English writing students' perspective of using Eportfolio in the writing class

Maha Alawdat

Department of English, Indiana University of Pennsylvania, Indiana, USA

Email address:

mahagaboa2008@gmail.com

Abstract: This study aims to examine students' perspective of using eportfolios for their writing assignments and assessment in Indiana University of Pennsylvania (20 males and 38 females) first year freshman writing courses. The data for this research was collected by using Qualtrics survey software and analyzed by the reporting system of the software itself. Some emerging themes came to the surface to provide a positive attitude toward the use of eportfolios. The findings of the research showed that students used eportfolios for submitting assignments and following their progress throughout the semester. Students also used them for feedback, grading, reflection, and reading relevant course material. The findings also touched upon some challenges that students faced while using eportfolios. Most challenges had nothing to do with the software itself but with external factors such as internet connection and computer bugs. However, more research was needed to examine the use of eportfolios over longer time and to examine teachers' perception of using eportfolios as well.

Keywords: Eportfolios, Writing, Assessment, Constructivism

1. Introduction

With the increased popularity of using technological tools in education for learning, writing, and assessment and the availability of digital tools which makes it quicker and easier than ever to design and create technological tools, eportfolios are widely used and influenced different stakeholders including teachers, students, programs, and institutions. This popularity 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 examines after the module is completed" (Himpsel-Guterman, 2012, p. 172).

Using eportfolios to trace students' learning and self-development through following their artifacts which include written texts, audios, videos, and images, many studies (Chau & Cheng, 2010; Wills & Rice, 2013; Johnson, 2012) highlight the importance of using eportfolios to support learning over time while other studies (Chang, Liang, & Chen, 2013; Genc & Tinmaz, 2010; Mostafa, 2011) focus on their importance for assessment.

In this study, the use of eportfolios is the main tool that is used in the writing class over a semester. To elaborate on this usage, I start with defining eportfolios to familiarize the reader with their concept. I then review literature from the field to identify the use of eportfolios to support students' learning and assessment. Based on this background information about eportfolios, my study is based on Vygotsky's constructivist and Leve's situated learning approaches which reinforce the use of technology for collaboration and social-based context learning. Following this, a description of study setting and participants, methods of data collection and analysis are followed. The emerging themes from the collected data are discussed in the last sections of this paper with some suggestions and recommendations for further research.

2. What is an Eportfolios

Electronic portfolios are also known as eportfolios and digital portfolios. There have been different definitions of eportfolios which are electronic collection of artifacts which students use for a lifelong learning. Chang, Liang, and Chen (2013) defined eportfolios as a suitable tool for formative

assessment which follow students' development over time. They are also suitable for summative assessment that assess the final outcome (Lowenthal, White, & Cooley, 2011). Barrett (2009) reinforced the use of eportfolios for reflection which is the soul of using eportfolios in the classroom. Based on these definitions, eportfolios are used for the process and product of learning as well as formative and summative assessment. The eportfolios are also used to enhance students' reflection on their process of learning over time. Since eportfolios are electronic and based on technological tools, their use promotes collaborative among students who reflect on their colleagues work. My definition of eportfolios is based on using any type of software or technological tool to store and grade students' assignment. My definition also reinforced student's reflection, drafting, and feedback from peers and teachers.

As using eportfolios to track students' learning over time, they are also used for learning, self-assessment, and self-development. To provide more definition of eportfolios, *Table 1* present how researchers have used eportfolios over the last ten years. The study, therefore, addresses students' perspective of using eportfolios in their writing class.

3. Literature Review

The studies in this literature review explore the use of eportfolio for writing and assessment in the digital age. The studies also show benefits of using eportfolios for learning. Such benefits vary between developing critical thinking, reflection and independent learning, sharing experiences, visibility, and online identities, gaining self-knowledge and lifelong learning, and exploring learning process, product, and independent learning while using eportfolios.

Using eportfolios allows students to learn writing in a social context, where knowledge is constructed and transferred among them. Kolb's (1984) experimental learning cycle, which illustrated this process of continuous learning, is based around dialogue and collaborative activity with others.

Table 1. A brief summary of eportfolio Characteristics and Definitions

Characteristic/Foci	Researcher	Definition
Showcase	Abrami & Barrett (2005)	A digital container to store visual and auditory content, texts, images, videos.
	Heath (2005)	A way to showcase technology skills.
	Butler (2006)	A place to house students' work and make connection with peers
	Yancey (2009)	Electronic container for students, teachers, and job seekers.
Learning	Abrami & Barrett (2005)	eportfolio is flexible, inclusive, and distributed of learning including variable times and places for learning.
	Jarrot & Gambel (2011)	Simplifies the process of student learning.
	Love & Cooper (2004)	Provides a rich picture of student learning and competences.
	Kirkham et al. (2009)	Provides more in-depth learning and enhances the quality of artifacts.
Reflection	Barrett (2009)	Reflection is the soul and heart of eportfolios
	Desmet et al (2007)	Encourage students to reflect on their work and their choices of their artifacts.
	Cambridge (2010)	
Assessment	Cambridge, 2010)	Promote students understanding of assessment to improve learning.
	Chalk & Wire (2013)	Offer powerful ways to develop assessment skills.
	Chang, Tseng, & Lou (2012)	Involves assessing the student learning outcome.
	Wade et al. (2005)	Employ students in the assessment process.
Feedback	Abrami & Barrett (2005)	Gives feedback quickly through constructing eportfolios across media.
	Lorenzo & Ittleson (2005)	Facilitate exchanging of ideas.
	Peacock et al. (2012)	Enables feedback anytime and anywhere.
	Wills & Rice (2013)	Promote feedback to expand understanding of learning process.

Writing in eportfolios context has twofold uses: writing process and product. Writing process is very common while using eportfolios because it enables tracking students' writing over time (Abrami & Barrett, 2005; Barrett, 2010). That is, students collect various assignments and drafts to enhance self-directive and learning. Kolb's (1984) experimental learning cycle, as shown in *Figure 1*, reinforces the use of eportfolios.

"Fig. 1" illustrates the process and product of learning and writing (Yancey, 2009). Barrett (2010) elaborated on this issue and stated that balancing learning process and product promotes engagement within the eportfolios learning process which takes place over a period of time. The process of learning starts from collaboration in the classroom where students plan and organize their learning while reflecting on each other's writing. This process also determines constructing new meanings and understanding new concepts to reinforce their learning experience. Throughout this learning process, dialogue between learners takes place along the way till the last product which is reviewed and published for other readers. Learning does not stop here because while reading and assessing the final product new experiences emerges that needs to be taken into consideration for other learning experience.

Using eportfolios enables such flexible movement between all components of the writing process, starting from drafting, revising, reviewing, reflecting, rewriting, and publishing. Following this process, the literature in this section touch upon using eportfolios for writing and assessment.
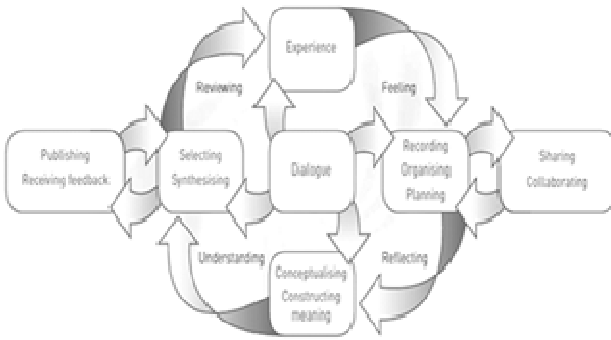
Figure 1. *A model of ePortfolio-based learning process based on Kolb's (1984) experimental learning*

3.1. Using Eportfolios for Students' Learning and Writing Development

Using eportfolios to follow writing development is very important process in writing classes. Gebric, Lewis, and Amin (2011) conduct a longitudinal study to examine how eportfolios help students to learn and what challenges and hindrances have emerged while using eportfolios to support learning. The aim is to investigate the changes over time after conducting eportfolios in the Bachelor of Education program. Cole, Ryan, Kick, and Mathies (2000) stated that "A longitudinal benefit of portfolio is for students to examine their approach to learning as well as their strengths and liabilities; teachers should guide students in including entries that permit the benefits to happen" (p. 15). In other words, long-term studies permitted validity of the results because learning development needed longer time for different learners.

3.1.1. Lifelong Learning

Lifelong learning enables learners to follow their progress over time by "showing all the documents and reflections prepared by a student" (Peters, Chevrier, LeBlanc, Fortin, & Malette, 2006, p. 315). In their study, Peters et al. (2006) conduct a three-month study to assess competence development and pre-service teachers' perception of eportfolio as a learning tool. The study shows that pre-service teachers respond positively to the use of eportfolio as a learning tool because it fosters "the development of reflective and organizational skills" as well as self-esteem while giving them better chances of finding employment" (p. 321). Similarly, Aalderink and Veugelers (2006) indicate that implementing eportfolio in higher education creates a room for self-development and independency.

3.1.2. Learning Independency

Learning independency is another issue to support the use of eportfolio for learning. Chau and Cheng (2010) conduct a qualitative study to investigate the use of eportfolio for enhancing independent learning and the challenges associated with them. Although the researcher identifies obstacles to eportfolio development, they report that independent learning could be supported by eportfolio for

many reasons. First, a sense of ownership is increased among learners. Second, using eportfolio supports independent learning through commitment, purpose, and strategies. Third, using eportfolio enables students to control their learning goals and personal planning. The researchers find that eportfolio promotes goal setting and personal planning for independent learning through assigning purposes and strategies.

Similarly, Aalderink and Veugelers (2006) report that learning with an eportfolio stimulates learners and motivates them to reflect on and improve their learning process. In a similar notion, Yancey (2001) states, "Students are responsible…for explaining what they did and did not learn, for assessing their weaknesses as learners, for evaluating their products and performances, for showing how that learning connects with other kind of learning 'in the classroom and without,' and for using the review of the past to think about paths for the future" (p. 19).

In the same way, Gerbic, Lewis, and Amin (2011) carry out a three-year quantitative, qualitative longitudinal study on sixty-eight students in Auckland University of Technology at New Zealand. The study examines the influence of eportfolio on student learning experiences and the potential challenges while using them. The findings show positive development and changes in students' perception of using eportfolio. The researchers state that students become independent learners and gain positive self-confidence that permits learners to trace their learning development and consider their strengths and weaknesses more than a test. In this essence, learning independency creates responsible students, who follow their learning and improve their self-development, learning process, and self-reflection.

3.1.3. Reflection

Reflection is a third area of how eportfolio functions within constructive learning context. Reflection is a key component of learning that focus on student personal theories of education and their future plans (Robbins, 2004; Witzel & Strudler, 2006). Hackman and Alsbury (2005) employ a mixed qualitative and quantitative methodology to analyze 26 portfolios of graduate students. The researchers use a scoring scale to convert aspect of organization, critical and reflective thinking, and linguistic technical skills into a numerical rating to measure students' overall skills. The mixed methodology is used to yield multidimensional information that examines the students' attitude towards portfolios. The qualitative method helps to include students' vices to describe their perception of eportfolio in order to verify assumptions about gender and individuality. The findings indicate that most of the eportfolio assignments, which are part of the classroom assignments, have low reflection because students have not used literature references. The results also show that females score higher on every standard comparing to males. Students also learn how to organize their work, edit, and revise without working the whole document out. In this sense, teachers benefit from

having an assessment tool that helps them to organize their teaching, design their curriculum, and assess students' work in any place and any time compared to paper-based portfolios.

3.1.4. Personal Growth and Writing Development

Personal growth and writing development is a forth area that stakeholders perceive while using eportfolios. Pitts and Ruggirello (2012) report that participants develop authentic growth while using eportfolio and reflecting on the conceptual framework across the network. The researchers aim to examine: How does the structure of the eportfolio influence how secondary science teachers illustrate evidence to reflect on their teaching and learning how to teach chemistry within an in-service teacher preparation program? How is the comparison between networks of baseline and post-baseline evidence used to illustrate authentic growth within the domain of reflective practice? Exploring these questions help the researchers to trace teachers' changes and growth over time while using eportfolio. Although this issue is very important, the study doesn't investigate the changes in the participants' pedagogical practices while using eportfolio to support learning and assessment. This gap in literature is a very starting point for my study to take into consideration while exploring the implementation of eportfolio in Education program.

However, not all students showed positive attitudes towards using the eportfolio. Some studies find out that students' negative attitude towards using eportfolio may cause barriers for implementing eportfolio (Chien, 2013; Hackman & Alsbury; 2005). Findings from these studies indicate that most of the portfolio assignments, which are part of the classroom assignments, have low reflection because students have not used literature references and neglect critical thinking (Chien, 2013; Hackman & Alsbury, 2005). This negative attitude is because students think that using eportfolio is less important than other tasks and that they feel vulnerable to preceptors reading their reflections.

3.2. Using Eportfolios for Assessment

Self-assessment is the capacity to judge one's own abilities and skills when students are given the opportunity to self-reflect and assess their learning (Barrett, 2010; Chang, Liang, Chen, 2013; Hung, 2009) to keep them highly motivated and interested in their learning process (Chang, Tseng, & Lou, 2012) According to Cambridge (2010), "Both authentic assessment and learning through assessment are likely to yield a more accurate account of how well learners can apply their knowledge and skills in the academic and professional settings" (p. 88).

Chang et al. (2011) conduct a twelve-week study on seventy-two senior high school students, who enrolled in a computer course in Taiwan. The aim of the study is to examine the validity and reliability of using eportfolio for peer assessment. The findings show that students lack evaluation skills and this causes unreliable results. The researchers indicate that peer-assessment is not also reliable to examine students' learning achievements or attitudes. In addition, the findings show inconsistency between peer, teachers, and exam scores, which are not correlated or significant. The researchers suggest that adding more raters and larger groups with different setting, levels, and field of study could be used for future researches. They also suggest training programs for students to assess eportfolio.

Similar to Chang et al. (2011), Chang, Tseng, and Lou (2012) follow the same duration and number of participants in the third study of this category. The study explores the consistency and differences of teacher assessment, self-assessment, and peer-assessment in e-portfolios context. Chang, Tseng, and Lou (2012) ask students to perform self-assessment of their eportfolios twice, peer-assessment for six other eportfolios, and at the same time, teachers assessed students' eportfolios. The findings show that there are significant differences between the three assessment methods. The study shows that there are various differences among the rubric aspects, and "the results are not significantly correlated" (p. 309). Learning goal and eportfolio creation, for example, are the highest aspects compared to artifact and attitude. The study concludes that peer-assessment is not reliable and valid. It also concludes that validity is connected to a number of elements such as assessment tools, learning environment, and students' capabilities and skills. Chang, Tseng, and Lou (2012) suggest using assessment rubrics so that reliability would be ensured as well as training courses for raters' consistency and improvement.

As I have just mentioned, Chang, Tseng, and Lou (2012) find that peer-assessment is unreliable. The evidence shows that self- and teacher-assessment are correlated and not different while peer-assessment and teacher-assessment are different and cause unreliability. Similarly, Chang et al. (2011) have the same results of unreliable peer-assessment when they conduct their study on participants who are not aware that they are in an experiment. They find out that "peer-assessment lacked inter-rater reliability" and that "students lack appropriate evaluation skills, which tend to make the assessment results dubious and ineffective" (p. 1311). In this sense, students need training in order to assess their peers accurately and effectively while using eportfolio. However, Chang et al. (2011) assert that eportfolio is more reliable for learning goals than for self- or peer-assessment. From here, one may argue that using eportfolio as an assessment tool proves their effectiveness among teachers, whose jobs are to evaluate and assess learners' outcomes. One may also argue that using eportfolio for assessment among students is ineffective because students are not trained to assess their works or the works of others.

According to the previously mentioned studies, using eportfolios to support learning and writing development makes student become more independent learners, who trace their improvement over time. The literature review in this section also highlights the importance of using eportfolios for assessment. It touches upon using them for self-assessment which enables students to reflect and evaluate their own writing and their peers through collaboration in a constructed learning context.

4. Theoretical Framework

The theoretical framework of this study is based on Vygotsky's (1978) constructivism and Leve's (1988) Situated Learning to support the use of eportfolios and technology in the classroom. According to Vygotsky, constructivist approach supports the ideal role of the teachers in the technological era where teachers become facilitators and guide students to become in the center of their learning while using eportfolios. Using eportfolios in the classroom encourages collaboration among students in a socio-cultural environment (Jaramillo, 1996). Using eportfolios for writing also supports the notion of individuality and centrism in the writing classroom

For this, changing the curriculum and writing courses to suit the technological era is very essential because students turned to the use of computers and technology in their everyday life. Taking advantage of this on surface, mastering of using internet and computers is a way to integrate them for educational purposes. So, learning to master the use of eportfolios should be part of the educational system and the writing classes where students write to larger audience beyond the classroom where students benefit from using technology.

Constructivist approach generally encourages the use of technology in the classroom to challenge thinking and writing skills. Writing teachers in turn provide the opportunities to develop their students writing skills within a new experience and knowledge of using eportfolios for writing which is connected to real-life situations created in the classroom for the sake of improving writing.

Learning through interaction between real-life situations and classroom technological environment provide a rich place to use eportfolios to support writing in a Vygotskian constructivist approach.

Situated learning, as defined by Leve (1988), is a function of the activity, context, and culture in which it occurs" (p. 203). According to Leve, when learning is situated in a social context, it requires students to interact and collaborate to present knowledge. Using eportfolios in the writing classroom provides students with inside and outside classroom collaboration and social interaction and construction of knowledge. Situated learning could happen while asking students to reflect on each other's written assignments, for peer-review, and feedback sort of assignments as well. Using eportfolios permits electronic access to written assignments while sharing them with wider audience; in this case other students and teachers. Leve (1988) also explained that situated learning could occur in any time and any situation when integrating technology in the classroom is used.

Based on these two theoretical frameworks, constructing learning by using eportfolios in the writing classroom, students become the center of their writing process. Using eportfolios, therefore, reinforces this situated learning in more constructed context.

5. Research Questions

Following the literature review and the theoretical framework of this study, the purpose of this research is to answer the following questions:

- How do students perceive the use of eportfolios in their writing classes?
- What impact does the use of eportfolios have on students' writing and assessment?

6. The Study Setting

To help answer the research question, this section describes the setting in which this study took place. As I describe shortly, the study setting was writing courses in Indiana University of Pennsylvania.

6.1. Participants

The participants of this study were 58 university students, 20 males and 38 females of 21-25 years old, who were required by the university to take English 202: Composition II of research writing. The students were from different departments at the university such as Psychology, Biology, Sociology, English, health and Physical Education, Hospitality Management, Anthropology, and Geoscience, to name just few. The participants of this study were enrolled in two writing classes and all of them were voluntarily participated in this study. Some of the participants had no experience with using eportfolios while others used them in other courses, but not for writing purposes.

6.2. Data Collection Methods

To collect the data for this study, the researcher informed the participants of the purpose of this study and its importance for future use of eportfolios in the writing classes. Throughout the writing course, students uploaded their assignments for assessment, revision, and continuous process of writing and drafting. By this, they had learned how to use the software by providing a training session at the beginning of a four-month semester in 2014.

The data collected through Qualtrics Survey for Qualitative Research. The aim of using the survey was to provide "the context and background information" about the participants (Meyer & Latham, 2008). The survey contained twelve questions, as shown in Appendix A. The participants were exposed to samples of surveys during their writing course and some of them used this software for their research paper during the semester. At the end of the semester, the participants received a brief guidance of how to answer the Qualtrics survey which was left for their own convenient time to take the survey at the last week of the semester and during the week of the finals. The link for the survey was uploaded on the class eportfolios for students to access it. The aim of answering the survey at the end of the semester was to let student experience the use of eportfolios for writing and assessment during the semester to provide information from their experience with using

them for their writing.

6.3. Data Analysis

The data collected from the Qualtrics survey software was analyzed by using the reporting system that enabled the researcher to categorize all the participants' answers for each question in a separate category. Using this option, the researcher categorized questions to explore students' using eportfolios for writing and assessment.

Vicente's (1999) Cognitive Work Analysis (CWA) framework was used to analyze the collected data of the Qualtrics survey software. The purpose of using CWA was to guide the use of technology in real-life situations like the writing classrooms. Fidel and Pejtersen (2005) stated that CWA was used to evaluate the design of systems based on information collected from situated learning context. In the case of this study, students involved in the writing courses are the individuals who provided their experiences in the writing context while using eportfolios. Their interaction with eportfolios and writing context was the framework of this study.

7. Results

The data collected from survey showed that 36.8% of the participants mentioned that it was their first time using eportfolios while 63.2% mentioned that they used them before in their departments but not for writing purposes. Many students shared different purposes of their use of eportfolios as part of their writing class. In Figure 2, survey respondents were asked to choose the purposes of using eportfolios. Most students selected "Access my work" and "Follow my progress" as the most frequent purpose of their use of eportfolios. As Fig. 2 also shows, some students selected "teaching me how to write online" which was explained by the fact that this course was a combination of Face-to-Face meetings where integrating of technology was part of it for submitting assignments and grading as well as other purposes.
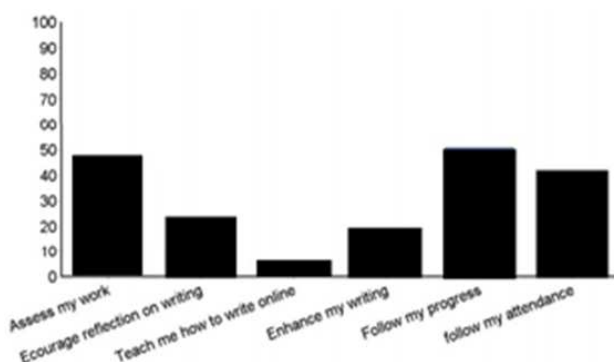

Figure 2. *Shows the purpose of using eportfolios*

In the follow up question which asked about other purposes of using eportfolios, several students mentioned that they used them to track their grades. One survey respondent wrote "I use it to keep track of my grade" while

another wrote "keeping track of my grades and having access to my professor's comments." Other respondents shared the purpose of using them for grading, finding due dates for assignments.

Other students explained that using eportfolios also had the purpose of "Accessing class notes and schedule" and "Viewing course material." Adding to these purposes, eportfolios were used as a type of communication between students themselves and teachers. One survey respondent wrote that "If I even needed to reach another student for educational purposes, eportfolios provide me with email addresses to reach them" while another explained that "If I ever had a question or was working on a project with another student, I am able to access their email through here to contact them."

According to the collected data from the survey, students provided different perceptions and concerns about the use of eportfolios for their writing assignments and project drafts as shown in *Table 3*.

Out of 58 students, 57 answered this question in which the majority selected "Sometimes" to show how eportfolios helped them in their writing course. That is, 29 students believed that using eportfolios made them more interested in doing their assignments, 28 agreed that eportfolios gave them the opportunity to add multimedia to their writing such as images, audio and videos while 24 mentioned that using eportfolios provided more options and methods to write their assignments and 23 used eportfolios for reflective writing on their own assignments and their peers.

Some students, as the table shows, were either selected "Always" or "Rarely" to express their perception of using eportfolios for writing. Nearly an equal number of students were not sure if using eportfolios provided them with option to do their assignments and 4 students mentioned "Never."

Table 3. *Summary of scale for using eportfolios for writing purposes*

Question	Sometimes	Always	Rarely	Never
Makes me more interested to do my assignments	29	6	15	7
Provides me with more options to do my assignments	24	15	14	4
Promotes reflective writing	23	16	10	8
Enables me to use other media to support my writing	28	17	6	6

However, as the table shows, most students were on the positive side of this scale where they thought that using eportfolios was good for their writing process.

Another issue the collected data shows was that students were divided between whether using eportfolios was easy to use or difficult to integrate. In *Table 4*, 41 students believed that using eportfolios as a tool was "always" easy while 2 students selected "Never." Students; 22-always and 28-sometimes, agreed that using eportfolios made their work easier.

Table 4. *Summary of scale for using eportfolios*

Question	Sometimes	Always	Rarely	Never
Demands more time	14	10	22	10
Is easy to use	13	41	1	2
Is a challenge for me	11	5	14	27
Is a tool I would prefer to use in other courses	26	24	4	2
Is not preferable to use as part of the courses I would take in the future	14	9	9	22
Is a time consuming	15	6	25	10
Makes my work easier	28	22	6	1

Looking at *Table 4*, 27 students mentioned that using eportfolios in general was never a challenge for them. Yet, 22 students preferred not to use them in their future courses. This result was very interesting because of the contradictory perception of using eportfolios which were easier to use, not a challenge for students, and would not use it in their future courses.

Assessment is another option for which eportfolios were used in the writing class. Out of 58 students, 33 mentioned that using eportfolios promoted their self-assessment of their assignments. 41 students also mentioned that eportfolios always helped them to follow their progress throughout the semester. When they were asked about professor's feedback and comments, 37 students agreed that they got feedback and comments on their assignments on a timely manner that enabled them to go over their assignments for improvement. For this, using eportfolios made the communication between teachers and students much easier.

When the survey respondents were asked to address the challenges or constraints of using eportfolios, some of them wrote that there were not any challenge. One respondent wrote, "I don't think it is challenging to use" while another explained, "I don't believe that there is a challenge about using eportfolios in class." A third respondent stated, "Nothing. eportfolios are pretty straight forward."

However, most respondents referred their challenges to internet connection and technical glitches while using the site. One respondent wrote that "when my internet is not working correctly when I want to upload an assignment" and another reported that "if the internet is down, it's hard to access" while a third one mentioned "Distractions of the internet while being on the computer." Other respondents further explained this issue by writing that "Technology has its uses, but also has its flaws" that "sometimes it is shut down or doesn't work, so when it happens I have to email my work to the professor. (This is rare)" which explained by another respondent that "it's technology and can be unreliable."

When students were asked to provide any suggestion about the use of eportfolios, they wrote various things. Most suggested issue was to add a reminder for assignments and due dates for submission. Two respondents suggested to "provide reminders without the teacher having to manually set reminders through eportfolios." A third respondent

recommended to "have eportfolios notify the student when there is an assignment due date coming up. Just in case it was not announced in the classroom" while another suggested "to keep up with assignments and make sure you see the due dates for when they need to be submitted." Other suggestions were to continue using eportfolios in the classroom because they are "helpful" and "handy" that makes submitting assignments "a lot easier." Adding to these suggestions, one respondent shared a positive attitude when he or she wrote "It was just really nice that I could hand things in without printing anything."

8. Discussion

As mentioned earlier, the purpose of this study is to examine the perception of English writing students of using eportfolio in their writing classes for writing and assessment and their impact on students. This section of this research discusses how students perceive the use of eportfolios and what purposes and challenges they have faced.

8.1. Students' Perception of Using Eportfolios

Based on the collected data from the survey, students provided different perceptions and concerns about the use of eportfolios for their writing assignments and project drafts. As I mentioned earlier, the survey respondents highly rated eportfolios as a teaching tool for writing and assessment, and described several features of using eportfolios to help them in their writing class. Most of the survey respondents saw the benefits of using eportfolios and their importance to incorporate them in their classes. The first issue was submitting assignments online which was preferable by all students. As one respondent pointed out, "I like not having to worry about having printed copies of assignment. It is much easier to just submit the paper online." Another respondent explained that eportfolios were "relatively easy to use and I think turning in papers through eportfolios is a much better alternative to printing papers and handing in a hard copy, considering all the writing we have completed I would have been printing and using excessive amounts of paper and ink." A third respondent stated, "I like using eportfolios because we could read the articles on there instead of wasting paper and money printing them out" while another respondent wrote that he/she "LOVED not having top print out papers." One respondent summarized the whole issue of using eportfolios by stating that he/she "used eportfolios for all of my writing assignments, presentations, and surveys. It is great that it is so accessible for my coursework and the feedback from my work is received quickly. Compared to turning in an assignment on paper and having to wait to receive it after the professor grades all of them." Students' perception of using eportfolios instead of printed portfolios reinforced the idea discussed by Alawdat (2013) when she compared between the two types of portfolios as shown in *Figure 3*. Alawdat explained that writing development occurs by using both types, but eportfolios add more
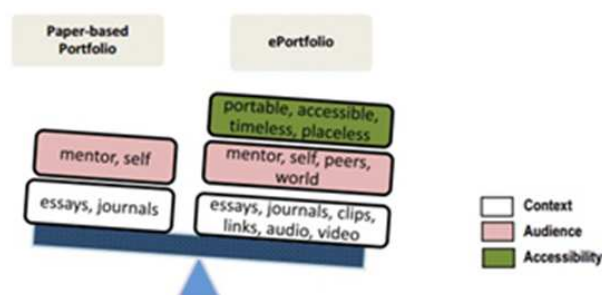
options.

Figure 3. A Comparison between paper-based portfolios and eportfolios

Another emerging theme from the collected data was the issue of organization. Many respondent stated that using eportfolios in their writing class organized their work throughout the semester. As one respondent mentioned, "I think using eportfolios in class really help me stay organized because it always leaves reminder for assignments that are due" while another wrote, "I feel that using eportfolios was very helpful for this course because it kept all of the reading and directions for assignments organized." Similarly, a third respondent pointed out, "I enjoyed using eportfolios because I was able to stay on top of my work, follow deadlines, and access my grades without having to constantly set up meetings with my professor."

In the same context, using eportfolios for submitting assignments for feedback and grading had positive perception from the students. One respondent reported that using eportfolios "is very helpful providing me with my grades and coursework" while another wrote, "I do believe using eportfolios is a helpful resource. It allows me to have immediate feedback on my assignments and feedback is also easily accessed." In similar context, another respondent wrote, "Our professor's comments gave us the proper feedback to fix any issues we had with our assignments." A third respondent pointed out, "using eportfolios is very helpful to provide me with my grades and when assignments are due." According to Abrami and Barrett (2005) when students use eportfolios, they tend to focus more on their writing in order to develop their writing skills while tracking their progress. Providing online feedback helped students to move faster and acquire more skills.

Storage theme was another issue that students mentioned in the survey. One respondent wrote that "it stores all the information that I need and is an easy way to access class schedule, syllabus, and grades. Whenever I am confused, I can look at eportfolios for info I need and it is usually there." Another respondent thought of his/her learning experience by mentioning that using eportfolios "allows me to store all my assignments for a specific course in an organized fashion." Other respondents mentioned that using eportfolios provided them with the opportunity of "keep[ing] papers saved for later use in portfolios" and to "look back at old assignments to help me with my research

paper."

As I pointed out in this section, the 58 survey respondents provided very positive perception of using eportfolios in their writing class. Yet, and despite all of the positive issues, some students touched upon some challenges and technical problems as I discuss in the following section.

8.2. Challenges of Using Eportfolios

Despite the many positive attitudes towards using eportfolios, some students faced some technical problems. At I mentioned earlier in this research, 36.8% of the survey respondents used eportfolios for the first time. I assume that those students were the ones who had anxiety and problems using eportfolios at the beginning of the semester. Mostly, the challenges were lack of technical skills to use technology in the writing class.

Although the writing teacher provided training sessions at the beginning of the semester on how to use eportfolios and the options they have, some students continued to have some technical problems. Students in the writing class also received explanations throughout the semester to remind them of how eportfolios should function for submitting assignments, discussion boards, and grading. This previous knowledge of using eportfolios influenced how students used them for their writing classes. That is, the majority of students have no technical problems while using the tool and they learned how to use other related options to easily suit the purpose of their writing class.

As I mentioned earlier, the survey respondents had problems with internet connections, computer bugs, and technology glitches. One respondent wrote, "Whenever a bug arises, I become very impatient and worried I will not be able to submit my assignment" while another stated that "You never know when it's going to crash, so sometimes waiting for the last minute to upload assignments can be a very bad thing." Another respondent pointed out, "Sometimes eportfolios will have a glitch and will stop working which has put me in panic when an assignment is due at 8:00 am the next morning and I cannot submit it until the eportfolio is working again." That is, most of students' problems came from technology and internet connection. This also means that using the tool itself and the options that students needed for their writing class were not a problem because they were trained to use eportfolios at the beginning and throughout the semester.

9. Conclusion and Future Research

As I have been discussing in this research, the purpose was to examine the perception of English writing students of using eportfolios in their writing class over a semester. Participants in this study, who were involve in a writing course as a requirement by their university, showed positive attitudes toward using eportfolios and encourage their continuous use for other students and courses. However, some students mentioned some technical problems that were

not connected to the actual skill of using eportfolios, but rather to outsider technology problems such as internet connectivity. In most cases, students managed to overcome such challenges and some of them recommended that students should not wait till the last minutes to submit assignments.

In this research, the study research questions were answered, the study site was described, and the 58 survey respondents enrolled in two writing courses were described. Yet, for confidentiality, their identities and demographic background were not revealed because they had no important role for this research. The 12 questions in the survey were coded by using the reporting system of the Qualtrics survey software to help in finding themes in the responses. All the participants in this research answered all questions and provided responses to the open ended questions. Based on the responses from the survey, the study shows how writing students in an English writing course perceive the use of eportfolios in their writing courses.

While there have been positive perceptions on the part of the writing students while using eportfolios, more research is needed to examine the use of eportfolios in writing classes in different contexts. One interesting line of research would be to follow the use of eportfolios to teach writing and assess artifacts as part of a longitudinal study over a long period of time. This would provide more information about students' long-term learning. Also, it would be beneficial to take into consideration teachers' perception of using eportfolios in their writing classes for assessment for future research.

Appendix A

The Survey

The aim of this survey is to explore the use of ePortfolios in two English writing courses.

1. Gender
☐ Male
☐ Female

2. Please write which department you are from

☐

3. Select the suitable answer: I am familiar with using ePortfolios before being involved in this writing course:
☐ Yes
☐ No

4. This is my first time using ePortfolios for the writing class
☐ Yes
☐ No

5. The professor explained how to sue ePortfolios for my writing class
☐ Yes
☐ No

6. Use the scale below to mark the appropriate circle that corresponds to the following statements.

Using ePortfolios as part of the class assignments

Question	Sometimes	Always	Rarely	Never
Demands more time	☐	☐	☐	☐
Is easy to use	☐	☐	☐	☐
Is a challenge for me	☐	☐	☐	☐
Is a tool I would prefer to use in other courses	☐	☐	☐	☐
Is not preferable to use as part of the courses I would take in the future	☐	☐	☐	☐
Is a time consuming	☐	☐	☐	☐
Makes my work easier	☐	☐	☐	☐
Makes me more interested to do my assignments	☐	☐	☐	☐
Provides me with more options to do my assignments	☐	☐	☐	☐
Promotes reflective writing	☐	☐	☐	☐
Stores my assignments for a long time	☐	☐	☐	☐
Helps me to follow my progress throughout the course	☐	☐	☐	☐
Promotes self-assessment	☐	☐	☐	☐
Puts me in the center of my learning process	☐	☐	☐	☐
Opens new perspectives to learn writing	☐	☐	☐	☐
Provides me with what I need for the course	☐	☐	☐	☐
Permits accessing my assignments any time	☐	☐	☐	☐

7. Feel free to share whatever you want concerning the use of ePortfolios in this course.

☐

8. Select any of the OPTIONS that you feel related to your purposes of using of ePortfolios
☐ Access my work
☐ Encourage reflection on writing
☐ Teach me how to write online
☐ Enhance my writing
☐ Follow my progress
☐ Follow my attendance

9. What other purposes you have used ePortfolios for in your writing class?

☐

10. The thing I feel is the best about using ePortfolios for teaching writing is

☐

11. The thing I feel the biggest challenge about using ePortfolios is

12. If you have any suggestions for future use of ePortfolios in a writing class, what would say?

Thank you for your participation!

References

[1] Aalderink, M. W., & Veugelers, M.H. C. H. (2006). eportfolio and educational change in higher education in the Netherlands. In A. Jafari & C. Kaufman (Eds.), *Handbook of research on e-portfolios* (pp. 358-369). Hershey: Idea Group Reference.

[2] Abrami, P. C., and Barrett, H. (2005). Directions for research and development on electronic portfolios. *Canadian Journal of Learning and Technology*, 31(3), 1-15. Retrieved December 17, 2011, from http://www.cjlt.ca/index.php/cjlt/article/viewArticle/92/86

[3] Alawdat, M. (2013). Using e-portfolios and ESL learners. US-China Education Review 3(5),339-351. Retrieved from http://files.eric.ed.gov/fulltext/ED543181.pdf

[4] Barrett, H. C (2009). Balancing the two faces of eportfolio. Retrieved from http://electronicportfolios.org/balance

[5] Barrett, H. (2010). Balancing the two faces of eportfolios. *Educação, Formação & Tecnologias, 3*(1), 6–14.

[6] Cambridge, D. (2010). *eportfolios for lifelong learning and assessment*. San Francisco, CA: Jossey-Bass.

[7] Chang, C. C., Liang, C. & Chen, Y. H. (2013). Is learner self-assessment reliable and valid in a Web-based portfolio. *Computers and Education 60* (2013), 325-334.

[8] Chang, C. C., Liang, C. & Chen, Y. H. (2012). A Comparative analysis of the consistency and difference among teacher-assessment, student self-assessment and peer-assessment in a Web-based portfolio assessment environment for high school students. Computers and Education 58(1), 303-320. Doi:10.1016/j.compedu.2011.08.005

[9] Chau, J., & Cheng, G. (2011). Towards understanding the potential of e-portfolios for independent learning: A qualitative study. *Australian Journal of Educational Technology, 26*(7), 932-950.

[10] Chien, C. W. C. (2013). Pre-service English teacher's perceptions and practice of electronic portfolios. CALL-EJ, 1-15. Retrieved from http:callej.org/journal/14-1/Chien_2013.pdf

[11] Cole, D. J., Ryan, C. W., Kick, F., & Mathies, B. K. (2000). *Portfolios across the curriculum and beyond*, Second Edition. Thousand Oaks, CA: Corwin Press.

[12] Gebric, P., Lewis, L., & Amin, N. M. (2011). Student perspectives of eportfolios: Change over four semesters. In G Williams, P. Statham, N. Brown and B. Cleland (Eds.), *Changing Demands, Changing Directions. Proceedings ascilite Hobart 2011*, 423-436. Retrieved December 20, 2011, from http://www.ascilite.org.au/conferences/hobart11/procs/Gerbic-full.pdf

[13] Genc, Z. and Tinmaz, H. (2010). A reflection of preservice teachers on e-portfolio assessment. *Procedia Social and Behavioral Sciences, 9*, 1204-1508. http://www.sciencedirect.com/science/article/pii/S187704281010024614

[14] Fidel, R. & Pejtersen, A. M. (2005). Cognitive Work Analysis. Seattle, WA: University of Washington. Retrieved from http://faculty.washington.edu/fidelr/RayaPubs/CWA-bookchapter.pdf

[15] Hackman, D. G., and Alsbury, T. L. (2005). The use of portfolio assessments for administrator preparation program improvement. *Educational Considerations, 32*(2), 36-45.

[16] Himpsel-Guterman, K. (2012). A4-Phase Model for the long-term use of eportfolios. *International eportfolios and Identity*. Retrieved on March 1, 2013 from http://www.epforum.eu/sites/www.epforum.eu/files/ePIC%202012.pdf

[17] Hung, S. T. (2009). Promoting self-assessment strategies: an electronic portfolio approach. *Asian EFL Journal, 11*(2), 129-146. Retrieved December 17, 2011, from http://www.asian-efl-journal.com/June_2009_EBook.pdf

[18] Jaramillo, A. J. (1996). Vygotsky's sociocultural theory and contributions to the development of constructivist curricula. *Education.*

[19] Johnson, H. L. (2012).Making learning visible with eportfolios: Coupling the right pedagogy with the right technology. *International Journal of eportfolio 2*(2), 139-148.

[20] Kolb, D.A. (1984) Experiential Learning: experience as the source of learning and development.

[21] Lave, J. (1988). Cognition in Practice: Mind, mathematics, and culture in everyday life. Cambridge, UK: Cambridge University Press.

[22] Lowenthal, R., White, J. W., & Cooley, K. (2011). Remake/Remodel: Using eportfolios and a System of Gates to Improve Student Assessment and Program Evaluation. International Journal of eportfolio 1(1), 61-70.

[23] Mostafa, A. A. M. (2011). The impact of electronic assessment-driven instruction on preservice EFL teachers' quality teaching. *International Journal of Applied Educational Studies, 10*(1), 18-35.

[24] Peters, M., Chevrier, J., LeBlanc, R., Fortin, G, & Malette, J. (2006). The e-portfolio: A learning tool for Pre-Service Teachers. In A. Jafari & C. Kaufman (Eds.), *Handbook of research on e-portfolios* (pp. 313- 326). Hershey: Idea Group Reference.

[25] Pitts, W. & Ruggierello, R. (2012). Using the e-Portfolio to Document and Evaluate Growth in Reflective Practice: The Development and Application of a Conceptual Framework. International Journal of eportfolio, 2(1), 49-74. Retrieved on February 23, 2013 from http://www.theijep.com/pdf/IJEP43.pdf

[26] Robbins, H. (2004).Reflection and the electronic teaching portfolios: The nature and quality of preservice teachers' reflective writing. In C. Crawford, N. Dacis, J. Price, & D. Wills, (Eds.), *Technology and Teacher Education Annual* (pp. 222-227). Norfolk, VA: Association for The Advancement of Computing in Education

[27] Vicente, K.J. (1999). *Cognitive Work Analysis.* Mahwah, NJ: Lawrence Erlbaum Associates.

[28] Vygotsky (1978). *Mind in Society.* Cambridge, MA: Harvard University Press.

[29] Wetzel, K. & Strudler, N. (2006). Costs and benefits of electronic portfolios in teacher education: Student voices. *Journal of Computing in Teacher Education 22*(3), 69-78.

[30] Wills, K. V. & Rice, R. (2013). *eportfolios performance support system: Constructing, presenting, and assessing portfolios.* Colorado, Fort Collins: Te WAC.

[31] Yancey, K. (2001) Digitized student portfolios. In Barbara Cambridge et al. (Eds.) *Electronic portfolios" Emerging practices in student, faculty, and institutional language.* Washington, DC: American Association of Higher Education, 15-30

[32] Yancey, K. B. (2009). Electronic portfolios a decade into the twenty-first century: What we know, what we need to know. *Peer Review 11*(1), 28-32.