my teaching style. I just try to find a midpoint so these two meet in the middle.

Correct me if I’m wrong. You seem to have a pretty positive impression. It’s not something bad, but at the same time it’s not the greatest thing.

For personal use, I don’t think it’s the greatest, but for teaching it’s really very good.

As an instructor, you have your students use e-Course. Do you think the use of technology affects your students’ work or your students’ performance in terms of quality?
I’m not sure but I think if you write in Word, you can revise pretty easily. If you do it on paper, it’s hard, you have to erase it and it could get messy. I think using Word helps them put their thoughts as they flow. They don’t have to think too much. The ideas are out first. Then, they can revise the ideas. If you do it on paper, it’s difficult.

Technology in teaching has benefits and drawbacks. You’ve told me the benefits, but what are the drawbacks in teaching L2 writing?

One drawback that I’ve noticed is when you use track changes in Word to provide feedback. Students sometimes don’t even bother to accept the changes because you already changed it for them.

So, you’re giving too much guidance?

Right. Sometimes I just correct it and they don’t accept that change. They leave it with the red underline. Because of that, I started to not make changes for them. I would just point out what the problem is. I ask a question, highlight instead of making the corrections.

Do you think technology interferes with the classroom interactions between you and your students in class, where they bring their iPhones, iPads, laptops?

I know a lot of teachers don’t like that, but I don’t mind it. If students are using cellphones or iPads, I assume they’re using them for the purpose of the course. I know that a lot of my students do. So, I don’t have a problem with that. And if I see some students using iPhones or iPads for other purposes, I’d think that’s a signal that I’m probably talking about something they’re not interested in. I’ll just make little adjustments and try to pull them back.

Do you have any success story in using technology in class?

It was 2 years ago when I was teaching 107 or 108. I was beginning to teach so I wasn’t very familiar with the expectations of I’m supposed to do. On e-Course, I created a discussion board. My original intent was to encourage students to ask questions about the course, about me, or about any assignment. It turned out that the discussion board became a place where the students were talking with each other questions, personal questions. They became really close, and I felt that the class atmosphere was a lot better.

So it became like a community?

Yes, sometimes the questions were directed to me, but other students would go in and answer the questions. Oh, the teacher said this and you should know that, things like that. That quarter, the atmosphere of the class was really good. The students were familiar
with each other, and they were not hesitant to ask me questions. It kind of shortens the
distance between me and the students and among the students themselves. In class, they
were quiet, but when they were talking online, they were very chatty, they used
emoticons.

*How about a failure in the use of technology while you’re teaching or in your teaching?*

I don’t know if it is a failure, but I always have problems with dropbox on e-Course.
Students keep forgetting to click the submit button and they lose their work and it’s
frustrating. We do the work in the lab and many of them don’t save their work in a
flashdrive. They don’t remember to click the submit button. So, it’s gone. And I’m
supposed to grade the work and I don’t know what to do. The student doesn’t know what
to do either.

*Do you know how to get help or who to contact?*

The thing is this is a pretty simple issue; they just need to remember to click the button.

*How did you resolve the problem?*

I repeatedly remind them in the lab to click the submit button and to check. But I still
have cases like that and I have to ask them to redo the work.

*You’ve been using technology; do you plan to continue using it in the future in your
  teaching?*

Yes

*What do you think educational technology would look like in the future?*

I think we might have more video functions. Students can see me and I can see them.
Not in the same room. We can talk. I don’t have Facebook, but there might be an
educational system where the students can find me instantly or I can find them instantly if
they’re online.

*So, there is no boundary when you can interact with them. Is this bad or good?*

I think it’s pretty good, especially for graduate students. If they have questions about
their disciplinary writing assignments, they can locate me easily. I want to be more
accessible. But I don’t want to use my personal MSN account to do that because it’s
weird.

*What do you think your class would look like without technology?*
Boo kish, a lot of papers, a lot of handouts. Now I’m really used to using the track changes to give feedback. If I had to handwrite feedback, I don’t think I’d be as clear.

The track changes, is it something you depend on?

Yes.

If it was taken away from you?

I don’t want that to happen. I once tried to provide feedback on paper and I wanted to be careful with my wording. I had to erase and it got messy. I also wanted to make sure my handwriting is clear. But with little space on the margin, it’s hard to put down everything I want to say.

Do you have any concerns the use of technology in your teaching?

One reason that I don’t like technology in my personal use is because of privacy issue. But for teaching, I don’t think it’s an issue. I don’t know if all the documents on e-Course would be available to people.

No, it’s a protected site. It’s not searchable on Google.

For teaching, I don’t worry about it too much.

How does technology affect your teaching style and you as a teacher?

Through the use of technology, I want to project this image to students that I’m an up to date person. I know what’s going on. I do what they do. So they don’t feel I’m an ancient person.

Besides e-Course, any other types of technology that you use in your teaching?

For 108, I used the wiki for group projects and brainstorming ideas. Basically, for the lab activities. I liked the functions, but I don’t think it’s user friendly. It was so hard to find all the buttons and where to go. The idea is good though.

How about e-Course in terms of user-friendliness?

Yes, that’s pretty good.

I want to take about students and technology. Do you think students rely too much on technology to complete their schoolwork?

My impression is that they rely too much on technology for their personal lives, not necessarily schoolwork. I thought both undergrad and grad students would be pretty
good at technology for writing. But, they’re not. For example, they don’t really know many of the functions in Word. They don’t know how to count words, how to double space. But, they are familiar with technology other than that.

*Do you think students should do more paper-and-pencil assignments or more paperless assignments for writing?*

For in class short activities, I prefer paper-and-pencil, short activities where they don’t have to write much. It’s more about whether they understood a concept, like a short paraphrase, a short summary. But, they’re writing a complete paper, I prefer a digital version because they can use Word to present something that they have thought through. They don’t have to worry about their handwriting, misspellings, typos.

*Do you encourage them to take advantage of those functions (such as spell checker)?*

I encourage them to take advantage of them, but manually check because Word is not 100% accurate. Especially if they use the reference function, it’s not perfect.

*Do you think social networking sites can be used for teaching?*

I thought about that, but students would use their personal account for educational purposes. I don’t know how I’d handle that. I don’t want to know too much of their personal lives.

*Have you used YouTube?*

No

*Do you think it could be a tool for teaching writing?*

I think it might be a good way to teach presentation. When I taught 108, I thought about using it to ask students to upload videos of presentations they like or they did. Then again, I don’t know how private YouTube is. I know many people are still reluctant to show their faces on the internet.

*How about online corpora like COCA?*

I like it.

*How do you use it?*

I haven’t used it a lot, because I only started teaching 507 last quarter. But I use it for my personal purposes.

*How do you use it for your personal purposes?*
When I’m writing my own papers and I’m not sure about the collocation. Or, when I’m preparing teaching materials and I want to be as precise as possible for the directions.

_Do you think it’s a useful thing for students?_

Yes

_Do you use it this quarter?_

I plan to use it more. But, with corpus, you’re only able to discuss the linguistics part of writing, which is sometimes not the focus of what I teach.

_Do you think corpus is good to teach grammar?_

My first impression would be yes, but what exactly to do. I think for grad students, they need a very advanced level of grammar, which maybe is not searchable.

_Do you encourage your students to use online dictionaries?_

I encourage them to use English-English, but if they don’t use English-English, I think it’s probably they don’t feel comfortable and don’t understand it, so I let them use bilingual dictionaries.

_Are you familiar with technologically-advanced equipment like smartboard?_

The smartboard is really fancy. I’ve never really used it myself, but I took a course where the professor used a smartboard to teach.

_If you were given the opportunity to use it?_

I would definitely want to try.

_How would you use it? How would it change your teaching?_

I think I could make closer connections between different lectures. If I mention something that we discussed earlier, I could pull it out easily without having to find the handouts.

_Have you taught using video link?_

No

_Do you think technology helps with your productivity in planning your classes? In what ways?_
I think so. I really the revision function in Word. When I prepare for teaching, I would first brainstorm what activities I would do in particular day then I can revise and delete certain items. Then, I would have a one-page outline of what I’m going to do. If I do it on paper, I have to cross, erase.

*Going back to track changes, I assume it saves you time. What else are the benefits?*

Now I’ve developed my own system of using it. I have the bubbles on the side where I provide feedback about content. Then, I use the red underlines for organization, such as topic sentence. I use the highlighting function to point out different types of grammar issues. It’s very systematic.

*In addition to your textbooks, do you use the internet to access additional teaching materials?*

The OWL Purdue is one I go to often. Sometimes if I notice certain problems in students writing and I want to develop my own materials, I use Google.

*It seems to me that you have enough time and interest to incorporate technology in your classrooms.*

Yes.

*In terms of the quality of your teaching, does technology positively or negatively affect you or no effect?*

I think it positively affects my teaching, for feedback for instance. I get comments from students very frequently saying they like the way in which I give feedback. I think it’s because I’m able to separate the different types of feedback. With the highlighting, it’s very clear. A lot of my students like the colored highlights because they can see they have 20 word form issues, one article easy. If I do it on paper, it’s hard.

*Your position in this program?*

[Redacted]

*How many years have you taught in total?*

5-6 years.

*In terms of technology that you have?*

I have a laptop and a netbook.

*Do you have any comments about your attitude towards technology?*
I think I have a pretty positive attitude because I started using it early in my own life so I don’t have to learn it. I have the intuition. I know that some people feel that technology is something separate that they have to learn. For me, it’s pretty natural. I’m very interested in the advancement of technology, which I would want to try.

*If something goes wrong with technology in your teaching, how would you feel?*

I won’t panic. I’d just explain to students what happens. It’s technology, I don’t think anybody would expect it would work 100%. We’ll just do something else, next time we’ll go back.

*That means you need to have Plan B. Do you have Plan B’s?*

I don’t always have Plan B’s, but I would test the equipment before I use it. Once I think, it was 108, we were supposed to do presentations. The speaker went wrong. So, the video the students wanted to play had no sound. So we just watched it silently. It was a little awkward.

*Do you think your students are comfortable with technology?*

Yes. But some of them are familiar with e-Course.

*Once you teach them how to use it, do you think they get it quickly?*

Yes. But the problem is they’re still more into the personal side of technology, not for educational.

*Did your students ever complain about you using too much technology?*

No. They like the dropbox for paperless submissions.

*In tutorial, do you use technology?*

I bring my laptop. Then we go over the feedback with the file on the laptop. I don’t make them to bring their paper, but I do ask them to read their paper at least a day before the tutorial. I give a handout where they have to fill in so I know they read their own paper. Then we go through their paper as an electronic form. During the tutorial, sometimes I change my feedback. It’s like a negotiation. I upload my feedback after the tutorial. The handout I give them is for self-assessment. Then we compare notes in tutorial. The technology facilitates discussion.

*Do you think technology determines the course of your teaching? Or is it more you?*

It’s more me using technology, rather than technology directing where I want to go.
For example, if the Word features didn’t exist, you’d have to do something else. In this case, the existence of the technology affects you.

Yes, some of technology enables to do things that I wouldn’t be able to do otherwise.

Thank you for your time.
Appendix F: Sample Observation Data

To provide a glance of the classroom visits, field notes from an interview are presented in this appendix.

Time of observation: 11:30 am
Date of observation: May 18, 2012
Location: Stillman 235
Observer: Ivan Stefano
Instructor being observed (pseudonym): Matt
Duration: 1 class period (48 minutes)
Number of students: 20
Technology used during class: YouTube, e-Course, PC, projector

Script:
I appreciate your willingness to participate in the observation. The purposes of the study are (a) to examine how instructors teaching in post-admission university-level L2 writing courses regularly use technology as a pedagogical tool, and (b) to investigate these instructors’ self-report attitudes about technology in their writing programs. In this study, the confidentiality of the participants and the data will be protected. To ensure confidentiality, only pseudonyms will be used in the report. The instructors’ names are never revealed in the dissertation. To maintain confidentiality, the only persons who have access to the data are the researcher (myself) and the Principal Investigator of the study (Dr. Charles Hancock). The data will be stored in a computer that is password-protected. This observation will only last for 1 class period (48 minutes) and field notes will be taken. Do you have any questions?

[The instructor did not have any questions]
### Observational Fieldnotes

<table>
<thead>
<tr>
<th>Time</th>
<th>Description of activity</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>11:35</td>
<td>Teacher prepares a YouTube clip</td>
<td></td>
</tr>
<tr>
<td>11:36</td>
<td>Teacher introduces a speech from Ellen DeGeneres. This is for the critical review assignment. Students could compare it with an earlier speech by Denzel Washington.</td>
<td>Commencement speech at Tulane University. YouTube clip is paused on the screen.</td>
</tr>
<tr>
<td>11:37</td>
<td>Teacher explains who Ellen DeGeneres is and her background. He says she is a talk show host and her speech will have humor, slang, and idiomatic expressions.</td>
<td>Warm-up activity.</td>
</tr>
<tr>
<td>11:39</td>
<td>Teacher uses the speech’s transcript to explain a few expressions (e.g., hungover, fat Tuesday, Mardi Gras). He talks about Mardi Gras and says that Ellen is from New Orleans. He uses Easter and Lent references to explain Mardi Gras. A student asks what Lent and Mardi Gras are. The teacher explains what they are.</td>
<td>Cultural information is given. Teacher is very informative about the cultural references used in the speech.</td>
</tr>
<tr>
<td>11:45</td>
<td>Teacher says Ellen will make jokes about the word “commencement”</td>
<td>Ellen calls it “common cement”.</td>
</tr>
<tr>
<td>11:47</td>
<td>Teacher puts vocabulary on the board: commencement, school of hard knocks, stand up, Portia, be true to yourself.</td>
<td>Teacher explains every one of those expressions and makes connections to American culture.</td>
</tr>
<tr>
<td>Time</td>
<td>Event</td>
<td>Additional Information</td>
</tr>
<tr>
<td>-------</td>
<td>----------------------------------------------------------------------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>11:54</td>
<td>A student asks why Ellen was chosen for the commencement even though she isn't an academic person. Teacher explains that it's because she's an example of a successful person who went through struggles and overcame them.</td>
<td>More background information about Ellen is given.</td>
</tr>
<tr>
<td>11:55</td>
<td>Teacher asks the students to write a summary of the speech by Monday.</td>
<td>He refers to the course packet.</td>
</tr>
<tr>
<td>11:56</td>
<td>Teacher plays the YouTube clip.</td>
<td>Clip is shown on the screen with audio.</td>
</tr>
<tr>
<td>12:09</td>
<td>On the clip, Ellen dances to the song &quot;Just Dance.&quot; Teacher points out that she dances every day in beginning of her show.</td>
<td>Interesting trivia.</td>
</tr>
<tr>
<td>12:14</td>
<td>Teacher stops the video and directs students to download the speech transcript from e-Course.</td>
<td></td>
</tr>
<tr>
<td>12:15</td>
<td>Referring to Ellen’s speech, a student asks what “hold down 20 shots of tequila” means. Teacher explains what it means.</td>
<td>Another explanation on Ellen’s expression.</td>
</tr>
<tr>
<td>12:16</td>
<td>Another student asks what “groupies” means. Teacher explains.</td>
<td></td>
</tr>
<tr>
<td>12:18</td>
<td>He reminds students to write a summary of the speech and to contact him if they have questions.</td>
<td>Class ends.</td>
</tr>
</tbody>
</table>