Views of University Students on Practices in Using e-Portfolio as an ICT Tool for Learning

Dr. Fuad Ali Ahmed Eksail[1]

Abstract:

The study aimed at exploring students' views on practices of using e-Portfolio as an Information and Communication Technology (ICT) tool for learning. The researcher adopted the qualitative descriptive approach, in which a random sample of 156 fourth year students at Bahrain Teacher College (BTC) were selected and asked about their views and practices of their e-portfolios that they have to prepare and present in an exam session as a requirement for graduation. A questionnaire was used as a tool for data collection. The findings showed that according to students' views there is high awareness of the importance of e-Portfolio in saving works and in giving them opportunities to control and improve their learning. Many factors prevented their practice in e-portfolio effectively. Based on the results of this study, decision makers are recommended to be aware of the core and potential of Exabis e-Portfolio as an ICT learning tool, extensive training for instructors and students on the use of the e-Portfolio platform, and adopt an organized approach in practicing using e-portfolio facilities and receive constructive feedback to improve the students' practice in both contents as well as ICT skills. The findings also stressed the need to develop the interaction in the e-Portfolio system and measure procedures of implementation.

Keywords: e-Portfolio, ICT learning, University students' views, practices

Introduction:

The strategic vision of education in the Kingdom of Bahrain emphasizes that technology should act as an integral part of the teaching learning process in the formal and higher education in the country that will help with the realization of Bahrain's Economic Vision 2030. This view rhymes with what Bates (2010) explains that education nowadays experiencing rapid changes and challenges due to an increase in technology-based network communities, and become an essential part of every aspect of our lives, it is inevitable for teachers to integrate the use of technology in their teaching. In order for the higher education sector to be relevant and compatible in this challenging society, the process of continuous change had to be an essential core in higher education's policies and orientations in association with this drastic change in higher education, more efforts in integrating technology in the higher education practices have been done.

Electronic portfolios (e-Portfolio) are important tools that are currently being used to support and document the personal, professional, and intellectual development of student teachers into self-directed learners. Furthermore, it has been proved that applying e-portfolio for students in higher education can be effective in enhancing students' IT skills as well as promoting the 21st Century skills which nowadays have become fundamental in the teaching – learning process across formal and higher education.

Several studies were carried out to investigate the effectiveness of using e-portfolio as a learning tool. For example, Jisc (2008) finds that e-Portfolios provide a link between learners' social and personal experiences on one hand and their academic and work-related aspirations on the other. Other researchers (e.g. Jenson & Treuer, 2014; Joyes, Gray & Elizabeth, 2010) corroborate this finding and add that using E-portfolio is an effective way in enhancing further students' engagement in the learning process. In the Bahraini context, Abdul Razzak (2015) investigated the impact of an integrated e-portfolio model, which was originally introduced at BTC in 2012, and how it would ensure a more successful and effective learning of the students in a professional college. The results indicated some improvement mainly in the form of stronger awareness and a more accepting culture of e-Portfolios. The study also showed that there is still, however, continuing flaws in e-Portfolio implementation and a need for more focused training of stakeholders.

---

[1] Bahrain Teachers College /University of Bahrain Email: feksail@uob.edu.bh

Wyk (2017) investigated student teachers' views on e-Portfolios as an empowering tool to enhance self-directed learning in an online teacher education. The analyzed data showed that student teachers felt that they were empowered with different subject content knowledge, technological pedagogical content knowledge, and other technologies, student-centered methods, and techniques through the e-Portfolio project.

Yastibas and Yastibas(2015) examined the use of e-Portfolio-based assessment on developing students' self-regulated learning in English language teaching. They found that e-Portfolios can be used as an effective assessment to improve the different learning styles of learners. The study also indicated that e-Portfolio-based assessment can develop students' self-regulated learning

A study did by Qaddoumi,Abuloum and Alabbassi (2018) identified the major obstacles associated with using e-portfolio as reported by Bahrain University' students.The results of the study emphasized the need for extensive training for instructors and students on the use of the e-Portfolio system, simplifying thesystem,and providing immediate feedback to encourage students to use it.

With regard to the teacher candidates' preparation and development, literature shows that the implementation of e-Portfolio in teacher education programs can support novice teachers in practicing their profession. For instance, Chou (2012) investigated the influence of teachers' perceived e-Portfolio acceptance on teacher evaluation effectiveness in Taiwan. Results revealed that e-Portfolio strongly influences those teachers' evaluation practices and facilitated to them conducting lessons based on computer self-efficacy.

Based on the above literature, it can be concluded that e-portfolios can play as an effective factor in improving the teaching practices, learning experience, and developing effective assessment methods. This all shall facilitate to students become able enough to act the main responsible for their learning by enabling them to organize and control the content of their e-Portfolios. However, this responsibility requires students to reflect and assess their own learning, beliefs, values, feeling, and attitudes to comprise their affective domain which is considered an integral factor that influences accepting and using e-portfolio effectively.

In the Kingdom of Bahrain, the enhancement of these skills has been considered as one of the national educational reform initiatives, which Bahrain Teachers College (BTC) considered as the corner stone in achieving this aim. Consequently, a successful implementation of the e-portfolio practice on the part of the students can, therefore, assist BTC in fulfilling the reform project objective in the Kingdom of Bahrain (Abdul Razzak, 2015).

With regard to the implementation of the e-portfolio at Bahrain Teachers College (BTC), this practice was initiated for students to improve the academic practices, disseminate e-culture, and achieve student development, continuous assessment, and reflection during the students' learning journey at the BTC. In this practice, students are required to collect and show some of their work which they have done along their four year study at BTC that reflects their control of their learning, their ability to provide a learner-centered rather than course-centered view of learning, their ability to help their learners to make connections among their formal and informal learning experiences, how to facilitate a wider variety and more authentic forms of assessment, and provide continuity through a learner's lifelong learning (Qaddoumi, et al., 2018).

Simple e-portfolio option integrated with e-platform Moodle was intended to help learners take control of their learning, provide a learner-centered rather than course-centered view of learning, help students make connections among their formal and informal learning experiences, facilitate a wider variety and more authentic forms of assessment, and provide continuity through a learner's lifelong learning.

Despite the e-Portfolio was purposed to be integrated within all courses in the BTC (Abdul Razzak, 2015), students' implementation is still found below expectations. According to Abdul Razzak (2015), this dilemma can be overcome by studying users' personal perceptions of and experiences with e-portfolios, in order to try and understand e-Portfolio implementation directly from the users' standpoint rather than from only an observer's or investigator's perspectives', and that align with the study of Palak and Walls (2009) which they found that the usefulness from any ICT project needs support of identifying learners' attitudes towards ICT to be successful.

This recommendation corresponds with the purpose of this study since the focus of it is exploring the BTC's fourth-year students' views of their practices in using e-Portfolio as a tool for their learning. This will assist in identifying the suggestions and actions for better implementation in the foreseeable future.

Study Problem:

Despite the involvement of the e-Portfolio in almost all courses at BTC, it has been recognized by most faculty who participated in the e-portfolio panels that students' performance is below expectations which might negatively affect their professional growth as teacher candidates. For this reason, this study intends to investigate this problem.

Study Questions:

The study intends to get answers to the following questions:

1.What are the fourth-year students' views towards their experience in using e-Portfolio during their study at the BTC?

2.What are the fourth-year students' views towards the using e-Portfolio as a helper in their studies?

3.How do the fourth-year students' view their practices in using e-Portfolio as a tool for learning?

4.What are the fourth-year students' views towards useful support resources to practice e-Portfolio?

Objectives:

The main objectives for conducting this study are

1- Measuring BTC students' views towards using the e-portfolio as an effective tool for improving their ICT skills

2- Identifying areas of strength and weakness in practicing e-Portfolio as a learning tool from the perspective of BTC students.

3- Providing resources for improving the current policy and practices of using e-Portfolios in the teaching learning process at BTC.

Significance of the Study:

It is expected that this study can assist in:

1. Guiding faculty and course designers to better develop the e-portfolio current shape of course and practice with students.

2. Identifying ways of developing students' ICT skills.

3. Meeting quality higher education as established by The Education and Training Quality Authority (BQA) that requires practice and reinforcement of the 21st century skills.

Definitions of Terms:

This study includes some fundamental terms, following are the definition of these terms:

e-Portfolio:

Rhodes (2010), mentions that "e-portfolios might be the biggest thing in technology innovation on campus". "e-portfolios have a greater potential to alter higher education at its very core than any other technology application known thus far."(Batson, 2002)

The e-Portfolio is a tool for documenting and managing one's own learning over a lifetime in ways that foster deep and continuous learning (Jenson & Treuser, 2014).

Trevitt, Macduff and Steed (2014) and other writers, discuss that and , argue that e-Portfolios are about collecting and compiling evidence of work in electronic format which demonstrates knowledge, skills, attitude and constructive feedback of work that the studentteacher submit (Trevitt, Macduff & Steed, 2014; Boulton & Hramiak, 2012; FitzPatrick & Spiller, 2010).

e-Portfolios are about collecting and compiling evidence of work that the student-teacher submit (Pianpeng & Koraneekij, 2016; Boulton & Hramiak, 2012; Fitzpartrick & Spiller, 2110; Barrett, 2000), using computer technology and the internet. It allows learners to collect and store different types of media such as text, audio, photo (Pianpeng & Koraneekij, 2016; Barrett, 2000).

Moreover, Quinlan (2002) and Garrett (2011) are of the opinion that e-Portfolios provide significant advantages because they are easily accessible online; and the users (learners, educators, parents, and school principals) can view e-Portfolios on computers, cellphones, or other devices. According to these authors, student teachers can access e-Portfolios in order to issue assignments and to access assignments by using an online platform anytime and anywhere.

In other definitions, Joyes, Gray and Elizabeth (2010) defined an e-Portfolio as "the product created by the learners which include a collection of digital artifacts articulating experiences, achievements, and learning" and as "a purposeful aggregation of digital items ideas, evidence, reflections, feedback, etc which present selected audience with evidence of a person's learning and ability". Consequently, the definitions indicate that e-Portfolio focus on the feature of being digital, organized, searchable, and transportable.

This study defines the practice in using e-Portfolio procedurally as using (Exabis portfolio) which integrated as a tool with Moodle platform, to upload and save BTC students' artifacts (assignments, projects, test,...) and their reflections, which achieve BTC's nine competences.

Research Methodology

The descriptive analytical approach was followed in this study using a survey with a constructed response questionnaire as an instrument for data collection.

Sample of the Study:

This study used a sample of fourth year students (n=156) in BTC enrolled in the Bachelor of Education program. This sample represents 60% of the target population (n=250) in the academic year 2018/2019.

The Research Instrument

The research instrument was a questionnaire created after an extensive literature review of many studies related to the use of e-portfolio in education, and then adopted most parts of it from e-Portfolio Hub (2016) and modified in accordance with the situations in Bahrain.

The questionnaire contained questions made of a combination of multiple-choice, five Likert scale questions, and one open-response question which were distributed on fourdimensions:
1.   The first dimension includes the instruction to the participants in addition to seven questions (multiple-choice- multiple responses) consists of: (uses of the e-portfolio, and factors and obstacles which may hinder students from using e-portfolio effectively.
2.   The second dimension includes 19 items which use the Likert scale distributed in two parts:
a. Eight items represented a students' view in using e-portfolio as a helper in their studies.
b. Eleven items about students' views in their practices in using e-Portfolio as a tool for learning.
Students were asked to rate their agreement with these items based on the following Likert-type scale: strongly agree, agree, undecided, strongly disagree, disagree, which has been modified it to (agree, undecided, disagree)
3- The third dimension is a multiple responses question about students' views towards useful support resources to practice e-Portfolio.
4-   The fourth dimension includes the open-response question(to allow respondents to include their own comments in relation to e-Portfolio).

Validity of the Questionnaire

Construct validity was assured in this instrument. Such validity requires many indicators which the researcher took into consideration.

1. The first indicator the items were extracted through the researcher experience being an instructor of educational technology at BTC who is involved in formulating the e-Portfolio construction and follow up since2008 until now.
2. The second indicator was that the items were taken from previous studies tackling similar problems, in addition, the researcher indicated that his instrument has been adopted and modified in accordance with the aims of his study in order to collect the data he was aiming at.
3. A draft of the questionnaire was copied and translated into Arabic. Then, it was handed to a panel of three technology specialists and two teaching and learning specialists at BTC were asked to review the instrument and cast judgments on face validity of it in terms of coverage of important dimensions, the relatedness of each item to the purported dimension, and readability. Their suggestions were considered in the production of the final version of the questionnaire.
4. A translated version of the questionnaire into English, was handed to a panel of only English speaking educationist consisting of two English specialists, two technology specialists and two teaching and learning specialists and were asked to review the instrument and cast judgments on face validity of it in terms of coverage of important dimensions, the relatedness of each item to the purported dimension, and readability. Their suggestions were also considered in the production of the final version of the questionnaire.

5. The final draft of the questionnaire was applied on a pilot sample of students, who were asked to rate the items for clarity of expression. Feedback obtained from these students was utilized in preparing the final version of the instrument and transformed into an electronic survey.

Reliability ofthe Instrument:

The reliability of the instrument was assured by applying it on a pilot sample consisting of selected (30) students who were enrolled in the same semester. Cronbach Alpha was calculated as an indicator of internal consistency of the reliability of the instrument as a whole and found to be (0.875), which is relatively a high indicator of reliability for this kind of instruments.

Data Collection:

The questionnaire was applied electronically using Google form to all the fourth-year students who were enrolled in the second semester in the academic year 2018/2019.

Data Analysis:

Data were analyzed using the Statistical Package for the Social Sciences (SPSS). Descriptive statistics were obtained. Percentages and frequencies of participants' responses in the study besides constructing pie diagrams that pictorially represents these frequencies.

Findings:

The study intends to investigate the active integration of the Exabis e-Portfolio with regular study, also explore students' beliefs and practice towards it, and finally the useful support resources to enable it effectively. Data analysis revealed beneficial results. For clarity of presentation, these results are presented into the following categories:

Results pertaining to the First Question: **Students' views towards their experience in using e-Portfolio during their study at the BTC:**

Figure 1 shows that 72.5% of students used the e-Portfolio in their study assignments, which 27.5% of the sample on the other side did not use, which means that the majority know that the e-Portfolio is a graduation requirement in BTC.
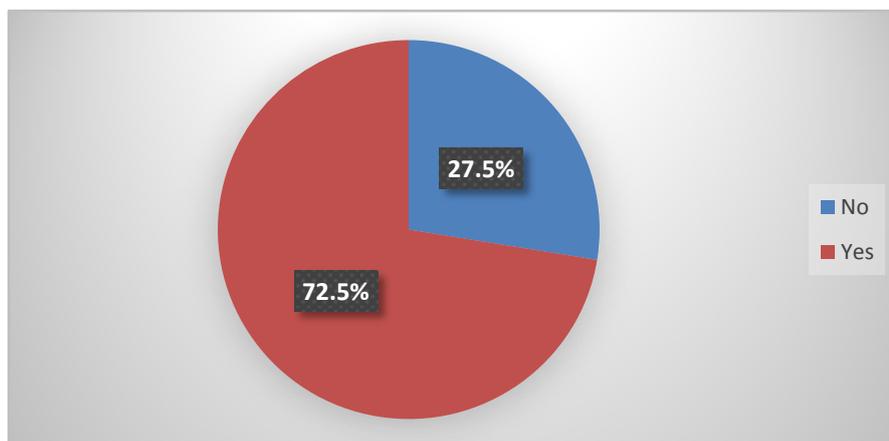

Figure1: Use e-Portfolio in Other Study Assignments

Chart 1 shows that the participants found that their work on their e-Portfolio as a requirement for their courses (59.6%) specifically in the fourth year, and (27.7%) in their courses more than an optional learning in which they could gain or develop new skills.
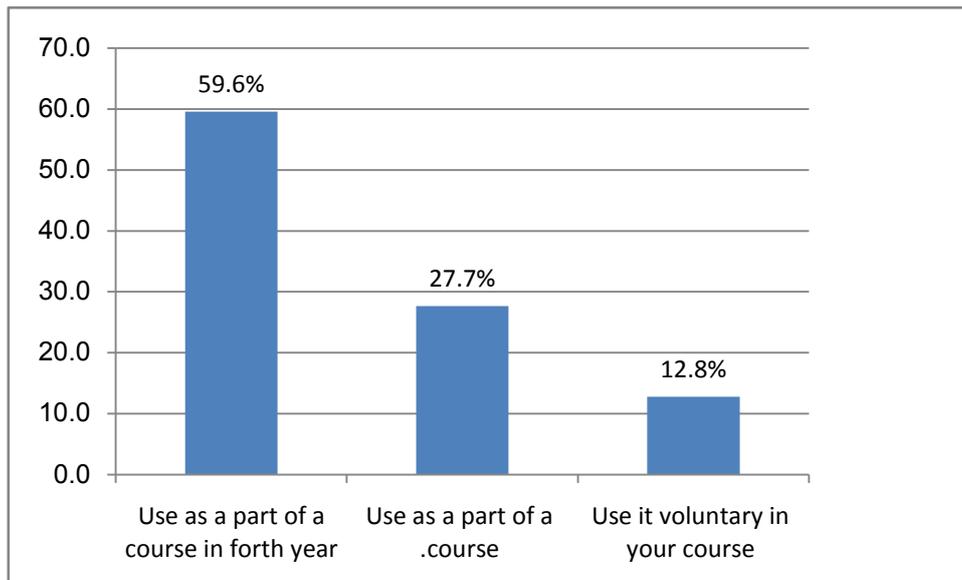
Chart 1: Use of e-Portfolio as part or voluntary in course

Most students mentioned that they used e-portfolio in the first year as it was required in courses, and in the last semester in the fourth year as graduation requirement just to present three courses which should cover the nine competencies as shown in Chart (2). The researcher attributes this to the:

1. The presence of courses in the first year (TCPB 114) and (TCPB 128) that focus on introducing students to the e-Portfolio and giving them practicing to be able to implement it in these courses and as a requirement to subsequent courses as Abdul Razzak's (2015) recommendation about the introduction of a comprehensive and obligatory module/course on e-portfolio from the first year.
2. In the fourth year, there is a final academic requirement that allows the students to present their works in e-portfolios and links it with the nine competencies.
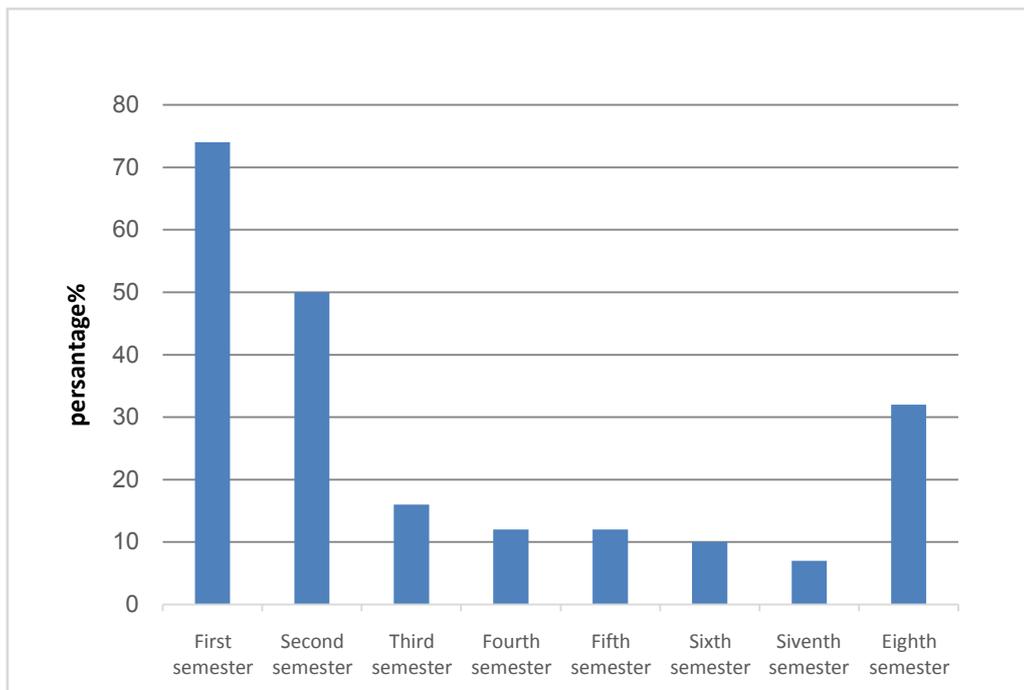

Chart 2: Use of e-portfolio according to the semester

Figure 2 shows, 83% of students who indicated that they use E-portfolio in their studies mentioned that they used it between 1-4 times, 15% between 5-10 times, and only 2% used it more than 11 times.
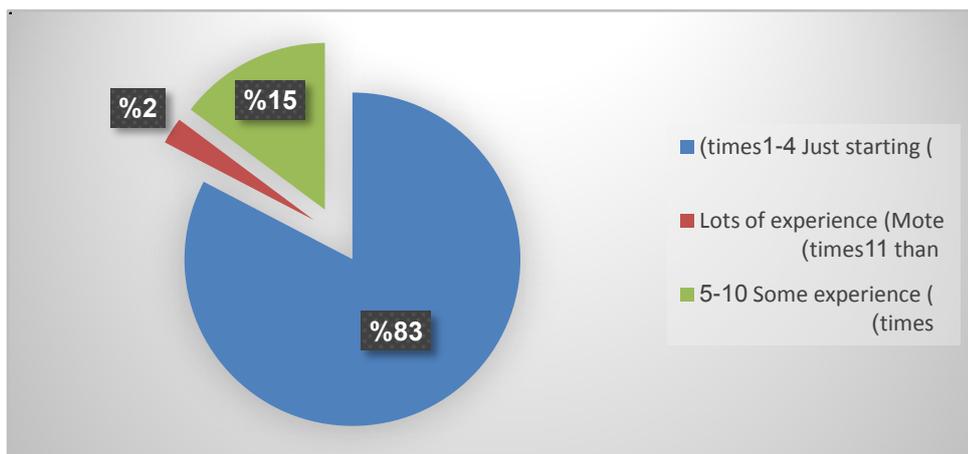
Figure 2: Times of using e-portfolio in Study

And this proves, despite the high percentage that showed students who used e-Portfolio, the percentage about the number of times in using and implementing it was more low expectation when comparing with courses been studied and should implement e-Portfolio in it. The lack of employing e-Portfolio (E- platform) in all courses is a problematic factor that leads to the presence of existence of a gap in implementation throughout the second and third years, and that may the reason for low implementing usage of e-portfolio. This result corroborates with the Abdul Razzak's (2015) recommendation.

"It is our strong belief that the present way of introducing students to e-Portfolios, mainly in the form of a brief introductory training session in the first year of enrollment, is not fulfilling its purpose. This is because, by the time students reach their fourth year and are required to present their e-portfolios, they seem to be (1) totally detached from the original brief introduction and (2) extremely confused about how to conduct a quality e-Portfolio graduation presentation" so it is necessary to be e-portfolio as a main part in all courses.

The results also revealed some factors that are considered as obstacles on the part of the participant students in this study regarding their working and learning from their e-Portfolio experience.

Chart 3 shows in detail the different facts that influence getting a full benefit from e-Portfolio learning. As can be seen from the chart, 44% found that (using e-Portfolio are not required for the course) is a major reason for limiting their learning while working on their e-Portfolios. The researcher imputes this to the confusion about the right methods to upload and store their works which should be in Exabis e-Portfolio that gives them an opportunity to save their works and help them later to reflect on their learning process. Instead of that, students uploaded their works in Moodle platform or hand it over in paper to the instructors, which gives no chance to save it because all work would be delete once the course ends.

E-portfolio is not just a storage tool, the significance of the e-Portfolio as a self-assessment and self-directed learning tool is never sufficiently valued or realized (Abdul Razzak, 2015).
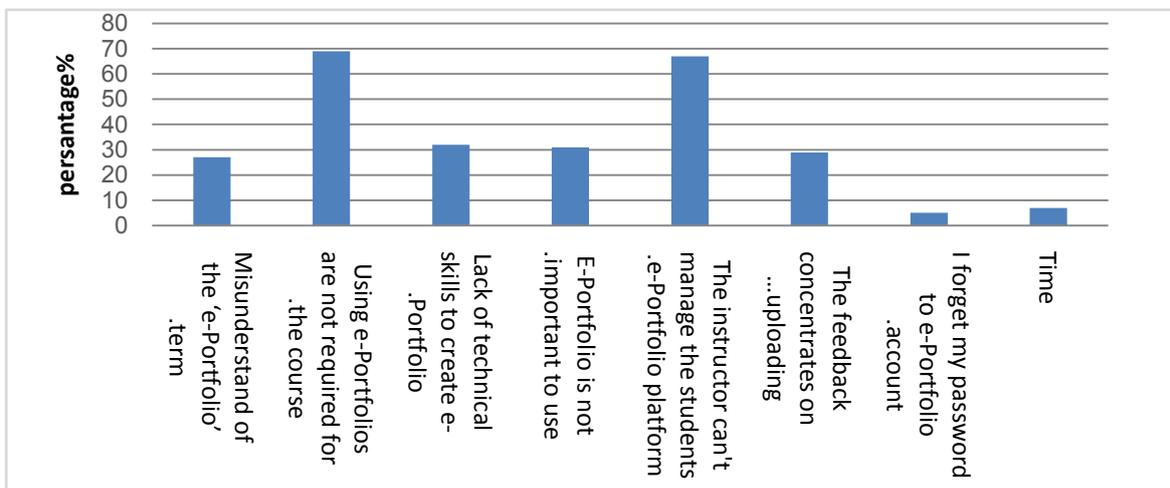

Chart 3: facts influencing the benefit from e-portfolio

Another reason was also expressed with almost the same percentage 43% that (the instructor cannot manage the student e-Portfolio), and that is because they do not have permission access to manage or follow it, or give feedback electronically.

This result suggests that more highlight on the actual use of the e. portfolio should be practiced in all the courses for all students in all specialties to eliminate the factors that could interfere and limit the learning use of e-Portfolio on the part of the students regardless of the given facilities such as Moodle when developing their work and materials, also adding the privilege to the instructor in pursuing students' e-Portfolio to give them the motivation to create and develop it.

Obstacles facing students when experiencing e-Portfolio learning:

Though literature highlights positive benefits for using e-Portfolios in the learning process (Cheng, 2008), the results of this study showed significant obstacles that may limit the effectiveness and utilization of such benefits that could result from the e-Portfolio learning process. In Chart 4, it can be seen that, 37% of the respondents selected lack of time for developing e-portfolios. These results align with the results of other studies. For example, Sellami (2017) mentioned that time-consuming may deter students from using e-Portfolio.
Obstacles that may limit the effectiveness and utilization of such benefits that could result from the e-Portfolio learning process. In Chart 4, it can be seen that, 37% of the respondents selected lack of time for developing e-portfolios. These results align with the results of other studies. For example, Sellami (2017) mentioned that time-consuming may deter students from using e-Portfolio.
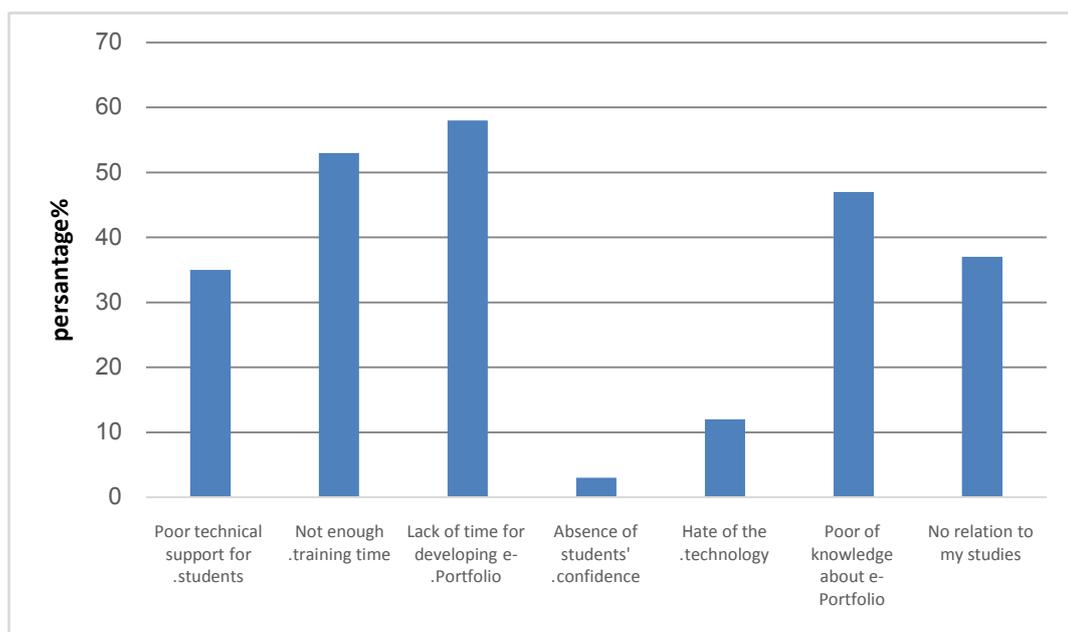

Chart 4: Obstacles faces using e-Portfolios in BTC

In addition, it was found that more time should be allocated for the e-Portfolio learning as the current allocated time from the students' perspective is not enough for most students to complete the activities needed to develop their e-Portfolio records, also students seemed not to have enough time outside the classroom to develop their e-Portfolios due to the heavy study load. This result agrees with the result of Qaddoumi, et al. (2018) in which they mentioned the importance of educators and decision-makers' role to deal with this obstacle related to time to ensuring efficient implementation for e-Portfolios.

Also, the results show that 34% selected poor knowledge about e-Portfolios, and 23% of respondents were unsure of the relation of e-Portfolios with their studies, and that sure be an obstacle to them because the students who are not aware of the reason for having e-portfolios are expected to be less motivated to develop their e-Portfolios records (Qaddoumi, et al., 2018).
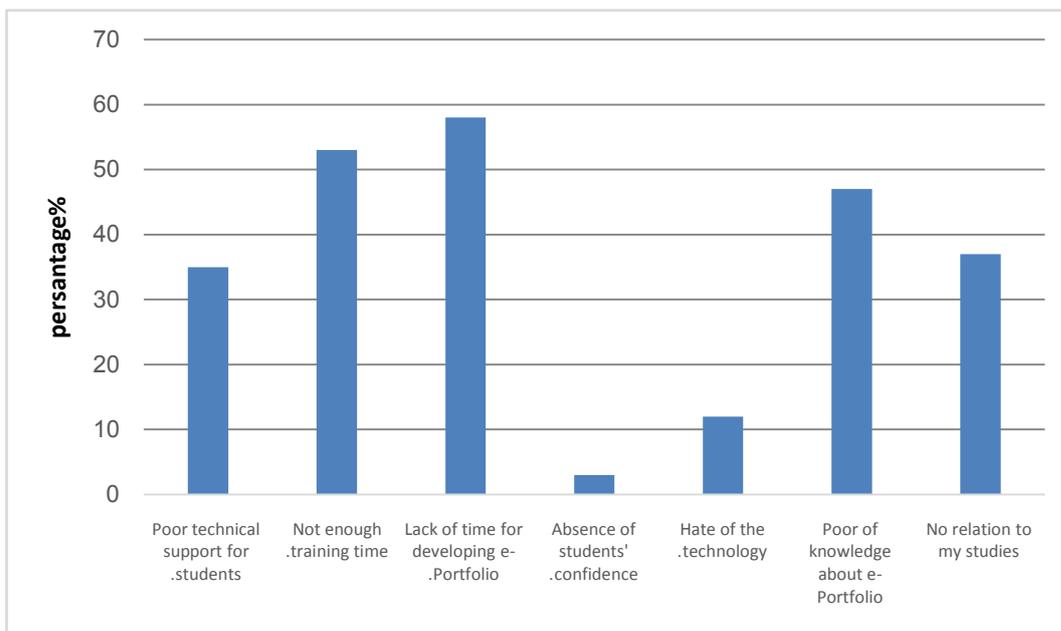
Therefore, spreading awareness of the importance of e-Portfolio will likely help students feel the value associated with their work and give efforts in developing their e-Portfolios. 30% of respondents have selected not enough training time as an obstacle that aligns with a study by Peacock, Gordon, Murray and Morss (2010) which mentioned that there are technical challenges that face the student and instructors when using e-Portfolio, and also goes with the results of the study by Qaddoumi, et al., (2018) who underlined that Technical training on how to use the e-Portfolio system seemed to be critical for students to create and develop their e-Portfolios.

Technical support (22%) was also considered an obstacle to using e-Portfolios. offering training programs on the technical aspect of e-Portfolio is one of the main pillars of implementing e-Portfolio in university courses (Qaddoumi, et al., 2018).

Results pertaining to the Second Question: Students' views towards the using e-Portfolio as a helper in their studies:

Students indicated to several benefits that they have gained from their learning experience while working on their e-Portfolios. Generally, they found that using e-Portfolios helped them in their study. Aspects of this help is detailed in Table1.

Table 1: Percentage of Aspects that help and support of e. portfolio in study

SN	statements	Disagree	Undecided	Agree
1	E-portfolio gives me a chance to evaluate my learning progress.	7	21.2	71.8
2	E-portfolio provides storage space for course work.	16	12.8	71.2
3	E-portfolio gives me a chance to access all coursework.	16.8	18.7	62.6
4	E-portfolio helps me to become an organized teacher.	27.1	12.9	51.6
5	E-portfolio allows me to reflect about my learning progress.	28.8	19.2	50.6
6	E-portfolio allows me to present examples of my work for the future career.	24.5	23.9	50.3
7	E-portfolio gives me a chance to access my assignment.	22.4	24.4	48.7
8	E-portfolio helps me become more confident in my learning process.	33.3	43.6	16

According to this table, the majority of students indicated that they found the e-Portfolio helped them with their study. This is found in the way that 71.2% of respondents agreed that e-Portfolio provided a place for storing course work and around 62.6% agreed that it gave them a chance to access their assignments and all course work items.

Furthermore, the respondents were largely in agreement that e-Portfolio gave them a chance to monitor their learning. 71.8% agreed that e-Portfolios allowed them to evaluate their learning processes, while 50.6% agreed that e-Portfolios allowed them to make a reflection on their learning. Over all, mainly half of the study sample (51.6%) agreed that e-Portfolios helped them to become an organized teacher. 50% agreed that e-Portfolio allowed them to present examples of their work to their future career.

Results pertaining to the third Question: Students' views towards their practices in using e-Portfolio as a tool for learning:

The survey also sought to acquire into how students viewed the practice of creating and using e-Portfolios. Table 2, shows that 60.2% of the respondents indicated that there are many advantages to e-Portfolio, and half of the respondents 50% stated that they enjoyed creating their e-Portfolios, but 41.7% indicated that e-Portfolios can be time-consuming. 42.9% agreed that they had a clear idea about e-Portfolio but the survey also revealed a level of uncertain about how to create and use an e-Portfolio, 53.2% of respondents were unsure about what to contain in their e-Portfolio, only 35.9% of respondents selected that they received technical support with their e-Portfolio and 44.9% disagreed. Also, 63.6% of respondents indicated that they did not receive training on managing their e-Portfolio.

About the effectiveness of e-Portfolio as learning tool, 43% of respondents found e-Portfolio to be effective in assessing their learning, while 37.2% disagreed. But more than half 55.2% felt that the e-Portfolio allowed them to produce better assignment submissions and 28.8% unsure of that.

Table 2: Percentage of Students Views about the Practice of Using E- portfolios

SN	statements	Disagree	Undecided	Agree
1	There are many advantages to the use of e-Portfolios.	16.7	23.1	60.2
2	The e-Portfolio allowed me to submit better assignment.	16	28.8	55.2
3	I love creating my e-Portfolio.	19.2	30.8	50
4	I may show my e-portfolio to future employment.	28.2	23.1	48.7
5	E-Portfolios assesses me effective learning.	37.2	19.8	43
6	I have a clear idea about e-Portfolio.	40.4	16.7	42.9
7	Using e-Portfolios is time consuming.	34	24.3	41.7
8	I receive a technical support with my e-Portfolio.	44.9	19.2	35.9
9	I may show my e-Portfolio to my classmates.	32.1	39.1	28.8
10	I get clear explanations on what to put in my e-Portfolio.	53.2	23.1	23.7
11	I have enough training on managing my e-Portfolio.	63.6	14.7	21.7

In conclusion, to maximize the benefits of e-Portfolios, students need to be trained and supported in the use of e-Portfolios. It is important that e-Portfolios are placed in the wider context of skills development and integrative learning when introduced to students as it indicated in the study by Eynon, Gambino and Török (2014), that will lead students to see the benefits of the e-Portfolio to their own context and are prepared to invest the time necessary to create and develop it (Abdul Razzak,2015).

Results pertaining to the fourth Question:Students' views towards useful support resources to practice e-Portfolio:

The results in Chart 5 show the useful support resources that may help in creating and developing e-Portfolio from students' perspectives.
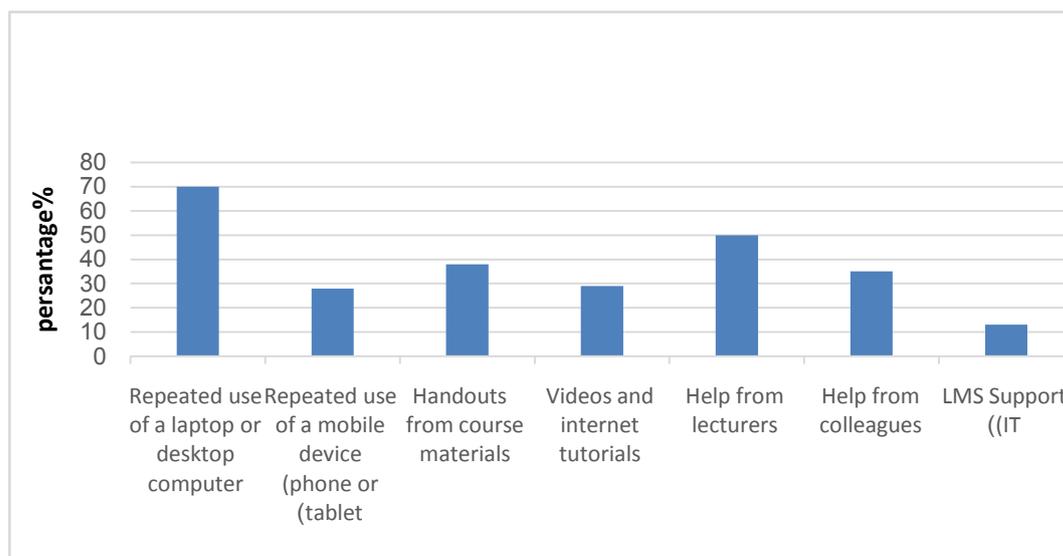
Chart 5: Support Resources for Making e-Portfolio

As shown in this chart, 45% of respondents considered the repeated use of laptops or desktop computers as important support that facilitated their learning when creating their e-portfolios, the researcher attributes this to the continuous using of laptops and desktop computers in their studies so this enhanced their abilities in using them, and that is aligned with what Roberts (2018) mentioned in his study; "the regular use may develop some habits around the creation of assets as well as assisting the students to see the value of the platform of their ongoing learning". Therefore, that can reinforce work in e-Portfolio (Exabis portfolio) by taking advantage of this feature and depend on continuous training and implementation. On the other hand, just 18% of the respondents considered repeated use of mobile or tablet as useful support resources during their learning when working on their e-Portfolio and that may because of the difficulty to create e-Portfolio by mobile or tablet, but these tools can help students monitor their e-Portfolio. 32% of the sample considered the help from lectures and handouts from course materials (30%) to be more useful than help from a colleague (22%), and internet-based tutorials (19%). The researcher attributes the results to the courses in BTC which familiarize the students with the e-Portfolio platform and allow them to upload their works and reflections practically and also to the study courses focusing in reflections and relate it with the BTC's nine competencies, which are: content knowledge; student development; diverse learners; instructional strategies; classroom management; assessment; using ICT; school community and engagement; and reflective practice, ethics, and professional growth.

Discussion:

Most students mentioned that they used e-Portfolio in the first year as it was required in courses, and in the last semester in the fourth year as graduation requirement just to present three courses which should cover the nine competencies as shown in chart 1. This may give messages to the students that they need the e-Portfolio just as a product to present their work in the fourth year in a graduation requirement, not as a self-assessment and self-directed learning. The lack of practice time provided and absence enough time to implementing e-Portfolio as shown in chart 4, leads students to face difficulties in using e-Portfolio to prepare presentations rather than concentrating on the content and the benefits of e-Portfolio which are in being able to collect and collate evidence from a number of sources over time, this aligns with study of (Roberts, 2018; Parker, Ndoye & Ritzhaupt, 2012; McAllister, Hallam & Harper, 2008; Beishuizen, Boxel, Banyard & Twiner, 2006) which mentioned that have identified the need for an integrated approach to e-portfolio implementation across whole programs rather than be introduced into individual units, so it should embed the e-Portfolio into courses from the first year with units (modules) that access it throughout the entire courses, and should be an integral part of all programs of study, not an add-on assessment.

As the result shown in figure 2, around 82% of students used e-Portfolio just (1-4) times which was more low expectation when comparing with courses been studied and should implement e-Portfolio in it as shown in figure 2, because the instructors accept submitting assignments and reflection writing through other platforms like Moodle or handover by paper, most of the students delayed using e-Portfolio (Exabis portfolio) to the last study course, and this is maybe the reason they have a lack of time spent in the platform which impacted on the interaction component and create integrated e-Portfolio, and that considers as an ineffective implementation of e-Portfolio and can't achieve the actual purpose of it.

So, they need to embed a sequence of tasks in e-Portfolio, that will afford them an opportunity to access the platform regularly, and as mentioned in a study by Roberts (2018), regular use may develop some habits around the creation of assets as we assisting the students to see the value of the platform for their ongoing learning.

As shown in chart 3, it is important to provide students with a clear purpose of using e-platform, if they know why they should do a task or what specific skills and knowledge they will gain through implementation they may be more engaged, and that agrees with the study by Abdul Razzak (2015) that indicated students and faculty's need to see the potential and strengths in Exabis e-Portfolio as a tool in comparison to other similar tools by showing the unique ways it can be used differently, in order to be willing to put in time and effort to learn to use. Much of the literature highlights the importance of discussion and sharing of ideas in the reflective process as Rogers (2001) mentioned it is one of the main parts to help to improve the learning process, and students recognize the importance of the feedback and reflective discussions, which is happening outside e-Portfolio (Exabis portfolio) through options such as face-to-face peer, e-mail, or social media.

The main potential of e-Portfolio (Exabis portfolio) as a web-based application is that it allows for the sharing of works and accomplishments with other users, this feature is not totally activated as indicated in study Abdul Razzak (2015), BTC need to activate the communication in Exabis portfolio so it can stands out as effective technology tool in comparison to other similar tools.

Finally, If the students are in the platform more often and it is becoming part of their study habits through the earlier design principles, simple changes to the format of the discussion and more seamless avenues for sharing ideas may improve the utilization of the e-Portfolio for the interactions associated with reflection. It is anticipated that the adoption of these design principles would lead to the improved use of the e-Portfolio platform as a learning environment. The additional use by students would also increase their confidence in the platform and its processes to allow them to focus more deeply on the content of their e-Portfolio entries (Roberts, 2018).

Conclusion & Recommendations:

Based on the results of this research project, a few crucial changes do need to be made in future iterations. The findings of this study have been used to form the following recommendations for educators, decision-makers, and students.

To be successful users of the e-Portfolio system students need to understand the rationale behind e-Portfolios, if they know why they should do a task, or what specific skills and knowledge they will gain through implementation they may be more engaged, and realize the impressive development when constructing and developing their e-Portfolios.

It should be sure to standardize the guidelines and practices in using e-Portfolio's platform to avoid confusion and needs to be integrated across the whole of the students' study to assist them to integrate the use of the platform into their study processes. E-Portfolios should be an integral part of all programs of study; not an "add-on" assessment (Parker, Ndoye, & Ritzhaupt, 2012), through continuous and simple tasks (learning by doing). The continuous in using e-Portfolio will give them the confident in using the platform for a multitude of purposes, they can then begin to focus more on the content of what is being added to the platform than the technicality of adding it to the e-Portfolio. It is anticipated that once the students become more confident and skillful in using e-Portfolio this will allow for more complex examples to be shown and additional activities to be added in terms of the depth and interaction.

The academic staff must be committed to the e-Portfolio process, they can customize the time to implement e-Portfolio from the time of the lecture, and be willing to give students regular and useful feedback on their work and reflections. More consideration need to be given to the format of the interaction, communication and who has access to, so this feature will make feedback more efficient and worthy, and help the students reproduce some of the discussion with their instructors or colleagues which is currently happening elsewhere. The consideration of these design principles in developing future iterations of e-Portfolio-based learning environments will improve students' reflection and further encourage them to work within these platforms to document their lifelong learning journey (Roberts, 2018).

Also, students need proper continuous technical training, e-Portfolio skills: collection, section, reflection, projection, and presentation (Danielson & Abrutyn, 1997), and resources to develop their e-Portfolios efficiently.

The academic staff needs to be encouraged to participate in e-Portfolio development (Qaddoumi, et al., 2018). Therefore, the study recommends researchers to further investigate by exploring the beliefs and attitudes of academic staff towards implementing e-portfolio. Also, the study recommends to further investigate about the quality of the students' works uploaded in e-portfolio, and the relations between the influence factors and its impacting degree in using e-Portfolio.

Suggestions for Future Research:

The main research limitation for this study could be its restriction in e-platform (Exabis portfolio) and only for fourth-year students. Therefore, the study recommends researchers to further investigate larger samples, use more variables and correlation coefficient. One of the suggestions for future research is exploring the faculty staff perceptions about using Exabis e-Portfolio platform as ICT learning tool.

References:

Abdul Razzak, N. L. (2015). An Evaluation of an Integrated E-Portfolio Model: The Case ofBahrain Teachers' College. *The 5th International E-Learning Conference: Cognitively Informed Technology*. Crowne Plaza Hotel-Manama-Bahrain: IEEE. Retrieved from
    https://www.researchgate.net/publication/283298506_An_Evaluation_of_an_Integrated_E-Portfolio_Model_The_Case_of_Bahrain_Teachers'_College

Barrett, H. C. (2000). Create Your Own Electronic Portfolio. *LEARNING AND LEADING WITH TECHNOLOGY, 27*(7), pp. 14-21. Retrieved from
    https://electronicportfolios.com/portfolios/LLwTApr00.pdf

Bates , T. (2010). New challenges for universities: Why they must change? In, D. Ehlers, & D Schneckernberg (Eds.). In *Changing Cultures in Higher Education,Moving Ahead to Future Learning* (pp. 15-25). Heidelberg: Springer. Retrieved from
    https://books.google.com.bh/books?id=3wVLnKCIGBsC&pg=PA15&lpg=PA15&dq=New+challenges+for+universities:+Why+they+must+change?+In,+D.+Ehlers,+%26+D+Schneckenberg+(Eds.).+Changing+cultures+in+higher+education.&source=bl&ots=F2CyoCKD6p&sig=ACfU3U3sPnej9QB-vOg

Batson, T. (2002). *The Electronic Portfolio Boom: What's it All About?* Retrieved from Campus Technology:
    https://campustechnology.com/articles/2002/11/the-electronic-portfolio-boom-whats-it-all-about.aspx

Beishuizen, J., Boxel, P. V., Banyard, P., & Twiner, A. (2006). The Introduction of Portfolios in Higher Education: a comparative study in the UK and the Netherlands. *European Journal of Education, 41*(34), pp. 491-508. Retrieved from
    https://www.researchgate.net/publication/229522654_The_Introduction_of_Portfolios_in_Higher_Education_a_comparative_study_in_the_UK_and_the_Netherlands

Boulton, H., & Hramiak, A. (2012). E-flection: the development of reflective communities of learning for trainee teachers through the use of shared online web logs. *Reflective Practice:International and Multidisciplinary Perspectives*, pp. 503-515. Retrieved from
    http://irep.ntu.ac.uk/id/eprint/5999/1/208137_PubSub1633_Boulton.pdf

Cheng, G. (2008). Implementation Challenges of the English Language ePortfolio System from Various Stakeholder Perspectives. *Journal of Educational Technology Systems, 37*(1), pp. 97-118. Retrieved from
    https://journals.sagepub.com/doi/abs/10.2190/ET.37.1.h?journalCode=etsa

Chou, C.-M. (2012). Influence of teachers' perceived e-portfolio acceptance on teacher evaluation effectiveness in Taiwan. *Australasian Journal of Educational Technology, 28*(4), pp. 719-739.

Danielson, C., & Abrutyn, L. (1997). *An introduction to using portfolios in the classroom.* Alexandria, Va, USA: Association for Supervision and Curriculum Development.

Eportfolio hub. (2016). Awareness and Usage of ePortfolios by Students in Higher Education in Ireland: Findings from a Student Survey. Retrieved on 23-7-2020 from
    http://eportfoliohub.ie/wp-content/uploads/2016/08/Survey-Students-Report_low.pdf

Eynon, B., Gambino, L., & Török, J. (2014). What Difference Can ePortfolio Make? A Field Report from the Connect to Learning Project. *International Journal of ePortfolio, 4*(1), pp. 95-114. Retrieved from
    http://www.theijep.com/pdf/IJEP127.pdf

Fitzpatrick, M., & Spiller , D. (2010). The teaching portfolio: institutional imperative or teacher's personal journey? *Higher Education Research & Development, 29*, pp. 167-178. Retrieved from
    https://www.researchgate.net/publication/233074641_The_teaching_portfolio_Institutional_imperative_or_teacher%27s_personal_journey

Garrett, N. (2011). An e-portfolio Design Supporting Ownership, Social Learning, and Ease of Use. *Educational*

Technology & Society, 14(1), pp. 187-202. Retrieved from
https://www.researchgate.net/publication/220374507_An_e-
portfolio_Design_Supporting_Ownership_Social_Learning_and_Ease_of_Use

Jenson, J., & Treuer, P. (2014). Defining the E-Portfolio: What It Is and Why It Matters. *Change: The Magazine of Higher Learning, 46*(2), pp. 50-57. Retrieved from
http://www.sc.edu/uscconnect/doc/Defining%20the%20E-Portfolio%20.pdf

Jisc. (2008). *Effective Practice with e-Portfolios Supporting 21st century learning.* Retrieved from
https://research.qut.edu.au/eportfolio/wp-
content/uploads/sites/186/2018/04/JISC_effective_practice_e-portfolios.pdf

Joyes, G., Gray, L., & Elizabeth, H.-Y. (2010). Effective practice with e-portfolios: How can the UK experience inform practice. *Australasian Journal of Educational Technology, 26*(1), pp. 15-27. Retrieved from
https://ajet.org.au/index.php/AJET/article/view/1099/354

McAllister, L., Hallam , G., & Harper, W. (2008). THE ePORTFOLIO AS A TOOL FOR LIFELONG LEARNING: CONTEXTUALISING AUSTRALIAN PRACTICE. *Paper presented at the International Lifelong Learning Conference*, (pp. 246-252). Yeppoon, Queensland, Australia. Retrieved from
https://www.academia.edu/4907779/THE_ePORTFOLIO_AS_A_TOOL_FOR_LIFELONG_LEAR
NING_CONTEXTUALISING_AUSTRALIAN_PRACTICE

Palak, D., & Walls, R. T. (2009). Teachers' Beliefs and Technology Practices. *Journal of Research on Technology in Education, 4*, pp. 417-441. Retrieved from https://files.eric.ed.gov/fulltext/EJ844274.pdf

Parker, M., Ndoye, A., & Ritzhaupt , A. (2012). Qualitative Analysis of Student Perceptions of E-Portfolios in a Teacher Education Program. *Journal of Digital Learning in Teacher Education, 28*(31), pp. 99-107. Retrieved from https://files.eric.ed.gov/fulltext/EJ972450.pdf

Peacock , S., Gordon, L., Murray, S., & Morss, K. (2010). Tutor response to implementing an ePortfolio to support learning and personal development in further and higher education institutions in Scotland. *British Journal of Educational Technology, 4*(5), pp. 827-851. Retrieved from
https://www.researchgate.net/publication/229589050_Tutor_response_to_implementing_an_ePortfolio
_to_support_learning_and_personal_development_in_further_and_higher_education_institutions_in_Sc
otland

Pianpeng, T., & Koraneekij, P. (2016). Development of a Model of Reflection Using Video Based on Gibbs's Cycle in Electronic Portfolio to Enhance Level of Reflective Thinking of Teacher Students. *International Journal of Social Science and Humanity, 6*(1), pp. 26-31. Retrieved from http://www.ijssh.org/vol6/612-
CH385.pdf1

Qaddoumi, M., Abuloum, A., & Alabbassi, M. (2018). Obstacles to Using e-Portfolio as Reported by University Students. *International Journal of Emerging Technology and Advanced Engineering, 8*(10), pp. 64-69. Retrieved from https://ijetae.com/files/Volume8Issue10/IJETAE_1018_10.pdf

Quinlan, K. M. (2002). Inside the peer review process: how academics review a. *Teaching and Teacher Education, 18*(8), pp. 1035-1049. Retrieved from
https://www.sciencedirect.com/science/article/abs/pii/S0742051X02000586?via%3Dihub

Rhodes, T. (2010). Making Learning Visible and Meaningful Through Electronic Portfolios. *Change: The Magazine of Higher Learning, 43*(1), pp. 6-13. Retrieved from
https://www.researchgate.net/publication/233113587_Making_Learning_Visible_and_Meaningful_Thro
ugh_Electronic_Portfolios

Roberts, P. (2018). Developing reflection through an ePortfolio-based learning environment: design principles for further implementation. *Technology, Pedagogy and Education, 27*(3), pp. 313-326. Retrieved from https://www.tandfonline.com/doi/full/10.1080/1475939X.2018.1447989

Rogers , R. (2001). Reflection in Higher Education: A Concept Analysis. *Innovative Higher Education, 26*, pp. 37-57. Retrieved from
https://www.researchgate.net/publication/226592839_Reflection_in_Higher_Education_A_Concept_A
nalysis

Sellami, H. M. (2017). Use of the ePortfolio by Adults in the Tunisian Continuous Education Context. *Africa Education Review, 14*(3), pp. 1-15. Retrieved from
https://www.researchgate.net/publication/318716070_Use_of_the_ePortfolio_by_Adults_in_the_Tunisi
an_Continuous_Education_Context

Trevitt, C., Macduff, A., & Steed, A. (2014). [e]portfolios for learning and as evidence of achievement: Scoping the academic practice development agenda ahead. *The Internet and Higher Education, 20*, pp. 69-78. Retrieved from https://www.sciencedirect.com/science/article/abs/pii/S1096751613000250

Wyk, M. V. (2017). Exploring Student Teachers' Views on ePortfolios as an Empowering Tool to Enhance Self-Directed Learning in an Online Teacher Education Course. *ustralian Journal of Teacher Education, 42*(6), pp. 1-21. Retrieved from https://files.eric.ed.gov/fulltext/EJ1146282.pdf

Yastibas, A. E., & Yastibas, G. C. (2015). The use of e-portfolio-based assessment to develop students' self-regulated learning in English language teaching. *Social and Behavioral Sciences, 176*, pp. 3-13. Retrieved from https://www.sciencedirect.com/science/article/pii/S1877042815004747