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Maha Alawdat

Indiana University of Pennsylvania

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A QUALITATIVE CASE STUDY EXPLORING THE IMPLEMENTATION OF
EPORTFOLIOS BY WRITING TEACHERS IN PASSHE SCHOOLS

A Dissertation

Submitted to the School of Graduate Studies and Research

in Partial Fulfillment of the

Requirements for the Degree

Doctor of Philosophy

Maha Alawdat

Indiana University of Pennsylvania

May 2015

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Indiana University of Pennsylvania
School of Graduate Studies and Research
Department of English

We hereby approve the dissertation of

Maha Alawdat

Candidate for the degree of Doctor of Philosophy

Gian S. Pagnucci, Ph.D.
Distinguished University Professor, Advisor

Gloria Park, Ph.D.
Associate Professor of English

Bryna Siegel Finer, Ph.D.
Assistant Professor of English

ACCEPTED

Randy L. Martin, Ph.D.
Dean
School of Graduate Studies and Research

Title: A Qualitative Case Study Exploring the Implementation of ePortfolios by Writing Teachers in PASSHE Schools

Author: Maha Alawdat

Dissertation Chair: Dr. Gian S. Pagnucci

Dissertation Committee Members: Dr. Gloria Park
Dr. Bryna Siegel Finer

This qualitative case study explores the implementation of ePortfolios by writing teachers in Pennsylvania State System of Higher Education (PASSHE) schools. A constructivist approach is used as a theoretical framework for designing the study and for understanding the function of ePortfolios in writing classes. This exploration of the use of ePortfolios for teaching and assessing writing examines the emerging benefits and challenges of its use in writing classes. The study further explores the experiences of writing teachers with using ePortfolios for assessment.

The study is based on the results of seventy-nine surveys and seven interviews. The collected data is analyzed using a coding system and NVivo qualitative data analysis software. The results of the study demonstrate the importance of providing writing teachers with professional training on the use of ePortfolios in their teaching practice in order to decrease resistance among these teachers. The data further indicates the benefits of retaining a single software for using ePortfolios, rather than switching to new software after users have gained expertise in its implementation and use. Also, analysis of the data pointed to the importance of having shared syllabi and writing assignments. These strategies are shown to be effective for developing ePortfolio ownership among students, and raising awareness of the value and purpose of using

ePortfolios for writing and assessment. Collectively, writing teachers use ePortfolios to track their students' writing progress and to engage in effective communication, provide feedback, and display artifacts for assessment.

After exploring the implementation of ePortfolios by writing teachers in PASSHE schools, there is a need to conduct studies to explore the use of ePortfolios in the following areas:

- The use of ePortfolios for learners with disabilities to examine if ePortfolios support their learning and the methods teachers would use to help this student population.
- The use of ePortfolios in literature courses to explore students and teachers experience with ePortfolios, types of assignments, and how to overcome emerging challenges.
- The use of ePortfolios in some programs such as M.A. TESOL and Composition and TESOL (C&T) in the English department as alternative tool to the C&T paper-based Qualitative Portfolios and as alternative to the M.A. TESOL non-thesis track.
- The use of ePortfolios to evaluate general education where students' paper-based portfolios are used to evaluate certain programs in the English department.

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CHAPTER I

INTRODUCTION

The Purpose of the Study

The purpose of this qualitative case study was to explore the use of ePortfolios by writing teachers in the English Departments of the Pennsylvania State System of Higher Education (PASSHE). The goals were to explore the benefits and challenges of using ePortfolios and the experiences of writing teachers with assessing ePortfolios. To achieve these goals, I collected data through surveys and interviews from PASSHE writing teachers to provide an in-depth understanding of using ePortfolios to teach and assess writing. The data were mainly analyzed by using a thematic coding system and NVivo qualitative data analysis software to code the collected data.

With this in mind, the following sections present the statement of the problem from which the research questions emerged. I then discuss the methodological approach I used and the rationale of the study. Following this, I provide background information on paper-based portfolios and ePortfolios, as well as providing a short historical summary on the use of paper-based and electronic portfolios in higher education. I finally end this chapter with the significance and the organization of the study.

Statement of the Problem

The use of ePortfolios has rapidly spread to support writing, assessment, and various pedagogical purposes. Despite their popularity in higher education, including technology and business Departments, the use of ePortfolios lacks studies about their use for teaching writing in English Departments. Little research has also explored their benefits and challenges, and experiences of writing teachers with using ePortfolios for assessment.

Many researchers (Barrett, 2008b; Batson, 2011; Cambridge, 2010; Chau & Cheng, 2010; Gebric, Lewis, & Amin, 2011; Johnsen, 2012; Jones & Shelton, 2006; Yancey, 2009) described the premise and the benefits of using ePortfolios for recording and supporting student learning. Using ePortfolios helped students present and share their artifacts with a wider audience and for various purposes. Teachers also exchanged teaching ideas with colleagues for the purpose of feedback, collaboration, and program assessment.

Several other researchers (Barrett, 2006; Baturay & Daloğlu, 2010; Chang, Liang, & Chen, 2013; Genc & Tinmaz, 2010; Hackman & Alsbury, 2005; Hung, 2009; Levin & Wadmany, 2006; Lowenthal, White, & Cooley, 2011; Mostafa, 2011; Shada, Kelly, Cox, & Malik, 2011; Wills & Rice, 2013) described ePortfolios as alternative assessment tools to paper-pen testing. Using ePortfolios for assessment gave learners the opportunity to assess their writing, track their self-development over time, and reflect on their learning experiences for future use. In addition, ePortfolios were associated with evaluating departmental writing programs in connection with educational standards of the university or the state (Lorenzo & Ittelson, 2005; Wilkerson & Lang, 2003).

Yet virtually no studies examined the use of ePortfolios for teaching writing in PASSHE English Departments where a bounded system of educational policies and standards were similar. Also, of the studies that were done, most focused on the use of ePortfolios in Education Departments for the purpose of assessment. The lack of studies on the use of ePortfolios for teaching writing in English Departments was the reason for conducting this study. Another reason was to respond to the needs of writing teachers who were eager to gain essential knowledge about using ePortfolios for writing and/or to be used in their writing classes.

Research Questions and Methodological Approach

To minimize the gap in literature and compensate for the lack of studies about the use of ePortfolios to teach writing in PASSHE English Departments, this study has addressed the following research questions:

- How do writing teachers implement ePortfolios to teach writing in PASSHE English Departments?
- What benefits and challenges are apparent when writing teachers use ePortfolios to teach and assess writing?
- What experiences do writing teachers have while assessing ePortfolios?

To answer these questions and achieve the goals of this dissertation, I used a qualitative case study and constructivist approach, exploring the use of ePortfolios for teaching writing, the emerging benefits and challenges, and experiences of individual writing teachers with assessing ePortfolios.

Using qualitative research, as I discuss in Chapter III, provided a variety of interpretations through using multiple methods of data collection such as surveys, interviews, and documents (Bloomberg & Volpe, 2012; Creswell, 2013; Simons, 2009; Yin, 2009). These methods provided useful findings for those who were involved in the study and those who sought to expand their knowledge of ePortfolios. Along with the qualitative case study, a constructivist approach was used.

Social Constructivist Approach in Composition

This study uses a social constructivist theoretical framework to explore the use of ePortfolios for teaching writing. By definition, the social constructivist approach is a theory of knowledge and learning that focuses on how one comes to know (Fosnot,

1996). Social constructivism, according to Yost (2003), “holds that knowledge develops as a group of people interact in meaningful and original discussion on a topic” (p. 82).

A number of composition scholars connect the social constructivist approach to the teaching of writing (Bruffee, 1986; Berlin, 2007; Elbow, 1971). Bruffee (1986) stated that “social constructivist work in composition is based on the assumption that writing is primarily a social act” (p. 784). That is, writing creates a type of social belonging within one’s community and with other communities to which the writer does yet not belong. In applying Bruffee’s idea to ePortfolios use, we might view a community as an English Department. In departments which require their teachers to use ePortfolios, the ePortfolio use creates a common link among teachers. It further constructs their social membership in the community.

Bruffee (1986) explained that social constructionism is understanding “reality, knowledge, thoughts, facts, texts, selves, and so on a community-generated and community-maintained linguistic entities—or, more broadly speaking, symbolic entities” (p. 774). Bruffee’s ideas makes many of the goals teachers describe about using ePortfolios for teaching writing.

The difference between social constructionist and social constructivist is explained in Steffe and Gale’s (1995) *Constructivism in Education*. Steffe and Gale (1995) pointed out that modern constructivism finds that both approaches have similar principles. Robbins (2003) indicated that “Both constructionism and constructivism share in their critique of the empiricist paradigm of knowledge generation.... Rather, each challenges the traditional view of the individual mind as a device for reflecting the character and conditions of an independent world” (p. 56). Yet they stated that while

constructionism focuses on social context, constructivist focuses on the learner in the social context. Gergen (1995) who best described the differences between the two approaches, wrote,

Social constructionism places the human relationship in the foreground, that is, the patterns of interdependent action....Thus, the constructionist is centrally concerned with such matters as negotiation, cooperation, conflict, rhetoric, ritual, roles, social scenarios. In contrast, Vygotsky is centrally a psychologist. Although social process does play an important role in the theory, psychological process occupies the foreground. (pp. 24-25)

In response to these two approaches, social constructivism is selected as a term to be used in this study even if other scholars, like Bruffee, use social constructionism. The reason for using the social constructivist approach is because it is based on collaboration among learners in a social context. As writing teachers learn to use ePortfolios, they often collaborate with each other and with other facilitators to implement the ePortfolio tool into their classes. Teachers may also have students collaborate with their classmates while writing and rewriting essays that they post in their ePortfolios. Such work aligns with the social constructivist approach. When teachers or students base their learning on collaboration with other learners, they are constructing meaning together socially (Vygotsky, 1978). In the spirit of social constructivism, Batson (2002) described how students became active participants through ePortfolio learning rather than passive recipients of knowledge. The students in Batson's study constructed knowledge together socially.

Thus one can argue that social constructivist approach, which is based on the social context of meaningful learning, supports the use of ePortfolios in education. ePortfolios can play an important role in meeting the goals of the social constructivist approach to encourage socially based learning.

The use of ePortfolios requires teachers and their students to engage with the culture of digital literacy. This can be very challenging for teachers and students. However, by working together to understand how to make use of ePortfolios for their learning needs, teachers and students can construct meaning out of this new form of literacy. Thus the social constructivist approach is useful for understanding how teachers and their students are able to navigate the use of digital literacy as they work to master ePortfolio tools.

This study therefore uses a social constructivist lens to examine how writing teachers implemented ePortfolios for writing as well as the challenges the teachers faced and the solutions they found to those challenges.

Rationale of the Study

Universities in the United States and all over the world have already started to use ePortfolios for writing and assessment purposes (Chang, Tseng, Yueh, & Lin, 2011; Greene & Ferrell, 2006, 2007). Pullman (2002) explained that some universities used ePortfolios to assess students' artifacts as a requirement for enrollment in English programs and to promote writing as an ongoing process rather than using a one-time essay, which seemed to be a superficial way of earning a grade (Pullman, 2002). In some PASSHE schools, which provide high quality education and offer a range of lifelong learning opportunities, some writing teachers used ePortfolios in writing courses.

The rationale for conducting this study, therefore, was based on the fact that Pennsylvania houses my English Department at Indiana University of Pennsylvania (IUP), where ePortfolios have not yet been fully implemented for teaching writing. This study could provide helpful information about how writing teachers elsewhere use ePortfolios for writing, the purposes for which they use them, their benefits, and the challenges they might expect to tackle.

Another issue was that this research also provides an explanation of how writing teachers use ePortfolios for teaching writing and assessing artifacts in order to make the transition to ePortfolios much easier. In other words, making a transition from paper-based portfolios to ePortfolios does not exclude the traditional processes of teaching writing, but integrates ePortfolios to promote writing. As Jafari and Kaufman (2004) and Houston (2011) asserted, ePortfolios will always be successful tools and will have a significant role in higher education because they are evolving technological tools that will continue to be in demand due to the increased use of computers and Internet in classes.

Background Information About Paper-based Portfolios and ePortfolios

This section provides information about paper-based portfolios and ePortfolios. The section also defines them and provides information on their benefits, limitations, and uses. The aim of providing background information is to contextualize the use of ePortfolios in published literature and to familiarize the reader of this study with the concept and functionality of ePortfolios as examined in other studies.

Definition of Portfolios

A portfolio, known as a paper-based portfolio, pen/paper portfolios, print portfolio, or a traditional portfolio, is a collection of evidence showing student progress

over a period of time. The evidence contains samples of writing, research projects, observations and evaluations of supervisors, and reflective writing.

In contrast, an ePortfolio, known as electronic portfolio, efolio, web-based portfolios, and technology-based portfolio, is an electronic collection of artifacts that includes written texts, audios, videos, and images to showcase, assess, and track student learning progress (Abrami & Barrett, 2005; Barrett, 2010; Cambridge, 2010; Yancey, 2001b). MacDonald, Liu, Lowell, Tsai, and Lohr (2004) defined ePortfolios as “multimedia environments that display artefacts and reflections documenting professional growth and competencies” (p. 1). Lane (2009) also defined ePortfolios by stating that

There are several popular definitions of eportfolios. In technical terms, “an eportfolio is a digitalized collection of artifacts including demonstrations, resources, and accomplishments that represent an individual, group, or institution” (Lorenzo & Ittelson, 2005). More basically, an eportfolio consists of “evidence of curricular and cocurricular achievement and reflection” (Johnson & DiBiase, 2004). (p. 150, as appears in original)

Additionally, Kimball (2005) approached portfolios from a postmodernist perspective in terms of product, purpose, and pedagogy. He stated that there was no single definition of portfolios, and that many people disagreed on what portfolios were or were not. This disagreement appeared because “in so many different contexts...it would be difficult to find two programs with identical approaches” (p. 436). In other words, there are different types of computer software and writing approaches that serve the same purpose as using portfolios to improve and enhance pedagogical practices.

According to these definitions, many researchers find noticeable differences between paper-based portfolios and ePortfolios (Elbow & Belanoff, 1997; Kress, 2003). For example, paper-based portfolios require a linear organization that enables the user to flip through the pages one by one. In contrast, ePortfolios are designed to access several links and hypertexts. Such organization creates diversity of conceptualization and textual understanding based on the purpose of using ePortfolios. Also, the medium for showcasing, organizing, and presenting ePortfolios is different due to the use of multimedia programs, audio/video recording, word processing software, CD-ROM, and hypermedia links (Barrett, 2010). Kress (2003) argued that using new media makes it easier to include various modes such as images, audios, and videos that “are governed by distinct logics [which] change not only the deeper meanings of textual forms but also the structures of ideas, of conceptual arrangements, and of the structures of our knowledge” (p. 16). Despite their differences, paper-based and electronic portfolios do share some characteristics in terms of collecting artifacts and setting up purposes and uses.

Purposes of Using ePortfolios

Paper-based and electronic portfolios are used for various purposes such as writing, assessment, professional development, and job applications to be presented to various audiences such as teachers, administrators, and employers. Along with these purposes, many researchers (Abrami & Barrett, 2005; Smith & Tillema, 2003; Zeichner & Wray, 2001) highlighted several uses of portfolios in writing classes. The first was using portfolios to track and tell the story of students’ learning and to foster the development of their writing process and products over a period of time (Abrami & Barrett, 2005; Greenburg, 2004; Smith & Tillema, 2003). Yancey (2009) mentioned that

“writing portfolios allow composers to document learning processes as well as products and, through a reflective text, to comment on any number of related topics” (p. 114).

Another purpose was to showcase students’ achievements while studying or applying for jobs (Abrami & Barrett, 2005; Zeichner & Wray, 2001). A final purpose was assessment to evaluate students’ work (Abrami & Barrett, 2005).

In essence, both paper-based portfolios and ePortfolios are based on a purposeful use of assessment, learning process and outcome, reflection, showcasing, and presentation. The organization and display of content become more flexible with ePortfolios so that viewers can browse information and communicate with the student writer. When learners use hyperlinks to organize artifacts in ePortfolios, they create an understanding of which artifacts to compile, how to use ePortfolios for assessment, and how to reflect on their writing and learning process.

Benefits of Using ePortfolios

Many researchers (Alawdat, 2013; Barrett, 2005b; Heath, 2004; Strudler & Wetzel, 2005; Yancey, 2009) discussed different advantages of using ePortfolios. Yancey (2009), for example, indicated that the use of ePortfolios “expands in three ways: (1) in terms of kinds of texts (image, audio, video, alphabetic); (2) in terms of contexts, given the availability of an almost infinite number of contexts on the Web; and thus also (3) in terms of potential audiences” (p. 110, as appears in original). Likewise, Alawdat (2013) pointed out that “e-portfolios have more benefits than paper-based portfolios” (p. 346) and provided a comparison between them to highlight their merits (See Figure 1).

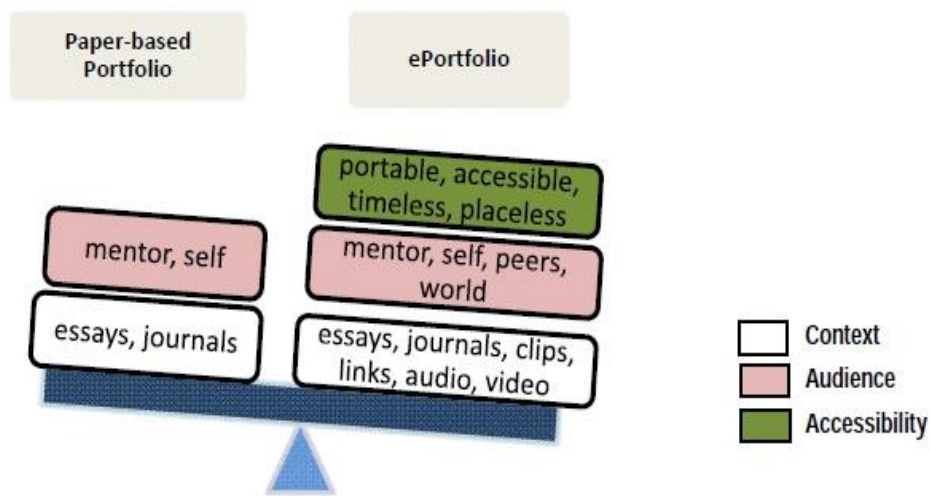


Figure 1. Comparison between paper-based portfolios and ePortfolios. Adapted from “ePortfolios and ESL learners” by M. Alawdat, 2013, *US-China Education Review*, 3, p. 345. Copyright 2013 by *US-China Education Review*. Adapted with permission.

Figure 1 shows that context, audience, and online access are three main elements to compare when considering differences between paper-based portfolios and ePortfolios. Alawdat (2013) explained that, unlike the paper-based portfolios, ePortfolios enable a wider audience to view students’ work which includes a variety of artifacts that are not limited to essays and journals.

As also shown in Figure 1, accessing online artifacts makes it an addition reason for preferring the use of ePortfolios. That is, owners of ePortfolios can have online access from any place and at any time to edit and/or add new artifacts because of the ePortfolio portable, timeless and placeless nature. In connection to Figure 1, there are other benefits to using ePortfolios.

- Using ePortfolios makes it possible for users to receive support and guidance throughout their learning process, share ideas with peers, develop writing courses, and enhance reflective writing. This functionality of ePortfolios

enables collaboration and support among teachers and students. Wolf and Dietz (1998) pointed out that “a portfolio is a structured collection of teacher and learner work created across diverse contexts over time, framed by reflection and enriched through collaboration that has its ultimate aim for the advancement of teacher and learner learning” (p. 13).

- Using ePortfolios for writing and assessment helps students to have focused ideas and to document their writing progress and self-development over time (Abrami & Barrett, 2005).
- Using ePortfolios instead of paper-based portfolios provides electronic storage space for many professional documents. Such electronically stored documents make it easier for teachers to access ePortfolios any time because they are more portable and accessible than paper-based portfolios which require physical storage space. Tosh, Werdmuller, Chen, Light, and Haywood (2006) indicated that lower costs and higher capacity of memory storage “increased the opportunity and potential of electronic portfolios (ePortfolios) to support student learning in a variety of courses, environments, and experiences, both inside and outside the classroom” (p. 25).
- Compared to paper-based portfolios, ePortfolios have the capability of recording related information, organizing content through hyperlinks, and displaying artifacts to a wider audience (Abrami & Barrett, 2005; Barrett & Garrett, 2009; Lorenzo & Ittelson, 2005; Wetzel and Strudler, 2006).
- The final benefit is the escalation of digital knowledge and skills while using ePortfolios to help cope with the rapid development of technology within

educational contexts. When learners become technologically skilled, integrating technology becomes easier for learners (Barrett, 2008b).

Thus, with greater benefits over the paper-based portfolios in terms of access, storage, interactivity, and functionality, ePortfolios have become more widespread in higher education, except in places with limited resources (Chou & Chen, 2009; Seldin, 2004). Despite their popularity and benefits, ePortfolios create some problems for users.

Challenges and Limitations of Using ePortfolios

Some researchers (Abrami & Barrett, 2005; Cambridge, 2010; Yancey, 2001b, 2009) recognized the benefits of using ePortfolios for writing and assessment. Yet other researchers (McKinney, 1998; Stone, 1998; Wetzel & Strudler 2006; Zeichner & Wray, 2001) discussed some potential challenges and limitations while using paper-based portfolios and ePortfolios. These researchers pointed out that paper-based portfolios had several limitations such as storage, maintenance, and accessibility (McKinney, 1998; Stone, 1998). When teachers collected students' paper-based portfolios for assessment, many portfolios were printed out and compiled in three-ring binders that needed space to be stored. Storage, maintenance, and accessibility became a problem that was solved by using ePortfolios. Yet, using ePortfolios also had challenges as listed below:

- Vague objectives, for example, hindered teachers' and students' use of ePortfolios because they became confused about their choice of artifacts, software, and the merits of using them for writing. Zeichner and Wray (2001) indicated that students "are understandably most concerned about the uses of their portfolios as aids in gaining employment while...educators are most concerned about using portfolios to promote professional development and to

make assessments” (p. 618). The conflicting goals of teachers and students created a limitation in the use of portfolios in writing classes where the directions and objectives were not clearly explained to learners.

- Lack of experience in writing reflective digital literacy hindered the use of ePortfolios. Lyngsnes (2012) argued that reflection “is essential to identifying, analyzing, and solving the complex problems and challenges teachers face in their profession” (p. 7). Teachers should have trained their students to reflect and connect their written texts while using ePortfolios. Students who had little or no academic experience with reflective digital literacy faced a problem because ePortfolios were not only used to collect artifacts, but rather to reflect on writing and to track writing and learning progress.
- Using ePortfolios was time-consuming and this became a problem while working with them. Wetzel and Strudler (2006) identified this disadvantage as an issue that hindered the use of ePortfolios especially when learners lacked some technical skills that did not let them work easily with ePortfolios.
- Finally, using suitable ePortfolio software was a challenge for some writing teachers and there is a need to choose a software that could be easily used by everyone. Strudler and Wetzel (2006) argued that it was important for teachers to understand the process of developing ePortfolios and the complexity of teaching and learning.

Despite these challenges and problems, many researchers provided potential solutions and suggestions for them (Barrett, 2005a; Orland-Barak, 2005; Smith & Tillema, 2003; Zeichner & Wray, 2001). The researchers recommended providing clear

guidelines and course objectives while explaining the concept of ePortfolios and their usage. They also suggested that teachers train students to critically reflect on their writing in order to understand the value of reflection for learning and self-development. In a study on the use of paper-based portfolios in Israel, for example, Orland-Barak's (2005) concern was to move from simple description and a clear conclusion "towards providing teacher educators with a clearer sense of specific quality of reflection associated with portfolio use" (p. 25).

As a researcher, I do not argue that ePortfolios are definitely the ultimate tools for teaching writing. They are alternative options to paper-based portfolios due to the many benefits explained above. Still, there is a need to explore the use of ePortfolios to teach and assess writing in English departments. To further understand the shift to ePortfolios, the following section provides a brief historical background on the use of ePortfolios.

Brief Historical Development of Using ePortfolios

Since the 1980s, paper-based portfolios have been used more and more in college writing classes to address the need for alternative assessment and writing tools in higher education (Barrett, 2005a; Lyons, 1998). While the original aim of using paper-based portfolios was to record accomplishment in order to obtain a promotion or a new job, higher education used portfolios to track students' progress and development over a period of time. Seldin (2004) pointed out that more than "2,000 colleges and universities in the United States and Canada...are now using or experimenting with portfolios" (p. 4). Seldin (2004) also reported that portfolios have become "a world-wide movement" and have reached many locations such as "Australia, Kenya, England, South Africa, Finland, Israel, and Malaysia" (p. 4). This increased reputation and wide-spread use of portfolios

for writing and assessment in many places around the world was the result of the development of technology and the use of computers and Internet in higher education.

Today, higher education faces a new era in the use of ePortfolios to teach and assess writing. Integrating ePortfolio technology into writing classes gave flexibility and dynamicity to these classes. These qualities were able to accommodate new writing ideas by adopting ePortfolios which permitted continuous addition of artifacts (Barrett, 2006, 2008a; Kress, 2003; Yancey, 2009). Kress (2003), for example, observed a rising dependence on the use of images and multimodality while shifting from paper-based portfolios to ePortfolios. Looking at ePortfolios as multimodal tools, Murray (2013) further explained that multimodality refers to the use of several writing modes to create an artifact which may include a combination of texts, images, audio, and videos. The combination of several modes of writing grew gradually as a result of integrating technology into higher education. Yancey (2009) explained that writing teachers witnessed three remarkable shifts in their teaching and assessment practices. She stated that writing teachers moved from:

- (1) the assignment and review of a single, finished print text to
- (2) the review of multiple print texts, including drafts of finished texts, inside a portfolio to
- (3) the review of multiple kinds of (sometimes print and) digital texts linking work inside school to work outside school and linking composers and texts to multiple contexts and audiences. (p. 111, as appears in original)

Yancey (2009) explained that these changes, which determined communication between teachers and students, had been multiplied to include other students, teachers,

administrators, and external audiences. In terms of Yancey's (2009) clarification, researchers such as Barrett (2008a), Cambridge (2010), and Elbow and Belanoff (1997) added that when ePortfolios became popular tools in writing classes, teachers became facilitators who helped and guided students to select their artifacts for assessment.

Significance and Contribution of the Study

In this study, exploring how writing teachers used ePortfolios to teach writing was significant for three reasons:

First, the study's best contribution to the field of composition was to lay a foundation for future research by exploring the combined disciplines of technology and writing through the use of ePortfolios for teaching writing. These disciplines had not been explored together previously in PASSHE schools.

Second, the study not only provided an explanation of using ePortfolios for writing and assessment, but it also examined the experiences of writing teachers about their use of ePortfolios. There is a lack of studies about the use of ePortfolios in a bounded system like the PASSHE schools. This study should thus enrich the current literature with examples and methods from writing teachers, who are part of this system, to be used by other teachers as part of their pedagogy and writing development.

This study also contributed to an awareness of online writing pedagogy (Barrett, 2006; Kress, 2003). Writing was no longer limited to a certain audience, but it expanded to a wider readership on the Web. Yet writing teachers and students could decide if artifacts compiled for writing courses were limited to the classroom environment or were suitable for online writing. The study's contribution further raised the importance of

using online pedagogy to determine changes in traditional writing classes. Such changes might enhance writing skills to suit the digital era and develop writing and assessment.

Additionally, this study contributed to an awareness of composition teachers about theorizing the social constructivist approach while using ePortfolios for writing and assessment in writing classes and how social constructivism could move the use of ePortfolios into the areas of teaching.

Finally, this study was significant for assessment purposes. Understanding how writing teachers move from a traditional assessment system to using ePortfolios as an assessment tool might help teachers to make decisions about using ePortfolios as an assessment system.

Organization of the Dissertation

This dissertation has a linear systematic design that enables readers to easily follow each chapter according to the order of the research questions. Each chapter had three main sections that also aligned with the research questions and with other chapters. That is, the three sections in Chapter II parallel with the order of the research questions and with the three main sections in Chapters IV and V. The aim of this design was to allow the reader to easily follow each question throughout the study in a linear mode.

In Chapter I, I established the purpose of the study, the research questions, and the significance of the study and its contribution to the field. I also established the foundation of this study by grounding it within a brief literature about social constructivist approach in composition and within the literature about benefits, purposes, and differences between paper-based portfolios and ePortfolios.

Chapter II explored the studies that had already examined the use of ePortfolios for teaching and assessing ePortfolio writing. I also explored studies that described the affordances, challenges, and constraints that writing teachers face when using ePortfolios. Additionally, I reviewed studies on the methods and strategies that teachers use to teach and assess writing.

Chapter III described the methodological framework I took to explore how ePortfolios were used for teaching writing. I introduced my research methodology, which focused on my reasons for using qualitative research, case study methodology, and a constructivist approach. I then described my positionality as a teacher-scholar in terms of being a user of technology, a teacher, and a researcher. This chapter also provided a description of the participants and the methods used to collect data as well as the research context. Following this, I provided a description of the study limitations and the disruption challenges while designing and collecting data. This section was designed to align with the stages of data collection and included an explanation of the purposes of using each method and a description of sites and prospective participants. I also described the process of data analysis, which included thematic analysis and a coding system using NVivo qualitative data analysis software. Finally, I explained trustworthiness of the data and the ethical considerations used in conducting this study.

Chapter IV started with a description of different ePortfolio software used by the interviewees in their writing classes in order to clarify the concept of ePortfolios from the collected data. This chapter also provided the Professors' definition of ePortfolios in order to align these with the definition of ePortfolios provided in published studies. The chapter was divided into three major sections that presented data from the survey

respondents and the interviewees. For each of the sections, different subtitles were provided to help organize the collected data covering each of the research questions. In this chapter, the collected data was also presented and organized to align with the research questions and the literature review.

Chapter V started with differentiating ePortfolios from the learning management system used in schools to provide a distinction between ePortfolios as a learning management system and ePortfolios as a tool for teaching writing. The chapter was then divided into three main sections, which aligned with the research questions, the literature review, and the collected data in Chapter IV to include a thorough discussion and analysis of the findings. This chapter answered my research questions using a coding system and thematic analysis which were based on feedback and experiences of the survey respondents and the seven interviewees as well as a conversation between the collected data and the already published studies in the field of composition.

Chapter VI provided an overview of the research findings, implications, and future research. The aim of this chapter was to provide opportunities and suggestions for other researchers to explore and examine the use of ePortfolios in other contexts and disciplines. Readers can get an overview of the study and for other studies and, thus close the chain of this dissertation.

CHAPTER II

REVIEW OF RELATED LITERATURE

As presented in Chapter I, there have been many studies which examine the use of ePortfolios in education departments, whereas only a limited number of studies examine the use of ePortfolios for teaching writing in English departments. Very few have been conducted in PASSHE schools. Thus, this exploration of the use of ePortfolios for teaching writing is designed to add to the literature in the field about a bounded system such as the PASSHE schools.

To contextualize this research in the already published literature, I carefully selected and focused on relevant studies to support the aim of this research. While collecting and categorizing the previously published studies, I noticed this lack of studies that dealt specifically with using ePortfolios to teach writing in English writing classes. I also noticed a clear lack of studies on ePortfolios in English Departments at PASSHE schools. At the beginning of this study, this lack was a huge concern for me. Fortunately, I did find a few studies about ePortfolios in PASSHE Departments of Education where English Education was part of them. To compensate for this shortage in the field, I turned to some relevant studies in Departments of English Education where ePortfolios were implemented and studied to teach English. I was also fortunate that there were many studies on using ePortfolios for assessment.

In order to explore the context of the current study and the purpose for conducting this research, this chapter begins with a presentation of relevant literature on research findings relating to the use of ePortfolios for teaching writing. This leads to a discussion and exploration of some benefits and purposes which facilitate the use of ePortfolios, and

emerging challenges identified in the current literature. Finally, this chapter explores types of assessment and the experiences of writing teachers with using ePortfolios for assessment purposes in order to understand the kinds of strategies that are suitable for use with ePortfolios in writing classes. Together, these topics are included in the review of relevant literature, setting forth a framework for this study.

Implementing ePortfolios to Teach Writing

Studies in the field have shown that there has been a transition from paper-based portfolios to ePortfolios due to the physical burden of using printed materials, both in terms of maintenance and of storage (Barrett, 2005a; Fournier & Lane, 2006; Pullman, 2002; Yancey, 2001b). Although implementation and use of ePortfolios seems easy, it requires a great deal of commitment from writing teachers. In this segment of my study, therefore, I review the scholarly research on the use of ePortfolios, including strategies used, teachers' involvement in using them to enhance writing, and other factors related to their implementation (Barrett, 2005b, 2008a; Berry & Griffith, 2013; Chang, Tseng, Yueh, & Lin, 2011; Joyes, Gray, & Hartnell-Young, 2009; Yancey, 2009).

Strategies for Using ePortfolios to Teach Writing

To better explore how writing teachers use ePortfolios for teaching writing, Pullman (2002) conducted a pilot study in rhetoric and advanced composition classes in the English department of an urban university in the southeastern part of the United States. The researcher described the growth in the use of ePortfolios as an acceptable requirement for writing and as "one preferable to a standardized test" (p. 159). In other words, using ePortfolios became an alternative assessment tool to paper-pen testing. In his pilot study, Pullman (2002) started by using ePortfolios for only one Rhetoric and

Advanced Composition class, with the plan of eventually offering ePortfolios to English majors, history students, and a program called Writing Across the Curriculum (WAC). Using ePortfolios to enhance writing enables teachers to oversee the use of the software as well as tracking students' writing over a period of time. It also enabled them to evaluate the use of ePortfolios in one course, so that they could learn the emerging challenges, constraints, and benefits before expanding its use to future courses.

While my study aimed to explore the use of ePortfolios for teaching writing, Pullman's (2002) pilot study provided a possible strategy for transitioning to ePortfolios by using the software in one or two courses to examine how it could benefit teachers. Pullman (2002) reported that one of the Rhetoric and Advanced Composition teachers encouraged the use of ePortfolios in his course and continuously reminded students to add writing as evidence of their development as writers. He also asked students to "include 5 essays, hypertexts, online documents, [and] desktop publications" (p. 160). Pullman's (2002) study raised my awareness about the types of artifacts that students should compile for their ePortfolios. It also shed some light on which artifacts writing teachers ask students to collect. Yet the choice of artifacts needs to be explored as it may vary from one writing teacher to another depending on their various purposes.

Berry and Griffith (2013) conducted a qualitative case study to explore the use of ePortfolios for writing. For their study, twenty-seven teachers were recruited from the School of Business Administration and English Department at Portland State University. From the English Department, five participants used ePortfolios for essay-writing in English 304, with an emphasis on student publishing. The course design was based on learning purposes and the course definition, which was grounded in clear set of goals and

assessment of outcomes with the use of a rubric. The researchers found that using ePortfolios provided opportunities for student interaction, peer review, critical thinking activities, group presentations, and publication of their ePortfolios.

Berry and Griffith (2013) presented a study in which one teacher, with the help of a colleague, developed a course with an emphasis on using ePortfolios for teaching writing and student publishing. In the study, collaboration between two teachers using a learned-centered approach in a writing course based on the use of ePortfolios. The researchers stated that collaboration proved to be more effective than top-down imposition, which required teachers to use ePortfolios without any prior preparation and training. Evidence showed that when teachers collaborated with each other, the use of ePortfolios was more effective than when the decision to use ePortfolios came from administrators who imposed the use of the software on their teachers.

Berry and Griffith's (2013) study, which described some conditions of collaboration between writing teachers, provided me with information that was useful for my study as to how teachers used ePortfolios for teaching writing. These issues are worth exploring to determine whether or not they were essential for the implementation of ePortfolios as Berry and Griffith (2013) had recommended.

Although Strudler and Wetzel's (2005) research was not based on writing courses in English Departments, they discussed issues relevant to the purpose of my study. The researchers conducted descriptive research to examine the use of ePortfolios in teacher education programs in six universities around the United States. To collect their data, they used surveys, web sites, observations, interviews, and documents. Also, Strudler and Wetzel (2005) listed some tools such as Microsoft Word, TaskStream, commercial web-

based software, and LiveText to assist students to design their ePortfolios. In addition to using tools that were made available by their department, students used Word documents and scans of relevant materials and web pages saved for their ePortfolios. The finding showed that some universities anticipated that students would use ePortfolios for job hunting after completing the program. The researchers also indicated that students were required to complete a technology-based course, which gave them the technical and pedagogical skills they needed to create ePortfolios.

Although Strudler and Wetzel's (2005) study was conducted in an education department, it was relevant to my study because it demonstrated how ePortfolios were contextualized for teaching writing in several universities. The researchers drew my attention to the purposes, strategies, and methods employed to the use of ePortfolios in certain writing courses. Thus, I explored which platform was used and if it affected teaching writing. This interesting information was worth exploring further in my study.

In another study, Johnsen (2012), examined the experience of implementing ePortfolios at LaGuardia University. The researcher recruited participants from three different composition classes (philosophy, persuasion, and debate) with the aim of using a learning-centered approach and an appropriate ePortfolio platform to facilitate students' writing. The study showed that teachers focused not only on the content saved in ePortfolios, but also on making the compiled materials stronger, clearer, and more relevant. However, the participants were not given adequate time to explore the purposes of using ePortfolios. The issue of time needs to be explored because implementing ePortfolios in a short time or without prior knowledge could affect the purpose of using the software to promote writing.

Jane Collins, who taught literature and writing in English 100 and English 116 at the English Department of Pace University, explored the experiences of students for whom English was a second language (ESL) with the use of ePortfolios to learn to write successfully in mainstream writing classes. According to Collins (2004), the best learning occurred when students connected what they already knew to the new material they were given in their writing classes. To do this, she combined writing and reflection with “internet technology” (p. 214) that enabled students to extend their learning beyond the classroom. Analyzing data from student course evaluation forms as well as teacher observation forms completed by her colleagues, and a survey that collected more specific feedback on student learning and satisfaction, she determined that both students and teachers had positive experiences. One of the important outcomes of integrating Internet technology in writing courses was that students took responsibility and ownership of their writing. By supporting students’ learning through the use of ePortfolios, students “become producers of knowledge” (p. 215) because they shared their writing with a wider readership outside the writing classroom. She also highlighted the importance of workshops and seminars to improve the use of ePortfolios for teaching writing. These issues were worth exploring in greater depth to understand their importance to the effective implementation of ePortfolios.

Collins’ (2004) study also explored the use of ePortfolios for ESL learners who were learning writing and specifically, writing about literature. Using ePortfolios for ESL learners to enhance writing was worth examining for a future study. Collins’ (2004) study, therefore, prepared me for a situation I would encounter while exploring the use of ePortfolios in English Departments. As an ESL student myself, I felt it was essential for

me to explore how ESL learners and teachers used ePortfolios to teach and promote writing. Yet from the data collected in my study, using ePortfolios for ESL learners was not identified because my study focused on writing teachers who shared their experiences with using ePortfolios and not student population.

Like Collins (2004), Barrows (2004), from Barton County Community College, used ePortfolios to evaluate student performance. This research was conducted in English 1204: English Composition I and English 1206: English Composition II classes. The purpose of the classes was to improve skills and demonstrate proficiency in written communication. Collins believed in “the empowerment of students” (p. 205) to become partners in their own education. In her courses, Barrows (2004) encouraged students to express their ideas and improve their writing in a way that allowed them to interact with each other and become confident and persistent. She pointed out that because “writing is both personal and social,” her role as a teacher changed to that of a facilitator, as she put students in the center of the learning process.

Like Collins (2004), Barrows’ (2004) students took responsibility for their work inside and outside of the classroom. They wrote and revised their work together collaboratively, which supported the aim of using ePortfolios for teaching and learning. Barrows (2004) learned from this experience that using two assignments to evaluate student work was not enough. He recommended collecting more pieces and multiple drafts in order to track student improvement more closely over a period of time. This piece of advice could benefit both teachers and students.

In my opinion, the limited number of artifacts used in Barrows’ study was a shortcoming which left a gap that needed to be explored further. It is worth exploring

whether the number of artifacts compiled for ePortfolios had an impact on the effectiveness of ePortfolios for writing.

Writing Teachers' Involvement in Implementing ePortfolios

The perspectives of writing teachers and students are equally important, as they are the users of ePortfolios. Aalderink and Veugelers (2006) conducted two case studies over five years of research in two Dutch universities to highlight the importance of ePortfolios in pedagogy. The essential points they learned from using ePortfolios included: First, the need to provide training programs for teachers to improve their technical skills while being supported by “a team of professionals to help with the new initiatives” (p. 364). Second, the benefits of providing financial support to host ePortfolios and set up “a coordinating Website that will be portal to the subject of ePortfolio for Dutch institutions of higher education” (p. 366). Third, the importance of considering teachers’ perspectives and opinions as key factors in making a transition to the use of ePortfolios. The researchers reported that “different stakeholders have been involved from the start of the program in 2001” as fundamental users of ePortfolios (p. 362). They argued that the type of pedagogical change that was involved in using ePortfolios amounted to changing the foundation of the pedagogical process for the digital era, rather than merely being an extra activity required for teachers. Teachers’ perceptions and feedback were essential to ensure the continuing use of ePortfolios. I believe that involving teachers from the beginning is also very important because pioneer teachers can become professional trainers for new ePortfolio users in their departments. They can also share their experiences with their colleagues and provide personal reflection and evaluation about the use of ePortfolios for teaching writing.

In their study *On Implementing Web-Based Electronic Portfolios*, Gathercoal, Love, Bryde, and McKean (2002) pointed out that “successful implementation depends on a set of critical success factors, and in academic settings lacking them, expectations must be scaled back until they are adequately addressed” (p. 29). In other words, writing teachers face various challenges while using ePortfolios in their writing classes. But, when teachers became convinced of the benefits of using ePortfolios to teach writing, they will support their implementation. Gathercoal et al. (2002) argued that “we have met the enemy...and the enemy is us,” (p. 30) meaning that students were not the main obstacle to an effective transition to ePortfolios, but without teachers’ full collaboration and involvement the prospects for success in using ePortfolios are slim.

To overcome potential obstacles to using ePortfolios, Gathercoal et al. (2002) provided some strategies to get teachers involved. The first strategy required teachers to “provide a syllabus, complete with standard modules” (p. 34) so that they could assess students’ artifacts and provide them with feedback based on their teaching purposes. Mainly, the teachers needed to be convinced of the merits of using ePortfolios for teaching writing in order to consider using them in their writing courses. It was also essential to let them understand the need for making a transition to ePortfolios and why it was beneficial for their writing classes. According to the researchers, training teachers and providing them with information on the benefits of using ePortfolios were also necessary for effective implementation.

Gathercoal et al. (2002) added another strategy. They suggested that staff meetings could be used to provide teachers with technical skills and assistance from more skillful colleagues in the department. Most importantly, Gathercoal et al. (2002)

recommended that administrators build support for attending meetings by holding them during teaching hours, compensating teachers for their participation, and paying them for their working time and effort while implementing ePortfolios. Further, the researchers recommended using ePortfolios in stages by breaking down the process of defining, adopting, implementing, and designing ePortfolios. By breaking down the process into separate units, teachers can use what they learn over a period of time rather than attempting to apply everything at once. Gathercoal et al. (2002) reinforced this notion by suggesting that teachers “start small and then expand” (p. 34). In other words, using ePortfolios should occur step by step by starting with simple technical knowledge and moving to more advanced stages of ePortfolio design and presentation.

At first glance, I assume that these recommendations may be applicable to any educational environment and not specifically related to using ePortfolios. As a researcher and as a teacher, I believe that there is a need to remind teachers of the purpose of using ePortfolios for teaching writing. Yet, it is worth exploring whether or not writing teachers are provided with convenient pedagogical support and financial compensation for their individual initiatives as recommended by Gathercoal et al. (2002).

Similar to the notion of Gathercoal et al. (2002) of “start[ing] small and then expand[ing]” (p. 34), Barrett (2005a), in her *Professional development for implementing electronic portfolios*, wrote “start small and build capacity” (p. 1). That is, teachers could initiate small projects in which strategies for using ePortfolios were utilized. Teachers who participated in such projects and became experts in using ePortfolios could become trainers and initiate training committees where they could provide professional development to other writing teachers who would use ePortfolios.

Based on Barrett's (2005a) suggestions, my study explores how individual writing teachers use ePortfolios. What strategy do they use? Do they start small with one course and then expand to strengthen their capacity? Which strategy has worked best? These questions are worth exploring. I may or may not find absolute answers because each teacher has his/her own purposes and strategies for using ePortfolios to teach writing.

In another study entitled *Researching electronic portfolios and learner engagement*, Barrett (2005b) wrote about several elements for a successful use of ePortfolios and reinforced the importance of professional development for teachers using ePortfolios to teach writing. She mentioned that there should be an evaluation of teachers' concerns and attitudes toward the use of ePortfolios for writing. In her study, Barrett (2005b) argued that "there are several dimensions to this process, based on both the pedagogical purpose for developing the portfolios, the technological tools chosen to construct and store them, and the dispositions or attitudes toward change of the teachers or faculty" (p. 1). That is, before making a change, it is important to provide teachers with training to be able to construct their writing courses and understand the benefits of using ePortfolios. In another context, Barrett (2005a) explained that when teachers were provided with adequate professional development, their anxiety about using ePortfolios was reduced. Barrett (2005b) reiterated that, to accompany the transition to ePortfolios, teachers should also develop technological skills and teaching methods such as digital literacy and writing for the public. Barrett (2005b) realized that the use of ePortfolios was embedded in the integration of technology across the curriculum and it required a pedagogical shift toward student-centered teaching.

Barrett's (2005b) findings are connected to my study because I seek to explore how ePortfolios are implemented and what strategies are used to teach writing. Barrett (2005a, 2005b) repeatedly highlighted the importance of professional development and training for writing teachers who are interested in using ePortfolios. I, therefore, intend to explore whether or not writing teachers in the targeted PASSHE English Departments have received professional training and how it affects their use of ePortfolios.

As demonstrated by the literature review in this section, the involvement of writing teachers in using ePortfolios to teach writing and their purpose in using them are emphasized. Due to lack of up-to-date studies about teaching writing with ePortfolios, I turned to older studies and to English Education departments with the aim of exploring the use of ePortfolios to teach writing. But, first, one must understand the affordances and constraints that may emerge with the use of ePortfolios to teach writing.

Apparent Challenges of Using ePortfolios

The literature in the field includes a number of studies which highlight the challenges that hamper the use of ePortfolios. This section reviews some of the factors that impacted the continuing implementation of ePortfolios in writing classes.

Challenges While Using ePortfolios

There have been many benefits to using ePortfolios to teach and enhance writing, assess artifacts, and connect learning materials inside and outside classroom. However, there are several challenges, such as lack of technical skills, information overload, privacy issues and protection, and costs, which have been found to hamper the use of ePortfolios in teaching writing (Heath, 2004; Houston, 2011; Kahn, 2004; Lorenzo & Ittelson, 2005; Madden, 2007).

Lack of professional training for using ePortfolios. Using ePortfolios to meet the needs of writing teachers to support teaching and writing may create some challenges to new users. A team from Virginia Tech, Chloe, Samantha, Mapopa, Samuel, Sandy, Evans, and Luka (n.d.),¹ conducted a phenomenological study to examine the experiences of teachers in using ePortfolios for assessment. Seven out of fourteen participants who agreed to participate in the study were from different departments. The participant from the English Department illustrated the use of ePortfolios as “a way of showcasing what [students] have done as an English major...they can use that when they go looking for a job...as part of their resume to share with employers” (p. 7).

Like the research I have conducted, Chloe et al. (n.d.) explored the implementation of ePortfolios, the affordance and constraints, and the methods used to support the use of ePortfolios. Yet unlike Chloe et al. (n.d.), I seek to expand my research to a number of English Departments in PASSHE schools instead of focusing on different departments at the same university.

In their study, Chloe et al (n.d.) pointed out that lack of training created challenges for teachers whose experiences with the installed computer software had been devastating. Due to the lack of training, teachers constantly requested support in instructional technology to assist them in the use of ePortfolios. This issue hampered the use of ePortfolios and created dissatisfaction among the writing teachers. The researchers did not, however, mention whether the teachers had been trained on the use of

¹ The reason that this study has no date is that this project was part of a course at Virginia Tech University. I contacted their English Department to ask about the year of publication and the researchers, but I did not get specific information, and the person I contacted informed me only that it was part of a course project. It is important to know that the last reference used by the researchers was from 2009. Therefore, I presume that the study was published between 2010 and 2012. The reason that I included this study is because it is relevant to my research and a good addition to my literature review. The citation for this study is included under Virginia Tech ePortfolio in my references.

ePortfolios. This information is important for my research because I seek to explore how the use of ePortfolios comes to be part of writing courses of individual writing teachers.

Later in the study, Chloe et al. (n.d.) stated that the use of ePortfolios at Virginia Tech was undertaken by an outside accreditation agency and teachers were not given a choice in the matter. According to the researchers, the participants “didn’t just think of the idea,” but were told that they “had to do it” (p. 6). Chloe et al. (n.d.) also explained that “frustration emanated from the participants, other professors, and the students using e-portfolio” (p. 6). The teachers’ frustration surfaced because they had to learn the new technological tool at the same time that they were teaching classes. The dissatisfied teachers, who were not well prepared to use ePortfolios, felt that they were being forced to use ePortfolios, which added a new burden to their teaching responsibilities.

Looking at these constraints made me wonder whether my study would uncover similar findings. Are these typical challenges faced writing teachers who use ePortfolios? Does an outside accreditation agency affect the use of ePortfolios in teaching writing? What solutions do my targeted individual writing teachers use to overcome such emerging challenges? What other problems might appear? I sought to find answers to these questions by conducting surveys and interviews which would help teachers understand the use of ePortfolios in teaching writing and provide them with potential solutions to such challenges.

Facing technological challenges. Besides the lack of training programs, additional problems in using ePortfolios to teach writing include technological constraints such as the lack of availability of technology and suitable software. Barrett (2008b), mentioned above and conducted a multi-year study of 25 secondary schools, examined

how teaching practices and strategies changed with the implementation of ePortfolios. She not only explained the affordances of using ePortfolios, but also highlighted some constraints which hampered the use of ePortfolios. After the first year of her study, the findings showed that the role of teachers was critical to the success of using ePortfolios.

Unlike Chloe et al. (n.d.), who did not mention background information about their teachers' experiences with portfolios or technical skills, Barrett (2008b) mentioned that her participants had previous knowledge of using technology. This was advantageous for them because many teachers had to learn how to use TaskStream, a tool used with ePortfolios, and teach it to students at the same time, and thus they had a dual learning curve. Writing and teaching ePortfolios did not cause a problem for those writing teachers with previous experience with using TaskStream or paper-based portfolios. The findings also showed that writing teachers who used reflection, metacognition skills, and feedback for writing and teaching were mostly more advanced than those who did not.

Using software was another technological constraint that emerged in Barrett's (2008b) study while moving from Web 1.0 to Web 2.0. According to Barrett (2008b), introducing a new technology affected student attitudes toward using ePortfolios for writing. Barrett (2008b) wrote, "if this research had been conducted two years earlier, the students would not have had the type of experiences with Web 2.0 tools...that influenced their current attitudes toward their highly structured e-portfolios" (p. 13). Writing teachers, in contrast, faced less difficulty with using ePortfolios than their secondary school students because they were more exposed to technology than their students. Yet students showed a positive attitude toward the use of ePortfolios rather than the use of MySpace, a social networking space. According to Barrett (2008b), using ePortfolios

gave” students more freedom to design their ePortfolios and “express their individuality” (p. 25) and creativity.

Barrett (2008b) also mentioned that a lack of available technology was another constraint of using ePortfolios. Some students found it difficult to use ePortfolios because they had to post some of their written assignments from homes where they did not have computers. During her three-year research, Barrett (2008b) explained that some schools found temporary solutions for lack of computers by providing laptops to use in the classroom to students who had less access to computers at home. Other schools in which laptops were not available reported that the use of computer labs for the purpose of the study was problematic as the labs were always occupied for computer classes.

Although Barrett’s (2008b) study was conducted in a secondary school and my research is at the university level, such potential challenges are essential issues to be explored because they may create obstacles to implementation in locations where access to computers and the Internet is not available.

Time constraints and individual efforts. In addition to Barrett’s (2008b) challenges of software usage and the availability of technology, Houston (2011) mentioned that the time and effort required to use ePortfolios is a challenge to some teachers. Houston (2011) synthesized a research study which had been conducted by ePortfolio innovators to examine the challenges which teachers need to overcome in order to use ePortfolios. She conducted her philosophical research because Southern Methodist University was planning a transition to ePortfolios and eventually, Houston’s (2011) research provided teachers with knowledge about the challenges they would have to overcome to effectively make a transition to ePortfolios.

Houston's (2011) research is akin to the purpose of my study which is to help new users and ePortfolio innovators to smoothly make a transition to ePortfolios. In contrast to Houston (2011), however, my research is an empirical study that explores the use of ePortfolios by collecting data from writing teachers who use ePortfolios to teach writing. This difference may make my study more reliable because it describes experiences of writing teachers rather than depending on philosophical literature about ePortfolios.

Houston (2011) stated that although ePortfolios took little time to create, it took a great deal of time to learn how to use them in writing courses, especially if users lacked technical skills. For this, Houston (2011) recommended that teachers should embrace professional development and training. She explained:

Professional development requires not only in-depth training in e-portfolios, including digital content creation workshops, and training on specific e-portfolio software purchased by the institution, but also pedagogical training on how a faculty member might best shift his/her teaching style and materials to fit an e-portfolio driven curriculum. (p. 7)

That is, when teachers understand how ePortfolios are used and how their pedagogical methods must shift to suit the digital content of ePortfolios, they will value the effort and time spent on using ePortfolios for teaching writing. Houston (2011) further stated that ePortfolios "are worth the effort and that the technology is a mature technology that won't go out of fashion before faculty members see a pay-off" (p. 8).

Houston (2011) also recommended that teachers should use new teaching methods to suit the new student-centered approach and guide their use of ePortfolios by providing a number of sources for information such as written and audio or videos

guidance. She concluded by offering some suggestions and strategies for using ePortfolios such as:

guiding students to become content producers, helping students learn to critically self-reflect, allowing faculty members to manage and evaluate student work over long periods, giving faculty members a tool to prove teaching credentials, giving tenure track faculty a container for tenure materials, and also allowing a division to track learning outcomes via a measurable metric valuable for accreditation and funding needs. (p. 17)

Writing teachers who are thinking of using ePortfolios may still feel incapable of facing challenges such as time and effort spent in using ePortfolios. Even if they feel confident about using ePortfolios, I believe, new users may face similar obstacles if they have not found training or collaboration from their colleagues.

Information overload and lack of organization. Information overload is another issue that creates challenges in using ePortfolios (Kahn, 2004). Information overload occurs not because of the enormous amount of information in ePortfolios, but because users fail to organize their artifacts in a way that makes it easy for readers to follow. Some researchers found that having a negative attitude towards using ePortfolios may cause information overload and barriers to using them (Chien, 2013; Hackman & Alsbury; 2005). Findings from these studies also indicate that a classroom assignment in reflective writing was not taken seriously by learners because they disregard critical thinking and thought that ePortfolios assignments were less important than other tasks (Chien, 2013; Hackman & Alsbury, 2005). This confusion among learners might lead

them to either provide fewer artifacts with low writing quality, or to upload an enormous number of artifacts creating challenges to using ePortfolios.

Kahn (2004) pointed out that readers become overwhelmed due to excessive, disorganized content of ePortfolios. She blamed this situation on the continuous compiling of material without organizing information. To avoid this problem, she recommended careful selection of artifacts for ePortfolios and added that proper editing could solve the problem of information overload. She pointed out that “too many of us have found ourselves confronted with the task of evaluating teaching portfolios that include a mountain of repetitious, disorganized materials whose significance to the portfolio or to teaching and learning is never discussed” (p. 45). This means that teachers, I believe, should provide students with clear guidance when choosing their artifacts and making proper connections between the collected artifacts.

Kahn (2004) explained that it was important to select materials and make connections between them as part of developing and using ePortfolios. That is, before making ePortfolios public, proper selection of artifacts, evaluation of the selected material, and proper design are needed to provide. The correct selection of artifacts would probably provide ePortfolio users with potential learning experience and development over time.

My research relates to Kahn’s (2004) study in that it explores whether information overload becomes an obstacle to using ePortfolios. After all, ePortfolios are not used for storing as much information as possible. But rather, they are about the careful selection of artifacts and the ability to link each piece of information to a number of relevant materials on the Web.

Lack of information for novice ePortfolio users. Not only does information overload cause challenges in the use of ePortfolios, but a lack of information on how to use ePortfolios for writing and what artifacts to compile are also constraints for some users. Fournier and Lane (2006) conducted a pilot study on Teaching Assistants (TAs) to examine the effects of using ePortfolios and how students learn, within nine sections of a class of English 131: Introduction to Expository Writing in the English Department of the University of Washington. The study also aimed to explore some factors and challenges in using ePortfolios in English 131 to “understand the effects of the transition from paper to electronic portfolios on teaching and learning” (p. 2). The data was collected through a questionnaire, interviews, and copies of each TA’s portfolios assignments.

Fournier and Lane (2006) pointed out some challenges which emerged during the transition from paper-based portfolios to ePortfolios and what TAs experienced and learned. There were, for example, some problems encountered by students such as missing classes during training sessions, little time spent on training, and not following instructions, which affected students’ comfort with the technology. Yet the researchers found that these problems were caused by the fact that the students disliked the assignments which were “different from what students were doing in other sections of English 131” (p. 5).

Another challenging element is grading. The researchers explained that “TAs were uncertain how to grade custom elements of the e-portfolios” such as colors, design, and visuals (p. 5). While some TAs ignored these elements, others considered them part of the students’ performance.

Fournier and Lane (2006) also added some other challenges of using the tool. They suggested introducing ePortfolios at the beginning of the course to make it easier to transition to using the software by giving learners clear directions on how to use ePortfolios to complete assignments, and how to organize materials into the software. The researchers also recommended professional training for TAs to cope with technology as well as training students so that they become aware of the public nature of ePortfolio writing and the new literacy when writing to a wider readership, as well as the increased opportunities for plagiarism.

Because this study looks at experiences of TAs with ePortfolios, it is relevant to my research because it provides a useful report for writing teachers considering the use of ePortfolios in their practice. By implementing ePortfolios in foundation college writing courses, it may create a space to discuss implementing ePortfolios in other courses. Using each TA's portfolio assignment as a source to collect data is an additional means of collecting data that is given to me as an option to use if I need to explore the type of assignments used in building students' ePortfolios. This is an option I may consider exploring for a future research.

Lack of digital writing literacy. Another important constraint that may hampered the use of ePortfolios is the demand for a new type of literacy required for the use of ePortfolios for writing. Although the traditional definition of literacy is the ability to read and write (Karchmer, Mallette, Kara-Soteriou, & Leu, 2005; Kress, 2003), literacy in the digital age has new meanings. Kist (2005) associates literacy with new technologies that allow reading and writing multimodal texts that include words, images, and sounds. Selfe (1999) also expanded literacy to include the need to obtain “computer

skills and the ability to use computers and other technology to improve learning, productivity and performance” (p. 411). In this sense, digital literacy expands the traditional methods of teaching reading and writing to include teaching the use of Internet and information technologies. These definitions constitute the new literacy required for writing online. Selfe (1999) wrote:

It is, after all, partly a result of the involvement of English composition specialists, or lack of involvement, in some cases, that the linkage between literacy and technology has come to inform most of the official instruction that goes on within the United States’ educational system, most official definitions and descriptions of literacy featured in the documents we write and read, and many of the criteria used to gauge literacy levels within this country. (p. 416)

According to Selfe (1999), the new type of writing literacy in which literacy and technology are connected creates a challenge for teachers using ePortfolios to teach writing. Therefore, several studies (Lorenzo & Ittelson, 2005; Strudler & Wetzel, 2011) highlighted the importance of pedagogical change and the new writing literacy to suit the use of ePortfolios in writing courses.

Meyer, Abrami, Wade, Aslan, and Deault (2010) conducted a study in K-12 Canadian schools to examine the impact of using ePortfolios on literacy practices and learning skills. Fourteen teachers and 296 students were recruited from three Canadian provinces during 2007-2008. The researchers found that the use of ePortfolios had three purposes: process, showcase, and assessment. They stated that the use of ePortfolios had changed from a simple student folder to a collection of student work which was used for tracking development, showcasing, and applying for colleges and jobs.

Even though Meyer et al. (2010) conducted the research in K-12 Canadian schools, their findings and recommendations are significant to my study, which explores potential emerging constraints while using ePortfolios. Their study also highlights the benefits to students who have prior knowledge of ePortfolios and how it aids them in their writing courses. It would be interesting for me to examine what writing teachers do when using ePortfolios with freshmen in order to improve their writing and how it impacts students' writing development throughout their senior college years in English Departments. Additionally, I am eager to explore whether or not students are required to provide their high school ePortfolios as part of their college enrollment process.

Meyer et al. (2010) added that using ePortfolios encouraged students' writing and "personal growth and development and a commitment of life-long learning" (p. 85). This shift to using ePortfolios created new writing literacy and knowledge about online writing through the use of ePortfolios. The findings showed that teaching with ePortfolios had a positive impact on student literacy and writing skills when using ePortfolios regularly in the classroom. Meyer et al. (2010) also indicated that feedback from teachers and students was used to promote ePortfolios in order to support "learning and literacy skills in constructivist classrooms" (p. 84). Writing teachers, for example, reported a positive impact on their teaching practices, including teaching this new form of technological literacy. Meyer et al. (2010) asserted that there were several "challenges of creating and sustaining effective student-centered learning environments, the difficulties in integrating technology in classrooms, and the obstacles to switching pedagogy from emphasizing what content is to be learned to emphasizing how content is to be learned" (p. 91). In other words, the existence of such challenges explains the potential failure of using ePortfolios.

I believe that ePortfolio literacy is essential if writing teachers decide to make a transition to ePortfolios. On the surface, both paper-based and electronic portfolios seem to have similar writing literacy. However, this is not the case. Factors such as purposes and audience affect the way one writes. Because of this, acquiring writing literacy for ePortfolios is an issue that needs to be explored. Findings from my study may or may not reflect the need for such a type of literacy, but this is worth exploring.

As I demonstrated earlier in this chapter, Pullman (2002), found that in Rhetoric and Advance Composition courses which used ePortfolios, teaching for knowledge was overlooked in favor of teaching writing as a skill. That is, writing was taught as a systematic process without teaching learners to reflect on their writing and connect it to their experiences. He pointed out the importance of writing reflective essays which required teaching “special topics of a reflection essay, what to say and how to say it, rather than rely on seeing what they’ve learned about writing” (p. 161). He also realized that despite the advantages of using ePortfolios for writing, writing teachers had to teach for the Internet which demanded a change in writing pedagogy to suit the purpose of using ePortfolios. Because of this, I believe that new writing literacy is required when writing teachers use ePortfolios. This issue is worth exploring in order to find out to what extent writing teachers are aware of online writing.

Lack of online ePortfolio teaching pedagogy. A lack of online pedagogy is another constraint that users of ePortfolios face. A number of studies focused on knowledge of online teaching and online literacy, reflection, and clear teaching objectives, as some of the current pedagogical concerns. Strudler and Wetzel (2011), who conducted several studies describing ePortfolios at universities around the United States,

explored theoretical perspectives, challenges, and implications, and provided suggestions to support the use of ePortfolios. Strudler and Wetzel (2011) pointed out that reflection was very important because it allowed teachers to “construct their knowledge base for teaching,” (p. 162) which was aligned with writing and assessment of ePortfolios. By definition, reflection is the heart and soul of ePortfolios (Barrett, 2010) and a key facet of writing (Wetzel & Strudler, 2006). Reflection is also a key component of writing ePortfolios that focuses on students’ personal growth for the purpose of examining and tracking writing development over a period of time (Robbins, 2004; Wetzel & Strudler, 2006). In their study, Strudler and Wetzel (2011) found that reflection could become more meaningful if teachers provided more in-depth feedback and if students used reflection at a deeper level to improve their writing.

Lorenzo and Ittelson (2005) pointed out some other factors which affected the use of ePortfolios. The first was whether or not a transition occurred from paper-based portfolios to ePortfolios. The second was the degree of pressure for standard-based assessment which affected the use of ePortfolios. In addition, the reliability of technology and software affected the use of ePortfolios in writing courses. The researchers, however, provided solutions for these emerging challenges such as having “a clear vision of purpose for portfolio implementation” (p. 164).

Clarity of purpose was an effective way of using ePortfolios in any program. Imhof and Picard (2009) stated that students needed “a clear idea of formalities, content, and a well-communicated rationale for the portfolios” (p. 152) because “a lack of clear understanding of the purpose and ownership of a portfolio constitutes a serious flaw in the process” (p. 153). Therefore, clear guidelines were very important for teachers and

students to be able to manage time and select artifacts for ePortfolios. The researchers further reported that teachers used rubrics, which provided directions for the selection and organization of artifacts to assess ePortfolios. Strudler and Wetzel (2011) explained that teachers identified “streamlining requirements and planning for data aggregation and program evaluations as next steps for their respective programs” (p. 166).

Finally, Lorenzo and Ittelson (2005) explored the use of ePortfolios for various institutional purposes in six universities around the United States. The aim was to enhance understanding among internal and external audiences about the use of ePortfolios and the process of building, enhancing, and maintaining the mission and goals of the department. Lorenzo and Ittelson’s (2005) study relates to my research because it provides guidelines and information about how universities around the United States have used ePortfolios to teach writing. Moreover, it provides information about the use of ePortfolios for writing, teaching, and assessment. With these guidelines and information, I intend to explore the purposes for which writing teachers use ePortfolios to enhance teaching writing and assessment.

As I report in this segment, several researchers (Barrett, 2008b; Lorenzo & Ittelson, 2005; Meyer et al., 2011; Pullman, 2002; Strudler & Wetzel, 2011) highlighted a number of challenges for using ePortfolios such as information overload, technical skills, online literacy, and a lack of training programs. Yet there are lots of solutions to be aware of to solve emerging challenges while using ePortfolios for writing and assessment.

Solutions for Emerging Challenges of Using ePortfolios

The literature discussed in this section focuses on how to solve emerging problems which using ePortfolios such as receiving support and collaboration, and

training programs. These conditions can facilitate the use of ePortfolios for teaching writing in English Departments.

Receiving support and collaboration. Technical support and positive attitudes are important factors for writing teachers who use ePortfolios. Jafari and Kaufman (2004) and Houston (2011) asserted that ePortfolios are successful tools which have a significant role in higher education because their use is growing, and they are unlikely to become outmoded due to their benefits that results to the practice of teaching.

Barrett (2008b), who is considered an expert in the field of ePortfolios, conducted a mixed-method study of 25 secondary schools throughout the United States. Her aim was to examine the impact of ePortfolios on student writing and the new teaching strategies for using ePortfolios. In her study, Barrett (2008b) pointed out three main affordable solutions in using ePortfolios:

First, she found that the support received from administrators, such as department chairs and deans, is important for the successful use of ePortfolios. Barrett (2008b) stated that teachers should work together because it is difficult for an individual teacher to implement ePortfolios. She also explained that “in the most successful school in my project, the principal was a real champion of the use of e-portfolios in his school” (p. 13) because he supported his teachers while using ePortfolios. Moreover, she stated that when collaboration among teachers was higher, “changes were made to the professional development of these isolated teachers” (p. 32) and they started sharing ideas.

Second, having technical skills and knowledge were the keys to success in using ePortfolios in secondary schools. Barrett (2008b) explained that both students and teachers should be able to use “a Web Browser and E-Mail program...word processing,

concept mapping, spreadsheet, [and] presentation software” (p. 28) to be able to compile and select artifacts for ePortfolios. She concluded that the difference between the technical skills and knowledge of students and teachers was potentially a factor in their attitudes toward using ePortfolios.

Finally, along with administrative support and technical knowledge, ePortfolio skills were essential requirements for students and teachers. Students were required to develop the ability to collect artifacts, and to demonstrate the ability to connect what they learned from their experiences in order to fulfill teachers’ goals and the standards of the institution. Teachers were also required to develop ePortfolio skills in order to assess students’ reflective writing.

Because of the importance of these three factors, administrative’ support, technical knowledge and ePortfolio skills, Barrett (2008b) argued that teachers needed to have better training programs in high schools. She further explained that the differences between educational systems in the various schools made it difficult to compare results. For this reason, she recommended that her study should be replicated in one state instead of the eight that she examined so that schools would have similar requirements. This would provide better opportunities to control the requirements and explore the “factors that lead to successful student learning outcomes, measured with consistent outcome measures” (p. 34).

My study operationalizes Barrett’s (2008b) recommendation to concentrate the research in one state. In this study, I seek to explore the use of ePortfolios by recruiting individual writing teachers from English Departments in PASSHE schools where ePortfolios are implemented for writing and assessment. I believe that conducting

research at school, with similar requirements in order to effect a valid comparison between departments, I have put Barrett's (2008b) suggestions into play.

In another study that included several related affordances for using ePortfolios, Emmett, Harper, and Hauville (2006) examined the strategies created to implement ePortfolios in various departments at Queensland University in Australia. The researchers examined 10,000 portfolios with the purpose of revealing how administrators collaborated and supported the implementation of ePortfolios. The results showed that prior knowledge about integrating technology, collaboration and support from teaching and learning committees, and enthusiasm driven by deans and faculty members are essential keys to the successful use of ePortfolios. This study is relevant to my research because it provides a number of strategies for using ePortfolios. Collaboration among faculty members and support from administrators, which are recommended in different studies, are two factors that are worth exploring.

To further examine the issues of support and collaboration among writing teachers, Carpenter, Apostel, and Hyndman (2012) conducted a study at Eastern Kentucky University to examine the impact of collaboration on the design of ePortfolios. In Eastern Kentucky University, teachers used ePortfolios to create a productive space for students to integrate written assignments, receive feedback, and communicate with readers and colleagues. The researchers reported that having basic technological skills promoted a type of collaborative work among teachers. They also reported that outside of the classroom, peer review enhanced ePortfolios design for students as well. This process helped to refine students' identities and ownership as future teachers. The researchers also stated that students were given the freedom to have a studio consultation to help

them to use ePortfolios. The study showed that students who followed the rubric and used the consultation opportunity completed better writing assignments and demonstrated creativity in the design and presentation of their ePortfolios.

Receiving professional training. Similar to the importance of having support and collaboration, training programs are vital to the use of ePortfolios to teach writing (Barrett, 2008; Berry & Griffith, 2013; Carpenter, Apostel, & Hyndman, 2012). Mostafa (2011) suggested that training programs were additional solution for using ePortfolios. In her Egyptian context, she conducted a one-year quantitative study on fifty participants who learned English as a Foreign Language (EFL). Mostafa (2011) investigated to what extent formal training could positively develop EFL teachers' knowledge, skills, and use of ePortfolios as assessment tools. The findings indicated that training was effective in developing students' ePortfolio skills and knowledge even after ending the program. The results also showed high quality of design, organization, and content of ePortfolios. Thus, training programs provided new teachers with skills and knowledge about assessing ePortfolios in their writing classes.

In connection with my research, Mostafa's (2011) study provides me with the possibility of exploring the use of ePortfolios for EFL/ESL learners (Learners of English as a Foreign/Second Language). I intend, therefore, to explore whether writing teachers are aware of the effects of using ePortfolios to enhance ESL writing. My interest in this issue emerges from being an ESL myself and teaching in an ESL context as well. That is, exploring how ePortfolios improve writing may shed some light on the impact of using ePortfolios to improve ESL writing in general. Since ePortfolios are not yet used in my ESL context in Israel, I intend to explore whether or not providing teachers with prior

training programs is helpful to implement ePortfolios, something that should be explored for the future use of ePortfolios in ESL context.

In a similar manner, Bartlett (2006), who conducted her study on two groups of pre-service teachers, found similar evidence that training at the college level enhanced pre-service teachers' use of ePortfolios. Bartlett (2006) reported that "teachers who renew their teaching expertise by using new teaching methods, engaging in ongoing inquiry about teaching, and assuming leadership positions are more likely to remain in the field" (p. 331). That is, teachers who receive training are those who cope well with technological development and the use of ePortfolios in the classroom. This reinforces the notion that training programs create better learning environments for students whose teachers use ePortfolios as innovative teaching methods. This also reinforces the importance of providing teachers with training before making a transition to ePortfolios. According to Bartlett's (2006) idea of renewing teaching expertise and remaining in the field, teachers could keep working toward self-development in order to cope with the rapid expansion of technology and its integration to teach writing.

In another study exploring the conditions of implementing ePortfolios, Berry and Griffith (2013) highlighted the importance of providing teachers with workshops and relevant readings about course designs, eLearning, cognitive apprenticeship, and the use of rubrics. Workshops, according to Berry and Griffith (2013), show positive outcomes because they provide teachers with opportunities to collaborate and discuss problems in their courses while using ePortfolios. The researchers reported that some of the participants in the workshops recommended several points for future use of ePortfolios

such as examining content requirements, allowing students to learn key skills across the curriculum, and improving critical thinking skills and research.

This study links to my research because it provides possible affordances to support the use of ePortfolios. I believe that workshops and training programs help writing teachers design their courses and use ePortfolios effectively. I therefore, explored the extent to which training programs and workshops may support the use of ePortfolios to teach writing. I also explored whether or not writing teachers are given suitable training and technical knowledge and how it affects the use of ePortfolios.

Like Berry and Griffith (2013) and Mostafa (2011), Meyer, Abrami, Wade, and Scherzer (2011) conducted a study on the use of ePortfolios in sixteen elementary classrooms across Canada to examine the factors that affected the implementation of ePortfolios. The researchers used a mixed-method approach to examine how teachers used ePortfolios and “the factors influencing their use” (p. 191). The study showed that implementing ePortfolios had a positive impact on transforming teaching practices. Most importantly, the study showed that providing teachers and students with valuable information about ePortfolios helped them to effectively implement the software and to motivate teachers to use it to “promote student-centered learning and reflective teaching practices” (p. 201). Meyer et al. (2011) pointed out that teachers who learned how to use ePortfolios gained more pedagogical benefits than those who did not volunteer for the study or had less support from administrators. Further, the study indicated that training courses, collaboration, and support from teachers and administrators were very important in converting “teachers from believing they cannot use technology into believing they must use technology for learning” (p. 202).

While the study of Meyer et al. (2011) was conducted in elementary classrooms, it is still relevant to my research because support for teachers who implement ePortfolios is, I believe, a common factor. I intend, therefore, to examine whether training workshops and collaboration are key issues, or, if not, whether these inputs have a partial or negligible impact on the success of using ePortfolios for teaching writing.

However, some studies reported different findings from those presented in Berry and Griffith (2013), Mostafa (2011), and Meyer et al. (2011). Genc and Tinmaz (2010) conducted a qualitative study with forty-two faculty members to examine the stages of developing ePortfolios at the University of Firat in Turkey. The researchers reported that although teachers developed different skills related to ePortfolios such as preparation, design, and presentation, some teachers reported that they did not develop any skills during the training course. The study also showed that ePortfolios were more suitable for project-based courses and higher education because they were more suitable for personal and professional development, such as applying for jobs, rather than for teaching writing.

I believe that Genc and Tinmaz's (2010) finding may reflect the situation of many writing teachers. Some teachers resist the implementation of ePortfolios and others feel they do not need more responsibilities of learning how to use ePortfolios for their writing courses. This issue is worth exploring because it might lead to a decision not to implement ePortfolios or not to expand its use to other writing courses.

While this section has demonstrated the affordances offered by the use of ePortfolios, Meyer et al. (2011) stated that the investment of time and money and the necessary "technical infrastructure" (p. 201) such as Internet access and computers in the classrooms were essential for using ePortfolios. Without such affordances, the use of

ePortfolios will be hampered. Other researchers (Barrett, 2008b; Berry & Griffith, 2013; Mostafa, 2011) explained that training programs, workshops, and readings about ePortfolios are also potential factors for accepting their use for teaching writing. Teachers who had such opportunities to develop their skills became more successful at using ePortfolios. However, some researchers (Abrami & Barrett, 2005; Houston, 2011; Meyer et al., 2011) showed that there are various constraints for using ePortfolios.

Writing Teachers' Approach to Using ePortfolios for Assessment

The increased popularity of ePortfolios is “bound to follow the modular structure of the curriculum, which means that students create sub-portfolios as part of individual modules which are submitted to an assessment by the examiners after the module is completed” (Himpfel-Guterman, 2012, p. 172). Many studies show that using ePortfolios as an assessment tool motivated students and helped them develop self-confidence toward writing (Akcil & Arap, 2009; Chien, 2013; Mills, Wearmouth, & Gaitan, 2012; Pitts & Ruggirello, 2012; Shada et al., 2011; Strudler & Wetzel, 2005). Yet a limited number of studies address experiences of writing teachers with assessing ePortfolios. This scarcity of studies is a reason for conducting my study in which I present the literature connected to methods of performance assessment in the following pages.

According to Palomba and Banta (1999), assessment, by definition, is “the systematic collection, review, and use of information about educational programs undertaken for the purpose of improving learning and development” (p. 4). Eyal (2012) also defined assessment as “a term that includes various methods and ways of gathering information on the nature of the learners’ performance” (p. 38) that involves analyzing

and presenting student learning process. In this vein, ePortfolios allow teachers to conduct formative and summative assessment for the purpose of improving writing.

Formative Assessment and Its Association to ePortfolios

Formative assessment depicts one function of ePortfolios in which writing process is followed over a period of time to track the development of a students' writing ability. Formative assessments are often used from the beginning to the end of the writing course (Angelo & Cross, 1993; Bardes & Denton, 2001; Bhattacharya & Hartnett, 2007; Cambridge, 2010; Elbow & Belanoff, 1997). These assessments supplements the use of ePortfolios for teaching writing to allow teachers to track student learning and writing progress (Barrett, 2006, 2008b; Yancey, 2009). Formative assessments and ePortfolios support each other to improve the quality of student writing. Bhattacharya and Hartnett (2007) stated that while using the assessment function, they concentrated on assessing students' reflections on their artifacts and their writing process, which tracked their development while using ePortfolios.

Integrating formative assessments with writing ePortfolios creates a "process of composition" that enables "a new dimension of authorship" and affects how learners "make sense of the world through directing their attention to particular images, ideas, and ways of thinking" (Cambridge, 2010, p. 214). Barrett (2010) argued that there was a connection between progress in writing using ePortfolios and the formative assessment and feedback, which allows writing teachers to assess learners' mastery of writing skills. Elbow and Belanoff (1997) wrote that "portfolios permit us to avoid putting grades on individual papers, and thereby help us make the evaluations we do during the semester formative, not summative" (pp. 29-30). That is, formative assessments and writing are

both processes that enable teachers to provide feedback and reflective assessment for the purpose of improving writing skills. Gillespie, Ford, Gillespie, and Leavell (1996) explained that this process provides “students, parents, administrators, and the public with accurate and meaningful information regarding students’ progress” (p. 485).

Although combining formative assessment with the writing process while using ePortfolios improves writing skills because of the ongoing assessment, this combination also creates some problems (Elbow & Belanoff, 1997; Stiggins, 2001). Studies showed that writing teachers might not use the formative assessment function because of work overload created by demands of the software in addition to their other teaching responsibilities. Students might lose motivation as well because of the continual assessments of their writing, especially if they do not show improvement. Lindemann (1995) argued that formative assessment was not a form of grading because grades worked against the process of writing and can have a “destructive impact” (p. 220). Elbow and Belanoff (1997) also argued that “writing is its own heuristic; it doesn’t have to be graded to lead to learning” (p. 30).

Summative Assessment and Its Association to ePortfolios

Summative assessment depicts the use of ePortfolios to assess products and writing outcomes. According to Bardes and Denton (2001), summative assessment allows a comprehensive evaluation of artifacts at the end of the course. In this sense, summative assessment is similar to using ePortfolios to assess the collected artifacts throughout the course (Barker, 2005; Cambridge, 2010; Chan, 2012; Yancey, 2001a, 2009). Buzzetto-More (2010) explained that using summative assessment engaged learners “in deep

learning and self-reflection” (p. 62) and constructed their learning within social contexts that encouraged self-assessment, self-reflection, and self-development.

Summative assessment is associated with the learning product of ePortfolios that showcases final outcomes and reflects on the writing and the process. Yancey (2009) explained that “while the portfolio is multimedia, its curricular ecology is product-based” (p. 7). In *Balancing the two faces of ePortfolio*, Barrett (2010) also added that the product of ePortfolios was related to summative feedback and assessment of writing and learning.

As against formative assessments, I believe that assessing ePortfolios by using summative assessments does not lead to a huge workload and lack of motivation. Wagner and Lamoureux (2006) pointed out that some learners tended to upload their artifacts at the last minute. If learners do not upload their artifacts throughout the writing course, they will definitely lack critical reflection on their writing process, and they will not meet their learning outcomes. Yancey (2009) wrote that “whether outcomes are programmatically identified or student-designed, the process of connecting artifacts to outcomes rests on the assumption that the selection of, and reflection on, a body of evidence offers another opportunity to learn and a valid means of assessment” (p. 31). Barrett (2010) also argued that balancing the writing process and product promoted student learning and engagement within ePortfolio learning process. Balancing the writing process and product also determined students’ needs and goals for development and improvement. When the balance and connection between process and product become clear, learners manage to connect between their learning process and their outcomes in the writing courses (Zaldivar, Summers, & Watson, 2013).

Writing teachers can also assess the use of ePortfolios in writing classes by tracking their students' improvement over time. Zaldivar, Summers, and Watson (2013) stated that "faculty are able to collect the data they need for assessment and accreditation purposes, and students are able to see the ways in which their learning and development as professionals have grown throughout their academic career" (p. 227).

Writing Teachers' Experiences with Assessing ePortfolios

As the use of ePortfolios in higher education has gained more attention, assessing ePortfolios raises the tension between the process and product assessment approach (Wills & Rice, 2013). Although many studies focus on the use of ePortfolios for assessment in different departments, there is a lack of studies that explore the experiences of writing teachers with assessing ePortfolios (Chang, Tseng, & Lou, 2012; Hung, 2009; Shada et al., 2011). More research on assessing ePortfolios is therefore needed to better understand these experiences and the assessment literacy they obtain and need to acquire.

As I explained earlier in this chapter, research shows that along with the need for ePortfolio literacy as one of the constraints of using ePortfolios for teaching writing, there is also a need for ePortfolio assessment literacy. Eyal (2012) indicated that teachers "must have assessment literacy" (p. 37) while using ePortfolios because a teacher has taken the role of "an assessor in a technology-rich environment" (p. 37). Barker (2005) defined a literacy portfolio as "a systematic collection of a variety of teacher observations and student products, collected over a period of time, that reflect a student's developmental status and progress made in literacy" (p. 4). That is, ePortfolio assessment has changed, and it became a promising alternative assessment tool (Barker, 2005; Genc & Tinmaz, 2012; Mostafa, 2011; Shada et al, 2011). In this manner, ePortfolios provide

writing teachers with potential assessment methods other than the standardized and traditional paper-pen testing (Chau & Cheng, 2010). Pitts and Ruggirello (2012), for example, examined teacher growth while using ePortfolios for assessment. The main aim was to find evidence for how the structure of ePortfolios influenced teacher assessment, online writing literacy, and professional growth and development.

Aliweh (2011) conducted a research on sixty EFL students majoring in English by using the ANCOVA (Analysis of covariance) test, pre- and post-test, and a survey to collect data on results of self-assessments. He found out that learners used self-assessment as a strategy to evaluate their writing because ePortfolios helped them to become more responsible for their written assignments. Becoming self-assessors encouraged learners to be aware of their literacy and writing abilities while using ePortfolios. In addition, using ePortfolios enabled students to effectively monitor and assess their writing progress.

Aliweh's (2011) study is related to my research because it examines potential implementation of ePortfolios in the EFL context. The study provides thoughtful research on assessing ePortfolios, and it reflects on the importance of using ePortfolios for writing in the EFL context. However, Aliweh (2011) suggested that more time be spent examining the results and the same study should be conducted in other contexts. My study will do this by exploring the use of ePortfolios and the methods used by writing teachers to teach and assess writing in PASSHE schools.

Chapter Summary

Consistent with the research questions, the review of literature in this chapter showed several issues connected to the use of ePortfolios to teach writing. The above-

mentioned studies revealed some benefits and strategies on using ePortfolios. The studies also revealed some limitations and challenges faced by teachers using ePortfolios in their writing classes such as lack of technical skills, organization of ePortfolio structure and artifacts, and ePortfolio assessment literacy. The literature further aligned the formative process with the summative product to balance the two facets of assessment using ePortfolios for the purpose of assessing artifacts. Yet the literature indicates that more studies are needed to explore the use of ePortfolios for teaching writing.

From reviewing the studies in this chapter, the following major findings have emerged:

- Providing writing teachers with pedagogical support and financial compensation for their initiative can maintain the use of ePortfolios,
- Receiving professional training impacts the use of ePortfolios for writing and assessment,
- Selecting a suitable software affects the use of ePortfolios,
- Having knowledge of technical skills helps to maintain the use of ePortfolios,
- Lacking technical skills affects the use of ePortfolios,
- Using ePortfolios enhances the writing of ESL/EFL learners,
- Providing fewer or more artifacts creates a challenge in using ePortfolios effectively, and
- Receiving clear guidance and objectives on choosing and grading artifacts promotes the use of ePortfolios.

Examining these findings from relevant studies helped me design how I would collect and analyze my data. Now, I turn to the actual design of the study in Chapter III.

CHAPTER III

METHODOLOGICAL FRAMEWORK

As explained in Chapter I, the purpose of this qualitative case study was to explore how writing teachers used ePortfolios for teaching writing in PASSHE English Departments. Achieving this goal required exploring the following questions:

- What benefits and challenges are apparent when writing teachers use ePortfolios to teach and assess writing?
- What experiences do writing teachers have while assessing ePortfolios?

This study used a qualitative research methodology to explore and understand the implementation of ePortfolios for teaching writing. Case study methodology was also chosen to reveal the experiences of writing teachers with teaching and assessing ePortfolios. Using case study further provided useful findings for writing teachers who already used ePortfolios or planned to implement them for their future writing courses. A description of the research sites, participants, and methods used for collecting and analyzing data was provided to contextualize the study in a research framework. Finally, the researcher's positionality and trustworthiness were also discussed.

Why Using Qualitative Research?

Qualitative research was “an inquiry process of understanding based on distinct methodological traditions of inquiry that explored a social or human problem” (Creswell, 1998, p. 15). A qualitative approach used a variety of methods such as surveys, document analysis, interviews, and observations. For my study, the dominant methods for collecting data were surveys and interviews. My research framework was based on two sources. The first was my review of relevant studies while the second source was data collected

from writing teachers about their use of ePortfolios for teaching writing. For Bloomberg and Volpe (2012), a qualitative approach “implies an emphasis on exploration, discovery, and description” in terms of “a deep understanding of a social setting or activity as viewed from the perspective of research participants” (p. 27). Deep understanding of the social context ensured a holistic analysis of a phenomenon in its natural framework (Bloomberg & Volpe, 2012; Creswell, 1998, 2003, 2013; Denzin & Lincoln, 1994).

Conducting qualitative research was appropriate to my study for two reasons.

- First, my study explored the use of ePortfolios for teaching writing through understanding the experiences of writing teachers with ePortfolios. To gain such understanding, “how” and “what” questions explored ways in which ePortfolios were used.
- Second, as the primary instrument for collecting and analyzing data, a qualitative approach permitted me, as a researcher, to expand my knowledge of ePortfolios by using several methods of data collection.

Creswell (2013) pointed out that “qualitative researchers collect data themselves through examining documents, observing behavior, and interviewing participants” (p. 45). That is, collecting data in this way permitted communication with participants and revealed some strategies used and values learned from using ePortfolios for teaching and assessing writing. Qualitative research, therefore, supported my exploration of ePortfolios by providing a rich descriptive foundation for collecting and analyzing data. Within this framework, the following section explains and justifies the use of case study methodology for this study.

Why Using Case Study Methodology?

Case study is “a formal research method” (p. 17) that “investigates a contemporary phenomenon in depth and within its real-life context” (Yin, 2009, p. 18) and “to explore some educational programme, system, project or event in order to focus on its worthwhileness” (Bassegy, 2007, p. 148). My study explored the use of ePortfolios in a “real-life context” in writing courses to examine their “worthwhileness” for teaching writing and assessment. The study context, though, was bounded by time, place, and circumstances as it explored the use of ePortfolios within certain parameters such as individual writing teachers and writing courses (Creswell, 2013; Merriam, 2002; Simons, 2009; Stake, 2010). Based on these parameters, using a case study methodology within a qualitative research approach presented “a significant contribution to knowledge...and can even help to refocus future investigations” (Yin, 2009, p. 47).

The case study methodology was used to include various variables and sources of evidence that were collected through surveys, interviews, and documents to develop an understanding of a phenomenon (Creswell, 2003, 2013; Simons, 2009; Yin, 2003, 2009). My choice to use surveys and interviews for my study enabled me to address my research questions more efficiently and to get an in-depth understanding of the use of ePortfolios for teaching and assessing writing.

Since Yin (2009) suggested that “3-4 cases might be selected” to examine the implementation of technology in institutions (p. 54), I selected participants who were individual PASSHE writing teachers who used ePortfolios in their writing courses. Yin (2009) referred to this situation as “the *representative* or *typical* case” (p. 48, emphasis in the original) which captured similar circumstances and conditions of everyday situations

to provide information for institutions and teachers. Based on these definitions and characteristics of case study and qualitative research, I then used a constructivist approach to frame my study.

Social Constructivist Framework for Qualitative Case Study

By definition, constructivism is “a theory about knowledge and learning; it describes both what knowledge is and how one comes to know” (Fosnot, 1996, p. ix). Based on this definition, the knowledge I sought was to explore a phenomenon within its real-life context by using surveys and interviews to collect data about using ePortfolios to teach and assess writing (Creswell, 2013; Stake, 1995; Yin, 2009). A constructivist approach claimed that truth is relative and depends on one’s perspective (Baxter & Jack, 2008). To examine these perspectives, I used multiple lenses to understand ePortfolio use within the constructivist approach.

The first lens was that of Vygotsky (1978). Vygotsky believed that knowledge exists within a “social relationship” (p. 7). Early studies of paper-based portfolios showed that knowledge could be gained through sharing and exchanging ideas with other learners. This fits with Vygotsky’s view of learning being socially based. Exploring the use of ePortfolios through a Vygotskian understanding of education made it active and relevant to the current methods of teaching writing. That is, using ePortfolios instead of paper-based portfolios supports Vygotskian notions of learning, but through integrating technological tools.

Fosnot (1996) reinforced Vygotsky’s notions of learning and explained that a constructivist approach “gives learners the opportunity for concrete, contextually meaningful experience through which they can search for patterns, raise their own

questions, and construct their own models, concepts, and strategies” (p. ix). In other words, using ePortfolios enhances students’ individuality to raise their own questions and construct their own learning. Due to this notion of learning, teachers have a new role.

Implementing ePortfolios depicted a Vygotskian perspective of the role of a teacher who provided scaffolding dialogue and collaboration to assist students with using ePortfolios. For my study, using constructivism built a meaningful foundation for collaboration because participants told “their stories” (Baxter & Jack, 2008, p. 545), shared their experiences, and described their perspectives on using ePortfolios for teaching and assessing writing. In this vein, using ePortfolios for teaching writing depicted the constructivist view of a “social construction of reality” (Searle, 1995, p.2) because learning that resulted from using ePortfolios happened through social interaction and not in isolation.

The second lens for explaining the use of constructivism within this qualitative case study was that social constructivist theory supports collaborative learning and the construction of new knowledge among writing teachers within a social and cultural learning context. A constructivist approach views teachers and students as partners in the teaching-learning process where learners adopt new ideas and methods to reinforce their perceptions and intellectual abilities while collaborating throughout their learning process (Levin, 1999). Because of this, ePortfolios fostered social interaction in meaningful contexts to build new bridges through constructivist experiences (Jacobsen, 2002; Levin & Wadmany, 2006). Building collaborative bridges between teachers, students, and administrators helps ePortfolio users to cope with the technological changes in their teaching-learning environments, and to expand knowledge.

The final lens was the concept of scaffolding. Scaffolding was defined as a teaching strategy and a technique that shifted responsibility to learners (Masters, 2013; Presseley, Hogan, Wharton-McDonald, & Mistretta, 1996; Vygotsky, 1978). As shown in Figure 2, the crystallization of qualitative research, case study approach, and a constructivist approach support the design of my study, including data collection and analysis. This connection reinforced the scaffolding use of ePortfolios to construct knowledge, provide options to support their use, and to build an environment of collaboration among faculty members.

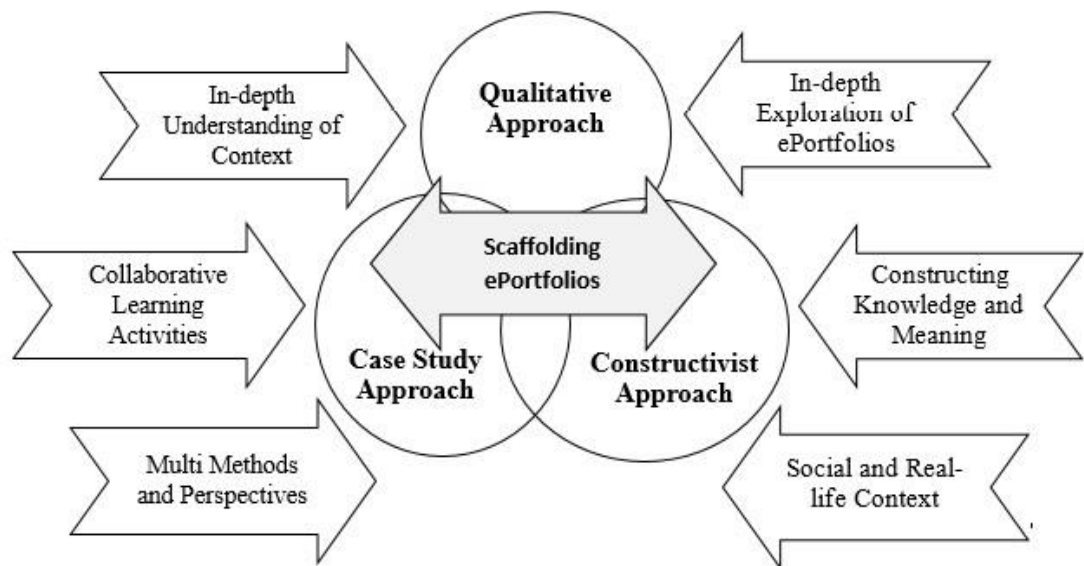


Figure 2. Blended methodological framework and design

This crystallization of the research framework was essential because the study attempted to do the following:

- Share common goals such as constructing knowledge by exploring and understanding the context of the case studies,

- Foster collaboration between the interviewee and me to provide details about implementing ePortfolios in writing courses,
- Support the use of multimedia while collecting and analyzing data to understand the use of ePortfolios, and
- Explore the strategies by which writing teachers implement, design, and present ePortfolios to teach and assess writing.

Therefore, using a constructivist approach to support this qualitative case study helped me to explore the use of ePortfolios to teach writing. It also constructed a base for connecting the research questions, literature review, and the findings of the study.

Teacher-Scholar Positionality

Qualitative research and case study approaches position researchers as important instruments for collecting and analyzing data (Creswell, 2013; Marshall & Rossman, 2011; Stake, 2010; Yin, 2009). Stake (2010) stated that when a researcher described his/her different personal roles in life, it helped the reader “by considering how the multiple roles would affect what she would see and how she would report it” (p. 168). Providing a personal statement about my role as a teacher helped the reader understand why I was interested in using ePortfolios to teach writing. Providing a personal statement about my roles as a scholar and a researcher might also help the reader understand what I learned about using ePortfolios and how I constructed my study. Yin (2009) argued that a good researcher should have knowledge about the issues under study, ask good questions, interpret answers, and become “unbiased by preconceived notions” (p. 69). To better describe the perspective through which I explored the use of ePortfolios, I positioned myself as a user of technology, then as a teacher, and finally as a researcher.

My Positionality as a User of Technological Tools

My first exposure to technology was during my Bachelor degree when I learned the basics of using computers. When I became a teacher, my principal encouraged faculty members to type exams and use computerized material for teaching and learning. During the late nineties, the use of digital tools and the Internet was out of reach in classes and many teachers preferred to write their exams and worksheets by hand. I, on the contrary, wanted to do something new and different in my classes, making use of my previous training on the use of computers to be a role model for other teachers. Integrating technology in my classroom was always stimulating for my students because it created a different environment compared to other classes and other teachers, something they liked. This positive attitude encouraged me to integrate digital tools more often in my classes.

Using technology in my classes also encouraged me to attend professional development workshops. My first email account was created in a workshop on integrating technology in classes and learning how to make use of technologies for teaching. In 2000, I bought my first *Mechashev Nayyah* or “a computer located on a desk” in Hebrew, and after seven years I bought myself a *Mechashev Nayyad* or “laptop” in Hebrew. I used to take my laptop to my classes to show my students materials that were relevant to their learning. At that time, my school was not connected to the Internet and was not advanced enough to use computers in English classes, so my students’ knowledge of computers was limited to computer class.

My Positionality as a Teacher

My journey with integrating technology into writing classes started in an Israeli High School in 2000. Since then, I joined several professional workshops on integrating

technological tools, in particular computerized lessons and activities for teaching English to promote students' learning and writing skills.

Over the years, I became skilled with integrating technology for writing. I also helped my colleagues and my English Department to implement several digital tools in the English classes as well as other learning subjects. My use of technological tools was reinforced when I started a technology-based English Language Center (ELC) in my school in 2007. The ELC, the first of its kind in my region and one of ten centers in Israel, provided unlimited opportunities for using technology to support teachers' pedagogical practices and students' learning.

During my career as a teacher, I taught High School students and became a master teacher for college students who intended to become English teachers. I taught them how to teach language skills in a real-life class context and how to integrate computerized material in the classroom where they later demonstrated their teaching skills.

Today, I continue familiarizing myself with various tools that expand my learning and teaching in writing classes. My experience with using technologies in the classroom helped me while teaching first-year college students at Indiana University of Pennsylvania (IUP). My writing courses were designed to integrate technological tools to teach writing and research. My teaching experiences helped me understand the use of technologies in different learning contexts with similar teaching methods.

During the last five years of my teaching career before starting my Ph.D. program in 2011, I also taught High School teachers how to teach literature by using technologies and how to apply technology to the new Bagrut literature program which is still part of

the High School Bagrut examination today.² During my studies at IUP, this experience was reinforced when I taught two online literature courses where digital tools were used to teach writing about literature. Combining both experiences helped me as a teacher to gain skills, meet expectations, and face challenges that I needed to work on.

As a teacher and as part of my future plan, my study on implementing ePortfolios for teaching writing made me proficient in their use and gave me added confidence. In particular, my knowledge allows me to integrate ePortfolios to help my colleagues while teaching the new Bagrut literature program in Israeli schools.

My Positionality as a Researcher

As a researcher, I was encouraged to study the use of ePortfolios shortly after finishing my fall semester of 2011 in my doctoral program at IUP. The reason for my interest emerged while working on my Qualifying Portfolio as a requirement to continue in the Composition and TESOL program. After reviewing the literature on ePortfolios, I decided to study them. The more I read about ePortfolios, the more they caught my attention as alternative tools to paper-based portfolios due to their many benefits.

To gain an in-depth understanding of ePortfolios and to examine their acceptability, I conducted a pilot study during fall 2012, which was published in 2014 as a book. The study examined how teachers perceive the use of ePortfolios as alternative assessment tools to paper-based portfolios/Logs in Israeli High Schools in the Negev in southern Israel. I collected my data through an electronic survey that was sent to English

² Bagrut refers to a diploma that is given to Israeli high school students who pass written and oral examination in all the required subject and it is based on collecting points. The New Bagrut Literature Program is part of the English Bagrut examination and it is based on learning a number of selected literary pieces during high school level. Students have the option to take an exam or compile a portfolio, which called a Log, to showcase student's achievement throughout high school level. The Bagrut examination takes place twice during school year; winter and summer.

teachers in Israel and through interviews via Skype. The majority of the participants in the study expressed positive attitudes toward using ePortfolios instead of paper-based portfolios/Logs. The study findings revealed that “while all participants are frequent users of technology, they have varied opinions on whether to use ePortfolios or not as alternative to paper-based portfolios/Log” (Alawdat 2014, p. 45). The study also revealed the potential use of ePortfolios in the Israeli context because the majority of teachers “prefer using ePortfolios in classes because after using them for personal development, they discover their benefits and advantages comparing to paper-based portfolios” (p. 47). As a researcher, this study provided me with insights about what to expect when I finish my current study and share it with my colleagues in Israel. This personal is very important because the data collected from an American context is not generalizable for the Israeli context due to different educational standards and policies.

This initial experience with research made me aware of my position as a researcher and a teacher whose interest was to use technology in her pedagogy. My position as a teacher-scholar, therefore, allowed me to ask suitable questions and interpret participants’ answers objectively so that I could explore benefits, challenges, support, and strategies while using ePortfolios in writing classes.

Background Information About the Participants

This section presents information about the sites and the participants of the study followed by detailed information about the interviewees’ rank, courses, and use of ePortfolios.

Description of Sites and Participants

The targeted sites were PASSHE schools located in the Northeastern and Mid-

Atlantic regions of the United States and consisting of fourteen schools.³ Conducting the survey in PASSHE schools helped in collecting more information about writing teachers.

The participants were individual writing teachers who used ePortfolios to teach and assess writing during spring 2014. They were active teachers in PASSHE English Departments and were involved in using ePortfolios in their courses.

The aim of targeting this population of teachers was to look at a bounded system that no one has done this before with PASSHE schools and there was no ePortfolio discovery from composition teachers in this system. The aim was also to collect information about experiences of individual teachers with using ePortfolios to teach and assess writing in their English Departments.

Précis About the Participants of the Study

I sent a survey (refer to Appendix A for the survey questions) to English teachers at all fourteen PASSHE schools, asking them to take the survey in order to identify those teachers who used ePortfolios. The survey was taken by seventy-nine participants. Twelve participants provided their contact information to participate in the interview phase of the study. Seven (three males and four females) out of the twelve participants ended up participating in the interviews while the other five, who initially agreed to participate, did not respond to my attempts to contact them with emails and phone calls to schedule interviews.

³ PASSHE schools; starting from east to west, are Cheyney University of Pennsylvania, West Chester University of Pennsylvania, East Stroudsburg University of Pennsylvania, Kutztown University of Pennsylvania, Millersville University of Pennsylvania, Bloomsburg University of Pennsylvania, Mansfield University of Pennsylvania, Shippensburg University of Pennsylvania, Lock Haven University of Pennsylvania, Indiana University of Pennsylvania, Clarion University of Pennsylvania, Edinboro University of Pennsylvania, Slippery Rock of Pennsylvania, and California University of Pennsylvania.

To maintain confidentiality and anonymity, all participants were called “Professor” and given pseudonyms to identify them later on. The pseudonyms were Professors Oryx, Tulip, Tulin, Ameer, Moses, Aidan, and Ann. The gender of the subjects was not considered in the research questions and, therefore, the comparison between male and female uses of ePortfolios was left for a future study. The Professors were contacted by e-mail, requiring them to sign and return the Informed Consent (refer to Appendix B for the informed consent) before setting up a date for the interview (refer to Appendix C for interview questions). The interview participants sent back the informed consent by either postal mail, by e-mail, or by signing and handing it to the researcher before conducting the interview.

To prevent the identification of the writing courses taught by these Professors during spring 2014, I provided a standardized course titles such as First Year College Writing, Advanced College Writing, and Professional Workplace Writing. I also provided different numbers for the courses such as Eng. 110, Eng. 220, or Eng. 300 to prevent identifying them. To make this change understood, courses from 100-199 were meant for First Year College Writing, courses from 200-299 were for Advanced College Writing, and courses over 300 were for Professional Workplace Writing.

The Interviewees Writing Teachers of this Study

Professor Oryx was a Professor of English, whose graduate work was in technology and writing. She had twelve years of experience with using portfolios in traditional and online classes. While data was being collected for this study, she was teaching English 110: First Year College Writing and English 220: Advanced College Writing. She turned to ePortfolio because she taught many writing classes and she felt

that using ePortfolios would made it easier for her, as she only needed a laptop rather than carrying big folders with lots of material. She stated that using ePortfolios required her to acquire new perspectives on teaching, and her construction of ePortfolios became more important to enable students to use ePortfolios inside and outside the classroom.

Professor Tulip, who was a Graduate Instructor (GI), was first exposed to using ePortfolios in her doctoral program. She initiated the use of ePortfolios in her English 232: Advanced College Writing courses. Her previous experience with paper-based portfolios also helped her design her ePortfolios to suit her aims for teaching writing. Despite her lack of training and professional development on ePortfolios, she trained herself by accessing other universities homepages where they offered videos and instructions on using ePortfolios.

Professor Tulin, who was a Temporary Assistant Professor, was a writing teacher who had been trained in a non-PASSHE school where she learned how to use ePortfolios for online and face-to-face writing classes. She taught two writing courses: English 278: Advanced College Writing and English 371: Professional Workplace Writing. When she moved to a PASSHE school where D2L was implemented, she was encouraged to continue using D2L ePortfolios. Through her previous knowledge, she created students' ePortfolios and added course readings, discussion, and student presentations.

Professor Aidan, who had been teaching for twenty years as an Associate Professor of English, was required by his department to use ePortfolios for English 128: First Year College Writing since 2011. He mentioned that his department provided writing teachers with a master syllabus, shared writing tasks, multimodal texts, and methods of teaching. The switch to using ePortfolios reduced teachers' anxiety of

evaluating students' ePortfolios at the end of the semester, since the department's assessment strategy have teachers assess the ePortfolios of their colleagues rather than their own students. Professor Aidan felt that having a shared syllabus and writing tasks made it easier for teachers to assess ePortfolios and their learning experiences as well. He mentioned that assessing ePortfolios taught him what other teachers did in their classes and what assignments they gave. He also learned about how the new syllabus impacted teachers and students, and acquired new skills from assessing other teachers' ePortfolios.

Professor Moses was an Assistant Professor of English and a writing teacher who worked in the Writing Center in his university. He used ePortfolios in three classes: English 131: First Year College Writing, English 300: Professional Workplace Writing in the English department, and his prologue Writing Center training courses in the Writing Center. The use of ePortfolios was required by his department for English 131, which included forty sections with about a thousand students. He used D2L ePortfolios for writing and assessment and defined them as structured digital tools with huge storage capacity that are used for teaching writing, storing and drafting students' ePortfolios, and for assessment purposes. His philosophy of using ePortfolios was based on understanding the value of their use in teaching writing. Professor Moses had published a narrative about his department's journey with using ePortfolios.

Professor Ameer is a Professor of English and a writing teacher who initiated the use of ePortfolios in his classes to help students with learning disabilities and hearing impairment. His knowledge of Moodle caused him to integrate Mahara software inside Moodle for ePortfolios. He had been teaching for three years in his department and his first used ePortfolios when he was studying for his master and doctoral degrees. He used

ePortfolios in English 231: Advanced College Writing and in English 374: Professional Workplace Writing. He used technological tools in response to the needs of students with disabilities required opportunities to manage their learning process and to catch up to other students at their own pace.

Professor Ann, who was a Graduate Instructor, was a first-year writing teacher and had no experience with using paper-based portfolios. Her department encouraged teachers to use ePortfolios on D2L but left the choice to teachers as to whether or not to use them. Despite her lack of knowledge and technical skills on the use of ePortfolios, she started using them in English 135: First Year College Writing classes. She used D2L ePortfolio for the whole class to upload course readings, track her students' discussions and writing progress, and for drafting and grading throughout the course.

Table 1 summarizes data relevant to the seven interviewees, shedding light on their experiences with using ePortfolios. The table shows that four of the interviewees had previous experience in using paper-based portfolios before turning to ePortfolios to teach and assess writing, whereas three interviewees started using ePortfolios without previous knowledge of paper-based systems.

The table further shows that three participants used ePortfolios by individual initiative and personal decision while two used ePortfolios as required by their departments. Two more participants mentioned that their departments encouraged the use of ePortfolios, but it was not a requirement and left the decision to teachers as to whether or not to use ePortfolios as I explain later.

Table 1.

Concentrated Information About the Study Interviewees

Professor	Rank	Courses Taught during 2014	Use of Paper- based Portfolio	Use of ePortfolios
Oryx	Professor of English	Eng. 110: First Year College Writing Eng. 220: Advanced College Writing	Yes	Individual initiative
Tulip	Graduate Instructor	English 232: Advanced College Writing	Yes	Individual initiative
Tulin	Temporary Assistant	Eng. 278: Advance College Writing Eng. 371: Professional Workplace Writing	Yes	Departmental Optional vs. Individual initiative
Aidan	Associate Professor of English	Eng. 128: First Year College Writing	Yes	Departmental Requirement
Moses	Assistant Professor of English	Eng. 131: First Year College Writing Eng. 300: Professional Workplace Writing	No	Departmental Requirement
Ameer	Professor of English	Eng. 231: Advanced College Writing Eng. 374: Professional Workplace Writing	No	Individual initiative
Ann	Graduate Instructor	Eng. 135: First Year College Writing	No	Departmental Optional vs. Individual initiative

Methods of Data Collection and Research Context

“Case study evidence can come from many sources” (p. 99) because “no single source has a complete advantage over all the others” (Yin, 2009, p. 101). Bassey (2007) also added, “case study research has no methods of data collection or of analysis that are unique to it” (p. 151). That is, collecting data is not limited to one source, and there is no preferable method due to the benefits of adding valuable data to the research. Bloomberg and Volpe (2012) similarly pointed out that “data collection in case study research is typically extensive, and draws on multiple methods of data collection including document review, observation, interviews, focus groups, surveys, and critical incidents” (p. 31).

For the purpose of this study, I arranged this section in the order in which the research was conducting. In other words, I first sent out the survey for the purpose of collecting data. Subsequently, I figured out the potential participants and study sites, and finally I conducted semi-structured interviews to collect further data on the use of ePortfolios. I also justified the choice and the use of each method to answer my research questions about implementing ePortfolios, affordances and constraints, and assessment.

Using Surveys for Collecting Data

A survey is “a set of questions or statements or scales—on paper, on the telephone, or on the screen—usually asked the same way of all respondents” (Stake, 2010, p. 99). For this study, I used a survey (refer to Appendix A for the survey) to get information about writing teachers, their writing courses, and the implementation of ePortfolios for teaching and assessing writing.

I designed my survey by using Qualtrics Software and the link for the survey was distributed to all PASSHE English departments via e-mail. In 2008, Meyer and Latham

used an e-mail survey to study the experience of teachers' implementation of ePortfolios in four universities in the United States. The researchers used the survey to "define the study population" and to provide "the context and background information" for the participants (Meyer & Latham, 2008, p. 37). The researchers also used the survey to categorize and analyze common responses and themes for their study. In connection to Meyer and Latham's (2008) study, I also sent the link of the survey via e-mails due to the fact that my prospective participants were located in different PASSHE English Departments across Pennsylvania. Since I was interested in reaching as many teachers as possible, I sent the link to secretaries in the English Departments and asked them to pass my message on to the staff. Following this step, I sent the link to all English staff in all PASSHE schools several times during spring 2014.

Throughout the period of data collection, I kept track of all the surveys taken. I noticed that most of the survey respondents took the survey on certain days and during certain hours. With this information, I targeted those days and times to send the survey again and again. Some of the respondents took the survey immediately or a few hours after they received it. To keep track of potential respondents to whom I had sent the link, I created a table with the names of the PASSHE schools, the number of times I sent the link, and the names of teachers who identified themselves in the survey so as to remove their email account from the survey list and to contact them for the interviews.

For my study, the purpose of the survey was to collect exploratory data about the use of ePortfolios and to obtain information about individual writing teachers and their use of ePortfolios to teach writing. The information collected from the survey provided a general idea about the uses and challenges writing teachers faced and how they assessed

and used ePortfolios for teaching writing. The survey also helped to collect information about the various purposes for which writing teachers used ePortfolios in writing classes.

Similar to the purpose of my study, Viggiano (2009) also examined the use of ePortfolios as a tool to store formative and summative assessments. Although Viggiano (2009) used her survey in the Department of Education, it was relevant to mine because it addressed topics that I also addressed. Like Meyer and Latham (2008), Viggiano (2009) sent her survey via e-mail to faculty members who used ePortfolios in high schools.

Basing my method on existing studies, I used a survey to gain an understanding of ePortfolios and to explore how writing teachers used them. Since there were no studies which explored the implementation of ePortfolios for teaching writing, I used examples from the Department of Education where the strategies, benefits, and challenges of implementing ePortfolios in English departments were similar. I adopted some relevant questions from Meyer and Latham (2008) and Viggiano (2009) to design my survey using Qualtrics survey software. The survey consisted of demographic information, multiple choice, and open ended questions with the aim of getting information about writing teachers who implemented ePortfolios to teach and assess writing.

Using Semi-Structured Interviews for Collecting Data

The survey asked writing teachers to provide their contact information to be contacted for further participation in my study. Based on the information provided, I contacted participants to schedule a semi-structured interview (refer to Appendix C for interview questions), which occurred through Skype video conferencing, Skype phone calls, or face-to-face interviewing. The reason for using different tools to interview the participants was because participants were scattered throughout the state of Pennsylvania.

The purpose of using semi-structured interviews was to obtain “unique information or interpretation held by the person interviewed,” and to reveal issues that could not appear in the survey (Stake, 2010, p. 95). Yin (2009) explained that interviewing as a method of collecting data provided information and in-depth understanding of how ePortfolios were used, the emerging affordances and constraints, and the experiences of assessing ePortfolios. The interview also occurred “over an extended period of time, not just a single sitting” (Yin, 2009, p. 107) where “a construction of knowledge” took place while interviewing individuals who discussed similar themes (Marshall & Rossman, 2011, p. 142).

Based on the results of the survey, a range of thematic topics emerged to cover several issues related to the implementation of ePortfolios for teaching writing. Writing teachers were also asked to discuss their experiences of using ePortfolios to teach writing, their purposes and reasons, and problems and constraints they had with either the content of the artifacts or the use of software for the assignments, and their experience of assessing ePortfolios. The design of the interview, therefore, involved asking individual writing teachers a list of questions about a carefully selected topic “for a short period of time—an hour” (Yin, 2009, p. 107). Grosshans (1991) stated that such a design depicted “an interview in which questions to be asked, their sequence, and the detailed information to be gathered are all predetermined; used where maximum consistency across interviews and interviewees is needed” (p. 104).

For my study, the questions were based on participants’ answers in the survey. The sequence of the questions on the survey was not followed consistently, but rather I encouraged the interviewees by asking questions related to the topic being discussed by

them. Eventually, all questions on the survey were asked for all the interviews and I frequently asked other questions to encourage the interviewees to elaborate more on a certain interesting topic that I wanted to know more about for this study and beyond.

Audio-Recording of the Interviews

I audio-recorded the interviews to get specific details from the participants during the interviews and be able to listen and check them several times for precise comments. The duration of the recording time ranged from forty to seventy minutes. Two or three days were required to transcribe each interview and to go over it again before storing it on a portable desk. For recording the interviews, I used audacity software and a backup portable audio recorder to ensure that the interviews were recorded. This allowed me to be more focused during the interview instead of being distracted by taking notes. Simons (2009) indicated that audio-recording “frees you from having to write everything down so you can concentrate on the social interpersonal nature of the interview process and respond fully to the interviewee” (p. 52). Yet, the notes I took were only to remind myself of important issues that I wanted the interviewees to elaborate on further rather than cutting them off in the midst of their talk.

Using Documents for Collecting Data

Documents, as explained by Simons (2009), include “not only formal policy documents or public records but anything written or produced about the context or site” (p. 63). She pointed out that document analysis of annual reports, audit reports, rules, statements, regulations, prospectuses, bulletins, visual artifacts, instructions tend to be used less than surveys and interviews and their addition to a case study “has not been fully exploited” (p. 63). For this study, an analysis of formal and informal documents,

such as course descriptions and departmental policies, added in-depth understanding of the methods and strategies used by teachers who used ePortfolios for writing and assessment. The collected documents also added more details about how writing teachers' use of ePortfolios needed to be in line with university policies in accordance with the educational standards of PASSHE schools.

Therefore, using the documents helped me better understand the purposes and contexts of using ePortfolios to teach writing and to analyze instructions on how to use them. They also helped me expand my knowledge about the interviewees' goals of using ePortfolios in their writing courses. Such information provided a context for analyzing data from the surveys and the interviews.

Data Analysis

Data were analyzed qualitatively using NVivo software and a coding system to arrive at a rich, contextualized description of the use of ePortfolios for teaching writing. In order to answer my research questions, I focused on particular areas including how ePortfolios are used to teach writing, what affordances and constraints faculty members face, and how they assess ePortfolios.

My strategy for analyzing the collected data for this study occurred after each stage of data collection, starting with the surveys and then moving on to the interviews. That is, my strategy was, first, to code the data from the surveys to get a general idea about the use of ePortfolios and to identify the interviewees. The second strategy was to focus on the survey of each interviewee in order to make it the starting point for the interview. The final strategy was to transcribe each interview immediately after recording it. The aim was to code the emerging themes from one interview and expand those

themes to the other interviews in order to obtain more information about a certain theme that answered my research questions. Yin (2009) mentioned that when a researcher has a strategy, it “will help [the researcher] to treat evidence fairly, produce compelling analytic conclusions, and rule out alternative interpretations” (p. 130).

To contextualize my data on the use of ePortfolios, I used the following analytic strategies to analyze the collected data:

The first strategy for analyzing data was to develop a coding system using a twofold approach. The first coding system was based on the themes which emerged from the literature review in Chapter II. Based on this system, the coded data from the surveys and the interviews paralleled themes of the literature review. At the early stages during the reviewing of literature and data collection, the assumption was that similar themes would emerge during data analysis or that new themes may merge.

The second approach was to answer the research questions by coding emerging themes in order to establish new themes and to present new evidence that was not previously recognized. Following constructivist approach, my role effectively became to provide raw data and objective descriptions of the use of ePortfolios, leaving room for further interpretation in the investigation of possible emerging themes and challenges. Stake (1995) stated that a “constructivist view encourages providing readers with good raw material for their own generalizing” (p. 102). For the purpose of this study, therefore, the coding system covered the research questions that explored the use of ePortfolios to teach writing, the emerging constraints, and how writing teachers assessed ePortfolios.

The second strategy was the use of NVivo qualitative data analysis software to code the collected data. For this study, I had two options while working with NVivo. The

first was to use a pre-constructed coding scheme which was based on providing themes and then allowing NVivo to categorize them. The second option was to use a bottom-up approach by reading the collected data and then creating nodes by allowing themes to arise from the data (NVivo 9, 2011-2012). This option was based on eliciting themes from the data and concentrating them thematically in one of the relevant nodes. It is essential to mention that both strategies overlapped. For the pre-constructed coding system, I provided the emerging themes from the literature review to explore whether the use of ePortfolios had changed over time. This option led to using a bottom-up approach by providing NVivo with the collected data for the purpose of identifying themes.

Other methods of data analysis were required due to the nature of some of the multiple choice questions used in the survey. Although this study did not use quantitative methods, I used Qualtrics Survey Software to provide some statistical data on answers to certain multiple choice questions. The questions were designed for the five-level Likert Scale in which the subject is given a statement and a choice to: (a) Strongly Agree, (b) Agree, (c) neither Agree Nor Disagree, (d) Disagree, and (e) Strongly Disagree. According to Stefanowski (2013), the Likert Scale is used for “A special kind of survey questions [using] a set of responses that are ordered so that one response is greater (or preferred) than another” (p. 7, as appears in original). In an attempt to understand the use of ePortfolios for teaching writing, Table 2 provides an overview of my research questions and the required information for each question. It is essential to mention that the methods of collecting and analyzing data were used with all of the research questions.

Table 2.

Overview of Research Design

Research Question	Required Information	Methods of Data Collection	Methods of Data Analysis
How are ePortfolios implemented by writing teachers to teach writing in PASSHE English departments	<ul style="list-style-type: none"> • Background information about courses and teachers in PASSHE schools. • Strategies and Procedures of using ePortfolios. • Personal experiences with using ePortfolios. 	<p>Qualtrics survey service.</p> <p>Semi-structured interviews.</p>	<p>Coding data for the survey.</p> <p>Transcription of interviews</p> <p>NVivo data analysis</p>
What benefits and challenges are apparent when writing teachers use ePortfolios to teach and assess writing?	<ul style="list-style-type: none"> • Types of challenges, limitations, and constraints • Personal experience with emerging challenges. • Support and solutions to the use of ePortfolios 	<p>Documents about writing courses and Departmental policies</p>	<p>Thematic coding system</p> <p>Likert Scale</p> <p>Qualtrics Survey</p> <p>Software</p>
What experiences do writing teachers have while assessing ePortfolios?	<ul style="list-style-type: none"> • Personal experience with using ePortfolios for assessment <p>Types of assessment used with ePortfolios.</p>		

Here is a further description of the research procedures I followed before and while conducting this research:

I needed the approval of the Institutional Review Board (IRB) at Indiana University of Pennsylvania to proceed with my study and to present the IRB approval to writing teachers (refer to Appendix D for the IRB). The IRB required detailed information about my study and informed consent for my potential participants' confidentiality and protection. During data collection, I also needed IRB approval from one of the PASSHE universities in order to include their teachers in the survey.

The second procedure was sending a link for the survey via Qualtrics software by e-mail to all PASSHE English Departments, secretaries of English Departments, and teachers in order to collect background information about the use of ePortfolios. The survey included personal information and guided and open-ended questions involving the use of ePortfolios to teach writing, challenges, and assessment.

The writing teachers who provided contact information to participate in phase two of the study were contacted through a recruiting letter (refer to Appendix E for the letter), which was sent out via e-mail. The aim was to explain the purpose of this qualitative case study, to schedule interviews, and to have them sign the informed consent forms (refer to Appendix B for informed consent) and return them to me via postal mail, e-mail, or hand it prior to the interview.

Limitations of Collecting Data for the Study

Given the purpose of this study, a few limitations were emerged. First, observation as a method of collecting data was not used. This limitation was due to various reasons. The first was that using observation requires a focused group of

ePortfolio users in one class or institution to learn about their use of ePortfolios. Also, because the interviewees in this study were scattered in different PASSHE schools, travelling to observe how they use ePortfolios was difficult. Another reason was the absence of students in the study. The focus was on teachers' experiences with ePortfolios. So, using surveys and interviews provided enough data about the teachers' use of ePortfolios for writing and assessment.

Another limitation was that survey respondents who provided their contact information for the interviews did not respond to my calls. This could be a limitation because the information they might have provided about their experience with using ePortfolios could have been a rich addition to the collected data. Due to time limitations for my study, I did not insist on constantly sending emails and calling them in order to receive a reply. This could be a task for future research.

Methodological Disruption and Challenges

Based on the process of conducting this research, a number of methodological challenges and disruption emerged such as designing the study, selecting a suitable theory, and collecting data were major issues that led to various decisions and strategies while conducting this study.

Challenges While Designing the Study

During the process of designing the study, I put forward some strategies for collecting and analyzing data. One concern about the study was how to arrange sections within each chapter. I eventually decided to follow the order of the research questions which helped me organize the different sections of each chapter. This linear design organized my discussion for the whole dissertation. Each chapter aligned with the order

of the research questions and the previous chapters so that readers could easily follow focused information about the research questions. Table 3 shows this linear process.

Table 3

Summary of the Linear Process of Designing the Study

Chapter 1	Chapter 2	Chapter 3	Chapter 4	Chapter 5
Introduction	Literature Review	Methodology	Research Findings	Data Analysis
How do writing teachers implement ePortfolios?	Studies about the use of ePortfolios for writing	Methods of data collection and data analysis were shaped by the previous chapters and helped to design the later ones	Reporting strategies survey respondents and interviewees use with ePortfolios	Emerging themes about using ePortfolios for writing
What affordances and constraints are apparent while using ePortfolios?	Studies about affordances and constrains while using ePortfolios		Reporting affordances, constraints, and challenges facing the participants while using ePortfolios	Emerging themes about affordances, challenges, and solutions while using ePortfolios
What experiences do writing teachers have with assessing ePortfolios?	Studies about teachers' experiences with using ePortfolios for assessment		Participants' experiences with using ePortfolios for formative and summative assessment	Emerging themes about using ePortfolios for assessment

As Table 3 shows, readers could read the literature review about one of the research questions in Chapter II. Then, they could read what the survey respondents and the interviewees reported about the same question in Chapter IV, and finally they could read the discussion about emerging themes related to this question in Chapter V. This linear design shows the combination of the constructivist approach and the functionality of ePortfolios in both linear and non-linear design.

Challenges While Collecting Data

I found that collecting data for a research project was not as easy as it sounded. Thinking about the time range and getting a sufficient number of respondents for the study was a concern that I had to overcome in order to collect enough data for my study. Collecting data, therefore, required facing a variety of obstacles.

One of the unexpected obstacles was being asked to get another IRB approval. When I sent out my survey request the first time, I got an email reply from one of the professors, who had shared her reply with all the teachers in her department as well as her university's IRB committee, and me, asking me not to send the survey again unless I got IRB approval from her university. I already had IRB approval from Indiana University of Pennsylvania (IUP) and I was contacting individuals, not the department as whole. So, I should not have needed IRB approval from other universities.

A second most unexpected obstacle of this department was when my dissertation adviser and I were asked to enroll in an online course about protecting human subject research in order to use the survey in their English Department. Because I was interested in collecting data from all PASSHE schools, my advisor and I enrolled in the online course for which we had to read the course material and then take an exam. After passing

the course and getting a certificate of completion, this university's IRB committee demanded that I gain IRB approval from their institution. I used their IRB approval, in addition to the approval I had from IUP, to recruit more participants to take my survey. This obstacle was a serious issue requiring me to write another IRB protocol that delayed the progress of the study for a while. From this experience, I learned that having an approved IRB and recognized formal documents from one institution might not be acceptable at other institutions. This obstacle also taught me that conducting a research project was not very easy, and many unexpected obstacles might appear and stop the whole research process.

Another concern with collecting data was encouraging teachers to take the survey. This process was very frustrating at certain points because respondents were very slow to take the survey. When I first sent the survey link by email, it took several days to record a completed survey on the Qualtrics Survey Software. To overcome this problem and to encourage teachers to take the survey, I changed my strategy of sending emails. I started sending the message with the survey link twice, in back-to-back emails, to allow the receivers to notice my emails among the many messages they received each day. This strategy worked better and respondents started taking the survey.

I tried this strategy with all the PASSHE schools on five separate occasions throughout the spring of 2014. I also asked the interviewees if they would recommend any of their colleagues to take the survey and to be interviewed. This strategy worked to some extent because when I contacted teachers personally, they often agreed to take the survey and provided their contact information. Unfortunately, many of these teachers still did not reply to my calls or my emails requesting interviews.

A final strategy I used was targeting certain days to send my survey. I arrived at this strategy when I noticed that several survey respondents took the survey during the weekends and between certain hours. This strategy worked well and, by timing requests carefully, I got more respondents to take the survey on the day that I sent the link. These strategies worked well together, allowing me to recruit seventy-nine survey respondents from which seven interviewees ended up participating in my research.

Concerns and Considerations About the Theoretical Framework

During the process of searching for a theory to suit and to shape the framework of this qualitative case study, I decided to use Vygotsky's (1978) constructivist approach. By definition, constructivism is "a theory about knowledge and learning; it describes both what knowledge is and how one comes to know" (Fosnot, 1996, p. ix). My aim in conducting this study was to know and learn more about the use of ePortfolios in their real-life context through surveys and interviews.

My focus on teachers' experiences with using ePortfolios justified my decision to use constructivism because it supported the functionality of ePortfolio software which was designed to make a connection between artifacts. Both, constructivism and ePortfolios, are based on systematic construction of the learning process and artifacts. That is, constructivism views learning as a process of connecting items from one stage to another in a systematic way. Constructing artifacts within ePortfolios is also based on connecting different written assignments by using a combination of linear and nonlinear writing processes in which hypertexts are added. This theoretical framework established a solid base for this constructivist study in which the theoretical framework was aligned with the design of ePortfolio software.

Trustworthiness and Ethical Considerations

As a researcher who explored the use of ePortfolio for teaching writing by dealing with prospective participants, I was aware that conducting research on human subjects needed great care. According to Bloomberg and Volpe (2012), “if work is reliable, then two researchers studying the same phenomenon will come up with compatible observations” (p. 112). Validity, reliability, and trustworthiness were important ethical considerations for my research (Bloomberg & Volpe, 2012; Yin, 2009) because they described the experiences of individual writing teachers with using ePortfolios to teach and assess writing. For my research, I employed strategies to address ethical issues and enhance trustworthiness as follows:

Confidentiality was one of the prime issues to consider for this study. I preserved the anonymity of PASSHE schools, their websites, their English Departments, their writing courses, and any other information that might identify them. I also preserved the participants’ personal information for the sake of protecting them and reducing any “potential harm to those involved in the study” (Bloomberg & Volpe, 2012, p. 111). For these ethical considerations and before conducting the research, writing teachers saw the IRB (refer to Appendix D) which was attached to the recruiting emails as well as the Qualtrics surveys which were sent to them. Those who identified themselves on the survey were asked to sign the informed consent form (refer to Appendix B) to validate the ethics of conducting this research.

Through the informed consent, the participants became aware that their identities would remain anonymous and would not be revealed for any purpose beyond the research. Also, the interviewees were always verbally reminded at the beginning of the

interview of the purpose of the study, the informed consent, and their right to withdraw at any time if they were uncomfortable with participating in the study. Marshall and Rossman (2011) pointed out, “ethical considerations are much more than ensuring informed consent and protecting participants’ anonymity” (p. 121). Yet this procedure of informing the participants of such information built a bond of trust between my participants and me, and, eventually, they provided more comments and details about the use of ePortfolios, the affordances and constraints, and how they used ePortfolios to teach and assess writing as well as much other information beyond the scope of this research.

Another important ethical consideration was the use of the recorded interviews, which were saved on a separate hard drive. They were erased after being transcribed for the sake of the study. This point was mentioned in the informed consent to notify the participants of what would happen after the completion of the study.

For reliability of analyzing the collected data, I paid another person to listen to the interviews while reading my transcription of them in order to make sure that I did not miss anything. This procedure retained confidentiality as the assistant was unaware of the identity of the interviewees because they did not mention the name of their school or any personal information about themselves.

As a researcher, I also tried to be objective in my survey questionnaire, interviews, and data analysis because objectivity is a major issue for the reliability of qualitative case studies. My objectivity became obvious because my position as an external researcher, who conducted other studies, gave me the opportunity to avoid subjectivity and bias toward any English Department. Stake (2010) stated that “becoming

a researcher, especially for a person doing qualitative research, is partly a matter of learning how to deal with bias” (p. 164).

Chapter Summary

This chapter provided a detailed description of my methodology and research design. As I explained in this chapter, this qualitative case study explored the use of ePortfolios to teach and assess writing and the challenges of using them. The participating writing teachers were from PASSHE schools in which ePortfolios were used. Data collection was based on experiences of writing teachers who used ePortfolios in their writing courses. The data was collected through a Qualtrics survey, a semi-structured interview, and public documents available on the English Departments’ homepages. The collected data were analyzed by using a coding system and NVivo qualitative data analysis software for thematic analysis.

For further exploration of the use of ePortfolios to teach and assess writing, I turn to presenting and analyzing the collected data in the following chapters. In Chapter IV, the data is reported according to a thematic coding system for each of the research questions. In Chapter V, the study findings and the emerging themes are also analyzed in accordance with the order of the research questions.

CHAPTER IV

THEMATIC PRESENTATION OF THE COLLECTED DATA

This qualitative study explored the strategies that writing teachers used to implement ePortfolios for teaching writing and assessment. The data were collected from seventy-nine survey respondents and seven interviewees. The presentation of the data in this chapter aligned with the literature review and the order of the research questions:

- How do writing teachers implement ePortfolios to teach writing in PASSHE English Departments?
- What benefits and challenges are apparent when writing teachers use ePortfolios to teach and assess writing?
- What experiences do writing teachers have while assessing ePortfolios?

To coincide with this order, this chapter provides background information about the implemented software and the participants to detail the context of the study. The data from the surveys are then presented and followed by the interviews to explore how writing teachers have implemented and used ePortfolios, the challenges they have faced, and how they have overcome the emerging challenges. Finally, the experiences of the writing teachers with using ePortfolios for assessing students' writing are presented.

Learning Management System Used by Professors in this Study

Professors used two types of Learning Management Systems (LMS) for managing their writing classes and using them to teach writing as well. In this section, two types of LMS are revealed by the Professors in this study to manage their writing classes. This section also provides the Professors' definition of ePortfolios in connection to the LMS in terms of how they used the tool in their writing classes.

Types of ePortfolio Software Used by Professors in this Study

The analysis of the data revealed that PASSHE schools provided writing teachers with two LMS software of ePortfolios: Desire2Learn ePortfolios (D2L ePortfolios) and Mahara Moodle ePortfolios (Mahoodle). In this section, a description of the software used by the interviewees supports the analysis of emerging themes and clarifies the concept of ePortfolios for the reader of this study.

D2L ePortfolio was the type of ePortfolios used by six interviewees. The D2L ePortfolio software is a separate tool added inside D2L. According to *Desire2Learn: Innovative learning technology guideline*, D2L ePortfolio is “a tool inside of D2L course site” (para. 2) and linked directly to D2L. The purpose of linking it to D2L is to make it easier to share artifacts with teachers and students, to provide comments and feedback, and to present students’ ePortfolios to audiences. (See Figure 3).

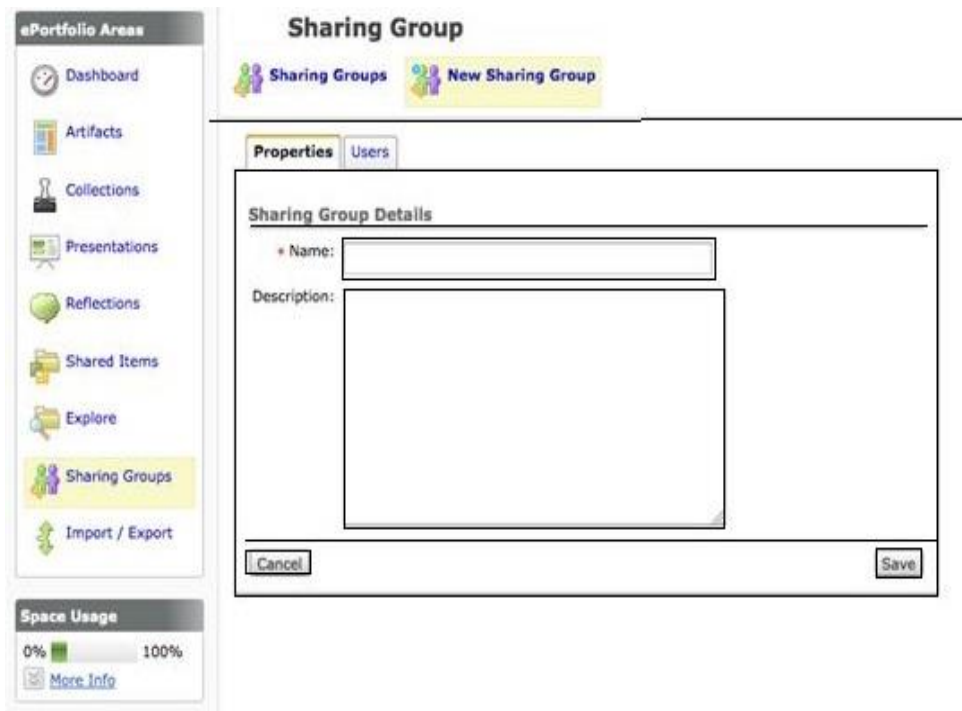


Figure 3. Sample page of D2L ePortfolio adapted from D2L guideline

Figure 3, which is a sample page of D2L ePortfolio, shows different areas where students can share their artifacts for feedback and discussion. It also shows where learners can store artifacts for future use, and present them to different audiences such as their teachers, classmates, and evaluators in their departments.

The class D2L ePortfolio is shared with students in order to have access to course readings, grades, and discussion boards. Students have their own ePortfolios inside D2L and they have options for designing and structuring their ePortfolios. Teachers also have access to students' ePortfolios via a link on D2L to be able to follow students' writing and provide them with constructive feedback and comments. D2L ePortfolio enables students to preserve their ePortfolios after graduation to keep collecting relevant artifacts for future purposes and for job hunting.

The second software, which was used by one interviewee was Mahara Moodle ePortfolios, which is also known as Mahoodle. Some PASSHE teachers continued to use Moodle in their writing classes although their universities purchased D2L. Similar to D2L ePortfolio, Mahoodle enables communication, discussion, storage, sharing, and presenting for audiences inside and outside the classroom through a link hosted within the Moodle learning environment. Figure 4 shows some features that enable discussion with groups and storage of artifacts for future purposes.

Teachers can provide access to the site so that student can create their own ePortfolios, share their artifacts with their teachers or classmates, and submit their assignments to their ePortfolios within Mahoodle ePortfolio for peer review and discussion. Teachers also have access to individual ePortfolios to follow students writing progress, to give feedback and comments, and to grade their ePortfolios.

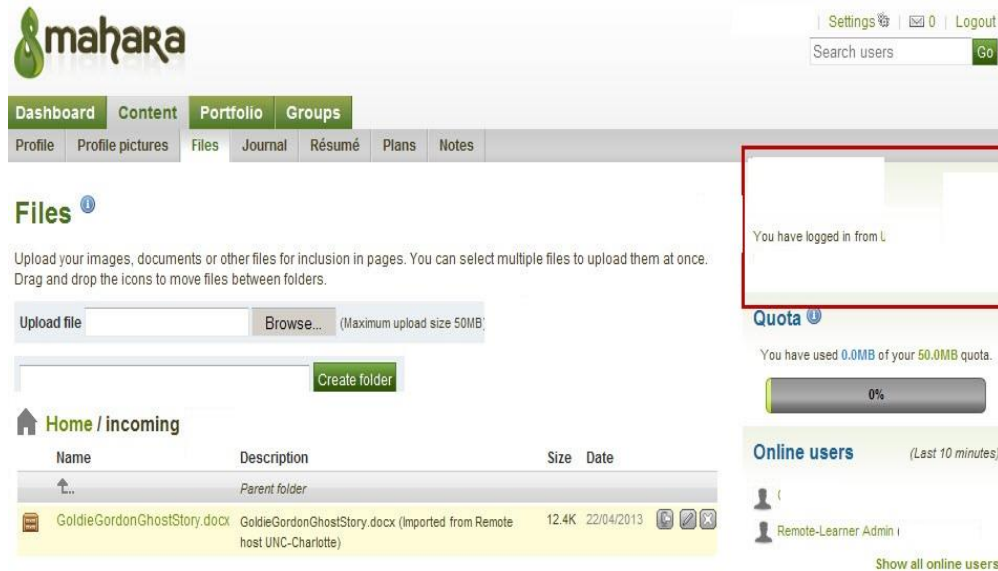


Figure 4. Sample Page of Mahoodle adapted from Mahoodle guideline from UNC Charlotte.

Definition of ePortfolios by Professors in this Study

Researchers have defined ePortfolios as electronic tools for collecting artifacts to track students' learning progress in a multimodal environment where written texts, audios, videos, and images were used (Abrami & Barrett, 2005; Barrett, 2010; Cambridge, 2010; Lane, 2009; MacDonald, Liu, Lowell, Tsai, & Lohr, 2004). Writing teachers in this study provided their own definition of ePortfolios according to how they used them in their classes to add to the body of knowledge in the field of composition.

Professor Oryx who was a Professor of English, defined ePortfolios as digital tools that added a dynamic environment for teaching and assessing writing. She had a twofold definition of D2L ePortfolio. She first defined it as an electronic format of a class management system which enabled her to collect students' work without printing it out. She then defined it as a tool that enabled various types of dynamic digital writing styles, at time in which "composition itself is quite changed in terms of both formats that are

going to produce and the technology that is going to process these things” (Interview, March 26, 2014).

For Professor Tulip, D2L ePortfolios were digital organizational tools for writing and assessment that helped her students create their own ePortfolios in order to share their artifacts for discussion, grading, and reflection. In a similar vein, Professor Tulin defined ePortfolios as digital organizational supplementary tools for teaching writing and assessment, and for tracking students’ writing progress. Professor Ameer’s notion of ePortfolios was also based on his understanding and definition of them as electronic organizational tools with additional visual artifacts which engaged students with disabilities. Professor Moses further defined them as active digital communicative tools that enabled tracking students’ progress over time, collaboration among students, and permitted writing for multiple audiences.

Professor Aidan, whose was required to use ePortfolios, defined ePortfolios as a digital environment for, first, teaching writing and assessing students’ ePortfolios, and second, for evaluating the writing program in his department. Similarly, Professor Ann defined them as a digital grading tool that had several folders to permit students to upload their multimedia drafts and multimodal presentations of audio, video, and images.

Based on these definitions I can point out that the writing teachers’ understanding of ePortfolios was connected to their use of the tool. Related to the researchers’ definition at the beginning of this section, all writing teachers agreed that ePortfolios are electronic tools that are used for writing and assessment to track students’ writing progress. They also agreed that the availability of organizational and storage space in ePortfolios created

opportunities for students to track, revise, communicate, and present their work for various audiences such as teachers, classmates, and evaluators in their departments.

Building from this information about ePortfolios, the following sections present the data collected from the surveys and interviews about the implementation of ePortfolios in writing classes, their benefits, emerging challenges, and the writing teachers' experiences with using ePortfolios for assessment.

Writing Teachers' Implementation of ePortfolios

In response to the first research question, "How do writing teachers implement ePortfolios to teach writing in PASSHE English departments?" several themes emerged from the collected data. In this part of the study, I first present the comments from the surveys and then from the interviews to explore the implementation of ePortfolios to teach writing according to a thematic system.

Survey Respondents on the Use of ePortfolios for Teaching Writing

I sent a survey to all writing teachers in PASSHE English Departments to collect data about their use of ePortfolios in writing classes (refer to Appendix A for the survey). The purpose was to identify those writing teachers who used ePortfolios during spring 2014 and to give them an opportunity to provide their contact information for the interviews. The survey provided data on how and why writing teachers used ePortfolios. The data was scattered in multiple questions in the survey as shown in Table 4.

In response to the first research question, "How do writing teachers implement ePortfolios to teach writing in PASSHE English departments?" the respondents were given multiple choice and open-ended questions to select from and provide comments.

Table 4.

Distribution of Survey Questions That Answer the Main Research Questions

Research Questions	Survey Questions
How do writing teachers implement ePortfolios to teach writing in PASSHE English departments?	5, 6, 7,9, 10, 12 and 13
What affordances and constraints are apparent when writing teachers use ePortfolios to teach and assess writing?	4, 8, 9, 10, 12, and 13
What experiences do writing teachers have while assessing ePortfolios?	7, 11, and 13

Question Five, for example, asked respondents to select relevant purposes for their use of ePortfolios. The question consisted of four options: (a) to enhance student writing, (b) to assess artifacts, (c) to encourage reflective writing, and (d) to teach writing. Many survey respondents selected more than one reason for using ePortfolios and this increased the number of responses for this question to one hundred and fifteen responses in total.

Ninety-two responses showed that survey respondents used ePortfolios for the purpose of writing instruction and only twenty-three selected assessment as a reason for using ePortfolios. According to the statistical data analysis on Qualtrics Survey Software, (35 respondents) 83% of the respondents selected the option of enhancing student writing, (32 respondents) 73% used ePortfolios to teach writing, and (27 respondents) 62% used ePortfolios to encourage reflective writing. And (21 respondents) 54% of the respondents used ePortfolios to assess artifacts (See Figure 5).

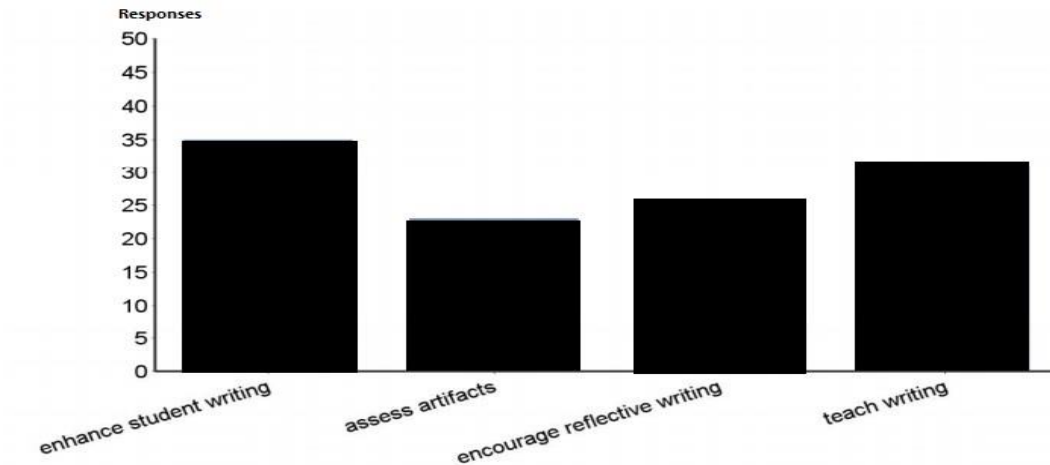


Figure 5. Distribution of survey responses indicating number of respondents for each purpose of using ePortfolios.

While coding the collected data from the survey’s sixth open-ended question, which asked about other purposes for using ePortfolios, I identified a number of common themes which aligned with the literature review and the data collected from the interviews. Half of the survey respondents wrote that their purposes in using ePortfolios, besides the reasons they selected in Question Five, were to organize material, give feedback, grade, encourage collaboration, showcase, and assist in job hunting. I also identified new themes such as using ePortfolios to promote digital writing, maintain environmental sustainability and encourage ePortfolio ownership, which were not mentioned in the literature review for this study.

Writing in a digital environment. This theme emerged when some respondents commented that the purpose of using ePortfolios in their writing classes was to teach their students how to write in a digital environment. Two respondents wrote that he used ePortfolios to “teach writing in an electronic environment” (survey 21) which gave students “an electronic space of their own, where students can feel comfortable expressing themselves and sharing their ideas with their classmates” (survey 57). A third

wrote, “I use software to get students in the habit of electronic submission and for giving feedback” (survey 60) while a fourth wrote that his use of ePortfolios was to allow his students to investigate “the electronic environment as a writing space” (survey 20).

In this connection, one of the significant contributions of this study was to raise awareness about the importance of acquiring a digital literacy by using ePortfolios. Data from the surveys highlighted the importance of teachers’ awareness of online writing pedagogy which fills a gap in the literature. In other words, teachers who used ePortfolios for teaching writing needed some knowledge about the pedagogy of electronic writing. The integration of technology with the teaching of writing requires the development of a new type of online writing for using ePortfolios because users write differently when they are online and exposed to a wider audience (Lorenzo & Ittelson, 2005; Selfe, 1999; Strudler & Wetzel, 2011). One respondent pointed out that she used ePortfolios “to give other students in the class access to their classmates’ writing, to essentially highlight writing as a process, and a tool for community building” (survey 10). Two other respondents wrote that by using ePortfolios they encouraged “student interaction via discussion boards” (survey 58, 60) and “to dialogue with each other” (survey 68).

Solving some environmental issues. Environmental issues were an additional reason for some teachers to use ePortfolios, both for themselves and for their students. One respondent wrote, “I’m trying to save students their money and the dept. and the environment costs by providing the info to students who can access, download, or print the information they’re interested in” (survey 61). Other respondents wrote that they used ePortfolios so students would become accustomed to reading syllabi, handouts, and readings online. Three respondents also commented that their purpose for using

ePortfolios in their writing classes was to “post syllabi and other relevant information” (survey 35), to “post readings and interesting links and handouts” (survey 61), and to “provide course readings to students; links to resources such as MLA guide” (survey 73). According to these survey respondents, ePortfolios promoted environmental sustainability when both teachers and students avoided printing handouts or assignments. They used electronic handouts and asked students to upload their assignments to ePortfolios instead of printing them.

This survey data created a distinction between teachers’ ePortfolios which were used for uploading course material and students’ ePortfolios where they stored their artifacts and submitted their assignments. This data fits Lorenzo and Ittelson’s (2005) distinguish between student ePortfolios and teacher ePortfolios. The researchers stated that “Student e-portfolios were born out of faculty-assigned, print-based student portfolios” while “Teaching e-portfolios derive from paper-based teaching and course portfolios...[which] serve as documentation of skills and accomplishments for career advancement” (p. 4).

As this section shows, survey respondents used ePortfolios for multiple purposes. The seven interviewees confirmed much of the survey data and also reported other strategies, as shown in the next section.

Interview Professors on the Use of ePortfolios for Teaching Writing

The seven interviewees reported other reasons and strategies for using ePortfolios in writing courses. This section reports the interviewees’ comments regarding the use of ePortfolios in answer to the research question: “How do writing teachers implement ePortfolios to teach writing in PASSHE English departments?”

Paper-based portfolios as the initial stage for using ePortfolios. As Table 4 previously showed, the data collected from the interviews reported that four interviewees started using paper-based portfolios before turning to ePortfolios for both teaching writing and assessing students' artifacts while the other three started using ePortfolios directly without previous use of paper-based portfolios. Yet, the reasons for turning to ePortfolios varied for the interviewees in this section.

Having a large number of students in writing class sections incentivized some interviewees to turn to ePortfolios. Professor Oryx stated that using traditional paper-based portfolios for assessment in her writing classes required students to bring big folders with lots of artifacts. She eventually realized that using ePortfolios would be more valuable. Turning to ePortfolios saved her the effort of printing handouts for students, who also benefitted by not having to pay to print their assignments and the several drafts they needed to print out throughout their writing process. Instead, she replaced the large volume of student portfolios in her office with a laptop and a computer.

During spring 2014, she used ePortfolios for two of her writing courses which her previous knowledge of paper-based portfolios helped her understand the techniques of using ePortfolios. She mentioned that paper-based portfolios and ePortfolios had "the same kind of benefits when getting to look at students' artifacts, when they start, and where they're going to end up" (Interview, March 26, 2014).

Like Professor Oryx, Professors Tulip and Tulin had used paper-based portfolios in their large composition classes at the beginning of their teaching careers. Both mentioned that they taught two to three classes with a total of between fifty to eighty students. As a Teaching Associate (TA), Professor Tulip had a problem with the large

number of students' portfolios which needed to be read and assessed. She pointed out that she had to bring home many portfolios and she lost some of them in her car, carrying them from home to office and vice versa. She explained that she was in a state of "massive disorganization and she used to lose papers" (Interview, April 10, 2014). Turning to ePortfolios helped her a lot.

Like Professor Tulip, Professor Tulin, a Temporary Assistant Professor, also suffered from the problem of large classes with lots of paper-based portfolios. She pointed out that she had to carry home many paper-based portfolios to read and grade over the weekends. Professor Tulin pointed out that using ePortfolios saved her lots of time, stating "It is a little time-consuming to create activities and upload them and make responses and import them, but once it is done, it is covered for almost ninety students who can constantly access them" (Interview, March 28, 2014).

Professor Aidan's reasons for turning to ePortfolios, unlike Professors Tulip and Tulin, were based on his experience with using paper-based portfolios as part of his training program at universities prior to moving to his current department when he was required to use ePortfolios. Like Professor Oryx, he stated that he used paper-based portfolios for assessment.

These Professors were encouraged to turn to ePortfolios due to the large number of students in their two or three writing classes, for which they initially used paper-based portfolios. Whether the teachers personally initiated their use or the teachers were required by their departments, the switch to ePortfolios solved the problem of having large numbers of paper-based portfolios.

Personal initiative vs. departmental requirement for using ePortfolios. By coding the data collected from the interviews, I was able to divide the reasons for using ePortfolios into three categories: departmental requirement, personal initiative, and a mixture of both, as I will explain shortly. Statistically, Figure 6 shows that 44% of the interviewees used ePortfolios by personal initiative, while 28% turned to using ePortfolios as a departmental requirement, and the same percentage stated a mixture of both reasons. The figure also shows the interviewees who fell into each category according to their use of ePortfolios in their departments.

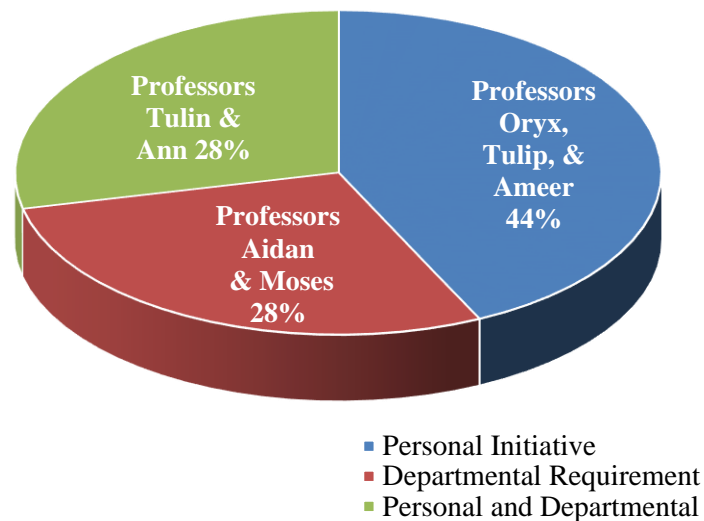


Figure 6. Distribution of interviewees in each category of using ePortfolios.

Professors’ use of ePortfolios as departmental requirement. Although Professors Aidan and Moses were required by their departments to use ePortfolios in their writing courses, they started using the software for different reasons. Professor Aidan’s department required every teacher to use ePortfolios to assess all English 128: First Year College Writing courses starting in 2011. He said, “The use of ePortfolios was also forced on everyone including those who didn’t teach composition” (Interview, February

22, 2014). Because Professor Aidan had previous knowledge of paper-based portfolios, he consequently was much more advanced in the use of ePortfolios than other teachers in his department when his department instituted this requirement.

He pointed out that prior to implementing ePortfolios, department meetings included professional training. He added that students, too, had participated in training workshops and guided online videos. The videos were made by the university's "assessment people who gave sessions for students" and by advanced "students who were in the professional writing courses and took web design classes" (Interview, February 22, 2014). In other words, teachers, students, and technology trainers were recruited to help implement ePortfolios in his department. He also realized that using ePortfolios as a tool enabled students to "keep their portfolios and go back to them if they need some kind of writing" (Interview, February 22, 2014).

Professor Moses, who had no experience with paper-based portfolios, was also required by his department to use the software for teaching and assessing writing. Like Professor Aidan, Professor Moses' department implemented ePortfolios only in English 131: First Year College Writing that included forty sections. He stated that "all teachers of English 131 were required to sample three ePortfolios from each of the forty sections" (Interview, March 28, 2014) to evaluate the program in the department.

Unlike Professor Aidan, Professor Moses was not given training on the use of ePortfolio prior to implementing it in his department. Instead, he learned about it while teaching English 131 through which he received training from consultants in the Writing Center. This training paralleled the progress of the course. In other words, the training of teachers and students in the use of ePortfolios was part of the course requirement, causing

a management conflict between teaching ePortfolios and teaching writing. He explained that “consultants in the Writing Center provided workshops to support teachers and students while using ePortfolios” (Interview, March 28, 2014). Due to his work in the Writing Center, he became more proficient than his colleagues, who faced various challenges in using ePortfolios while teaching their writing classes as opposed to learning the software prior to teaching classes.

The difference between Professor Aidan and Professor Moses was that Professor Moses took the use of ePortfolios a little further beyond his departmental requirement even though, unlike Professor Aidan, he had no previous experience with paper-based portfolios. To meet the requirements of his department, and with his experience in the Writing Center, Professor Moses wanted students to connect the work of previous semesters and to “provide a continuum to trace them and help them recognize their time in the Writing Center as an ongoing intellectual project” (Interview, March 28, 2014). The idea was to provide students with opportunities to go back to their written assignments from previous semesters to reflect on their writing progress prior to their graduation. He said, “I always value reflection but the more I use ePortfolios, the more I really see the importance of that reflection” (Interview, March 28, 2014).

Professors’ use of ePortfolios as personal initiative. Unlike Professors Aidan and Moses who were required to implement ePortfolios by their departments, three interviewees, Professors Ameer, Tulip, and Oryx took the issue into their own hands, initiating the use of ePortfolios in their writing courses. As I explained earlier, Professors Tulip and Oryx were familiar with paper-based portfolios before turning to ePortfolios,

while Professor Ameer was not. This eased their choice of turning to ePortfolios and each had their own reasons and strategies for using the software.

Professor Ameer, who had never used paper-based portfolios, pointed out that he used ePortfolios voluntarily in his classes to help students who had learning and physical disabilities. He stated, “Technology and disability are closely related” (Interview, March 28, 2014). His idea was that integrating technological tools came in response to working with students with learning disabilities in order to help them with their learning. He explained that the purpose of using Mahoodle ePortfolio was to upload course material, assignments, handouts, and readings. His aim was to let students with disabilities follow the progress of the class at their own pace. He also mentioned that ePortfolios helped him to provide his students with feedback and comments. For these reasons, he voluntarily chose to use ePortfolios in his classes without any requirement from his department when he became aware of the importance of integrating technology in his writing classes.

Unlike any of the other interviewees, Professor Ameer was motivated to use ePortfolios because of students who have learning difficulties and disabilities like hearing impairment and dyslexia. His turn to ePortfolios occurred in order to help these students because he felt that using the software created greater opportunities for this population of students to write at their own pace. He explained that “technology eliminates the disability and impairment.” This was important for him because “Technology allows us to integrate people and include everybody” (Interview, March 28, 2014). In other words, writing teachers could use ePortfolios to help those students to flourish and succeed. He stated that “with technology all of them are equal” (Interview, March 28, 2014).

Another reason the interviewees turned to ePortfolios was because of their value as an organizational tool. Professor Tulip, who described herself as “massively disorganized,” turned to ePortfolios to organize her courses. She mentioned that her major reason for turning to ePortfolios was her students’ evaluations of her in which they wrote that she was unorganized and her assignments and grading systems were unclear. As a result, she felt she needed to change her teaching methods and she started using ePortfolios. She stated that “I am doing what my students asked me to do and I am trying to make things clear and well-structured for my students so that they can concentrate while doing the work and try to figure out what the work is” (Interview, April 10, 2014).

Professor Tulip also pointed out that she started using ePortfolios gradually while adding a few more tools each time she taught a writing course. She explained that she changed her teaching strategies and experimented with different options to suit her students’ learning, her own level of technical skills, and her writing courses. For example, she created folders for each week and uploaded assignments and readings to better organize her writing classes. Professor Tulip’s purpose for using ePortfolios as a personal initiative, therefore, was to organize herself and her teaching courses after understanding that ePortfolios provided her with options which paper-based portfolios did not have. She mentioned that ePortfolios enabled her to keep students’ artifacts as samples to be shown to students in later writing courses, something she could not do with paper-based portfolios.

Professor Oryx, who had twenty years of experience in teaching writing and using paper-based portfolios for assessment, initiated the use of ePortfolios after realizing how helpful the software could be for her traditional and online classes. She stated, “I have

used ePortfolios in my traditional classes previous to using the online instruction (Interview, March 26, 2014). She explained that using ePortfolios opened new perspectives for teaching writing “when you have to change the nature of what you are doing because you are not seeing them in person” (Interview, March 26, 2014). She further explained that her teaching of writing “becomes more important when [she] make[s] sure everything is very clearly stated for students. This is a little bit different from the classroom, where [she] see[s] them all the time” (Interview, March 26, 2014). Understanding the importance of using ePortfolios, she turned to them for the ease of exchanging information between instructor and students.

As I reported in this section, Professors Tulip, Ameer, and Oryx personally initiated their use of ePortfolios. Turning to the software made these teachers vary their methods of teaching writing to suit the continuous calls for integrating technology in higher education. Their reasons may be similar to other interviewees in this study, but each one highlighted the aspects that were most important for him or her. The following section reports on other reasons for turning to ePortfolios, in instances when departments encouraged the use of the software but did not require teachers to implement them.

Professors’ combination of using ePortfolios as departmental and personal initiative. According to the previous discussion of Figure 6, the final category consists of Professors Tulin and Ann, whose personal initiatives coincided with departmental recommendations at a time when their universities purchased ePortfolio programs. Their departments, however, did not require teachers to implement ePortfolios in their writing classes and left them the freedom to do so if they chose. Professor Ann, who was a TA with little experience in using ePortfolios, turned to the software to develop her skills and

integrate technology in her writing classes. For this, she learned to use some options such as having students upload papers for her to read and grade. She pointed out that her main reason for using ePortfolios for student submission of their papers was to “compare drafts to see what has changed. If I have a hard copy, then it will be very hard for me to compare the drafts and trace and check their development” (Interview, March 8, 2014).

Another recurring reason for turning to ePortfolios was the large number of students in writing courses. Professor Tulin pointed out that her reason for using ePortfolios was due to the huge number of freshmen in her writing classes—almost ninety students in three meta-writing classes. She used ePortfolios for syllabi, grades, extra readings, worksheets, and website links for her students if they needed them. She explained that the materials uploaded to ePortfolios were those that she “didn’t want to waste time to discuss in class” (Interview, March 28, 2014). In her case, integrating technology into her writing classes gave her more time to spend on other teaching responsibilities and on personal career development.

Because, unlike Professors Aidan and Moses, she had no training and was not very skilled in using ePortfolios, Professor Tulin’s use of the software was as a supplementary tool which allowed her to upload extra readings and links for her students. Gradually, she used more options on ePortfolios such as using the option of taking attendance, discussion, and blogging. For example, at the beginning, she asked her students to write prompts which let her know who was in the class and who was absent when she read and graded them. However, this strategy of using ePortfolios to take attendance exhausted her because she had ninety students for whom she had to read class assignments as well. I asked her why she did not use the attendance option which allowed

her to create a folder for attendance, and I also questioned her about the possibility of going to training workshops. She mentioned that she was not aware of the attendance option, and said, “Training to use ePortfolios would be helpful” (Interview, March 28, 2014) if available.

Strategies for implementing ePortfolios to teach writing. The seven interviewees shared their strategies for implementing ePortfolios in their writing classes. As I explained earlier, there were three groups: two participants, Professors Aidan and Moses, followed guidance from their departments, three interviewees, Professors Ameer, Tulip, and Oryx, created their own methods, and Professors Ann and Tulin used both departmental guidance and personal strategies. After coding the collected data, I found that each group, as shown previously in Figure 6, used common strategies to implement ePortfolios and their strategies varied from the other ones.

Professors’ strategies of using ePortfolios as departmental requirement. The strategies used by this group of writing teachers, Professors Aidan and Moses who followed the guidance and strategies provided by their English departments, varied from the other groups. Professor Aidan mentioned that the aim of using ePortfolios in his department was to collect students’ ePortfolios to evaluate its programs. His strategy was to use ePortfolios at the end of the semester to collect his students’ writing papers and reflective essays on their writing process. Professor Aidan stated that “when they write the essay, it helps them understand what they learned and helped them to take skills away from the class. But during the class, it is kind of before the ePortfolios experience” (Interview, February 22, 2014). In other words, his use of ePortfolios to teach writing was not only for in-class writing tasks, but rather for out-of-class writing as well.

Professor Aidan also mentioned that one useful strategy that his department required was to have writing teachers share their students' ePortfolios with other writing teachers. Such a strategy gave teachers "a bigger picture of how university students write" (Interview, February 22, 2014). He stated that looking at what students wrote for other professors gave him a new perspective of "what the new assignment is and what should we visualize" (Interview, February 22, 2014). He said that using ePortfolios made sharing and communication between writing teachers much easier than with paper-based portfolios.

In a situation similar to Professor Aidan, Professor Moses implemented ePortfolios after his department required everyone to use them. His department asked teachers to include samples of students' writing and reflective essays in which they described the work they had done over the semester to meet the course objectives. The strategy used in his department was to have everyone read sample ePortfolios by using a common rubric. Subsequently, teachers facilitated a discussion about these ePortfolios and the learning outcomes of the students and the program. This use of ePortfolios helped writing teachers and their department to understand the use of the software before implementing it for the whole program. He further added that the use of ePortfolios was "not only [that] it is valuable for students, but it gives us something that we can concentrate on to see how effectively they articulate an understanding of the learning objectives and the ability to use the ePortfolios" (Interview, March 28, 2014).

In another case, Professor Moses also initiated some strategies besides what his department suggested during training workshops and meetings. One strategy Professor Moses used was to combine ePortfolios with a collaborative wiki project in one of his

writing courses in which his teaching of writing became more multimodal. For him, “ePortfolios are one of those tools that really help students when you see the functions of ePortfolios. They find that experience is really valuable and they are really grateful for it even if they feel that they have to do so much work” (Interview, March 28, 2014).

Another strategy used by Professor Moses was when he structured his course ePortfolios and he asked his students to use the Cognitive Work Analysis (CWA) framework and the common core standards to guide them to their own writing.⁴ His aim of using CWA was to evaluate the use of ePortfolios as a new system and how it could be developed. He explained that his use of ePortfolios was not only as a tool he used for assessment but also as a powerful learning tool he implemented because of its value and merits to promote students’ writing.

Professors’ strategies of using ePortfolios as personal initiative. The second group of writing teachers, Professors Oryx, Tulip, and Ameer, personally initiated using ePortfolios in their classes and used several strategies to implement the software. For example, given her previous experience with using paper-based portfolios for several years before turning to ePortfolios, Professor Oryx explained that both had similar benefits. But by integrating technology, teaching and assessment became easier for her. She mentioned that her teaching strategies also changed and she started thinking differently, giving her students more options to learn, and using rubrics that she had not used before. She explained that although she “did have grading criteria in general for

⁴ Vicente’s (1999) Cognitive Work Analysis (CWA) is a work-centered framework to analyze cognitive work and to guide the design of technology to be used in a work place where real-life situations are applied. For more information about the use of CWA to evaluate intellectual and computerized systems, visit <http://faculty.washington.edu/fidelr/RayaPubs/CWA-bookchapter.pdf>

some of the things,” after implementing ePortfolios she started using rubrics properly “for more things now” (Interview, March 26, 2014).

Like Professor Oryx, Professor Tulip, who had experience with paper-based portfolios, gradually implemented ePortfolios in her writing classes. She started with one function on ePortfolios and then moved to another during her teaching career. She pointed out that she changed strategies and experimented with different options to suit her students’ learning, her own level of technical skills, and her writing courses. She, therefore, created folders for each week and uploaded assignments and readings accordingly. In later stages, she asked her students to submit drafts of their papers and reader-response assignments. In turn, she provided her students with online feedback which was much faster than using paper-based portfolios.

Despite this timely feedback, and contrary to other interviewees in this study, Professor Tulip criticized the use of online feedback and said, “It is not good” and that her students “get much less feedback” (Interview, April 10, 2014). She explained that when she used hard copies, she provided “reader-response-response,” but with the use of ePortfolios she wrote a paragraph. In other words, when using paper-based portfolios, she provided local feedback and comments, such as questioning ideas and asking for more explanation. This feedback was written directly on the student’s paper at the point where it was pertinent. But when she turned to ePortfolios, due to her lack of experience and skills with using them, she used global feedback, providing a single paragraph of feedback and comments. She attributed this to the time it took to download students’ papers, comment on them, and then upload them again. She said, “I don’t give them the feedback I used to give them because I don’t have time” (Interview, April 10, 2014).

Professors' strategies of using ePortfolios as departmental and personal

initiative. The third group of writing teachers included Professors Ann and Tulin who combined departmental guidance and their own personal creativity as reasons for implementing ePortfolios in their writing classes at their own pace. In other words, they were not under pressure from their departments to implement ePortfolios and to master their use for their writing classes. They instead used them in stages and chose what suited their skills, knowledge, and their needs. This strategy helped inexperienced teachers to master some options according to their pace. For example, Professor Ann had created her class D2L ePortfolio in which her students uploaded drafts of their papers and reader response assignments for her to provide feedback and assessment.

Because this was her first experience with ePortfolios, Professor Ann was uncomfortable with using all the options on D2L ePortfolio. Instead, she asked her students to bring hard copies for in-class peer review and one-on-one conferences where the papers were read and feedback provided. However, she asked students to upload the second drafts of their assignments to their ePortfolios. In this initial stage of using ePortfolios, she had a combination of hard copies and electronic ones. Her lack of experience with ePortfolios limited her use to a number of the software functions. She stated, "If I know more, I will use it more" (Interview, March 8, 2014). In other words, her strategy was to start small and then expand to use other options. This data tended to support what Gathercoal et al. (2002) and Barrett (2005a) explained in their studies. They reinforced the idea that the use of ePortfolios often follows stages and steps rather than implementing all options at once. Barrett (2005a) echoed this idea when she suggested to "start small and build capacity" (p. 1).

Similarly, Professor Tulin started using ePortfolios in stages as well. She used them at first as supplementary tools for her writing classes. She pointed out that she uploaded readings and links that she thought students might use on their own and which she did not want to waste time discussing in class. She then gradually moved to using ePortfolios for taking attendance, grading, and feedback. However, she continued to use hard copies for certain assignments. She stated, “I still do the old fashioned on paper peer review rather than using GoogleDocs and things like that. I don’t have them upload their drafts, but I do want them to see writing process” (Interview, March 28, 2014).

The data collected for this section demonstrates how the survey respondents and the interviewees used ePortfolios to teach writing. Although everyone used ePortfolios to teach writing, each interviewee provided methods, reasons, and information about their use of ePortfolios. The data also shows who was responsible for implementation them and what strategies were used. Yet the interviewees reported that using ePortfolios was not as easy and smooth as they thought, and they faced many challenges.

Emerging Challenges for Using ePortfolios

Various affordances and challenges emerged from the collected data to answer the second research question: “What benefits and challenges are apparent when writing teachers use ePortfolios to teach and assess writing?” This section reports on comments made by the survey respondents and the interviewees. The structure of this section is based first on reporting data from the surveys and then from the interviews about the challenges and constraints and how writing teachers have overcome them through some affordances available in their departments and elsewhere.

Survey Responses to Emerging Challenges While Using ePortfolios

To answer the second research question about the emerging challenges, question eight on the survey directly asked the respondents about their biggest challenge of using ePortfolios. While coding the collected data, several challenges and constraints were revealed such as technical problems, technology availability, and the choice of software.

From the survey, twelve respondents wrote that technical problems were the most common constraints for their students and themselves. Three respondents wrote that the biggest challenge was the occurrence of “simple problems with technology that can’t always be anticipated (survey 10), “technical glitches” (survey 64), and “the reliability of technology” (survey 7). One respondent commented that “When students face technical problems while submitting their assignments especially on the due date” (survey 67), it created a challenge for them and hindered their use of ePortfolios. Another respondent also reported that the challenge in her classroom was students “who are not computer savvy” (survey 16).

In the same vein, other survey respondents commented on the lack of available technology for students as another challenge for using ePortfolios. One respondent wrote, “Students may have different access to computers. Several students do not own a computer and are only able to use the computers available at school” (survey 70). Another stated that lack of “Technology availability for students in class” (survey 2) was her biggest challenge to using ePortfolios in her writing courses. A third respondent added, “When students have less access to computers to upload their assignments” (survey 9), her teaching and assessment of their writing were affected negatively. Lack of

technological tools, therefore, created a situation where students “will not be enthusiastic about using technology in the writing classroom” (survey 3).

Another group of respondents raised the issue of the software itself which is, as one respondent wrote, “not very user-friendly, [and] so getting faculty to adopt the ePortfolio system as it exists, there will be a challenge” (survey 79). One respondent wrote that his challenge with using ePortfolios was due to “the many different tools—it is hard to pick the right one” (survey 35). The variety of tools created problems for writing teachers who wanted to make “sure students use correct file formats and file names” (survey 43). Some survey respondents mentioned that their difficulty was with “Helping students navigate the particular technological platform that hosts the ePortfolio” (survey 4), “Teaching the subtleties of design” (survey 8) and “Making sure students access everything” (survey 61). One respondent stated that “Too often students and professors spend more time learning the software than gaining writing ability” (survey 75).

Another survey respondent explained that “The software changes so quickly, that I often have to update instructions nearly every semester. They require a lot of maintenance” (survey 57). This was also a problem for other respondents who wrote that they were challenged with “deciding what program/platform to use, trying it out for the first time, and dealing with possible technology problems” (survey 5) and “knowing what they are, how to use them, and why I would want to use them” (survey 1) and when “some students may be adverse to using them” (survey 39).

Similar responses were also collected for survey questions nine, ten, and twelve, which were designed as multiple choice questions asking respondents to select the suitable option about their challenges in using ePortfolios for teaching writing. The Likert

scale values used to answer these survey questions were: 1. Strongly Agree, 2. Agree, 3. Neither Agree nor Disagree, 4. Disagree, and 5. Strongly Disagree. As shown in Figure 7, the total number of respondents who selected “Agree” for the three challenges is forty-two, thirty-two respondents chose “Disagree”, and fifty-nine respondents selected “Neither Agree nor Disagree” for the three challenges.

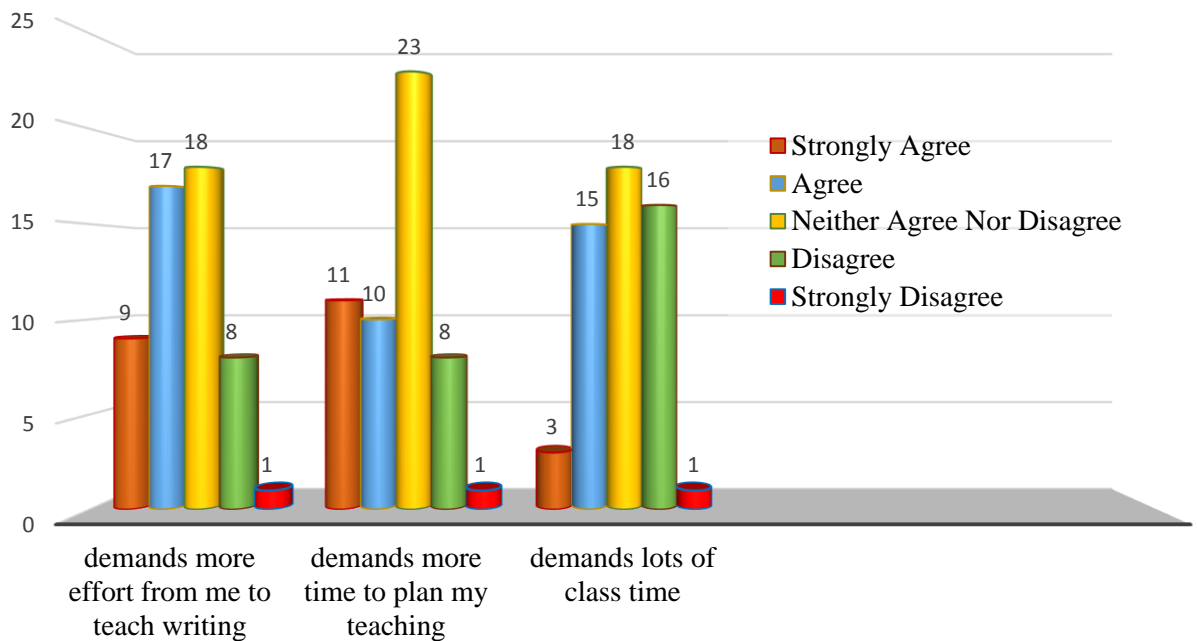


Figure 7. Distribution of survey responses indicating constraints while using ePortfolios

The interesting thing about the respondents’ choices was that a total of twenty-three respondents chose “Strongly Agree” in contrast to three respondents selecting “Strongly Disagree” for each statement. Yet the highest number of respondents, a total of twenty-three, selected “Neither Agree Nor Disagree” for “demands more time to plan my teaching” while using ePortfolios.

While the survey respondents were aware of a variety of challenges of using ePortfolios in their writing courses, they indicated some common challenges to those

mentioned by the interviewees. The following section presents data collected from the interviews about other constraints and challenges as well as the affordances that help the interviewees implement ePortfolios to teach and assess writing.

Interview Responses to Emerging Challenges While Using ePortfolios

During the interviews, writing teachers discussed several challenges and constraints that they experienced when implementing and using ePortfolios for writing and assessment. Professor Oryx pointed out that she faced challenges with paper-based portfolios and then with ePortfolios when she first started using them to teach writing. She stated that she spent a lot of time figuring out how to work with ePortfolios. Despite her previous experience, she faced some challenges with ePortfolios such as her lack of some technical skills, students' lack of technical abilities to use technology for educational purposes, and resistance among her colleagues.

Professor Oryx was also surprised by students' lack of technological skills to promote their education. While students were able to use the Internet for social media, with applications such as Facebook, Twitter, Instagram, and WhatsApp, she stated that there was a need to push students to “speed up with the technology so they can use it effectively for education” (Interview, March 26, 2014). In response to this issue, Professor Ameer also explained that “the department and the university should make assumptions of potential challenges and constraints that might hamper the use of ePortfolios in the writing classroom” (Interview, March 26, 2014). In other words, even if students seem to be technologically savvy and use the Internet for networking, this will not necessarily be useful when they are asked to use ePortfolios for educational purposes in writing classes.

Professor Oryx also declared that seeing students so skilled in using technology made some faculty members resist using ePortfolios in their writing classes because of the professor's lack of technological skills and knowledge. She said, "Faculty who were not quite comfortable with technology thought that students were adapted to technology and they needed to catch up with students created a perceptual problem" (Interview, March 26, 2014).

Professor Moses revealed other types of challenges that he faced while using ePortfolios in his writing classes. He explained that retirement was one of the reasons for resistance among older faculty members in his department. He pointed out that an added reason for resistance was the issues of ownership and institutional evaluation while using ePortfolios. This conflict arose as a consequence of using students' ePortfolios for institutional evaluation and therefore, since students had no ownership of their ePortfolios, they could not benefit from using them when searching for a job. As a result, they lost interest in improving their writing and dedicated less time to their ePortfolios. He also explained that the use of different types of software was confusing, and as a result, some writing teachers and students lost interest in using them in writing classes. Students were confused about which software to use in what class. At the same time, some writing teachers resisted using a new tool after finally mastered the previous one.

This issue of frequent software change is reflected in Professor Tulip's challenges for using ePortfolios. She explained that her university had not kept one system for a long period of time and the moment writing teachers got used to it, the university required them to use another software. Also, she mentioned that her students were confused when professors asked them to submit their assignments into different software.

Like everyone else in this study, Professor Tulip also lacked some technical skills and knowledge about using ePortfolios. Her fractured knowledge of the tool constrained her use of it and created some technical problems for her. As a result, she used a limited number of options which she needed for her classes, and learned how to use them by referring to other universities' homepages that provided instructions and videos.

Unlike any other interviewee, Professor Tulip raised the issue of motivation and short-term employment as a constraint that affected her use of ePortfolios. Like Professor Moses who mentioned that older faculty members who would retire soon resisted using ePortfolios, Professor Tulip was in a similar situation—not of retirement but of leaving the university. She mentioned that, as a Teaching Associate (TA), her short-term employment had not motivated her to master the use of ePortfolios or to devote the time needed to learn how to use them because she was not sure she would need to implement them for her new job. Since, some schools do require the use of ePortfolio, she might very well have needed knowledge of ePortfolio for the job market. I believe she should have thought about the opportunities she would have in the job market if she were skilled in integrating technological tools in education. This is the trend nowadays.

Professor Tulip also added that the software used for ePortfolios did not highlight her spelling and grammatical mistakes when she wrote comments. She explained that due to her fast typing and her spelling and grammar issues, she had to go back and read her comments to make sure that there were no mistakes. She claimed that this wasted a great deal of her time and motivated her to drop ePortfolios. To solve the problem, she turned to Microsoft Word to check her spelling and grammar before sending her comments to students. She explained that in order to do so, she had to download students' assignments

for comments and grading, and then upload them again. Since she felt that this was a waste of time, she tended to write longer paragraphs with comments she wanted to include in the paper without downloading and uploading the document. As a result, she stated that using ePortfolios was unfriendly and her experience with was not convenient.

Similar to Professor Tulip's experience, writing comments and downloading students' assignments were also constraints for Professor Ann who had struggled with using ePortfolios in her writing classes. She also used Microsoft Word to write comments and then sent them by email to her students. Professors Tulip and Ann stated that the process of downloading and uploading assignments took lots of time in addition to the time they spent reading and grading students' assignments. To save time, Professor Ann, for example, asked her students to bring hard copies for comments and one-on-one conferences. Like Professor Tulip, she wondered if there was a way to directly leave comments on the assignments themselves without downloading them several times throughout the semester.

During the interview, Professor Ann also pointed out that physical fatigue was another type of challenge while using ePortfolios. She said, "Reading from the screen for a long time hurts my eyes easily" and she had to stop reading, commenting, and grading every now and then (Interview, March 26, 2014). Physical fatigue was also raised by Professor Tulip who stated that reading assignments from the screen and grading them for a whole class was exhausting. She responded to this exhausting process of reading from the screen by taking short breaks after reading few assignments. She also mentioned that she did not ask the whole class to submit their assignments at once. She divided the class into small groups and each group submitted assignments at a different time. But she

pointed out that reading and grading never ended for her during the semester and she got worn out by it. As a result of this experience, she expressed her frustration and her intention not to use ePortfolios again. She was waiting for the semester to end when she would move to another school, and she asserted that in her new job as program coordinator, she would hire someone to implement technology for writing teachers.

Like all the interviewees in this study, Professor Ameer had technical problems “inside and outside the class” (Interview, March 28, 2014). He explained that using ePortfolios was sometimes unfriendly and very problematic when some functions such as contacting students did not work properly or in a timely manner. Instead, he used his email account to communicate with his students and developed the habit of checking emails for class assignments more often.

Professor Ameer also said, “Technical problems happening in the class caused him to change his entire lesson plans” (Interview, March 28, 2014). He gave an example of having a student who literally did not have hands to type, and consequently “his entire lesson plans” needed to be changed to accommodate the situation (Interview, March 28, 2014). He added that constraints such as having dyslexic or hearing impaired students, or students who did not have laptops or computers at home created various technical problems that caused him to change his syllabus. Lack of accommodation for such students “hindered the use of ePortfolios to teach writing” (Interview, March 28, 2014).

Like everyone else, Professor Tulin faced technical problems with the functionality of some options on ePortfolio software. She mentioned that her lack of technical skills created lots of work and required time to figure out how to work with ePortfolios. She also pointed out that the size of the department was a huge constraint for

using ePortfolios. She mentioned that her department “is so big and everybody has their own teaching strategies and how they do things” (Interview, March 28, 2014). Her challenge was in not being able to see how different strategies worked for each of her colleagues in their writing classes.

As I have presented in this section, survey respondents and interviewees faced a variety of constraints and challenges while using ePortfolios in their writing classes. They sometimes shared similar and/or different personal challenges. Yet, they understood the potential of using ePortfolios and they provided some solutions and suggestions to overcome some of the constraints in their English Departments. Their solutions will also help other departments where the use of ePortfolios is still in its initial stages or where implementation of ePortfolios in writing classes is part of a future plan.

Solutions to Overcome Emerging Challenges While Using ePortfolios

The interviewees suggested some specific solutions to overcome the constraints they faced in using ePortfolios. They suggested providing training workshops, sharing knowledge with colleagues, using alternative tools, and using methods which might lower anxiety and stress levels while using ePortfolios.

Training workshops. Providing writing teachers with training workshops was the most prominent solution suggested by the participants in this study to overcome all the challenges and constraints. Survey respondents and interviewees collectively agreed that if writing teachers and students were offered professional training workshops, this would solve a variety of constraints. For example, in one of the options on the survey, thirty-one respondents selected the point that said, “Using ePortfolios in general needs professional training to implement them.” Seven survey respondents disagreed and thought that

implementing ePortfolios did not require any training workshops while sixteen survey respondents had selected “Neither Agree Nor Disagree” in relation to this need. One respondent wrote about the training courses: “I use them to help students recognize their experience and learning opportunities” (survey 51).

The data collected from the interviews also showed that some interviewees received professional training from their departments while others did not. Those who did not receive training had to seek it on their own through webpages of other universities where ePortfolios were used by teachers. Professors Aidan and Moses, who were from two different PASSHE schools and whose departments required the use of ePortfolios in writing classes, reported that being provided with professional training and workshops helped them and their students to overcome various technical problems and challenges.

Professor Aidan reported that prior to implementing ePortfolios, professional training took place during department meetings where teachers were trained on how to use ePortfolios by specialists in professional assessment from the university. The training sessions took place during these meetings because teachers preferred not to have extra meeting hours due to their other responsibilities of teaching, publishing, and attending other professional meetings. He also explained that students had gone through training workshops and were also provided with online videos prepared by consultants and assessment specialists in his department.

Similarly, Professor Moses reported that there were “conferences with those who were insecure of handling ePortfolios” in his department (Interview March 25, 2014). He added that additional funds were used to pay the consultants for the hours they spent training faculty members in his department. In addition, Professor Moses used his

position in the Writing Center to support the implementation of ePortfolios in the English Department. He pointed out that students who joined his writing courses at the Writing Center were trained to use ePortfolios and they were sent to writing classes to help other students with their ePortfolios. The Writing Center also created tutorials that helped writing teachers who resisted the implementation of ePortfolios for teaching writing. He said that these solutions “allowed the department to implement the program widely with ePortfolio requirement” (Interview, March 25, 2014).

Unlike Professors Aidan and Moses, the other five interviewees explained that they had to seek training on their own either inside or outside their universities. Professor Ann reported that in order to learn more about integrating technology in her classes, she attended computer workshops which turned out to be too general and did not help her much with using ePortfolios. Since she felt training was important, she provided her students with a training session at the beginning of her writing course to teach them how to use some ePortfolio options that she intended to use. She asked her students to use only those options in order to avoid being embarrassed by her lack of technical skills.

Professor Ann was aware that her use of technology in her writing class was very limited compared to other writing classes and other colleagues in her department. Out of frustration, she suggested a practical solution that “if there were some workshops about teaching writing in particular, it would be more beneficial” (Interview, March 8, 2014). She also suggested that workshops “would be very helpful if colleagues shared their experiences with using ePortfolios or any component of this technology in their classes” (Interview, March 8, 2014). Offering training workshops on how to use ePortfolios for teaching writing would be a potential solution to some challenges faced writing teachers

in particular. She believed that teachers in English Departments had their own purposes and challenges for using ePortfolios and those were different from other departments.

Professor Tulin also believed that training sessions would help unskilled users of ePortfolios. Her view of training was slightly different from Professor Ann's recommendation. Professor Tulin suggested having training sessions to let teachers first understand the features and benefits of using ePortfolios in their classes and to let them "see whether this on-going workshop would be helpful" or not (Interview, March 28, 2014). This idea was similar to Professor Moses' who believed that understanding the merit of using ePortfolios would make their implementation much easier. He stated that "when ePortfolios were handled correctly, students valued their functions for lifelong learning" (Interview, March 25, 2014).

Professor Tulip, who did not receive training in her department, also reinforced the idea that training workshops could be beneficial in helping her overcome her struggles with using ePortfolios for teaching writing. When I asked her if she could recommend workshops for writing teachers, she said, "I think it is more individual than that. I think you need to think about what your course goals and objectives are" (Interview, April 10, 2014). Her idea was similar to Professors Tulin and Moses who also believed that when writing teachers understood the merits of using ePortfolios, they would become more motivated to use them.

Sharing knowledge with colleagues. Sharing knowledge with colleagues in the department was another solution to help writing teachers to use ePortfolios more effectively. Professor Tulin saw that talking to colleagues and writing teachers elsewhere helped her and her colleagues to overcome their fears about using ePortfolios in their

classes. She explained that despite her limited knowledge of using ePortfolios, some of her colleagues saw that she was good enough to help them and share her experiences with them about how she used ePortfolios. Professor Tulin also stated that she tried to convince other colleagues to use ePortfolios. She said,

When I can, I do talk to people about it because I'm, sort of thing, not going home with big stacks of paper. But students are still doing objective work. You just don't see it. So, if I get the chance to tell people, "This is a cool thing," I do. It does work with me, do it! You can correct a few papers while waiting for a doctor or in the mall. (Interview, March 28, 2014)

As Professor Tulin explained, talking to other colleagues gave her more self-confidence to learn more about using ePortfolios. She also felt that talking to other PASSHE teachers was very helpful for her because she learned how they started using ePortfolios and how writing teachers overcame some of the constraints.

Professor Oryx who initiated the use of ePortfolios in her writing classes also reported that sharing knowledge with colleagues solved certain constraints. She said,

Not all people could do the things I was doing as part of my writing courses. But if they want to do it, I will be happy to help people if they ask. But with students, I had to put together a lot of little tips and instructions for them that I make available so that they know how to do this. (Interview, March 26, 2014)

Unlike Professor Tulin whose colleagues approached her to guide them in the use of ePortfolios, Professor Oryx's colleagues did not ask her for help. She said that this situation occurred because some of her colleagues viewed the issue of using ePortfolios or technology in general as a discipline in itself. These colleagues felt ePortfolios should

not be used in English Departments. But, Professor Oryx did not feel technology should be isolated from the writing classroom. She reported that sharing knowledge with students was her top priority because they were the ones who helped her prove her point to her colleagues about the importance of using ePortfolios in writing classes.

Using alternative digital tools. Using alternative tools and supplementary ones was a third solution suggested by Professors Tulip and Ameer. Both professors mentioned that they used Microsoft Word to provide comments and feedback. Professor Tulip explained that she often made spelling mistakes while typing fast. Microsoft Word helped her spot her mistakes better than when she typed directly in ePortfolios which does not have spelling or grammar checking. Professor Ameer then reported that students had trouble reading his handwriting. Using Microsoft Word helped him provide clearer comments and feedback on his students' assignments. Similarly, Professor Tulip also pointed out that she used "alternative digital tools such as using online conferences with students to go over their papers through GoogleDocs" (Interview, April 10, 2014).

Professor Ameer, who was exposed to using technological tools while working on his Master and Ph.D. degrees, pointed out that he used ePortfolios to send out his course syllabus, readings, and his comments and feedback on students' assignments. He explained that using ePortfolios was his first personal initiative to integrate technology into his writing classes in order to have a more effective platform for his students. He stated, "I'm a believer that more modes are better. Everybody learns in different ways" and therefore "I just developed my own ePortfolio (Interview, March 28, 2014).

Professors Ann, Tulin, and Ameer added a practical solution for the lack of computers available to students in their writing classes. They asked their students to use

their cellphones when students could not afford laptops to bring to writing classes. They explained that using ePortfolios in a regular class and not in a computer lab made it necessary to permit students to use cellphones for educational purposes. In her dissertation, Schreyer (2014) examined the use of cellphones in the classroom. She stated, “Now, some teachers are considering how to incorporate mobile compositions into writing courses, so that students can compose in new ways using varied modalities” (165). In other words, if teachers permit the use of cellphones in classrooms, students become interested in using their device not only for networking but also for educational purposes inside and outside the classroom. This strategy encourages students to be more involved in a social context where their cellphones become alternative tools to laptops and computers. For Professor Tulin, for example, using cellphones was a vital alternative to using computers and laptops in her writing classes when accessing ePortfolios became necessary during class time. She explained that she allowed the use of cellphones in her writing classes for doing assignments, looking up previous drafts of assignment from ePortfolios, and discussing readings and reflective writing in class.

Professor Ameer also asserted that not all students had computers and Internet access, and so he allowed his students to use their cellphones as alternative tools. He stated, “I don’t assume all persons to have the devices...and this is why I put cellphones in my syllabus” (Interview, March 28, 2014) to allow students to access their ePortfolios in class. Professor Ameer’s idea of integrating cellphones in his writing classes was also supported by Schreyer’s (2014) discussion in her dissertation. Schreyer (2014) indicated that students were eager to make use of their cellphones in their classes. She explained that for some students using cellphones “may simply mean accessing course resources on

a mobile-friendly portal, while for others, that may mean engaging in collaboration and discussion with their teachers and classmates” (p. 120). Schreyer (2014) also added that the mobility and availability of cellphones allowed students to be more engaged in the classroom and not be distracted when teachers knew how to direct them to educational purposes. She pointed out,

Mobile devices allow students to readily move from place to place and remain engaged in the class. Even laptops and notebooks are significantly heavier and more constraining than a mobile device. One of the unique features of mobile device compared to other digital technologies is that they allow for mobility of the learner, not just the learning environment. (p. 129)

This seems to echo Professor Ameer’s idea about using cellphones as a device to access ePortfolios. He considered “cellphones like pen and paper if students use them for class purposes” and he added that “To take away modern students’ cellphones would be the equivalent to my generation [during the 1980s] to take away the paper and pen from our hands and ask us to take notes” (Interview, March 28, 2014).

Obtaining strategies to lower anxiety and stress level. Professor Tulin explained that because everyone was so stressed at times while using ePortfolios, her solution was to discuss teachers’ anxiety and fear during department meetings and working days, allowing them to face their anxiety by talking with other teachers who were in the same situation. Professor Tulin’s idea was to let those teachers who were uncomfortable with using ePortfolios to see that they were not alone, and that other teachers who used them struggled as well. This strategy was also raised by Professors Moses, Ann, and Oryx.

From a different perspective, Professor Moses brought up the issue of older teachers who resisted the use of ePortfolios in his department. He explained that it was important to make those teachers feel that they were more expert in using ePortfolios than their students by giving these teachers opportunities to master the use of the options they wanted their students to use. This method of overcoming anxiety and stress while using ePortfolios was similar to Professor Ann's solution of only using the ePortfolio functions that she knew well and asking her students to use only those functions. This strategy lessened the stress of using ePortfolios in her writing classes and avoided embarrassment. Professor Moses further explained that this strategy let teachers learn how to take advantage of what ePortfolios offered and to become skilled in using what they needed for their classes.

Professor Oryx argued that the stress resulting from integrating technology in writing courses led to avoidance of ePortfolios when some teachers thought that students were technologically savvy compared to them. Professor Oryx explained that teachers should not worry about this issue. From her experience, students were unable to use technology for education although on the surface they appeared to be technologically competent. Watching students use different types of networking gave teachers the impression that their students were good at using technology. It was surprising to discover that students could not use technological tools for educational purposes in the classroom.

Professor Oryx also added that those teachers viewed the use of ePortfolios and/or technology as a discipline in itself which they felt should not be used in English Departments. In contrast to such views, she believed that it was necessary to overcome

such disciplinary constraints or “we will be behind” (Interview, March 26, 2014). She stressed the fact that technology is no longer isolated from other disciplines because it has been integrated into a variety of fields. As a result, writing teachers needed to overcome their anxiety and fear of using technology and to start implementing some aspects of digital writing and multimodality in their classes.

Survey respondents and interviewees in this section suggested some solutions which they had used to overcome their challenges and constraints while using ePortfolios. They all agreed that there was a need for professional training and workshops to help writing teachers who implemented ePortfolios to teach and assess writing.

Experiences of Writing Teachers with Assessing ePortfolios

This part of the study reports data relating to the third research question: “What experiences do writing teachers have while assessing ePortfolios?” When survey respondents and interviewees were asked about their experiences with using ePortfolios to assess writing, they provided various comments and responses such as types and strategies of assessment. This section focuses on data collected from the surveys followed by data from the interviews to discuss the use of ePortfolios for assessment.

Survey Responses on the Use of ePortfolios for Assessment

As coded from the survey, the third research question was mainly addressed by Question Eleven which asked respondents to select the best option that described their use of ePortfolios for assessment. I used Likert scale values to select responses that were ranked in the following order: 1. Strongly Agree, 2. Agree, 3. Neither Agree nor Disagree, 4. Disagree, and 5. Strongly Disagree. Figure 8 shows the percentage of survey respondents for each of the main scale values. It shows that 47% of the respondents

collectively “agreed” on using ePortfolios for assessment purposes while 3% of the respondents “disagreed.” Survey respondents had the choice of selecting more than one option for Question Eleven. As a result, out of the seventy-nine survey respondents, fifty-three responses in total were recorded for each selected option.

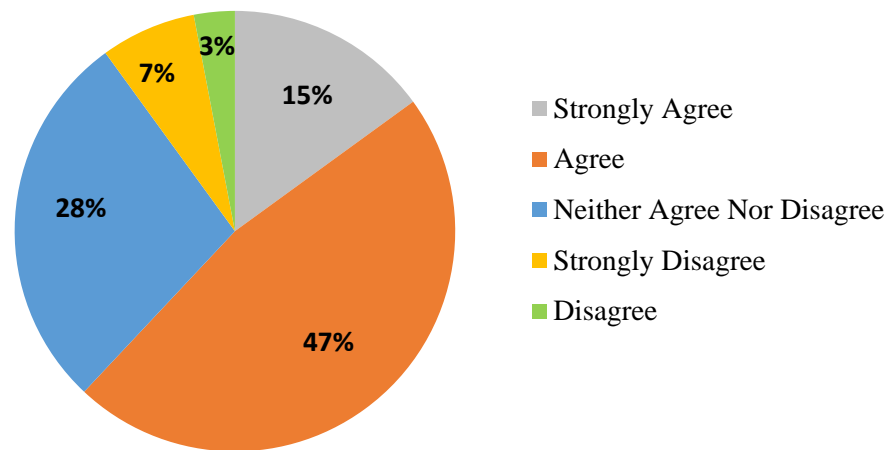


Figure 8. Distribution of survey responses indicating percentages of using ePortfolios for assessment on Likert scale

To further explain how the survey respondents used ePortfolios for assessment, Figure 9 presents more data on this issue. The strategy of interpreting this data is based on positive, neutral, and negative attitudes toward using ePortfolios for assessment.

The first, which is related to respondents’ positive attitudes toward using ePortfolios for assessment, includes the categories “Strongly Agree” and “Agree.” The data collected from the survey showed that ten respondents “Strongly Agree” that using ePortfolios “suits summative assessment purposes.” These were used for assessing students’ final products in writing courses and writing program in their departments.

As Figure 9 also shows, an almost equal number of respondents “Strongly Agree” that using ePortfolios promotes self-assessment, formative assessment, and improvement of assessment methods. So, forty-three responses in total are recorded for

“Strongly Agree” about using ePortfolios for different purposes of assessment. This number of responses is huge compared to the total number of respondents who selected to answer question eleven.

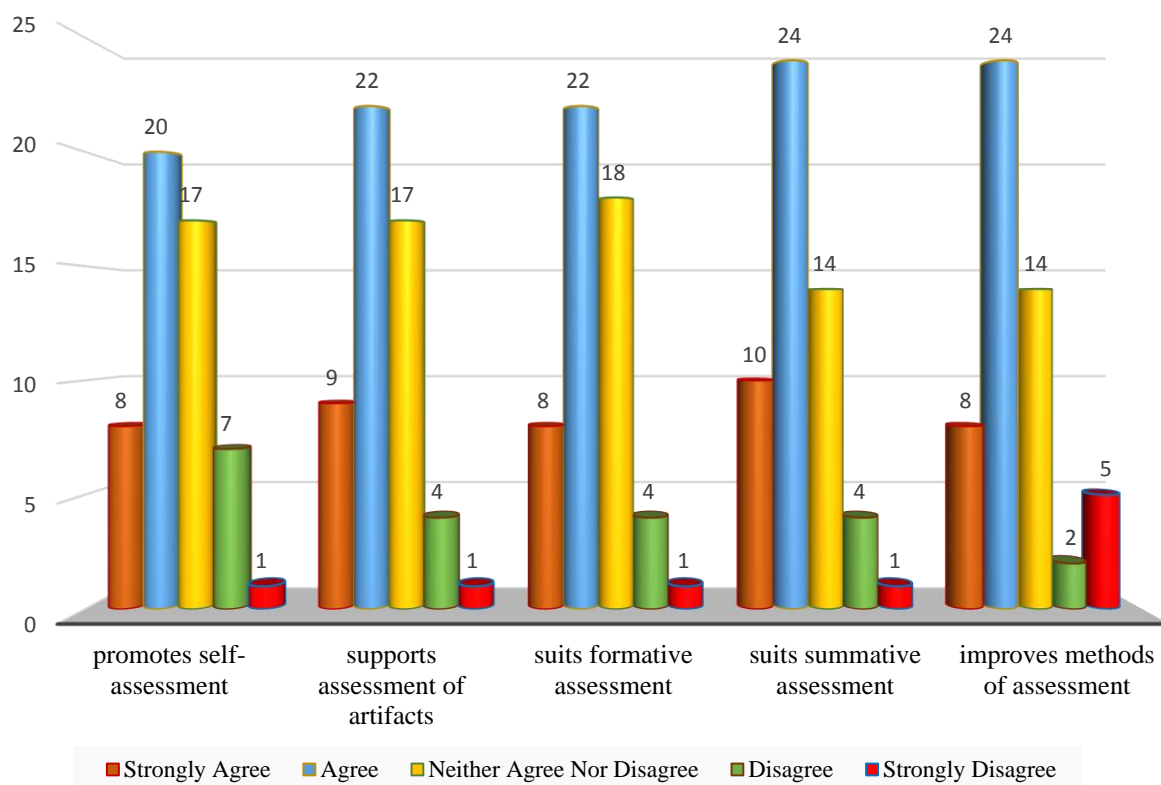


Figure 9. Distribution of survey responses indicating purposes of using ePortfolios for assessment on Likert scale.

Figure 9 shows another positive attitude toward using ePortfolios for assessment. Twenty-four respondents “Agree” that using ePortfolios for assessment “suits summative assessment purposes” and “improves methods of assessment.” Twenty-two respondents also “Agree” that using ePortfolios “supports assessment of artifacts” and “suits formative assessment purposes.” Twenty respondents “Agree” that using ePortfolios promotes self-assessment.

The second attitude toward using ePortfolios for assessment was selected by respondents who were not sure about the connection between ePortfolios and assessment. They selected to remain neutral to “Neither Agree Nor Disagree.” As Figure 9 shows, seventeen respondents are not sure if using ePortfolios “promotes self-assessment” or “supports assessment of artifacts.” A similar situation occurred relating to the suitability of using ePortfolios for summative assessment and improving methods of assessment. This uncertainty could be due to various issues such as lack of knowledge and skills for using ePortfolios for purposes other than assessment. This attitude needs to be examined in a future study.

Finally, as Figure 9 shows, few respondents had negative attitudes towards using ePortfolios for assessment. Seven respondents disagree that using ePortfolios “promotes self-assessment.” Four respondents disagree that using ePortfolios “supports assessment of artifacts,” or suited formative and summative assessment, while five respondents disagree with using ePortfolios to improve methods of assessment.

Looking at the two extremes on Figure 9, the deviation of respondents’ selections shows that a total number of forty-three survey respondents “Strongly Agree” with using ePortfolios for assessment, compared to nine respondents who “Strongly Disagree” with using ePortfolios for different purposes of assessment. This shows that ePortfolios are already welcomed into the writing classroom by these participants.

In response to other questions in the survey where respondents wrote their opinions and shared their experiences, one respondent wrote that using ePortfolios for assessment “is a win-win for both assessments” (survey 57) while another commented that they were “great for assessing final products” (survey 48). Other respondents wrote

that the best thing about using ePortfolios to teach writing was “The ability for students to comment upon one another’s work and the ability for me to give electronic feedback” (Survey 50). Another wrote that through self-assessment “students are able to see and apply feedback directly on the assignments that they are working on” (Survey 39).

Although this study was not quantitative, the majority of survey respondents provided positive statistical data about the frequent use of ePortfolios for assessment. The seven interviewees also shared their experiences with using ePortfolios for formative and summative assessments and for improving their methods of assessing writing.

Professors’ Experiences on Using ePortfolios for Assessment

The seven interviewees shared different strategies for using ePortfolios for formative and summative assessments. By definition, formative assessment means to follow students’ development throughout the semester, while summative assessment is the final product of student work which is presented at the end of the semester for the purpose of assessing students or programs (Bardes & Denton, 2001; Barker, 2005; Barrett, 2006, 2008b, 2010; Buzzetto-More, 2010; Cambridge, 2010; Chan, 2012; Palomba & Banta, 1999; Yancey, 2001a, 2009).

The coded data from the interviews showed some similarities and differences between the seven interviewees about their aims and experiences with using ePortfolios for assessment in writing classes. These similarities and differences emerged from their assessment strategies which were based on how they used ePortfolios and what types of assessment they used. These strategies included ePortfolios for drafting, submitting assignments for grading, providing clear comments and feedback, and writing teachers’ involvement in formative and summative assessments.

Writing teachers who initiated the use of ePortfolios in their writing courses differed from those whose departments required them to use ePortfolios. Yet, both groups agreed that formative and summative assessments suited the functionality of ePortfolios.

In this section of the study, two issues are presented: the strategies for using ePortfolios for assessment and the types of assessment used by the writing teachers. This section addresses, first, writing teachers who initiated the use of ePortfolios for assessment, and second, those whose departments required the use of ePortfolios.

Initiating the use of ePortfolios for assessment. Moving from paper-based portfolios, Professor Oryx initiated the use of ePortfolios for formative assessment in her writing classes when she understood the benefits of using them for both teaching and assessing writing. Based on her experience, she stated that using paper-based portfolios demanded “a lot of grading” (Interview, March 26, 2014). She said, “It just seems when you’re typing the comment, you tend to say more than what you’re simply writing on a piece of paper, not to mention clarity of responses in comparison to my not-very-good hand writing” (Interview, March 26, 2014). Using ePortfolios enabled her to provide her students with immediate constructive feedback instead of having them wait a long time to read her comments on their papers.

Professor Tulip also initiated the use of ePortfolios in her classes to allow her students to “leave the class a bit more skilled than they came in” (Interview, April 10, 2014). She used ePortfolios for formative assessment until the end of the semester. Like Professor Oryx, Professor Tulip used ePortfolios for assessing and grading everything in her writing classes because she asserted that “Students need grades. It helps them” (Interview, April 10, 2014). She pointed out that she never gave low grades, believing

that by doing their assignments, they earned good grades. She explained that she felt that if students were asked to do assignments and they did them, they deserved points for that. As a result, Professor Tulip permitted her students to resubmit several drafts of their assignments to receive higher grades. This strategy of reading, grading, and uploading comments resulted in exhaustion and this unpleasant experience caused her to lose her use of ePortfolios in her classes.

Her strategy was similar to Professor Ameer's. He explained that his experience with using ePortfolios made him encourage his students to write because his formative assessment strategy was based on the assumption that "everybody gets an A as long as they try to get the A" (Interview, March 28, 2014). This strategy is very interesting to use in conjunction with ePortfolio assessments. It epitomizes the concept of grade inflation, which this study did not specifically address because it was not the purpose of this research. However, this could be a topic for a future research. To clarify this concept, grade inflation describes the practice of giving high grades to most of the students in a learning situation although assignments demonstrate a wide range in the quality of work submitted. This creates a gap between internal class assessments and departmental assessments (Martins, 2009; Schiming, 2013).

Professor Ameer further explained his strategy of using "lower impact assessment" which was based on the question: "Did you do it, or not?" (Interview, March 28, 2014). He added that he was not concerned about the content of the paper and he disregarded all mistakes of grammar or punctuation. His experience with using ePortfolios to teach writing taught him that his purpose was not to fail anybody, but on the contrary, it was a way of helping his students improve their writing without thinking

about grades. He stated, “I don’t want to make them fail although it is very much along the traditional trade line you often hear that says, ‘I am not failing any student, they failed themselves.’ It is kinda true” (Interview, March 28, 2014).

Professor Ameer also used electronic comments so that his students did not have to decipher his handwriting. He pointed out that when he left students handwritten comments on their papers, “they couldn’t understand the handwriting” (Interview, March 28, 2014) and that his hand got tired from spending time writing comments. He pointed out that he used ePortfolios for formative assessment to provide clearer comments that his students could read. Yet, he expressed his fear that by providing electronic comments on electronic papers, some students might ignore them and fail to make the necessary changes to their papers. He also stated that “I do more hand-written assessment than I do electronic assessment” (Interview, March 28, 2014). In other words, writing local comments on students’ papers allowed him to provide various comments rather than a single, holistic one. But, using ePortfolios enabled him to track students’ progress and changes in their writing, and to make comments in a timely manner. When I asked him if using ePortfolios for formative assessment had changed his methods of assessment, he stated, “I really didn’t think about this that much. It must. I am not conscious of it, but it must” (Interview, March 28, 2014). This notion is worth exploring.

Using ePortfolios for formative assessment was a different experience for Professor Tulin who integrated ePortfolios in stages. At first, she asked students to write a prompt at the beginning of each class and she read and graded them online for the purpose of keeping attendance. Then, she found that this strategy overloaded her with work in addition to the actual assignments and paper drafts. However, unlike Professor

Tulip who permitted multiple submission of assignments for grading, Professor Tulin limited the number of submissions for each assignment to lessen the number of assignments to be graded.

In contrast, Professor Ann, whose use of ePortfolios was limited due to her lack of technical skills and knowledge, stated that her experience with ePortfolio assessment was unpleasant. Professor Ann also used both types of assessment: formative and summative. She explained that to follow her students' progress, "she used formative assessment during the course and summative assessment for the final project and the department evaluation" (Interview, March 8, 2014). She further explained that for formative assessment, she provided constructive comments and allowed peer feedback among students through the use of the D2L ePortfolio sharing option. Professor Ann preferred this type of assessment. She said, "The revision process is learning for me and because of this I provide more feedback on their second draft to use for the final draft" (Interview, March 8, 2014). She also explained that she used evaluation criteria with lots of detailed items for students to use while writing their assignments and also for herself while grading their ePortfolios artifacts. For the summative assessment, she followed the department evaluation portfolio which asked students to write reflective letters on their writing process and to choose the artifacts they wanted to include.

Like Professor Ameer, when I asked her if her methods of assessment had changed or improved due to her use of ePortfolios, she hesitantly said that she "had never thought of this and [she] was not sure" (Interview, March 8, 2014). This notion is worth exploring in a future study in order to provide more information about potential changes of assessment methods.

Departmental requirement for using ePortfolios for assessment. Professors Aidan and Moses, who used ePortfolios for assessment when required by a department had various purposes, experiences, and strategies compared to those who personally initiated the use of ePortfolios. The strategies used by both professors were different. Professor Aidan's school required all faculty members to get together and evaluate each other's student ePortfolios, while in Professor Moses' school, writing teachers received a hyperlink to evaluate their assigned ePortfolios and discuss them.

Professor Aidan, whose department required the use of ePortfolios for both writing and summative assessment, pointed out that "With the use of ePortfolios, the type of assessment and assessing courses had changed" (Interview, February 22, 2014). For the department, "the use of ePortfolios was not any more functional but it became more conceptual to meet their objectives" (Interview, February 22, 2014). In other words, the final ePortfolios were used by the department to supervise English 128: First Year College Writing courses and what students were supposed to do. He mentioned that using ePortfolios for the final project was a common practice in the department. He stated that for the summative assessment, "Faculty members got together as a group and evaluated the ePortfolios in a more concerted way to improve and develop things based on these ePortfolios" (Interview, February 22, 2014). In other words, working together to assess and discuss ePortfolios added deeper perspectives about their implementation for teaching writing and summative assessment. Their aim had a twofold purposes. The first was to let writing teachers talk about their experiences with using ePortfolios and to share teaching methods that worked well in their writing classes. The second was to discuss ways to improve the assessment program in their department while using ePortfolios.

Like Professor Aidan, Professor Moses also used ePortfolios because the assessment program in his department required all teachers to use them for writing and summative assessment. Yet, there were differences between the two Professors. In contrast to Professor Aidan whose department met to assess ePortfolios, Professor Moses' department sent a hyperlink to teachers who clicked on their assigned ePortfolios to evaluate them and be involved in assessing ePortfolios. He explained that using ePortfolios made it "much more valuable when we are all looking at student work trying to score it and having conversations about it, and that wouldn't be possible without ePortfolios" (Interview, March 25, 2014). In other words, using ePortfolios enabled everyone to be involved in the final summative assessment of students' artifacts. He explained that after collaboratively assessing ePortfolios through the shared link, teachers met to discuss ways to improve their assessment program and teaching methods. For the purpose of his department, ePortfolios were used not only for assessing students' artifacts, but also for assessing composition program in the department.

Another difference between Professor Aidan and Professor Moses was that Professor Moses used both types of assessment in his writing classes while Professor Aidan only used the summative assessment as his department required of him. Professor Moses mentioned that he used summative assessments for the department while in his classes he used formative assessments. He pointed out that "the entire department is involved in assessment, in particular the programmatic summative assessment" (Interview, March 25, 2014). Their assessment program required all faculty members to be involved in ePortfolios' summative assessment. In his department, a hyperlink was sent to teachers who clicked on their assigned ePortfolios to evaluate them. Professor

Moses explained that as a writing teacher, he was more interested in the formative assessment which followed students' development across several semesters. His use of ePortfolios in this case became more formative than summative. For him, using ePortfolios in his writing courses and the Writing Center improved his methods of assessment. He stated that "we need the desire to do more comprehensive assessment than what we have been doing so far" (Interview, March 25, 2014).

As a teacher in the Writing Center, Professor Moses further explained how he used ePortfolios to assess his students' assignments and follow their writing development across several semesters. This strategy of assessing students for several semesters enabled him to improve his methods of assessment while using ePortfolios and expand the use of ePortfolios across several semester. Yet, he stated that "we need the desire to do more comprehensive assessment than what we have been doing so far" (Interview, March 25, 2014). Expanding the use of ePortfolios over several semesters to follow students' progress is a subject worth studying, where a longitudinal methodology is feasible.

While this part of the study has shared some strategies the Professors addressed about the use of ePortfolios for assessment, the following section provides data on lessons learned while using ePortfolios for writing and assessment.

Lessons Learned from Using ePortfolios for Writing and Assessment

In this chapter, I have presented data related to the three research questions of this study. When I asked the interviewees what they learned from their experiences of using ePortfolios for teaching writing and assessing artifacts, and what challenges emerged while implementing the software in their writing classes, the interviewees provided valuable information for other teachers who wish to use ePortfolios.

Understanding the Purpose and the Merits of Using ePortfolios for teaching and assessment was very important. Professor Aidan learned that it was important to have a purpose for using ePortfolios. He added that it was important to know why writing teachers might use ePortfolios and how this technology might work for them in their writing courses. This strategy, he explained, “would be more fruitful and less confusing to some teachers who did not use them before” (Interview, February 22, 2014).

Understanding the use of ePortfolios made it easier for those writing teachers to avoid negative expectations or frustrations which resulted in stressful experiences about using the software. Professor Moses said, “I think ePortfolios are like a really fast car. They can be incredible. But, you really have to know what you are doing” (Interview, March 25, 2014).

Professors Moses and Tulip stated that by understanding students’ learning needs, ePortfolios became valuable tools for teaching and assessing writing. She explained that her “values as a writing teacher were based on what her students needed” (Interview, April 10, 2014). Professor Moses further explained that writing teachers “have to understand the value of using them and they should be motivated to find their own ways to make ePortfolios meaningful” (Interview, March 25, 2014).

However, Professor Ameer had a different point of view. When I asked him what he learned from using ePortfolios, he explained that “using ePortfolios to teach and assess writing required teachers to be able to know how to use them” (Interview, March 28, 2014). He also added that “if you want to learn technology, learn it yourself and apply this to anything. I could be the best teacher in the world and students are not motivated enough to open a book” (Interview, March 28, 2014). His perspective on using

ePortfolios was based on helping students. But, he insisted that writing teachers should be on the same technological level as their students. He believed teachers should use modern approaches to teach writing. He stated, “Students are less likely to respond to those traditional approaches, so we have to keep up with these as teachers if we want to maintain literacy” (Interview, March 28, 2014). Yet, this study does not seek to compare traditional methods of teaching writing and “modern approaches” that use technology in the writing classroom. This gap might be addressed in future research.

Professor Ameer’s idea of coping with technology in the classroom was similar to what Professor Tulip suggested. She mentioned that although she struggled while using ePortfolios and was “not willing to put enough effort into learning how to use them,” she was aware that “ePortfolios create a record, a record of learning” and that using ePortfolios in English language teaching “is the direction we need to move in” (Interview, April 10, 2014). She felt ePortfolios are the future into which writing teachers are moving. As a result, for her new job as a coordinator, she would hire someone with background in the use of ePortfolios and technology in the classroom instead of developing her own technical skills, which the job market may find highly attractive. Contradicting her own actions and, unlike the other interviewees, her message for teachers was not to give up if they could not use ePortfolios because there were always other ways to implement them.

Professor Tulin stated that using ePortfolios to teach writing taught her two things. First, students “like having that window of time to go and do the activity to hand it in” (Interview, March 28, 2014). For her students, using ePortfolios provided them with the opportunity to keep their assignments and to revisit their previous handouts and

drafts. Second, as a writing teacher, if she had known how to use ePortfolios earlier in her career, she “could have saved [herself] a lot of time along the way if [she] had done this earlier” (Interview, March 28, 2014). Yet she saved herself the time of writing and printing handouts. She stated that for these reasons it was worth the time it took to rethink her syllabus and teaching approach in a way that suited the use of ePortfolios. She said,

I wish I had done this a long time ago... I don't think it is a substitute for classroom time. I still prefer that. But it can really serve the instructor and the student well if they use it the right way. I am gonna keep using it. I was a kind of resistant to technology for a while because I thought, “Why should I use it?” But now, I can see how helpful it really can be, for them as well as for us. (Interview, March 28, 2014)

Professor Ameer had a similar point of view as Professor Tulin who reached the conclusion that using ePortfolios helped both the writing teachers and the students. From his experience, Professor Ameer saw that using ePortfolios was not complicated but was actually easier to use in the writing classroom. He explained that using ePortfolios “adds tremendously to the dynamic of the classroom” (Interview, March 28, 2014).

Chapter Summary

This chapter examined how writing teachers used ePortfolios to teach writing and assess artifacts. The study revealed that writing teachers were aware of the challenges and constraints of using ePortfolios. They were also aware of the affordances available to them as they implemented ePortfolios. Finally, the study showed that some writing teachers shared similar experiences with implementing ePortfolios. Other teachers

conveyed different strategies they used in the process of using ePortfolios. Based on the presentation in this chapter, a number of significant issues emerged:

- Support and collaboration of writing teachers in the English Department and other supporting facilities in the university helped with implementing ePortfolios and eased the work of teachers and students in writing courses.
- Having previous knowledge, technical skills, and professional workshops helped to ease teachers' transition to using ePortfolios. Such knowledge was sought from various sources inside and outside the university where teachers found strategies and methods to support the use of ePortfolios for teaching and assessing writing.
- Factors motivating the adoption of ePortfolios were also important. Teachers who individually chose to use ePortfolios tended to be successful with them. Teachers who had been mandated to use ePortfolios demonstrated resistance.
- The challenges faced writing teachers became apparent. The type of software used and the continuous change of that software were constraints to implementing ePortfolios. Resistance from colleagues who did not want to learn how to use ePortfolios due to retirement issues, employment status, or lack of technical skills were also challenges.
- Using ePortfolios helped teachers assess assignments. ePortfolios were also helpful for the process of commenting, drafting, and grading, and facilitated the use of formative and summative assessments which helped with following students' writing progress over time.

What the study revealed so far is encouraging enough to merit further analysis of the results. In the following chapter, I offer an analysis of the data collected from the seventy-nine surveys and the seven interviews in answer to my three research questions.

CHAPTER V

CRITICAL CONVERSATION: DATA RESULTS AND FINDINGS VS. THE PUBLISHED LITERATURE IN COMPOSITION

In the presentation of the collected data in Chapter IV, several themes emerged in answer to the research questions about the implementation of ePortfolios and the challenges faced writing teachers who shared their experiences with the software. Analyzing the collected data and presenting the findings revealed important issues about the use of ePortfolios for writing and assessment, including the need for training workshops on how to use ePortfolios and the importance of modifying syllabi and teaching methods. The findings also revealed a number of emerging constraints that were apparent while using ePortfolios such as lack of technical skills and resistance among writing teachers. The analyzed data further connected the use of ePortfolios with formative and summative assessments which were used for various purposes.

The importance of this study was reinforced by some of the findings, which had not previously been discussed in other studies in the field, thus lending significance to this research and justifying the need for it. In this chapter, I describe these findings and engage in a dialogue with other researchers in the field about the emerging themes. This is done by following the linear progression used to structure earlier sections of this study, which is based on the research questions and aligns with the literature review.

Using ePortfolios as a Learning Management System (LMS)

The data revealed that using ePortfolios as a learning management system in the classroom is one of the reasons that makes writing teachers turn to using ePortfolios. As a management system, Professors in this study used ePortfolios as organizational tools to

organize their course material such as syllabi, extra readings, assignments, and grading, to encourage collaboration among learners through peer review and discussion forums, to keep track of students' writing development, and to communicate with student and. From analyzing the data for this study, I identified these emerging themes while using ePortfolios as LMS.

Approaching ePortfolios as Organizational Tools

Two of the survey respondents addressed organizational issues wrote that ePortfolios “are organizational tools when one is teaching writing as a process” (survey 32) and that they are useful “to organize the class” (survey 35). Using ePortfolios reinforced organizational functionality inside and outside the classroom for both teachers and students. Some respondents wrote that using ePortfolios “allow[ed] students time to draft and revise their work” (survey 28), “encourage[d] revision and track[ed] student progress throughout the semester” (survey 68), and “trace[d] students’ writing and archive[d] students’ assignments” (survey 67). Using them as organizational tools, teachers were able to track students’ writing progress and product development over time and enabled students to follow their own writing improvement as well (Barrett, 2010, Cambridge, 2010).

The interviews also revealed the Professors’ use of ePortfolios to organize their work. Earlier in this study, Professors Tulip, Tolin, and Ameer approached ePortfolios as digital organizational tools for writing and assessment that helped students create their own ePortfolios in order to share their artifacts for discussion, grading, and reflection. Professor Ameer added that using ePortfolios as electronic organizational tools with additional visual artifacts engaged students with disabilities in their writing process.

Professor Tulip, who described herself as massive disorganized” (Interview, April 10, 2014), stated that using ePortfolios forced her to become more organized and everything she needed for her writing courses was put online while building her courses on D2L ePortfolio software. She said that she used ePortfolios for uploading syllabi, worksheets, and activities instead of printing extra readings and handouts. She also stated that because her writing course was a chain of connected writing assignments, her students tended to lose their drafts as well. Creating students’ D2L ePortfolios enabled her students to easily find their assignments and readings in case they lost the hard copies. Her students’ ePortfolios also enabled sharing artifacts for feedback and peer review, grading, and presentations.

Collaboration Between Learners

Collaborating and supporting each other while using ePortfolios was another learning management principle the interviewees in this study highlighted. From a constructivist point of view, Berryman (1994) stated that “collaboration is a key in applying constructivist principles, whether the collaboration take place between teacher and student, or students to student” (as cited in Cox & Cox, 2009, p.10). Bruffee (1986) also explained that “Collaborative learning is related to social construction in that it assumes learning occurs among persons rather than between a person and things” (p. 787).

The use of ePortfolios enabled a constructivist collaboration between teacher-teacher, teacher-student, and student-student. For the Professors of this study, teacher-student constructive collaboration was one of the techniques they developed by providing feedback while using ePortfolios to manage their learning and teaching process. Professor

Oryx, for example, explained that one of the things she learned was to give students a “good feedback as a process to develop over the semester” (Interview, March 26, 2014). Using ePortfolios made it possible for her to follow her students’ development over the semester because she “think[s] the key is giving them that good feedback to help them to really understand the kind of things they will need to improve on” (Interview, March 26, 2014). This fits what Bruffee (1986) indicated in that “Some teachers using collaborative learning who have adopted social constructionist assumptions have found that they understand better what they are trying to do and, understanding it better, have a better chance of doing it well” (p. 787). In *Writing without Teachers*, Peter Elbow (1971) explained that providing students with constructive feedback encourages students to become editors of their own work in order to develop their writing skills and self-assessment.

Professor Moses also saw that peer review was another important aspect of collaboration among students while using ePortfolios to teach writing. The use of ePortfolios, for example, fostered the social interaction and meaningful context among users to build new learning management bridges through constructivist experiences (Jacobsen, 2002; Levin & Wadmany, 2006). This constructivist collaboration was apparent through students’ peer review which promoted their engagement in reflection. From his experience with using ePortfolios for teaching writing and collaborating with his colleagues, Professor Moses felt that while some writing teachers “hate using peer review because they had bad experiences,” others thought that using peer review “is really an effective learning tool but you have to structure it effectively” (Interview, March 25, 2014). When I asked him what he learned from this experience and what he

would advise new users, he firmly stated that “the key success of using ePortfolios started from the faculty members. If they were motivated and understood how to use ePortfolios and the value of using them, then they would transfer this motivation to their students” (Interview, March 25, 2014). In other words, motivated teachers who understood the merits of ePortfolios and had knowledge and technical skills as to their use are often the ones who know how to use ePortfolios for tracking their students’ writing development and whose students also use ePortfolios for their future purposes.

In contrast, Professor Tulip, who struggled with using ePortfolios, had a different opinion about class learning management. She reported that peer review could not have happened if she based her whole class on ePortfolios. Her aim was to allow her students to read and value what their classmates wrote. She said,

Having them all submit online, they don’t tangibly hold the work of their classmate and read and give any sort of feedback at the drafting stage, and so I frequently print out pieces of work I think are really exceptional to read them to the class. (Interview, April 10, 2014)

Her strategy seems a bit dated for someone who is using ePortfolios. Her lack of experience with using ePortfolios for group discussion and peer feedback caused her to use hard copies for in-class drafting and feedback. She thought that by having students hold the hard copy, their interaction with each other in the classroom improved. At the same time, she forgot that students were able to use technology for various purposes, including educational purposes, if teachers trained them how to use it for their education. She also forgot that some shy students would become more active if they were allowed to provide their feedback on their classmates’ assignments on ePortfolios. Those students

might have less social interaction with their classmates in a constructed learning environment. It is obvious that her lack of technical skills and knowledge to use ePortfolios pushed her to combine the use of ePortfolios with paper-based drafts. In a similar context, Professor Tulin stated that she was not fan of online teaching because she “would miss the face time and students’ interaction” in the classroom where she preferred walking around the classroom and “answering questions” (Interview, March 28, 2014).

I believe that these two contrasting views create a rich foundation for studying teachers’ strategies for using ePortfolios for peer review. This contrast between Professor Moses and Professors Tulip and Tulin could also provide extra information about how teachers use ePortfolios for similar purposes but with different teaching strategies. Professor Tulip, for example, chose to blend both ePortfolios and face-to-face peer review by printing out some of her students’ papers for students to work on in class while Professor Moses focused on the use of ePortfolios for peer review. Professor Ameer related to this point when he explained that “I am not saying to throw out face-to-face group interaction. It is part of it and adds a new dimension for teaching” (Interview, March 28, 2014). These two contrasting views could be a potential future study that compares and contrasts the range of uses afforded by ePortfolios, including assessment, peer review, and blending digitalized students’ submission with face-to-face class collaboration.

Tracking Students’ Writing Development

In answering the research question of how writing teachers implement ePortfolios for teaching writing, analysis of the data revealed that writing teachers used ePortfolios to track their students’ writing development and progress over time as a learning

management system. This theme was supported by the literature in the field which also reinforced the use of ePortfolios to track students' writing from the beginning to the end of the semester (Barrett, 2008b; Cambridge, 2010; Elbow & Belanoff, 1997).

Professors Ann and Oryx mentioned that their method of using ePortfolios for teaching writing was to compare drafts and to track their students' writing development over the course of the semester. Professor Oryx said, "I think with the old fashioned methods of collecting students' papers, everything was like lots of big complex stuff, and with ePortfolios we can pinpoint things easily or quickly" (Interview, March 8, 2014). Professor Oryx used ePortfolios to track students' progress, and the review of the literature reinforced her purpose to tracking learner development and writing progress (Barrett, 2008b; Bhattacharya & Hartnett, 2007; Cambridge, 2010; Yancey, 2009). Professor Oryx also indicated that using ePortfolios enabled students to track their previous assignments and to be aware of future assignments by reading the instructions stored in their class ePortfolios. She said, "I think that the electronic version is so much easier to see some of the things they miss the first time" (Interview, March 26, 2014).

Unlike Professors Oryx and Ann who used ePortfolios to track students over one semester, Professor Moses's learning management encouraged him to use ePortfolios to track students' writing over several semesters. With his experience in the Writing Center and using ePortfolios for English 300: Professional Workplace Writing, Professor Moses was anxious to tie together the semesters and the materials learned. He stated that his use of ePortfolios for students was "providing a continuum to track students and help them recognize their time in the Writing Center as an ongoing intellectual project" (Interview, March 25, 2014). That is, students went through one semester for the writing course and

then returned during subsequent semesters to continue writing and reflecting on their writing progress. He mentioned that he taught students “in their second semester of the first year and had them in six or seven semesters after that” (Interview, March 25, 2014).

Using ePortfolios as Communication Tools

Another theme that emerged from analyzing the data was the use of ePortfolios, as a LMS beyond the classroom as a tool for communication between teachers and their students. D2L ePortfolio was used by six interviewees for communication and discussion inside and outside the classroom to let student manage their learning. Three interviewees, Professors Ann, Tulip, and Tulin, said that integrating D2L ePortfolios as supplementary tools helped them to teach and assess writing and enabled their students to design their ePortfolios and collect their artifacts outside the classroom. Professor Ann stated that, in using ePortfolios, she intended to go beyond class time so that it became a communication tool to follow up with her students whose assignments were submitted before the in-class discussion of the assigned readings. This collaboration between teachers and students outside the classroom illustrates one of the basic principles of the constructivist approach. This out-of-class use of ePortfolios is explained by Tam (2000), who said, “it encourages the construction of a social context in which collaboration creates a sense of community, and that teachers and students are active participants in the learning process” (p. 51).

Professor Tulip’s previous experience with using digital tools such as Mahoodle, and Wikispaces encouraged her to use D2L ePortfolios despite her lack of specific skills and knowledge about ePortfolios. By adding ePortfolios to her courses, she gave her students the opportunity to share their ePortfolios with her so that she could follow their

writing individually outside of class through the shared link of their ePortfolios. They also selected assignments to share with the class D2L ePortfolio for group presentations, peer feedback, and reflections. To her surprise, while using ePortfolios for discussion, her students asked more questions about various issues in the assigned readings than during face-to-face class discussion. Keeping up with her students outside of class by following their discussions and collaborations became possible through ePortfolios.

Like Professors Ann and Tulip, Professor Tulin also used ePortfolios outside of class discussion. Her use, however, was different from the other interviewees. She stated that her use of ePortfolios was as a supplementary tool to upload readings that would not be discussed in class because she “did not want to waste time to discuss in class” (Interview, March 28, 2014). She also explained that if she found a useful link or video she uploaded it for students to watch. Her strategy of using ePortfolios was to keep in touch with her students outside the classroom by providing them with essential materials to support and expand their writing skills. She also encouraged students to share some of their artifacts with other students for the purpose of discussion and reflective writing.

Thus, using ePortfolios as communication tools beyond the classroom had a twofold result. First, ePortfolios opened up opportunities for students to express themselves and share their opinions as compared to the physical class environment where many shy students might not speak. Second, students became partners and were placed in the center of their learning process. This finding tends to align with a number of studies, such as Barrows (2004), Houston (2011), Johnsen (2012), and Meyer et al. (2011), where the aim of using ePortfolios was to develop a learning-centered approach which put students at the center of their writing process and progress. Every Professor used

ePortfolios to teach writing, but everyone taught writing differently. Meyer et al. (2011), for example, indicated that the aim of using ePortfolios was to “promote student-centered learning” (p.201). Houston (2011) asserted this aim as well, and recommended the use of ePortfolios to create a learning environment of communication and collaboration in writing classes.

Strategies for Implementing ePortfolios to Teach Writing

Two themes emerged from analysis of coded data relating to the first research question: “How do writing teachers implement ePortfolios to teach writing in PASSHE English departments?” One of the themes, which paralleled the discussion in the literature review in Chapter II, was the need for professional training to implement ePortfolios. The second theme, which emerged from my analysis and shed new perspectives on how ePortfolios were being used, was the need to change methods of teaching and syllabi to conform to the functions of ePortfolios for teaching writing.

Theme 1: Professional Training for the Use of ePortfolios

Analysis of the data showed a pattern of responses demonstrating a need for teachers to be trained in order to use ePortfolios successfully. This was mentioned by each of the seven interviewees and was also raised in the literature review.

Barrett (2005a, 2005b; 2008b), Bartlett (2006) and Mostafa (2011) reinforced the argument for the need to provide professional training to acquire technical skills, and provide proper teaching methods to suit the electronic nature of ePortfolios, and to reduce anxiety level among ePortfolio users. The importance of training teachers to implement and use ePortfolios was supported by the data collected from the interviews in this study as a collective demand from teachers.

This perception seemed to indicate that professional training is essential for the successful use of ePortfolios. This finding tended to reinforce Mostafa's (2011) study which showed that training programs were effective and provided teachers with the skills and knowledge they needed for successful use of ePortfolios in writing classes. In keeping with Mostafa's results, being involved in professional training and workshops assisted the interviewees in this study to gain knowledge and skills on how to effectively implement ePortfolios. The interviewees revealed that they used various strategies to initiate the use of ePortfolios in their writing courses, including the cases where departments required the use of ePortfolios for teaching writing.

Professor Aidan, whose department required ePortfolio use, stated that prior to implementing ePortfolios, professional training had been provided during department meetings where teachers had also raised many concerns. This decision matched Gathercoal, Love, Bryde, and McKean's (2002) study which suggested that teachers should be trained during departmental meetings and during teaching hours. This call for training teachers during staff meetings aimed to prevent overloading teachers with additional responsibilities. Professor Aidan, for example, praised these training sessions during the staff meetings because they saved him extra hours of work and provided him with new knowledge from his peers about their use of ePortfolios.

In addition to the practice of training teachers within his department, Professor Aidan added another important issue, which was holding training sessions for students. Professor Aidan stated that students took training workshops during their class time. They were also given online videos which were prepared by their "assessment people who gave sessions for students" and by some "students who were in the professional

writing courses and took web design classes” (Interview, February 22, 2014). This strategy of training students to use ePortfolios corresponded to a study by Fournier and Lane (2006) who stated that it was essential to teach students the nature of ePortfolios and online writing in order to use these tools successfully.

Professor Moses, whose department also required writing teachers to use ePortfolios, mentioned another strategy, which is to encourage students to learn about ePortfolios. He reported that students were required to complete a one-credit training course on the use of ePortfolios. This finding seems important. Requiring students to take training programs in the use of ePortfolios is a strategy to teach the use of the tool and to simplify teachers’ work. If students are well-trained, their teachers will not have to spend class time teaching them how to use ePortfolio options, but rather they will be able to focus on how to improve writing by actually using the software.

Based on the constructivist approach, “learning to master the use of eportfolios should be part of the educational system and the writing classes” (Alawdat, 2014a, p.5). By offering training programs for teachers and students, the use of ePortfolios was made easier for Professors Aidan and Moses, whose departments provided learners with training programs as part of their educational curriculum. By mastering the use of ePortfolios, teachers and students also learned the purpose of using ePortfolios for writing. Students became aware of the tool as a means of helping them improve their writing skills and track their progress throughout their learning process. In conformance with constructivist approach, the teacher could assume the role of facilitator and guide to students, who become the center of their writing process which enabled them to evaluate their role as creators of their writing community.

This analysis tended to match the findings of Meyer, Abrami, Wade, and Scherzer's (2011) about training ePortfolio users. These researchers reached the conclusion that providing users with information about the use of ePortfolios helped them to effectively use the software in classes and to motivate teachers to expand their use of ePortfolios for teaching writing. They stated that training programs and professional development were very important for teachers, who were not technologically savvy, in order to change their perception "from believing they cannot use technology into believing they must use technology for learning" (p. 202). Teachers such as Professors Aidan and Moses, who received training, understood the merits of using ePortfolios and became skilled in using them more than others who had not received structured training.

The analysis further revealed that both structured training and workshops offered by the departments, as well as less structured learning methods, had positive results for the use of ePortfolios. The findings also revealed that training helped writing teachers who initiated the use of ePortfolios for teaching writing even when their departments did not provide structured training. Some indicated that they had searched for training programs in other universities' public homepages and watched online videos to train themselves on how to use ePortfolios. Four of the interviewees, Professors Ann, Tulin, Oryx, and Ameer reported that their self-training attempts and the knowledge they gained from their universities, and/or other sources, helped them create more productive ePortfolio environments for their students. These teachers added that such training helped them to introduce ePortfolios in classes, making a clear distinction between when they were teaching writing and when they were teaching the use of ePortfolios as a tool, thus avoiding confusion among their students.

The interviewees stated that introducing ePortfolios at the beginning of the semester was helpful. This tended to follow the suggestion made by Fournier and Lane (2006) who observed that training in the use of ePortfolios earlier in the semester made it easier for students to complete their assignments because they understood how to use the software. Professor Ann, who attended a workshop about technology on her own, explained that at the beginning of the semester she showed her students how to use the options she was familiar with and how to upload assignments on ePortfolios. She also provided them with written instructions on how to use ePortfolios to upload assignments. In a similar context, Professor Ameer provided “detailed training” for students to be able to use ePortfolios. He mentioned that “addressing ePortfolios in the class is given by somebody from the technology department. But, I personally like it better when I address it because it is simplified and focuses on what I need” (Interview, March 28, 2014). The training, guidance, and instructions that Professors Ann and Ameer provided at the beginning of the semester were strategies that Ring and Ramirez (2012) and Stone (1998) reinforced, indicating a need for such guidance and support. The researchers stressed the importance of introducing students to ePortfolios at earlier stages so that they can learn how to select and reflect on their writing process. Stone (1998) also pointed out that “Students need time to gradually learn about portfolios and gain understanding of portfolio construction and reflection on practice” (p. 111).

Professor Tulin explained that her knowledge of integrating technology in writing classes came from training workshops she had taken at her previous university where she used a different software application for teaching writing. From her previous understanding of the purpose of using technological tools for teaching writing, she said

that training to use ePortfolios “would be helpful. But before receiving training, I think it is important to learn about its potential and how it can serve us” (Interview, March 28, 2014). Her concern about the lack of clear structural training about the purpose of using ePortfolios in her department was emphasized by Ring and Ramirez (2012) who asserted in their study that “a lack of clear purpose was a barrier to the success of our program” (p. 94). To overcome barriers and constraints, teachers have to understand the purpose of using ePortfolios in order to facilitate their students’ use of the tool.

Unlike the other interviewees, Professor Oryx did not receive training or take workshops on how to use ePortfolios. She used strategies and techniques from her previous experience with paper-based portfolios to learn how to use ePortfolios. She pointed out that her current department had not provided students with workshops on how to use ePortfolios not did the department offer any professional training for faculty. In their study, Fournier and Lane (2006) explored the transition from paper-based portfolios to ePortfolios in order to understand the impact of such transitions on the use of ePortfolios. Having experience with paper-based portfolios required users to “learn additional skills” that “brought something extra to the e-portfolio development process” (Fournier & Lane, 2006, p. 4). In the same vein, Professor Oryx transformed her knowledge about paper-based portfolios to ePortfolios when she initiated their use in her writing classes. She pointed out that she trained her students to use ePortfolios and shared her knowledge with them about how to use the tool for writing.

Based on analysis of the data, this study sheds further light on the significance of providing training sessions for teachers and students. This seems to fit with what Barrett (2006) indicated in her study in which she stated that teachers who were involved in

training programs created better learning environments for students. Appling et al. (2012) also reinforced the importance of having support from departments. They considered it “a key to the success of the program” (p. 205) and said that departments needed to provide teachers and students with training on how to use ePortfolios for teaching and learning.

All the interviewees praised having access to training sessions from their departments and from other sources. Professors Aidan and Moses praised their departments for providing structured training opportunities to meet the requirements of their programs. Professors Ann, Tulin, and Tulip raised the issue of the need for having training on how to use ePortfolios for teaching writing, in particular, and not just on a general use of the tool. This issue is worth exploring in a future study.

Theme 2: Changing Syllabi and Teaching Methods While Using ePortfolios

Data analysis revealed that the use of ePortfolios required writing teachers to modify their syllabi and teaching methods. Four interviewees, Professors Aidan, Tulip, Ameer, and Moses, refined their teaching strategies to suit ePortfolio use for teaching writing. Professors Aidan and Moses explained that when their departments required teachers to use ePortfolios in writing classes, writing teachers changed some of their teaching methods and refined their syllabi to suit the new ePortfolio environment. When the Professors started using ePortfolios, they also made changes to particular assignments to suit the new online writing literacy. The type of changes made by these Professors were discussed by Walsh (2010) who explained that “writing is now very often a move towards a product that may contain quite sophisticated layout, graphics, photographs and images” (p. 214). By modifying their syllabi and methods of teaching, the professors gave their students an opportunity to make meaning through multimodal literacy which

occurs in digital texts and includes audio/video and images. Walsh (2010) added that integrating technologies “became embedded within students’ learning experiences and these were the results of the teachers planning with a holistic approach so that there was a continuum in the development of print and digital literacy practices across different KLAs [Key Learning Areas” (p. 225) as well as different curriculum areas.

Professor Aidan further stated that his department planned their “master syllabus to focus more on multimodal stuff and design” (Interview, February 22, 2014). Like Professor Aidan, Professor Moses said that the whole department “actually got to revise the requirement for our majors” (Interview, March 25, 2014) and used a shared syllabus for teaching writing and assessing the program. These two interviewees were very positive about this departmental collaboration and the changes seemed to suit their expectations.

One of Professor Moses’s strategy, for example, was using ePortfolios for reflective writing. This strategy tended to support what Heath (2004) argued in *Electronic Portfolios: A Guide to Professional Development and Assessment*. She stated that “Reflection, to be truly helpful, should not be a once-a-year activity we complete as part of our evaluation” (p. 38). Heath’s (2004) idea of reflective writing was similar to Professor Moses’ idea. While Professor Moses suggested going beyond using ePortfolios to track and assess students’ writing over one semester, Heath (2004) asserted that “Reflection often means moving beyond what is comfortable and stepping into new territory as we strive to master new competencies” (p. 39). Professor Moses explained that his job at the Writing Center took him beyond what his department asked him to do, which was to use ePortfolios to teach writing for one semester in order to evaluate the

program. Instead, he assigned college credits for students who attended the on-going ePortfolio writing courses and asked them to reflect on their previous writing every time they moved to another semester. He stated that in their final semester, students were asked to write their final reflection based not only on one semester, but on their entire experience with writing while using ePortfolios.

In relation to this, Bhattacharya and Hartnett (2007) argued that reflective writing was the core reason for using ePortfolios to track students' development and writing process. This seemed to fit with what Professor Moses said, "I always value reflection but the more I use ePortfolios, the more I really see the importance of that reflection" (Interview, March 25, 2014). While Professor Moses' strategy of reflective writing was reinforced by using ePortfolios, Heath (2004) stressed this strategy and wrote:

As we reflect, we are studying ourselves, not just to know ourselves, but to improve ourselves. Self-knowledge encourages professional growth. Growth encourages further reflection, which leads to more self-knowledge and more professional growth. In this way, reflection initiates a powerful cycle of knowledge and improvement that generates tremendous satisfaction and professional confidence. (p. 39)

Heath's (2004) recommendation to use ePortfolios to teach and improve students' writing and reflection was achieved by Professor Moses, who used ePortfolios for teaching writing, reflection, and tracking students' development over several semesters. Professor Moses felt that this helped him realize the full functionality of ePortfolios in a writing program.

The interviewees' strategies of changing their syllabi and writing assignments to

suit the use of ePortfolios for teaching writing aligned with the findings of Appling, Gancar, Hughes, and Saad (2012). The researchers pointed out that their department monitored the shared syllabus to identify the opportunities provided for students to “generate artifacts for their ePortfolios” (p. 204). Their results also reinforced the importance of involving teachers in designing and monitoring the design of the syllabi and the writing assignments for writing courses. While Professors Aidan and Moses followed their departments’ shared syllabi and suggested teaching methods, Appling et al. (2012) suggested that “faculty should re-evaluate methods of encouraging students to complete their ePortfolios, including emphasizing ePortfolios in syllabi and discussing them in class” (p.205) while using ePortfolios for teaching writing.

When Professor Tulip started using ePortfolios, she “re-evaluated” her methods of teaching and encouraging students to use ePortfolios (Appling et al., 2012, p. 204). She explained that the discussion board in D2L ePortfolio changed her perspective of teaching writing and gave students “more authority by using their own posts to expand the discussion in the classroom” (Interview, April 10, 2014). She said that this gave her a better sense of what her students pulled out of the readings and enabled them to reflect on each other rather than focusing on the teacher’s own reflections. Her use of ePortfolios enabled her students to have their own ePortfolios for submission, feedback, and assessment. Despite her negative attitude toward using ePortfolios in her writing classes, Professor Tulip praised the new digital writing when her students shared their ideas with their classmates on the class ePortfolio discussion board. When she became aware of the merits of using ePortfolios, she changed her methods of teaching writing to suit the digital literacy supported by ePortfolios.

The finding that interviewees' changed teaching methods and syllabi to suit digital literacy and teaching writing corresponds to findings in some published research. Selfe (1999) defined digital writing as "the ability to use computers and other technology to improve learning, productivity and performance" (p. 411). Therefore, several researchers stressed the importance of pedagogical change and implementation of new teaching methods for writing and digital literacy, to adapt to the use of ePortfolios for teaching writing (Barrett, 2005b; Fournier & Lane, 2006; Kist, 2005; Strudler & Wetzel, 2011). Berlin (2007) explained that "teachers become more aware of the full significance of their pedagogical strategies" (p. 766). Bruning, Schraw, and Ronning (1999) also explained that "The aim of teaching, from a constructivist perspective, is not so much to transmit information, but rather to encourage knowledge formation and metacognitive processes for judging, organizing, and encouraging new information" (p.215). In other words, pedagogically, writing teachers tend to change their teaching methods to suit the use of ePortfolios for teaching writing. According to constructivists, changing methods of teaching helps writing teachers to construct knowledge about their use of ePortfolios and to share their knowledge and skills with their colleagues and their students. Due to this pedagogical change, Barrett (2005b) and Fournier and Lane (2006) encouraged writing teachers to develop digital literacy skills to teach writing for public audiences. Selfe (1999) argued the need to teach a new type of writing literacy, which caused challenges for teachers using ePortfolios.

As revealed by the interviewees in this study, writing teachers needed to change their syllabi and teaching methods to suit the use of ePortfolios when they used them in their writing classes. While implementing ePortfolios promotes change in creating syllabi

and in teaching methods, it has the benefit of enabling teachers to help students gain new digital literacy skills. Yet challenges and constraints emerged from this research.

Emerging Challenges and Affordable Solutions for Using ePortfolios

As presented in the published literature and as reported from the collected data, coding of the surveys and interviews revealed several key themes. While some of the themes were similar to those identified in the literature review, new themes emerged in answer to the second research question: “What affordances and constraints are apparent when writing teachers use ePortfolios to teach and assess writing?”

Lack of technical skills and resistance among writing teachers were two common themes that were highlighted when ePortfolios were used in writing courses. New themes such as employment status, physical fatigue and anxiety, and the issue of ePortfolios ownership also emerged in the coding process. The new emerging themes overlapped in various ways with the common themes presented in the literature review.

Theme 1: Lack of Technical Skills

According to the coded data from the interviews, lack of technical skills was a constraint that hindered the implementation of ePortfolios for teaching writing. In contrast to this finding, Barrett’s (2008b) results showed that lack of technology availability, and not lack of technical skills, was a constraint on using ePortfolios.

However, in this study, the interviewees noted that poor technical skills hindered teachers’ use of ePortfolios rather than lack of availability of the software. They reported that PASSHE schools provided different types of technological tools and computerized classrooms, libraries, and computer labs for students to use. The interviewees also noted

that having knowledge using technology in general and the ability to access computers and Internet was not enough to use ePortfolios for teaching writing.

To overcome the lack of technical skills, some departments provided professional training for their writing teachers. As a result, these teachers generally had fewer technical problems than other writing teachers who did not receive training. Barrett asserted this notion and indicated that the greater the skills of the participants in the use of technological tools, the more advanced they became at using ePortfolios. In other words, professors' prior knowledge of technological tools helped them to use ePortfolios. Data analysis showed that Professors Aidan's and Moses' technical problems were not as severe as those of Professors Oryx, Ameer, Tulip, Tulin, and Ann who had no previous knowledge of ePortfolios. This second group had no departmental training on the use of ePortfolios. For example, Professors Tulip and Tulin perceived their main constraint to be their failure to master all the options provided by ePortfolios in order to improve their capacity to teach writing courses. In one of the surveys, one respondent stated that "It is important to know all the functions of the ePortfolios before and while using them to teach writing" (survey 67).

Lack of technical knowledge about all ePortfolio options created a challenge for users in this study. However, I would argue against the opinions expressed by this survey respondent because total mastery of a tool is not necessary for teaching writing effectively. In other words, the focus should be on how to use the essential options for teaching writing rather than on mastering all the options of the tool itself. In this case, I tend to support Professors Tulin, Ann, and Tulip who used what they needed of the ePortfolio options and taught their students to use them too. They used only what they

knew and found alternatives for the options they did not know. Professor Tulin, who raised the issue of not being able to master all the options of ePortfolios, said she had some technical problems during her first use of certain functions. She stated, “Being aware that online grading could help a little, there are those little glitches that I should be aware of them ahead of time” (Interview, March 28, 2014).

Professor Tulip also mentioned that it was hard to work with ePortfolios because it took her a lot of time to figure out all options. She compared it to other tools that she used, like Microsoft Word editing tools, which allowed her to provide comments and feedback. Professor Ann, too, complained about the unfriendly nature of ePortfolios for not allowing her to comment directly onto the copy. As a result, she used Microsoft Word to write comments and send them to students via email. Professors Tulip’s and Ann’s use of supplementary tools to compensate for their challenges and lack of technical skills relates to a study by Appling et al. (2012). The researchers recommended the use of other platforms because “Training focuses on the basics of what an ePortfolio should contain” (p. 200). According to Appling et al. (2012), participants in their study had flexibility to use any platform they wished such as Google Sites, Weebly, Wix, and their university’s server space. This freedom gave students “liberty to be as creative as they wish” (p. 200) and to have ownership of their ePortfolios for their uses even beyond their courses. Professors Oryx, Ann, Tulip, Tulin, and Ameer who initiated the use of ePortfolios in their classes had this flexibility, as well, when they used supplementary tools to overcome some of their technical problems.

Like everyone else in this section, Professor Ameer faced technical challenges that caused various problems while using ePortfolios both inside and outside the writing

class. In-class technical problems sometimes caused him to change his entire lesson plan to accommodate the situation, especially in relation to students with disabilities. He added that outside the writing class, students' lack of technical skills might hinder the process of using ePortfolios for teaching writing. He elaborated further on being faced with the situation of a student who had no hands, and pointed out that departments and universities should be ready for such potential constraints. He explained, "We don't have voice recognition on all computers. We don't have a variety of different technologies that can easily and efficiently be added to other computers" (Interview, March 28, 2014). In contrast to other interviewees who did not have a problem with this issue, Professor Ameer raised the possibility of providing ePortfolios with other supporting tools, such as voice recognition, that might help students with disabilities to use ePortfolios.

Professor Ameer's ideas also tended to fit Barrett's (2008b) finding that the lack of technology availability created a problem for writing teachers. She defined voice recognition "as a digital video clip, told in the author's own voice, illustrated mostly with still images, with an optional music track added for emotional effect" (p. 880). Like Professor Ameer, who criticized the lack of voice recording option on ePortfolios, Barrett (2008b) also pointed out that voice recognition was missing from ePortfolios.

It does seem that providing a voice recognition option on ePortfolios would be valuable. I would suggest a new concept of "voiced-teaching of writing" for teachers and "voiced-writing" for students who could dictate their assignments on ePortfolios. Yet recording comments is not new, there are many recording applications for this purpose. Providing teachers and students with such ePortfolio options would be a welcome improvement. This would solve the problem previously reported by some interviewees,

relating to the exhaustion they felt after prolonged periods of writing and reading in front of a computer screen. Using “voiced-teaching of writing” would allow teachers to record their comments where necessary on the digital assignment, and to use a reading application imbedded in the software. This upgrade is not impossible if companies update the functionality and options on ePortfolios to suit the educational purposes for their use.

From a different perspective, Professor Oryx raised the issue of students’ technical problems. She explained how lack of technical skills among students affected the use of ePortfolios in her writing classes. Her English Department did not provide teachers and students with workshops on how to use ePortfolios. Thus, lack of technical knowledge was one apparent constraint on using ePortfolios. She added that students could not upload or use simple digital tools such as Microsoft Word, although students had WhatsApp, Facebook, and Twitter and they had some facility with technology. She reinforced the need to get students to “speed up with the technology so they can use it effectively for education” (Interview, March 26, 2014). Making an interesting point concerning this issue, she said:

On the surface they look like they are really skilled because they can text, use their smart phones, and use the internet. But when you scratch the surface, you find that they do not know simple things, like saving things in certain file formats and doing something with Microsoft Word, and so you have to take this into consideration. (Interview, March 26, 2014)

Based on Professor Oryx’s views, I would argue that although students seem good at using technology in their daily life, they still are not very effective at using it for education. In other words, students give the impression that they are technology savvy,

but in most cases they are not skilled when ePortfolios are used for writing. Teachers who lack technical skills on the use of ePortfolios in their writing classes may feel that they cannot compete with their students who seem to be more adept at using technology than they are. Students' apparent facility with technology can create a challenge and a constraint for writing teachers who might resist using ePortfolios because of a false perception of inferiority in the use of technology.

Theme 2: Resistance Among Writing Teachers on the Use of ePortfolios

A number of interviewees reported on resistance among writing teachers to the use of ePortfolios for teaching writing in their departments. Specifically, some teachers resisted using some of the options on ePortfolios and insisted on using supplementary tools with which they were more familiar, such as GoogleDocs or email accounts. While coding the collected data, I found that some of the reasons for this resistance were indicated in Alawdat's (2013) study in which she pointed out that "learners' resistance of using e-portfolios was one of the serious problems while implementing ePortfolios" (p. 349). She further explained that some teachers were against using ePortfolios because they thought they were time-consuming, required additional work, and invaded personal privacy. In addition to these important issues, the interviewees in the current study highlighted several other important reasons for resisting the use of ePortfolios, either partially and/or entirely, in their writing courses.

First, the collected data showed that the prospect of retirement tended to dampen interest in using ePortfolios according to three interviewees. This emerging theme was not explicitly discussed in the literature reviewed in Chapter II. Yet, in this study, Professors Tulin, Moses, and Oryx provided evidence for this constraint when they

mentioned that resistance existed among older writing teachers who planned to retire soon. Professor Tulin mentioned that “faculty, who tend to be older and not skilled in technology or live with technology in the same way the younger students do” (Interview, March 28, 2014) were the ones who resisted using ePortfolios in their classes. Professor Oryx said that “faculty members resist using technology due to retirement issues, and this is a reason that they are not using ePortfolios in their courses” (Interview, March 26, 2014). Professor Moses also added that because some writing teachers had not mastered the use of ePortfolios due to their retirement plans, this “created a problem for them and for their students because using ePortfolios was a required tool in their department” (Interview, March 25, 2014).

This information from the interviewees shows that some teachers’ life plans interfere with their adoption of ePortfolios. It appeared that these older teachers anticipated that they would have to catch up with students whose technological skills were already well-developed, but they did not want to learn new skills because of their planned to retire soon. A future study to investigate the perception of older writing teachers on the use of ePortfolios might further explain this issue.

Second, analysis of the collected data revealed that employment status was another cause for resistance. Part-time employees and TAs resisted mastering most of the functions of ePortfolios because they did not have permanent positions in their departments and the probability of leaving their jobs was high. As Professor Tulip stated, “You don’t really take the time to learn something you will not use again” (Interview, April 10, 2014). She explained that her resistance to fully use ePortfolios in her writing courses and to learning more about their functionality was due to her temporary

employment in her department. As a TA who was employed for a temporary part-time job, she resisted using various functions of ePortfolios for teaching writing because she believed that she would be leaving the department. Her attitude, therefore, was similar to those writing teachers who would be retired and did not want to change their ways of teaching writing to integrate new technological tools. One may wonder why this employee did not think that knowledge of the ePortfolio system might increase her employability. Professor Tulip appeared not to understand the role of technological skills in the job market. This issue might be one to explore in a future study.

Third, the coded data revealed that the ongoing upgrades of the software created a source of resistance among writing teachers. The reviewed literature for this study touched upon the ongoing changes to ePortfolio software which impacted users' attitudes toward using ePortfolios for teaching writing. In this study, Professor Tulip pointed out that her students were confused about which software to use for which course because different professors used different software at the time that her university moved to ePortfolios. Her views of the changes in the software product tended to reflect issues in Barrett's (2008b) study which was conducted over a two-year period. During this time, the software changed from Web 1.0 to Web 2.0. Barrett's (2008b) research indicated that this change of the software created a problem for users who became confused about what software to use for which course.

Professor Ann also said that her students complained about having technical problems with the software while uploading their assignments. This technical glitch made the use of ePortfolios difficult for her students who could not understand how to use the software properly and were not trained to use it.

Due to these constant changes in the software, a number of the interviewees preferred to continue using tools that they were familiar with from their previous teaching experiences. Professor Tulin said that “writing teachers who resisted the use of [ePortfolios] were comfortable with the tool they used for long years” (Interview, March 28, 2014). She explained that when the new ePortfolio software was introduced, the institution did not provide an understanding of its benefit for writing teachers, and as a result they resisted its implementation. Professor Tulin further added that writing teachers resisted the use of ePortfolios because they “don’t really see the benefit, or take the time to relate it to pedagogy to use it if they don’t have to” (Interview, March 28, 2014).

Theme 3: Anxiety and Physical Fatigue

Anxiety about using the ePortfolio software was a common constraint discussed by the interviewees. Anxiety in general is the feeling of fear, nervousness, and frustration while doing an activity that might seem difficult to be managed (Autor & Dorn, 2013). The use of ePortfolios was an example of this. The authors touched upon how technology anxiety led teachers to oppose the use of computers and caused resistance among some users who were against the integration of technology, preferring non-technological solutions. This tended to follow the finding of Alawdat’s (2014) study which examined Israeli teachers’ perceptions of using ePortfolios. The results showed attitudes similar to English teachers who “express negative attitude towards using technology in their classes because they are not confident enough of their digital skills and lack many technological competencies” (pp. 45-46). Negative attitudes toward using ePortfolios caused emotional challenges for teachers who resisted the use of ePortfolios in their writing courses. Saadé and Kira (2009) explained technology anxiety more thoroughly by stating that:

Use of technology sometimes has unpleasant side effects, which may include strong, negative emotional states that arise not only during interaction but even before, when the idea of having to interact with the computer begins. Frustration, confusion, anger, anxiety, and similar emotional states can affect not only the interaction itself, but also productivity, learning, social relationships, and overall well-being. (p. 179)

Saadé and Kira (2009) added that “anxiety has been argued to affect computer based learning by affecting levels of self-efficacy” (p. 181). These researchers also felt anxiety provided an additional explanation for resistance among writing teachers who lacked technical skills and knowledge about using ePortfolios. In the same vein, the findings of the current study showed that some interviewees were frustrated when they could not use all the functions of ePortfolios, and eventually, they had some mild anxiety which affected them physically.

Physical fatigue is another constraint that was discussed by some of the writing teachers. Professors Ann, Ameer, and Tulip believed that physical fatigue was caused by using ePortfolios for reading and grading assignments, as compared to completing these tasks in the traditional way. Professor Ann pointed out that her eyes hurt from reading from the screen for a long period. However, although reading from the screen was difficult for her sight, she admitted that it was easier to provide typed comments and feedback for students rather than hand-written comments. Professor Ameer also said that his eyes hurt from the practice of reading from the screen for a long time. However, he, too, indicated that typing comments was less exhausting than writing comments by hand, which tired him. Professor Tulip said that to overcome her physical fatigue while reading

and grading on the screen, she read a small number of assignments for a short period of time to avoid long sessions of sitting, reading, and grading.

In connection to ePortfolios, resistance would likely emerge among writing teachers who had had bad experiences with using technology. For example, while Professor Tulip mentioned that she would not use ePortfolios again and would hire someone to do the job for her in her new position as program director, Professor Ann had no concern about continuing to use ePortfolios, but she intended to use it only as a supplementary tool to upload readings and links of important sites for her students. One could infer that Professor Ann was limiting the value of ePortfolios by constraining its use in her classes.

The interviewees' various experiences of using ePortfolios relate to Shada, Kelly, Cox, and Malik's (2011) study. These researchers found that teachers had "anxiety around issues such as dealing with the technology...the overall time commitment, and having adequate support to deal with students' varying learning curves" (p. 76). Barrett (2005a) also suggested that teachers' anxiety can be reduced by providing guidance and training. She added that teachers should "start small and build capacity" (p.1) when they implement ePortfolios. By doing this rather than trying to learn to use ePortfolios all at once, teachers' technical skills and professional development would improve overtime. Professors Tulip, Ann, and Ameer had not received any previous professional training and based their use of ePortfolios on personal initiatives and general knowledge of technology. Lack of knowledge and technical skills made them anxious and less motivated about using ePortfolios for teaching writing.

Overall, anxiety about using ePortfolios was not a major problem. In fact, some

survey respondents wrote very encouraging comments about the use of ePortfolios. One survey respondent wrote that “ePortfolios offer students a degree of comfort with developing their writing and can minimize the stress of grade anxiety” (survey 66) while another respondent wrote that ePortfolios “provide an electronic space of their own, where students can feel comfortable expressing themselves and sharing their ideas with their classmates” (survey 57). A third respondent wrote that “I am very much a novice in using ePortfolios and believe they will be more helpful as I grow to be more comfortable with using them” (Survey 35). This later survey respondent seemed aware of her anxiety and discomfort in using ePortfolios because she was not skilled and confident enough to use all the functions of ePortfolios to teach writing. Lack of knowledge and technical skills made her suggest that her anxiety about using ePortfolios might be reduced if she mastered all options on ePortfolios and became more skilled in using them. Thus, the survey respondents’ attitude toward mastering the use of ePortfolios was optimistic as compared to the interviewees who found that using ePortfolios caused them some physical fatigue and some mild anxiety.

The use of ePortfolios, as with other types of technology, can cause minor anxiety when writing teachers used them to teach and evaluate writing. The interviewees in this section pointed out that anxiety, followed by physical fatigue, was a constraint that increased their resistance and frustration about using ePortfolios. When teachers were less skilled in mastering the use of ePortfolios, anxiety resulted hindering the implementation of ePortfolios.

Theme 4: Ownership of ePortfolios

In this section, I discuss another important issue revealed by the study—the question of ePortfolio ownership. In a traditional classroom, teaching methods did not impact student ownership of their learning whereas, researchers have noted, the concept of ownership was very important for ePortfolio users (Carpenter, Apostel, & Hyndman, 2012; Collins, 2004; Garrett, 2011; Imhof & Picard, 2009). For some of the participants in my study, ownership was a challenge and a constraint that affected the use of ePortfolios in their writing courses.

Professor Moses explained that ownership was a challenge for him as a writing teacher and a challenge for his students because ePortfolios were owned by the department. The departmental policies of Professor Moses' university had an impact on his student's learning, because, as explained by Garrett (2011), one of the characteristics of ePortfolios is that it is “owner-centric” (p. 189). Munro (2011) added that “A learner-centric interactive approach highlights constructivism as more relevant” (p. 11) when specific pedagogical benefits of ePortfolios are identified. In other words, ePortfolio owners develop their own voices, identities, styles, and social presence while working and designing their own ePortfolios in a constructivist way. Barrett and Carney (2005) also pointed out that constructed ePortfolios are “owned by the learner, structured by the learner and told in the learners' own voice (literally and rhetorically)” (p. 2, as appears in original). The challenge for Professor Moses was “to get student ownership and engagement...that appeals to them and gets their interest” (Interview, March 25, 2014). But he said what actually happened was just the opposite due to the policies introduced by his department.

Professor Moses explained that students lost interest in writing when they realized that their ePortfolios were intended to be used for institutional evaluation and program assessment. He also added that ePortfolios were not used to evaluate students' own writing. Professor Moses explained that students could not own their ePortfolios for future use because they had no authority over them. He critically asserted that "the more institutional ePortfolio is, the less that it is true" (Interview, March 25, 2014). Garrett (2011) also pointed out that although some students reported that they could create pages and had control of the content, a significant number of students "did not feel like they fully owned their site" (p.199). Garrett (2011) explained that teachers "presented the site as a course requirement, and not as a way for students to create a personal site" because "some of the ownership issues [are] related to the institutional branding site" (p. 199).

Collins (2004) also examined ownership in her study about integrating technology in writing classes. She stated that when students took responsibility and ownership of their writing, they were encouraged to "become producers of knowledge" (p. 215). Garrett (2011) argued that "Creating a sense of personal ownership is also thought to be crucial in constructivism, where learners are expected to learn in their own unique way" (p. 189). Garrett's (2011) idea seemed to align with what Professor Moses said about ownership as well as with what some of the survey respondents wrote.

One of the survey respondents advanced a similar idea when he stated that the challenge was "Finding the right balance between student ownership of the ePortfolio and collection of artifacts useful for program assessment" (survey 51). This tended to follow Imhof and Picard's (2009) discussion when they pointed out that if students were not aware of the importance of using ePortfolios for writing, the writing process would be

hampered. They added that “a lack of clear understanding of the purpose and ownership of a portfolio constitutes a serious flaw in the process” (p. 153). This issue speaks to the need for teachers and their departments to carefully consider ePortfolio ownership. When students become aware of their right to own their ePortfolios for various purposes beyond departmental evaluation, they improve their writing and become more engaged in writing, collaboration with classmates, and discussion. Coulby, Hennessey, Davis and Fuller (2011) asserted that “the ownership the students had of their device was echoed in their learning; the students were much more aware of the self-directed nature of this learning experience and the opportunity for personalized learning” (p.260).

Thus, based on the literature and the data collected for this study, there appear to be several important points for how to effectively implement ePortfolios:

- If the department owns ePortfolios, then teachers must provide their students with a clear statement about who owns them. This would enable writing teachers to guide students to structure ePortfolios according to the purpose of using them.
- If students own them, they should understand that their ownership of ePortfolios is evidence of their writing process and development. This could make students more serious about developing the ePortfolios and the quality of their artifacts.
- If the department owns the ePortfolios, then teachers and students should know to structure their ePortfolios according to the criteria provided by the department. This would also enable the department to evaluate the use of ePortfolios for writing or assessment.

Thus, the issue of ownership is important for understanding the use of ePortfolios. Teachers, students, and departments who are involved in using ePortfolios would

structure them in ways that are compatible with the purposes of the software owner.

Experiences of Professors in this Study with Using ePortfolios for Assessment

Assessment is generally the primary purpose for implementing ePortfolios in writing courses. In this part of the study I discuss answers to the third research question: “What experiences do writing teachers have while assessing ePortfolios?” The collected data show that most of the survey respondents and all of the seven interviewees used ePortfolios for formative assessment, tracking students’ writing over one semester or more. Other participants believed summative assessment was a more suitable use for ePortfolios especially when it was a departmental requirement.

Professors’ Experiences with Using ePortfolio for Formative Assessment

As discussed previously in this study, formative assessment is the process of tracking students’ writing over a period of time (Barrett, 2008; Bhattacharya & Hartnett, 2007; Cambridge, 2010). Survey respondents wrote, among other things, that using ePortfolios for assessment “places more emphasis on process” (survey 53), “keep[s] track of revisions” (survey 68), and “[has] the ability to review progress” (survey 32). Similar ideas were advanced by most of the survey respondents when they selected the option of using ePortfolios for formative assessment to teach writing.

According to Figure 10, out of the fifty-three survey respondents who selected this option, a total of thirty survey respondents (twenty-two agreed and eight strongly agreed) revealed positive attitudes toward using ePortfolios for formative assessment. Only five survey respondents expressed negative attitudes and thought that ePortfolios were not suitable for formative assessment, perhaps due to issues not covered in the survey. Three interviewees, Professors Moses, Tulip, and Ann, also shared their

experiences with using ePortfolios for formative assessment, which tracked students over the course of a semester or even for longer periods. For example, as a writing teacher who taught writing classes and also worked in the Writing Center, Professor Moses used formative assessments to thoroughly track his students' progress over several semesters compared to the other teachers in his department, who used ePortfolios for summative assessment only.

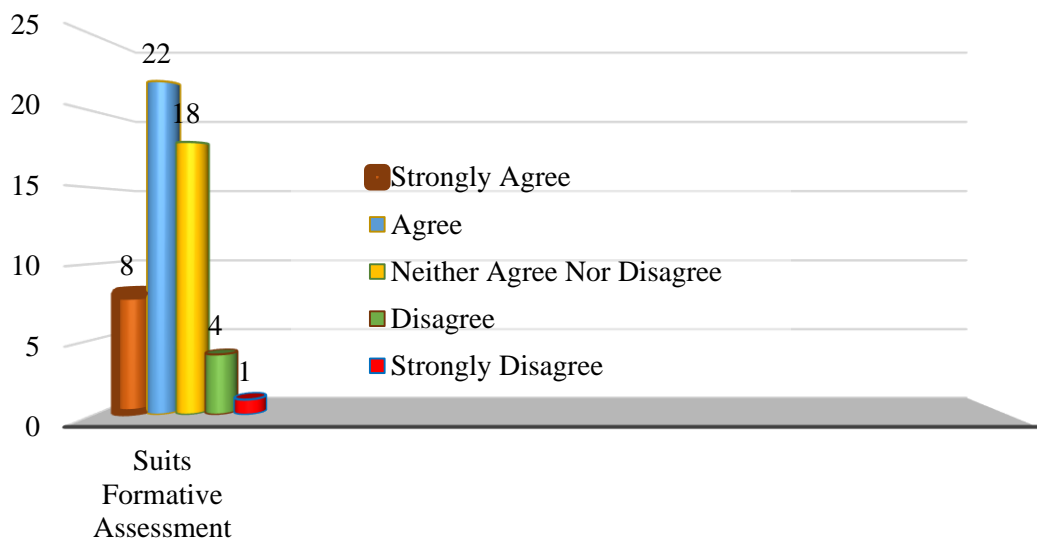


Figure 10. Distribution of survey responses indicating the use of ePortfolios for formative assessment on Likert scale

Professors Tulip and Ann used ePortfolios to track students' writing development for one semester only. Professor Tulip's strategy for using formative assessments was based on asking her students to submit and resubmit drafts of their assignments to improve their writing. Her strategy of using formative assessments seemed to match Strivens, Baume, Grant, Owen, Ward, & Nicol (2009) who explained that ePortfolio formative assessments can also be considered as feedback by teachers. The researchers added that the purpose of using formative assessments with ePortfolios was to "provide information to the learner and others concerned with the process of learning about the

learner's progress, strengths and areas for improvement" (p. 7). Their notion also seemed to support Professor Ann's experience with using ePortfolios for formative assessment. She mentioned that using the formative assessment function allowed her to follow her students' progress while providing comments and grades. She explained that she preferred this type of assessment because "the revision process is learning for [her] and because of this [she] provide[s] more feedback on their second draft to use for the final draft" (Interview, March 8, 2014).

Barrett (2010) and Bhattacharya and Hartnett's (2007) asserted the valuable connection between ePortfolios and formative assessment. Barrett (2010) argued that the use of formative assessment and feedback for the purpose of improving students' writing skills was consistent with the ePortfolio writing process. Using formative assessments enabled students to track their writing development, teachers to track their students' writing, and departments to evaluate their programs by summative assessment as well.

Professors' Experiences with Using ePortfolio for Summative Assessment

As discussed previously, summative assessment is a comprehensive evaluation of the final product of students' artifacts which also included self-reflection on their writing process (Bardes & Denton, 2001; Barrett, 2010; Buzzetto-More, 2010). The survey respondents provided rich data on this topic when most of them agreed that using ePortfolios suited the purpose of making summative assessments. Compared to Figure 10 which showed the number of survey respondents who used formative assessment, Figure 11 shows that greater number of survey respondents thought that ePortfolios were more suitable for summative assessment.

Figure 11 shows that thirty-four survey respondents had a positive attitude toward using ePortfolios for summative assessment, compared to five survey respondents who disagreed with this point, while fourteen respondents were not sure about their use of ePortfolios for assessment.

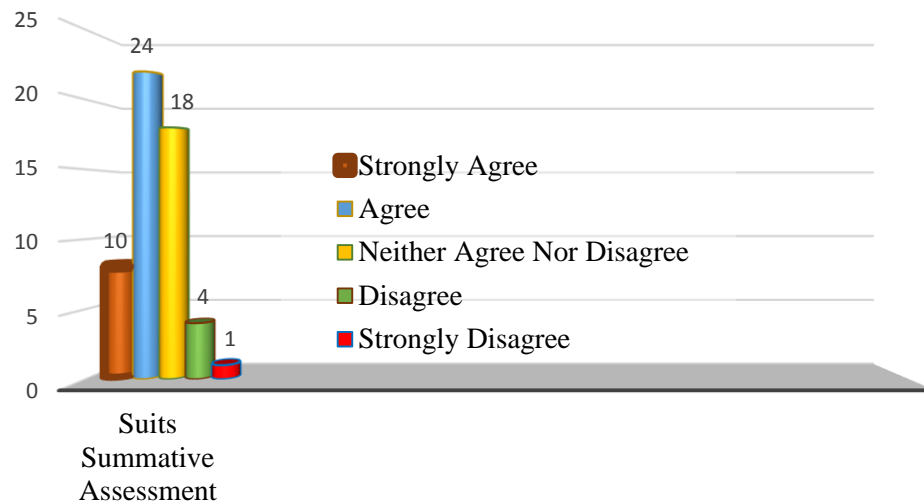


Figure 11. Distribution of survey responses indicating the use of ePortfolios for summative assessment on Likert scale.

These findings tended to correspond to Helen Barrett’s and Kathleen Yancey’s explanation about the final product and the final outcome of using ePortfolios for writing. Barrett (2010) stressed that there was a connection between summative assessment and ePortfolios, which were used to collect student’s assignments for assessing a final product. Yancey (2009) explained that the process of reaching the final outcome provided opportunities for assessment. She stated, “whether outcomes are programmatically identified or student-designed, the process of connecting artifacts to outcomes rests on the assumption that the selection of, and reflection on, a body of evidence offers another opportunity to learn a valid means of assessment” (p. 31).

Yancey's (2009) explanation matches the comment of one of the survey respondents, "It is a win-win for both assessments" (Survey 57). Professor Ann mentioned that she used both types of assessment to evaluate her students formatively during the semester and summatively at the end of the semester for her department evaluation. For formative assessment, her strategy was based on providing feedback and comments on her students' written assignments, while for summative assessment she requested a compiled folder that contained samples of students' drafts and a reflective letter about their writing process to be used for departmental evaluation.

Strivens, Baume, Grant, Owen, Ward, and Nicol (2009) stated that the "purpose of assessment is to identify educational achievement as a matter of public record, for use in selection (for employment or further study) and certification" (p. 7, as appears in the original). This notion was similar to what Professor Moses pointed out when he stated that the assessment program involved all faculty members in ePortfolio programmatic summative assessment by sharing a hyperlink with their assigned ePortfolios for evaluation. His department found that using ePortfolios for summative assessment was an effective method for two reasons: first, it enabled all writing teachers to easily access students' artifacts in the program, and second, it generated an opportunity to improve the department's assessment methods. He explained that using ePortfolios made it "much more valuable when we are all looking at student work trying to score it and having a conversation about it, and that wouldn't be possible without ePortfolios" (Interview, March 25, 2014). Professor Aidan also explained that faculty members in his department got together as a group and evaluated students' ePortfolios together to improve and develop the department's writing program.

These experiences with summative assessment tended to follow the experiences of Ring and Ramirez (2012) with summative assessment in their study. They stated that having all faculty participate in summative assessment helped the department to develop its curriculum and to expand the use of ePortfolios among teachers. They also added, “The opportunity that faculty have to “read” students’ ePortfolios enables them to gain a better understanding about what our/their students are learning throughout the undergraduate curriculum” (p. 92).

Chapter Summary

Analysis of this study’s data showed that ePortfolios can be an essential tool for writing courses. Most of the participants reinforced the importance of having training workshops and professional development to cope with emerging challenges while using ePortfolios for teaching writing. It was clear that writing teachers who had been trained in the use of ePortfolios had fewer technical problems and were more successful at using ePortfolios compared to those who did not have training or who sought professional development on their own. The analysis further indicated that using ePortfolios required changes in teaching methods and syllabi. The analysis also showed that ePortfolios were used successfully with formative assessments that permitted tracking students’ writing progress, drafting, and reflective writing over time. Finally, the data analysis indicated that ePortfolios also suited summative assessments very well. Students’ artifacts included in the final ePortfolios were used as the final product and outcome of the course, and for various other purposes, including assessment of the institutions’ writing programs.

CHAPTER VI

IMPLICATIONS AND FUTURE RESEARCH

This qualitative case study aimed to explore the strategies used by writing teachers to implement ePortfolios for teaching and assessing writing. To explore this in depth, the study focused on the following research questions:

- How do writing teachers implement ePortfolios to teach writing in PASSHE English departments?
- What benefits and challenges are apparent when writing teachers use ePortfolios to teach and assess writing?
- What experiences do writing teachers have while assessing ePortfolios?

In this chapter, I discuss the major implications of this study, suggestions for future research, and offer some final reflections on the study.

Implications for Using ePortfolios

After analyzing the collected data from surveys and interviews on the use of ePortfolios to teach and assess writing, a number of implications emerged from the findings of this study as follows:

First, professional training for both teachers and students on how to use ePortfolios is critical to the successful implementation of ePortfolios to teach and assess writing. In particular, training writing teachers on how to use ePortfolio software for writing is recommended in order to have skilled teachers who use the tool effectively.

Second, using one ePortfolio software product is preferable to changing the software product as soon as teachers and students become skilled at using it. Keeping one software product for a long time gives better educational results. It also creates less

confusion among users who become familiar with the software and its different functions. There are times when financial concerns often cause software companies to change their product. These changes might not be relevant to the use of the software in writing classes.

Third, having a shared syllabus is recommended when using ePortfolios in writing programs. This facilitates having shared assignments, rubrics, and teaching methods. Sharing knowledge and experiences between teachers reinforces the efficient use of ePortfolios. Teachers can also share affordances and constraints that they may face in their writing classes. Sharing experiences and exchanging knowledge can create a better environment to implement ePortfolios and lessen resistance among teachers.

Fourth, developing ePortfolio ownership among users is very important for teachers and students. Teachers need to clarify who owns the ePortfolios in order to teach accordingly. When students also become aware of their ownership of their ePortfolios and the possibilities of using them for future purposes such as graduation projects and/or job hunting, they take more responsibility for improving their writing level.

Fifth, developing awareness of the value and purpose of using ePortfolio is very important for lowering resistance among teachers. When teachers realize the importance of using ePortfolios to teach and assess writing, they are more likely to support the use of ePortfolios and become skilled in using them. Providing teachers with strategies and knowledge on how to use ePortfolios and having continuous encouragement among teachers are ways to reinforce the merits and purposes of using ePortfolios for writing, drafting, presenting, and assessing artifacts.

Finally, formative and summative assessments are two types of ePortfolio assessment that writing teachers often use. Using ePortfolios for formative assessment

over the semester helps teachers and students to track writing progress. Using ePortfolios summatively to assess the final product helps teachers to evaluate their departmental writing program and their students' ePortfolios. The use of either formative and/or summative assessment is based on the purpose of using ePortfolios in the writing classes where writing teachers match assessment to their purposes for using ePortfolios.

Future Research

Approaching the end of this study and thinking about what should be done beyond it, I identified a number of promising future research ideas that emerged while analyzing and discussing the findings. The following are possible plans for further study. The data for these future studies would make use of the data collected in this study and would be aimed at gaining more perspectives on how and why ePortfolios could be implemented in different contexts. Other plans for future research are also suggested.

Using ePortfolios for Learners with Disabilities

The collected data for this study highlighted an issue of using ePortfolios as supplementary tools for students with disabilities. The data pointed out some advantages of using ePortfolios with students who have disabilities or impairments. This provided me with an idea about using ePortfolios to help students with special needs with writing.

Building on the collected data about the use of ePortfolios in the classroom, I intend to further examine ePortfolios for students with disabilities. I am particularly interested in this population because I taught a number of deaf-mute students in Israeli schools. This future research will draw upon Lave's theory of situated learning as I intend to create in-class situations that enable deaf-mute students to use ePortfolios in order to

enhance their learning. Surveys and observations would likely be useful research methods for such a study. In this area, future research could explore the following questions:

- How does the use of ePortfolios to teach writing support and help students with disabilities in the writing classroom?
- What teaching methods could teachers use to implement ePortfolios with students with disabilities in the writing classroom?
- How do students with disabilities perceive the use of ePortfolios to help them in their writing classroom?
- How do teachers perceive the use of ePortfolios to enhance the writing of students with disabilities?

Students' Perception of Using ePortfolios in the Writing Classroom

Because this study focused on teachers' use of ePortfolios, more research is needed to examine students' experiences with using ePortfolios for writing. As a researcher, I conducted a pilot study to examine students' use of ePortfolios in an environment of situated learning where students used some ePortfolio options in their writing class. Possible methods of collecting data for such research will be surveys, observations, interviews, and students' ePortfolios. Building off the pilot, I plan to conduct a larger study with college students in Israeli writing classes to examine their experiences with using ePortfolios for different purposes. Such a study could explore the following questions:

- How do students perceive the use of ePortfolios for writing?
- For what purposes do students use ePortfolios in writing classes?
- What experiences do students have with using ePortfolios?

- What challenges do student face while using ePortfolios in writing classes?

Using ePortfolios in Literature Courses

One of my current study's participants talked about her use of ePortfolios in composition class versus in literature class. She praised the use of ePortfolios for teaching literature more than teaching writing. During fall 2014, I taught two humanities literature courses at IUP. For these courses I created a simulation of an ePortfolio environment where literature is taught. The design of the course, the material taught, and the students' reactions were very interesting. Based on this experience, I intend to conduct a study where ePortfolios are used to teach and assess literature. Potential methods for such a study could be surveys, interviews, observations, and artifact analysis. The participants would be both teachers and students. A comparative study could be conducted where one class of students use ePortfolios and another group use paper-based portfolios. Possible questions for such a research study could be:

- What experiences do students have with using paper-based portfolios compared to ePortfolios?
- Which type of portfolios do students and teachers prefer? Why?
- What challenges do users of ePortfolios face?
- How do users of portfolios overcome emerging challenges?
- Does the use of ePortfolios require more attention from teachers and students compared with using paper-based portfolios?
- How does the use of ePortfolios for teaching literature differ from teaching composition?

Using ePortfolios in M.A. TESOL Program

Thinking about the English Department at IUP, I would suggest a comparative study to be conducted on non-thesis track students at the M.A. TESOL program. The comparative study could be conducted where one group of non-thesis track students uses ePortfolios while another continues to take two extra courses to complete the requirements of M.A. TESOL program. The experimental group uses ePortfolios as a graduate project and selects their best modified artifacts from their program to be compiled in their ePortfolios. Students in this group reflect on their progress in the program and how the program helps them shape their teaching skills. Since the M.A. TESOL program is a two-year program, this study could be a longitudinal qualitative case study where surveys, interviews, and artifacts are used to collect data. Possible questions for this study could be:

- What experience do students have while working on their ePortfolios?
- How would the use of ePortfolios instead of taking two courses help them in their teaching career?
- What challenges do students encounter while working on their graduate ePortfolios?
- What benefits do students gain from their experience with ePortfolios?

Using ePortfolios in the Ph.D. Composition and TESOL Program

Using ePortfolios for assessment could be a potential strategy for the Ph.D. Composition and TESOL (C&T) program at IUP. The idea of using ePortfolios in C&T program has always been in my mind since my first experience with the Qualitative Portfolio (QP) after my first semester in the C&T program. The idea is to use ePortfolios

instead of paper-based portfolios that students are asked to use as well as compiling their artifacts on a CD ROM or USB flash drive. Using ePortfolios for assessment could provide diverse benefits and options for students and teachers. Students will not be stressed out for not delivering their QPs on time if they send their QP folder via postal mail due to being away from the university or not reaching the department on time to submit their QP. For teachers, the use of ePortfolios gives them the opportunity to evaluate the artifacts from a distance and gives them enough time to go over the QPs. Teachers could evaluate the QPs in a convenient time and place without being physically present in the department.

A possible study could be conducted on teachers who previously evaluated students paper-based QPs and have previous experience with assessing them. This could likely provide reliable data because teachers have experience with using paper-based and ePortfolios for the QPs. This study would require the English Department to purchase ePortfolio software to be used within Desire2Learn (D2L) which the university and the department already use. Using D2L ePortfolio could be an alternative to the current paper-based QP and CD ROM or USB. During the study, students are provided with a link by which they could create their own ePortfolios according to the instructions of the English Department for the QP. Teachers, who are the study participants, will be sent a link to evaluate a select number of students QPs. In this way, the problem of not being physically present on a certain date and place due to other responsibilities will be solved. Interviews and surveys will be suitable methods for collecting data for this study. Such a research study could explore the following questions:

- What experience do teachers have with assessing paper-based QPs?

- How do teachers' experiences with using ePortfolios differ?
- How do teachers' experiences with using ePortfolios similar to their use of paper-based QP?
- Which tool do teachers prefer? Paper-based QP or ePortfolios? Why? Why not?
 - What benefits do teachers/ department gain?
 - What challenges do teachers face while using ePortfolios instead of paper-based QP?

Using ePortfolios for Evaluating General Education Programs

Because a number of the interviewees in this study pointed out the use of ePortfolios to evaluate some English courses in English Departments, a possible study would be to use ePortfolios to collect students' portfolios at IUP as alternative to paper-based portfolios. Similar to the previous suggested study, Liberal Studies Program at IUP, which asked teachers of English 101 and English 202 to submit three portfolios of students for program assessment, could ask them, instead, to upload students' portfolios electronically via a link on D2L. Since IUP does not use D2L ePortfolios yet, the English Department could purchase the software or ask the IT Center to create a D2L webpage for such purpose. Potential participants could be the Liberal Study Committee and any other person involved in such assessment. This study could also include teachers of the selected courses as well. Each of the assessment people on the Liberal Studies Committee receives a number of students' ePortfolios to evaluate. Evaluation could follow a standards rubric and criteria for evaluation and discussion. Possible methods of collecting

data could be surveys and interviews to examine the attitudes and experiences of assessment people in Liberal Studies. Such study could explore the following question:

- How does the use of ePortfolios instead of paper-based portfolios change the perspective of assessment for Liberal Studies Committee?
- What benefits or challenges does the transition to ePortfolios do provide or hamper?

Final Remarks

As I approached the end of my journey on this study, I recalled my starting point for studying ePortfolios and how I was directed towards it via invisible powers. At this final stage, I am satisfied with the decision I have made to study this tool and move ahead with lots of knowledge about its functionality, benefits, and occasional drawbacks.

My aim for this study was fulfilled and I achieved what I hoped to do. My aim of exploring how writing teachers implemented and used ePortfolios was reported and discussed in Chapters II, III, IV and V. Exploring the apparent affordances and constraints while using ePortfolios was also discussed in Chapters II, III, IV and V as well as exploring writing teachers' experiences with using ePortfolios for assessment. The aim of this study was to fill a gap in the research and to open up opportunities for other researchers to further explore the topic of ePortfolios.

Through this study, I have expanded my understanding and knowledge about ePortfolios and opened new opportunities for future research and inquiries. Hopefully, the findings of this study will help writing teachers in particular, and English teachers in general, to learn more about this software and to expand their knowledge, methods of teaching, and assessment strategies for using ePortfolios in their classes.

To this end, I recommend that writing teachers incorporate digital tools into their classes in order to cope with the rapid development of technological tools in general and their potential use for educational purposes. I encourage teachers to become skilled at integrating and using digital tools in their writing classes. Using ePortfolios is an excellent way for writing teachers to use in the digital age.

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Appendix A

The Survey

Researcher: Maha Alawdat
Director: Dr. Gian Pagnucci
Date: / /2014



Indiana University of Pennsylvania

Department of English

Online Informed Consent for the Survey

Researcher: Maha Alawdat
E-mail: mahagaboa2008@gmail.com
Affiliation: Indiana University of Pennsylvania

Project Director: Dr. Gian Pagnucci
E-mail: pagnucci@iup.edu
Office Phone: (724) 357-2261

Invitation: You are invited by this to participate in my study and to complete the survey which will take 10 minutes.

Overview: My name is Maha Alawdat and this survey is part of my doctoral dissertation at Indiana University of Pennsylvania. The purpose of this study is to explore the use of ePortfolios to teach writing. The survey is designed to provide me with background information about your use of ePortfolios to teach writing.

Confidentiality: At the end of the survey is a request for your name and contact information so I can interview you for my study. All information will be held in strict confidence and will have no bearing on your academic standing or the services you receive from your university. You have the right to withdraw at any time. Informed consent does not waive any of your rights, nor does it release any information about you, your course, and your English department to any individual except the researcher.

If you agree to participate in this study, please click “Next” to start the survey or “No Thanks” to end it here.

Next

No Thanks

1. I am Male Female

2. I have been using ePortfolios such as D2L ePortfolio, Mahoodle, Mahara, or any software to teach writing in the following course/s. Name the course/s you are teaching this semester (during spring 2014)

3. I have a personal ePortfolio Yes No

4. I have received professional training before using electronic portfolios (ePortfolios) to teach writing.

Yes No

5. I use ePortfolios (any type of ePortfolios) to (You can choose more than one option if relevant)

Enhance student writing

Assess artifacts

Encourage reflection writing

Teach writing

6. What other purposes do you use electronic portfolios for?

7. I feel the best thing about teaching writing by using electronic portfolios is

8. I feel the biggest challenge of using electronic portfolios is

--

9. Please use the scale below to mark the appropriate circle that corresponds to the following statements

Using ePortfolios to teach writing.....

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
makes me more interested to teach writing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
demands more effort from me to teach writing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
provides me with new ways to teach writing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
opens new perspectives to teach writing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
demands more time to plan my teaching	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

10. Please use the scale below to mark the appropriate circle that corresponds to the following statements

Using ePortfolios with student writers.....

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
increases students interest in writing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
taps students interest in technology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
put students in the center of learning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
is easy for students to master	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
demands lots of class time	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
promotes student's reflective writing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

11. Please use the scale below to mark the appropriate circle that corresponds to the following statements

Using ePortfolios for assessment.....

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
promotes self-assessment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
supports assessment of artifacts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
suits formative assessment purposes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
suits summative assessment purposes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
improves my methods of assessment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

12. Please use the scale below to mark the appropriate circle that corresponds to the following statements

Using ePortfolios in general.....

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
makes my works easier	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
is more beneficial than paper-based portfolios	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
enables timely feedback on student's work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
is a tool I would like to use in the future	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
is a challenge I face while teaching writing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
needs professional training to implement them	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

13. Please share anything else you feel is important about using ePortfolios to teach writing

14. Hopefully as a writing teacher you found this survey about ePortfolios very interesting. I would love to learn more about your experience using ePortfolios. If you are interested in participating further in this study, please tick “Yes, I would be interested in participating in phase 2” and then click the button to provide your contact information to schedule a roughly 60-minute semi-structured interview or click “No Thanks” to end this survey.

- Yes, I would be interested in participating in phase 2
 No Thanks

If “No Thanks” is selected, it will End of Survey. If “Yes” is selected, you will move to the next section.

15. Please enter the following information so I can contact you for the interview

Name

Title

University of employment

Email

Phone

Thank you for your participation



Indiana University of Pennsylvania

Department of English

Informed Consent Form

Researcher: Maha Alawdat
E-mail: mahagaboa2008@gmail.com
Affiliation: Indiana University of Pennsylvania

Project Director: Dr. Gian Pagnucci
E-mail: pagnucci@iup.edu
Office Phone: (724) 357-2261

You are invited to participate in a research study that explores the use of ePortfolios to teach writing in PASSHE English departments. The following information is provided in order to help you make an informed decision whether or not to participate. You may find this learning experience enjoyable and informative that may help both of us to better understand the use of ePortfolios to teach writing. If you have any questions please do not hesitate to ask.

The purpose of this study is to explore affordance, constraints, and experience of writing teachers of using ePortfolios to teach writing. After completing the survey and providing your contact information, you will be interviewed if you agree to participate in this study. Participation in this study will require approximately 60 minutes of your time for the interview.

Your participation in this study is voluntary. You are free to decide not to participate in this study or to withdraw at any time without adversely affecting your relationship with the investigator or your department. If you choose to withdraw, you may do so by emailing either Dr. Gian Pagnucci or I at the e-mail addresses below. Upon your request to withdraw, all information pertaining to you will be destroyed. If you choose to participate, all information will be held in strict confidence and will have no bearing on your academic standing or the services you receive from your university. The information obtained in the study may be published in scholarly journals or presented at scholarly conferences but your identity will be kept strictly confidential.

Project Director:
Maha Alawdat
Rank/Position: PhD Candidate
In Composition and TESOL
English Department
110 Leonard Hall, IUP
Indiana, PA 15705
Email mahagaboa2008@gmail.com

Research Supervisor
Dr. Gian Pagnucci
Chair of Department of English
In Composition and TESOL
English Department
110 Leonard Hall, IUP
Indiana, PA 15705
Email: pagnucci@iup.edu

If you are willing to participate in this study, please sign the statement below and return it to the researcher.

VOLUNTARY CONSENT FORM:

I have read and understood the information on the form and I consent to volunteer to be a subject in this study. I understand that my responses are completely confidential and that I have the right to withdraw at any time. I have received an unsigned copy of this informed Consent Form to keep in my possession.

I understand that the interview will be audio-recorded unless otherwise indicated:

YES NO

Name (PLEASE PRINT)	
Signature	
Date	
Phone number	
e-mail account	
Skype user name	

I certify that I have explained to the above individual the nature and purpose, the potential benefits, and possible risks associated with participating in this research study. I have answered any questions that have been raised, and have witnessed the above signature.

Date

Investigator's Signature

Appendix C

Semi-Structured Interview

Interviewer: Maha Alawdat
Director: Dr. Gian Pagnucci

Date: / /2014

1. Could you tell how you got started with using ePortfolios?
2. What benefits have you gained from using ePortfolios to teach writing?
3. What challenges and constraints have you faced while using ePortfolios to teach writing? How have you overcome such constraints?
4. What artifacts do student include in their ePortfolios?
5. What criteria did you use for including these artifacts in particular?
6. How has your teaching of writing changed since you started using ePortfolios?
7. What values do you learn from using ePortfolios in your course?
8. How do you assess ePortfolios?
 - Do you use formative or summative assessment?
 - Does the use of ePortfolios have an impact on formative and/or summative assessment?
 - Which type of assessment do you think become more effective in using ePortfolios to teach writing?
 - How do you use ePortfolios to assess students' artifacts?
 - Do you think the use of ePortfolios in your course improve your methods of assessment?
 - How has your assessment of writing changed since you started using ePortfolios?
9. Would you like to add anything?

Thank you for your participation

Appendix D

Institutional Review Board (IRB) Approval



Indiana University of Pennsylvania
www.iup.edu

Institutional Review Board for the
Protection of Human Subjects
School of Graduate Studies and Research
Stright Hall, Room 113
210 South Tenth Street
Indiana, Pennsylvania 15705-1048

P 724-357-7730
F 724-357-2715
irb-research@iup.edu
www.iup.edu/irb

December 17, 2013

Maha Alawdat
1302 Oakland Avenue, Essex House #211
Indiana, PA 15701

Dear Ms. Alawdat:

Your proposed research project, "A Qualitative Case Study Exploring the Use of ePortfolios for Teaching Writing in PASSHE English Departments," (Log No. 13-311) has been reviewed by the IRB and is approved as an expedited review for the period of December 16, 2013 to December 16, 2014. You should read all of this letter, as it contains important information about conducting your study.

Now that your project has been approved by the IRB, there are elements of the Federal Regulations to which you must attend. IUP adheres to these regulations strictly:

1. You must conduct your study exactly as it was approved by the IRB.
2. Any additions or changes in procedures must be approved by the IRB before they are implemented.
3. You must notify the IRB promptly of any events that affect the safety or well-being of subjects.
4. You must notify the IRB promptly of any modifications of your study or other responses that are necessitated by any events reported in items 2 or 3.

Should you need to continue your research beyond December 16, 2014 you will need to file additional information for continuing review. Please contact the IRB office at (724) 357-7730 or come to Room 113, Stright Hall for further information.

The IRB may review or audit your project at random or for cause. In accordance with IUP Policy and Federal Regulation (45CFR46.113), the Board may suspend or terminate your project if your project has not been conducted as approved or if other difficulties are detected

Although your human subjects review process is complete, the School of Graduate Studies and Research requires submission and approval of a Research Topic Approval Form (RTAF) before you can begin your research. If you have not yet submitted your RTAF, the form can be found at <http://www.iup.edu/page.aspx?id=91683>.

I wish you success as you pursue this important endeavor.

Sincerely,

IRB to Maha Alawdat, December 17, 2013

A handwritten signature in blue ink that reads "J. Mills". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

John A. Mills, Ph.D., ABPP
Chairperson, Institutional Review Board for the Protection of Human Subjects
Professor of Psychology

JAM:jeb

Cc: Dr. Gian Pagnucci, Dissertation Advisor
Ms. Brenda Boal, Secretary

Appendix E

Recruiting Letter to Participants

Maha Alawdat

/ / 2014

Dear Prospective Participant,

I am conducting a study on the implementation of ePortfolio in English departments for my doctoral dissertation at Indiana University of Pennsylvania. The purpose of this study is to explore affordances and constraints, experience of faculty members and administrators to maintain the use of ePortfolios for writing and assessment. Therefore, I am contacting you to ask you to consider participating in my study.

Participating in this study includes a chance to learn more about strategies and methods that could maintain the use of ePortfolios and overcome emerging obstacles. If you are willing to participate, please sign the informed consent and returned it back to me by e-mail.

The survey will be sent out via e-mail and it consists of background information about your experience with using of ePortfolios. On the survey, you are given the option to identify yourself in order to contact you and schedule the interviews. This letter is to reassure your participation in phase two of the study

You will be given adequate answers about the procedures of my study upon request and you are free to withdraw consent and to end your participation at any time without prejudice. The informed consent does not waive any of your rights, nor does it release any information about you, your courses, and your English department to any individual except the researcher.

If you have any questions about the study, I would be glad to speak with you and explain it further.

Thank you in advance

Regards,
Maha Alawdat
Ph.D. in Composition and TESOL

