


International Journal of Learning, Teaching and Educational Research
Vol. 22, No. 10, pp. 231-246, October 2023
<https://doi.org/10.26803/ijlter.22.10.13>
Received Sep 5, 2023; Revised Oct 17, 2023; Accepted Oct 23, 2023

The Impact and Challenges of the Implementation of a High-Impact ePortfolio Practice on Graduate Students' Learning Experiences

Hawazen Alharbi 
King Abdulaziz University
Jeddah, Saudi Arabia

Abstract. This study examined the impact of implementing a high-impact ePortfolio practice on graduate students' learning experiences and the challenges they faced during the first year of an e-learning graduate program. The study employed a phenomenological approach to explore the participants' experiences in this innovative learning environment. Qualitative data were collected from 25 participants and analyzed using thematic analysis. Two main themes were identified: the impact and the challenges, and seven sub-themes emerged. This study found that the implementation of ePortfolios as high-impact practice (HIP) has a positive impact on students. The impact includes the development of students' skills, their sense of achievement, the ability to showcase their work, and making sense of their learning. However, the study also revealed the challenges students faced during the implementation process, which included the need for additional support, issues related to workload, and difficulties in writing up their reflections. The findings suggest that implementing ePortfolios as HIP has more positive impact on the students' sense of achievement and pride and enhances different skills. While the integration of ePortfolios has a significant impact for students, additional support and resources are necessary to address the associated challenges. Overall, this study has important implications for educators and institutions seeking to implement high-impact ePortfolio practices and highlights the need for continued research in this area.

Keywords: High-impact practices; ePortfolio; implementation; impact and challenges; graduate students' learning experiences

1. Introduction

There is an increased focus on applying high-impact practices (HIPs) in higher education (HE) to improve students' learning experiences and learning outcomes. HIPs have been proven to be very important tools for assessing and enhancing learning (Light et al., 2012). Additionally, there is a large emphasis in

Saudi Arabia on improving students' learning experiences to encourage creativity and innovation, along with preparing the students for the demands of the labor market (Vision 2030, 2016).

ePortfolios are one of the eleven HIPs named by the Association of American Colleges and Universities (AAC&U) and they have been used in HE to deepen student learning, motivate students to success and offer a high-quality learning experience (Finley & McConnell, 2022; Finley & McNair, 2013; Watson et al., 2016; Zilvinskis et al., 2023). Research has shown that creating excellent ePortfolios can advance a student's grades and performance, leading them to become self-directed learners, changing their perception of themselves as professionals and helping them to attain the necessary skills for the workplace (Eynon, Gambino & Török, 2014a; Hakel & Smith, 2009; Kahn, Freeman & Powell, 2021; Nino & Hicks, 2021; Ring et al., 2017). Weber and Myrick (2018) reported increases in student motivation, knowledge, and skills when introducing ePortfolios as an HIIP.

Despite research efforts and great emphasis on the application of HIPs in HE, the implementation of ePortfolios in institutions is not as common as it ought to be. According to the findings of a report by the AAC&U (2022, p. 23), "*ePortfolios lag in use by campuses compared with other high-impact practices, despite their utility for assessment, career development, and integration of learning*". Locally, there have been many attempts to study and examine the portfolio design and to apply ePortfolios in classrooms (Alajmi, 2019; Alharthi & Woollard, 2015; Alshahrani et al., 2019; El-Senousy, 2020). However, research on the use of ePortfolios as an HIP is limited (Alanazi & Bensalem, 2022).

In the E-Learning master's program offered at the Faculty of Education at a public university in Saudi Arabia, only a few instructors have unified their approach to using ePortfolios as one of the assessment and reflective tools in their courses. The implementation of ePortfolios has not been made mandatory, and each instructor has implemented the practice differently. In this research, the instructor/researcher implemented ePortfolios as an HIP in two different courses. These courses were offered over two semesters during the first year of the e-learning program for the same cohort of students. This research focuses on investigating the impact of the implementation of ePortfolios on the students' learning experiences. Furthermore, the research uncovers the challenges that students are likely to encounter when compiling ePortfolios. In line with the aim of the research, the following research questions were answered: 1) What is the impact of implementing a high-impact ePortfolio practice on students' learning experiences? and 2) What are the challenges that students encounter when designing ePortfolios?

2. Background

HIPs are "*an umbrella term referring to certain educationally effective activities associated with unusually positive benefits for the undergraduate students who participate in one or more of them*" (Kuh et al., 2018, p. 8). The concept first appeared in the literature a decade ago and it covers a range of practices including first-year seminars, intellectual experiences, learning communities, service learning,

writing-intensive courses, collaborative assignments and projects, undergraduate research, diversity/global learning, internships, and capstone courses and projects (Kuh, 2008). Later, ePortfolios were recognized as the 11th HIP (Watson et al., 2016).

In a survey conducted by the National Institute for Learning Outcomes Assessment (NILOA), 50 faculty members from different universities reported that their institutions are already implementing HIPs. Institutions understand the need to equip their students with the necessary skills to succeed in their studies and in the workplace. They also recognize that HIPs are evidence-based practices that stimulate student success and provide high-quality learning experiences (Zilvinskis et al., 2023). Many studies have indicated that using HIPs contributes to improving students' personal and academic growth (Kuh, 2008; Kinzie, 2012; Finley & McNair, 2013). Furthermore, HIPs are linked to positive and meaningful learning outcomes as they usually require hands-on and applied practices over a long time. When students participate in HIPs during their studies, they usually become very motivated to perform better and use proactively use their knowledge (Finley, 2011; Kuh et al., 2018; Valentine et al., 2021).

Many elements should be implemented when designing a learning experience as an HIP: 1) the expectations of students' performance should be set high; 2) students have to engage in a focused effort for a very long period; 3) the learning experience is expected to allow interaction between students, the faculty and other peers about the area being studied; 4) students are expected to be actively involved with diverse experiences and situations other than the ones they are usually familiar with; 5) students need to receive constructive feedback promptly; 6) students should be involved in real-world experiences; 7) students are expected to showcase their abilities and skills; and 8) reflective learning opportunities are expected (Kuh et al., 2018).

ePortfolios are more than just a display of artifacts. They are combinations of successful educational practices and processes that connect "*Reflective, integrative and social pedagogy*" (Kuh et al., 2018, p. 16). These practices produce an advanced collection of artifacts using multimedia, reflections, and digital storylines that express the students' journey during their studies (Kuh et al., 2018). Reflection in an ePortfolio can help students to manage their learning, assess their learning growth and make their learning visible (Flynn, 2022; Eynon & Gambino, 2023). Furthermore, reflections can stimulate the growth of students' intellectual and personal skills (Buyarski, 2014; Weber & Myrick, 2018).

The characteristics of high-impact ePortfolio practice are given below:

1. ePortfolios are central to the curricular design of the course, program, and university experience. To achieve the highest impact, ePortfolio integration should be apparent across the curriculum for the entire learning experience of the program. Students need to be fully involved in the process and they should understand the purpose of the ePortfolio from the beginning. Instructors should provide a clear outline of the process,

including the accepted artifacts to be included, as well as the rubric and timeline (Mueller & Bair, 2018; Richards-Schuster et al., 2014).

2. ePortfolio pedagogies support integrative, self-directed learning and the development of student identity. Students are encouraged to assess their learning and to look for points of connection between the courses and within each one of them so that they can recognize their learning and growth (Kahn et al., 2021).
3. ePortfolio-making skills are explicitly taught to students: students need to enhance their technical and intellectual skills when creating ePortfolios. They need extensive guidance and support on how to design and develop their ePortfolios and on writing the reflection as well (Slepcevic-Zach & Stock, 2018; Landis et al., 2015; Kahn et al., 2021). The ePortfolio assessment is holistic and aligned with learning processes and outcomes. Kahn et al. (2021, p. 13) explained that the *“ePortfolio assessment has all of the advantages of authentic assessment, with the additional advantages conferred by digital media”*.

In order for students to create effective ePortfolios, researchers suggest that they should follow these steps: 1) collect and organize the artifacts to be included; 2) select the artifacts that represent the students' growth and development; 3) reflect on how these artifacts show their learning progress; and then 4) connect ideas and interpret the learning experience (Mueller & Bair, 2018; Parkes et al., 2013; Richards-Schuster et al., 2014).

3. Context and Design

The researcher/instructor in this study implemented the ePortfolio as an HIP in two graduate courses for the same cohort of students during their first year of the program. The first course was offered during the first semester, while the second course was in the second semester of the 2021/2022 academic year. The students were asked to design a learning ePortfolio where they combined practices and processes. Elements of high-impact ePortfolio practices were employed to enhance each student's success and learning experiences in the following ways (Kuh et al., 2018):

1. Ownership: since the university does not have a platform for creating ePortfolios, the instructor provided instructions to the students on how to use different websites to design their ePortfolios. This step was challenging since there was no technical support available to the students but it allowed them to customize their portfolios in a way that they believed represented their identities. Students were allowed to add media and artifacts and to be as creative as they wanted, which created a sense of ownership among the students.

2. Making learning visible: the ePortfolio encouraged students to share their work with others as it displayed their artifacts, projects, and best work. This can make students feel proud of themselves. In this study, it was suggested that students should design their ePortfolios with a view to thinking how they were going to use it after it had been graded. Whether they wanted to use it as part of their CV, when applying for a doctoral degree, or as a reference for work, they had to design it with the result in mind.
3. Longitudinal capacity: since the ePortfolios were developed over two semesters, students' skills gradually developed. The ePortfolio required students to write up reflections which helped them to make connections between their previous experiences, new ideas, and the topics that they had studied during the program. Receiving frequent feedback from their instructor was one of the main elements in the integration of the ePortfolio. The students received feedback on each learning task and assignment and again when they implemented it into the ePortfolio. The instructor provided feedback on the design of the technology as well.
4. Identity development: many educational practices were employed during the writing reflections, group projects, assignments, and class presentations while the course was running; these enhanced students' abilities and helped them to develop their identities.

4. Methodology

4.1 Method

This research used a phenomenological method to understand the experience of the participants. According to Merriam (2002, p. 7), *"This form of inquiry is an attempt to deal with inner experiences unprobed in everyday life"*. Patton (1990, p. 70) explained that phenomenology is centered on, *"the assumption that there is an essence or essences to shared experience...the experiences of different people are bracketed, analyzed, and compared to identify the essences of the phenomena"*. Researchers who follow a phenomenological approach adopt a thoroughly descriptive method and focus on investigating the relationship between participants in the research and the situation they are in (Finlay, 2009). This research focuses on the lived experience of the participants and is underpinned by a thoroughly descriptive analysis to answer the research questions based on the collection of qualitative data.

4.2 Participants

Participants in this research were graduate students enrolled on the eLearning master's program in their first year of study. A total of 38 students were enrolled in the two courses which were the focus of this research. These two courses were taught by the same instructor/researcher and involved the design and development of ePortfolios. A questionnaire was sent to the 38 graduate students and (n=25) responses were received from students who agreed to participate in the research.

The participants had various backgrounds and employment statuses. Out of the 25 respondents to the questionnaire, 10 respondents were K-12 teachers, 5 were

working in school administrative positions, 1 was a school principal and there were 9 graduate students with no previous work experience, as shown in Table 1.

Table 1: Participants' Employment Status

Participants' Employment Status	No. of Participants	Percentage
K-12 Teachers	10	40%
School Administrators	5	20%
School Principal	1	4%
Full-Time Graduate Students	9	36%
Total	25	100%

4.3 Data Collection

The data were collected using an electronic questionnaire that allowed the respondents to provide consent anonymously. The questionnaire collected qualitative data and it consisted of twelve open-ended structured questions an example of which is given in Appendix 1. The questionnaire captured in depth the impact of using the ePortfolio as an HIP and how it influenced the students' learning experiences. It also aimed to capture students' perceptions and the challenges they encountered as they designed and developed their ePortfolios. To ensure the reliability and validity of the instrument (questionnaire), a pilot test was undertaken. The questionnaire was first sent to two faculty members, who are experts in the field, for feedback. Certain changes were then made due to their feedback. Then, the questionnaire was sent to a sample of 10 graduate students in the same eLearning program, but in a different cohort to the participants in this research. Ten responses were received and analyzed and minor corrections were made to the questionnaire (Creswell & Poth, 2017).

4.4 Analysis

Since the focus of phenomenological research is on the narrative evolving from the data, the researcher analyzed the data qualitatively using thematic analysis to identify emerging themes as this method is useful for investigating the perspectives of participants (King, 2004; Finlay, 2009). Nowell et al. (2017, p. 2) explained that "*Thematic analysis provides a highly flexible approach that can be modified for the needs of many studies, providing a rich and detailed, yet complex account of data*". In this research, thematic analysis was conducted via three levels of coding. The researcher used a selective method for the first level of coding to highlight phrases. Then, the researcher color-coded the phrases to compare and categorize them easily and to reduce the phrases (Creswell, 2012). The second level of coding was undertaken in order to categorize the themes and to count their frequency and calculate the distribution of perspectives in percentages (Cohen, Manion & Morrison, 2011). The third level of coding was completed to finalize the codes, report the findings, and insert direct quotes where applicable as this was an essential component of the final report (King, 2004). Finally, the researcher designed a table to explain the relationship between the themes and sub-themes. To ensure the internal and external reliability of the research, peer examination was used to review the analysis. The researcher also documented the research process (Creswell & Poth, 2017).

5. Results

In response to the research questions, the analysis revealed two themes and several sub-themes which related to the impact of the implementation and the challenges that the students faced during the design and development process for the high impact ePortfolio practice. The themes and sub-themes were organized as shown in Table 2:

Table 2: Themes and Sub-Themes of the Impact and Challenges of ePortfolio Implementation as an HIP

Topic	Themes	Sub-Theme	Frequency	Percentage
Impact	Skills	Digital Skills	7	28%
		Design Skills	5	20%
		Time Management and Organizational Skills	8	32%
		Research Skills	4	16%
		Sense of Achievement and Pride	18	72%
	Showcasing Work	23	92%	
	Making Sense of Learning	11	44%	
Challenges	Technical Challenges	10	40%	
	Workload	8	32%	
	Reflective Writing	6	24%	

5.1. Impact of the Implementation of the HIP

Four themes emerged regarding the students' perceptions of the impact of integrating ePortfolios as an HIP in their learning experience: 1) skills, 2) sense of achievement, 3) showcasing work, and 4) making sense of learning. There were sub-themes related to each of these four themes.

5.1.1 Skills

Under this theme, 96% of participants reported that there was an impact on their skills in different ways. Four sub-themes appeared in the analysis; participants reported an impact on: their digital skills, design skills, time management and organizational skills, and research skills. Table 2 reports the most frequently reported themes referred to by participants regarding the impact of ePortfolio implementation on their skills.

Participants reported that there was an obvious enhancement of their digital skills in general. They had to solve technical issues, look for solutions, navigate contents, pick the right technology and learn new technical skills. One participant noted that the end product (ePortfolio) offers "*Evidence of the competencies and digital skills acquired*".

Participants stated that implementing the ePortfolio as an HIP advanced their design skills. They developed their ePortfolios from scratch, created webpages and added different types of digital content. One participant stated, "*It helped a lot*".

in developing my design and coordination skills and in searching for solutions to any obstacle I encountered while designing it". Many participants reported that collecting and organizing the artifacts and writing the reflections took them longer than designing the ePortfolio. Another stated, *"In my point of view, it has developed my designing skills and organization and also helped to increase my motivation in making the ePortfolio to reflect on my efforts"*. Furthermore, many participants agreed that designing and creating their ePortfolio was not as hard as they expected. This could be a result of the students' previous knowledge of creating ePortfolios, their knowledge of designing websites, or due to the user-friendly websites that they used for the creation of their ePortfolios, as described.

The most reported effect of the ePortfolios in the data was the impact on students' organizational and time management skills as 32% of the participants agreed that creating ePortfolios requires excellent organizational and time management skills, especially as they have to choose and develop high-quality work to include in their ePortfolios, while meeting the deadline for each task. One participant stated, *"First thing it helped me in organizing my work, thoughts, and ideas and I don't deny that it enhanced my skills in general"*. Another participant asserted that, *"Designing the ePortfolio helped me to manage my time effectively and speed up tasks' completion time"*.

The participants also reported an enhancement in their research skills, as explained by one participant who stated, *"It developed definitely my research and technical skills"*.

5.1.2 Sense of Achievement and Pride

Under this theme, 72% of the participants reported that the creation of the ePortfolio gave them a sense of achievement and contributed to them feeling proud of these achievements as well as motivating them. They described how their ability to observe their own progress during the year and the advancement in their skills was eye opening. Sometimes it is hard to be aware of a small enhancement in one's abilities until it is documented. One participant explained, *"I think it is an excellent idea, as it was interesting for me to design and coordinate my ePortfolio and to see the achievements of a whole year displayed in it"*. Another participant emphasized:

It helped a lot and the benefit lies in seeing the achievements that were accomplished each course during the year...it also shows the extent of the development of my abilities and skills during the semesters through what has been accomplished. It is also considered an evaluation for student's work each semester.

The analysis demonstrated that many of the participants mentioned that the creation of the ePortfolios boosted their sense of pride and motivation. One participant explained: *"The design of the ePortfolio enables us to add our creative touches and to feel proud as we can have quick publishing of our work"*. Another participant stated, *"It was a creative and motivating experience to learn about developing an ePortfolio and developing creative design ideas"*.

5.1.3 Showcasing Work

There was evidence of an impact on the participants' ability to display their work. Overall, 92% of the participants reported that designing the ePortfolio had helped them to showcase their work and present it. One participant explained that the assignments, research and projects undertaken as part of their courses are usually forgotten about after they are finished and that the ePortfolio helped them with the collection and in displaying these artifacts. Additionally, 28% of the participants reported that they plan to use the ePortfolio as part of their CV because it represents their best work during their graduate classes. One participant continued:

It assists in presenting all the digital productions that took place during the master's program in an organized and arranged ePortfolio that shows the person's skills, competencies, and capabilities through what work a person wants to include – and I can also benefit from it by using it as a reference within the CV.

Another participant explained, *“It is useful as a reference and repository to remember what you have accomplished”*.

5.1.4 Making Sense of Learning

The participants explained how the process of designing the ePortfolios and writing reflections affected how they viewed their learning and their identity as learners. One participant reported, *“It made me change my thinking about my learning positively”*. Additionally, 44% of participants stated that the process of designing the portfolio, choosing the artifacts to include, thinking of the connections between courses, and writing the reflections made them think deeply about their learning. One participant stated, *“It gave me a clear vision of what I am taking (topics) and how I am going to use it”*. Another participant emphasized that the ePortfolio *“Enhanced my critical thinking and made me more focus[ed] and aware of what my learning outcomes are”*. Specifically, 20% of the participants described how they understood the topics they had studied more fully when they wrote their reflection and that this helped them make cross-course connections. One participant explained, *“Reflections helped me to know whether I achieved the objectives of the course and its required outputs. It also contributed to linking my previous knowledge and experiences with the new knowledge and skills that were acquired during courses”*. In this regard, one participant explained that she designed infographics to demonstrate connections between the topics studied during the year and then added them to her ePortfolio, even though it was not one of the requirements.

Additionally, 12% of participants reported that writing reflections helped them to recognize their weaknesses and strengths. One participant stated, *“Reflection is one of the most important factors in self-development, intellectually and professionally because when we recognize our deficiencies and weaknesses, we try to fix them. It helps also in identifying our areas of creativity so we reinforce them”*.

5.2 Challenges

Many participants reported varying challenges that they faced when designing their ePortfolios. However, 8 participants did not report any challenges. There were three main challenges reported: technical challenges, challenges related to workload, and challenges related to writing up the reflections.

5.2.1 Technical Challenges

The participants noted the need for some technical support, especially at the beginning of the design process. One stated, *"I needed training in using the website, knowledge of using design tools, page layout, and more"*. Although the instructor provided the students with supporting materials on how to use different design websites, many noted the need for further support in terms of choosing the right website for designing the ePortfolio and the need for training. One participant stated the need for advice in choosing a platform that supports the Arabic language. She further explained her need for support, *"on adding and coordinating the elements in the chosen platform"*. Another participant stated: *"I wish there were more workshops on how to design ePortfolios"*. She continued by explaining:

At first, I found it difficult to design, especially since it was my first time designing an ePortfolio. Then, after that, it became easy, especially after understanding the design instructions in the proposed site, the method of adding new sections, and uploading the required files.

5.2.2 Workload

Furthermore, the participants reported that the workload was high and it was time consuming, especially as they needed to keep adding elements and artifacts and writing up their reflections in the ePortfolios for the whole year. One participant who work full-time explained:

Time, as the program's demands and requirements along with my job, my children, and the number of achievements that I wanted to add to the ePortfolio in a certain format were taking lots of time...It is really important and worth the time, but we wish there was more room.

5.2.3 Reflective Writing

Finally, the participants reported that they had faced certain challenges when writing the reflection piece for the ePortfolio. Some stated that writing the reflections required them to dig deeper in their learning and make connections between topics which is difficult, and some stated that it was time-consuming. One explained, *"Writing the reflection is time-consuming and needs mental effort and I don't find time for it to enjoy the process of writing"*. Another participant noted that there was a correlation between the time taken to write up the reflections and the quality of the work:

Writing the reflection in the second semester was exhausting as the workload was heavier and it felt like a duty and it was written for the sake of the grades. Contrary to the first semester when I wrote the reflections... it varied in the writing styles, in citing and recalling positions, and in linking them to the topics of the course in a beautiful way.

6. Discussion

This study offers real evidence of the impact of ePortfolios on participants' learning experiences. The findings suggest that the implementation of ePortfolios as an HIP can have a significant impact on students in various areas, in terms of their skills, their sense of achievement and pride, showcasing their work and in making sense of their learning. This study revealed some challenges that the students faced during the implementation of this HIP, in relation to the workload, technical issues, and in writing up the reflections.

The majority of participants reported a positive impact on their digital skills, design skills, organizational and time management skills, and research skills. These findings are consistent with those of other research studies that have shown that ePortfolios can enhance students' skills (Al-Hidabi et al., 2020).

The creation of ePortfolios also had a positive impact on the participants' sense of achievement. The participants reported an increase in self-esteem and a sense of pride as they saw how far they had progressed in comparison to when they started the program. Some students reported that even though the ePortfolio was required for only two courses per semester, they uploaded all their course artifacts and projects to their ePortfolios during that year as they felt motivated to do so. This finding is consistent with other research studies that have shown the positive impact of ePortfolios on student motivation and sense of achievement (González-Mujico, 2020).

The findings indicate that the process of designing ePortfolios can be a useful tool for showcasing work and presenting it to potential employers. The results demonstrate that the participants reported that designing the ePortfolio helped them showcase their work as it required them to collect and display their artifacts. In agreement, one participant explained that the assignments, research, and projects completed as part of their courses are usually forgotten about after they are finished and that ePortfolios assist with the collection and display of these artifacts. Many participants reported that they will use their ePortfolio as part of their CV, as it represents their best work during their graduate program. This is consistent with the literature that indicates that ePortfolios can be used as evidence of qualifications and achievements for future employers (Kelly & Le Rossignol, 2022).

When participants reported that the implementation of ePortfolios as an HIP had helped them to make sense of their learning, this proved how effective this implementation was. This is an impact that institutions and faculty members hope that their students will achieve and it is aligned with Eynon and Gambino's (2023) explanation that students can regard the creation of ePortfolios as an inquiry into their own learning.

As has been proven in this study, there were certain challenges that students faced in the HIP implementation. Many reported technical challenges and a need for support in the design and development of their ePortfolio. This observation was present in the literature as it has been found that students and teachers both struggle with ePortfolio technology (Wijayaratne et al., 2023).

Students reported challenges in writing up their reflections. Some reported the need for enough time to work on their reflections as they had written a very in-depth piece during the first semester when the workload was less heavy but they couldn't make the same effort during the second semester as the workload was higher. Another student pointed out the need for guidance on how to start the writing and what to write. This issue was also discussed in the literature as many studies found that students needed some guidance on what to write in their reflections and how to reflect upon their work (Copland & Donaghue, 2019; Hall, 2023). An important implication of the current research is that students should be

provided with clear instruction and offered support on the technical aspects of the design and development of the ePortfolio. Furthermore, instructors should provide further guidance for students on writing the reflection.

One of the limitations of this research was related to the sample of students. Clearly, this research could be expanded to include different populations of graduate students and undergraduate students. Another limitation is that the research collected only qualitative data to understand the students' perspectives and the lack of quantitative data could be a disadvantage.

7. Conclusion

In conclusion, this study sheds light on the perceptions of graduate students regarding the implementation of a high-impact ePortfolio practice during their first year of study. The findings provide evidence that the integration of ePortfolios as an HIP has a positive impact on the students in various ways including the development of skills, a sense of achievement, the ability to showcase their work, and an enhanced understanding of their learning experience. These results are in line with the previous research that has indicated the benefits of ePortfolios as a high-impact educational practice. However, this study also highlights some of the challenges that the students faced during the implementation of the high-impact ePortfolio practice. These challenges include the need for additional support, issues related to workload, and difficulties when writing up reflections. These findings suggest that while the integration of ePortfolios can have significant benefits for students, it is important to address the challenges that may arise during their implementation. Overall, the findings of this study offer important implications for educators and institutions seeking to implement high-impact ePortfolio practices. By providing support and resources to students, such as training on how to create effective reflections and managing their workload, educators can help students overcome any challenges and fully realize the benefits of ePortfolios as a high-impact educational practice. Furthermore, our study highlights the need for continued research on the implementation and impact of ePortfolios as a high-impact educational practice to further enhance students' learning experiences.

8. References

- Alajmi, M. A. 2019. The impact of E-portfolio use on the development of professional standards and life skills of students in the faculty of Education at Princess Noura Bint Abdul Rahman University, *Entrepreneurship and Sustainability Issues* 6(4) 1714-1735. [https://doi.org/10.9770/jesi.2019.6.4\(12\)](https://doi.org/10.9770/jesi.2019.6.4(12))
- Alanazi, S. M., & Bensalem, E. (2022). Undergraduate research EFL students' experiences in building ePortfolios. *Multidisciplinary Journal for Education, Social and Technological Sciences*, 9(2), 1-22. <https://doi.org/10.4995/muse.2022.17167>
- AlHarthi, E., & Woollard, J. (2015). Teacher evaluation in Saudi schools: The use of e-Portfolio. *INTED2015 Proceedings* (pp.1782-1788). <https://library.iated.org/view/ALHARTHI2015TEA>
- Al-Hidabi, D. A., Kabilan, M. K., & Shakfa, M. D. (2020). Benefits and challenges in utilizing e-Portfolio among UCAS students' EFL classes in Palestine. *BirLE Journal*, 3(1), 523-530. <https://bircu-journal.com/index.php/birle/article/view/681>
- Alshahrani, S. M., Mohamed, H., Mukhtar, M., Mokhtar, U. A. (2020). Factors influence the intention to use e-Portfolio in Saudi Technical and Vocational Training

- Corporation (TVTC) sector: Pilot review. In: Saeed, F., Mohammed, F., Gazem, N. (eds) Emerging trends in intelligent computing and informatics. *IRICT 2019. Advances in Intelligent Systems and Computing*, vol 1073. Springer, Cham. https://doi.org/10.1007/978-3-030-33582-3_95
- Buyarski, C. (2014). Reflection in the first year: A foundation for identity and meaning making. *Catalyst for Learning: ePortfolio Resources and Research*. <http://iupui.mcnrc.org/ref-practice/>
- Cohen, L., Manion, L., & Morrison, K. (2011). *Research Methods in Education*. (7th ed.). Routledge. <https://doi.org/10.4324/9781315456539>
- Copland, F., & Donaghue, H. (2019). Post observation feedback. In *The Routledge Handbook of English Language Teacher Education*, edited by S. Walsh, and S. Mann, 402–416. Routledge. <https://doi.org/10.4324/9781315659824-32>
- Creswell, J. W. (2012). *Educational Research: Planning, Conducting and Evaluating Quantitative and Qualitative Research*. (6th ed.). Pearson Education.
- Creswell, J.W., & Poth, C.N. (2017). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). SAGE Publications.
- El-Senousy, H. (2020). E-portfolio to assess the 21 st century skills of students in smart e-learning environment. *International Journal for Quality Assurance*, 3(1). https://ijqa.zu.edu.jo/eng/images/stories/year2019/07/Vol3_no1/133.pdf
- Eynon, B., & Gambino, L. M. (2023). *High-Impact ePortfolio Practice: A Catalyst for Student, Faculty, and Institutional Learning*. Taylor & Francis. <https://doi.org/10.4324/9781003445098-3>
- Eynon, B., Gambino, L. M., & Török, J. (2014a). Reflection, integration, and ePortfolio pedagogy. *SUNY Academic Work*. https://academicworks.cuny.edu/cgi/viewcontent.cgi?article=1026&context=n_c_pubs
- Eynon, B., Gambino, L. M., & Török, J. (2014b). What difference can ePortfolio make? A field report from the connect to learning project. *International Journal of ePortfolio*, 4(1), 95-114. <https://files.eric.ed.gov/fulltext/EJ1107844.pdf>
- Finley, A. (2011). Assessment of high-impact practices: using findings to drive change in the compass project. *Peer Review*, 13(2), 29. <https://link.gale.com/apps/doc/A264095054/AONE?u=anon~c28a9df3&sid=googleScholar&xid=a2c2c37f>
- Finley, A., & McConnell, K. D. (2022). On the same page? Administrator and faculty views on what shapes college learning and student success. *American Association of Colleges and Universities*. <https://files.eric.ed.gov/fulltext/ED625904.pdf>
- Finley, A., & McNair, T. (2013). Assessing underserved students' engagement in high impact practices. Washington, DC: *Association of American Colleges and Universities*. <http://hdl.handle.net/10919/87004>
- Finlay, L. (2012). Debating phenomenological methods. In *Hermeneutic Phenomenology in Education* (pp. 15-37). Brill.
- Flynn, C. O. (2022). Reflections on an e-portfolio assessment in a first-year physiology course. *Biomed Eng Education*, 2(1), 61–67. <https://doi.org/10.1007/s43683-021-00058-9>
- Gonzalez-Mujico, F. (2020). The impact of ePortfolio implementation on motivation, self-regulation and academic language development: The learners' and the teachers' perspectives. *The Asian ESP Journal*, 16(3), 209-42. https://researchmap.jp/Bolstad/published_papers/30562037/attachment_file.pdf#page=209

- Hakel, M. D., & Smith, E. N. (2009). Documenting the outcomes of learning. *In Electronic Portfolios 2.0* (pp. 133-135). Routledge. <https://doi.org/10.4324/9781003444428-20>
- Hall, J. M. (2023). Eportfolio post tagging for student-teacher development. *Innovation in Language Learning and Teaching*, 1-13. <https://doi.org/10.1080/17501229.2022.2096034>
- Kahn, S., Freeman, T., & Powell, A. A. (2021, November). *IUPUI's HIP taxonomy for ePortfolio: A tool for development, implementation, and scaling* (Occasional Paper No. 57). Urbana, IL: University of Illinois and Indiana University, National Institute for Learning Outcomes Assessment (NILOA). <https://hdl.handle.net/1805/27849>
- Kelly, M., & Le Rossignol, K. (2022). Professional transitions: The eportfolio as a curated digital narrative. *Industry and Higher Education*, 36(6), 784-794. <https://doi.org/10.1177/0950422221127565>
- King, N. (2004). Using templates in the thematic analysis of text. In C. Cassell & G. Symon (Eds.), *Essential Guide to Qualitative Methods in Organizational Research* (pp. 257-270). Sage. <https://doi.org/10.4135/9781446280119.n21>
- Kinzie, J. (2012). High-impact practices: Promoting participation for all students. *Diversity & Democracy*, 15(3). https://dgm81phvh63.cloudfront.net/content/user-photos/Publications/Archives/Diversity-Democracy/DD_15-3_FA12.pdf
- Kuh, G. D. (2008). High-impact educational practices: What they are, who has access to them, and why they matter. *Association of American Colleges and Universities*, 14(3), 28-29. <https://www.aacu.org/publication/high-impact-educational-practices-what-they-are-who-has-access-to-them-and-why-they-matter>
- Kuh, G. D., Gambino, L. M., Bresciani Ludvik, M., & O'Donnell, K. (2018, February). *Using ePortfolio to document and deepen the impact of HIPs on learning dispositions* (Occasional Paper No. 32). Urbana, IL: University of Illinois and Indiana University, National Institute for Learning Outcomes Assessment (NILOA). <http://learningoutcomesassessment.org/occasionalpaperthirtytwo.html>
- Light, T. P., Chen, H. L., & Ittelson, J. C. (2011). *Documenting Learning with ePortfolios: A Guide for College Instructors*. John Wiley & Sons. <https://doi.org/10.1353/rhe.2013.0071>
- Merriam, S. B. (2002). *Introduction to Qualitative Research. Qualitative Research in Practice: Examples for Discussion and Analysis*, 1(1), 1-17. Jossey-Bass. <https://doi.org/10.1353/csd.2003.0041>
- Mueller, R. A., & Bair, H. (2018). Deconstructing the notion of eportfolio as a high impact practice: A self-study and comparative analysis. *The Canadian Journal for the Scholarship of Teaching and Learning*, 9(3). <https://doi.org/10.5206/cjsotl-rceca.2018.3.6>
- Nino, M. M., & Hicks, S. (2021). The 6A eportfolio model: Professionalizing learning in higher education. *International Journal of ePortfolio*, 11(2), 95-107. <https://files.eric.ed.gov/fulltext/EJ1339609.pdf>
- Parkes, K. A., Dredger, K. S., & Hicks, D. (2013). ePortfolio as a measure of reflective practice. *International Journal of ePortfolio*, 3(2), 99-115. <http://www.theijep.com/pdf/ijep110.pdf>
- Patton, M. Q. (1990). *Qualitative Evaluation and Research Methods*. SAGE Publications, inc.
- Richards-Schuster, K., Ruffolo, M. C., Nicoll, K. L., Distelrath, C., & Galura, J. A. (2014). Using e-portfolios to assess program goals, integrative learning, and civic engagement: A case example. *International Journal of ePortfolio*, 4(2), 133-141. <https://files.eric.ed.gov/fulltext/EJ1107851.pdf>

- Ring, G. L., Waugaman, C., & Brackett, B. (2017). The value of career eportfolios on job applicant performance: Using data to determine effectiveness. *International Journal of ePortfolio*, 7(2), 225-236. <https://files.eric.ed.gov/fulltext/EJ1159904.pdf>
- Segaran, M. K., & Hasim, Z. (2021). Self-regulated learning through eportfolio: A meta analysis. *Malaysian Journal of Learning and Instruction*, 18(1), 131-156. <https://doi.org/10.32890/mjli2021.18.1.6>
- Slepcevic-Zach, P., & Stock, M. (2018). ePortfolio as a tool for reflection and self-reflection. *Reflective Practice*, 19(3), 291-307. <https://doi.org/10.1080/14623943.2018.1437399>
- Valentine, J., Price, D., & Yang, H. (2021). High-impact practices and gains in student learning: Evidence from Georgia, Montana, and Wisconsin. Lumina Issue Paper, Lumina Foundation. <https://eric.ed.gov/?id=ED611259>
- Vision 2030. (2016). *The Vision Realization Programs*. <https://www.vision2030.gov.sa/>
- Watson, C. E., Kuh, G. D., Rhodes, T., Penny Light, T., & Chen, H. (2016). Editorial: eportfolios – The eleventh high impact practice. *International Journal of ePortfolio*, 6(2), 65–69. <http://www.theijep.com>
- Weber, K., & Myrick, K. (2018). Reflecting on reflecting: Summer undergraduate research students' experiences in developing electronic portfolios, a meta-high impact practice. *International Journal of ePortfolio*, 8(1), 13-25. <https://files.eric.ed.gov/fulltext/EJ1177614.pdf>
- Wijayaratne, K., Fernando, P. R. M. K., Ragel, R., & Mudiyanse, R. (2023). Readiness to expand smart learning via eportfolio; Perception of teachers and students in a higher education institute. In *international conference on smart learning environments* (pp. 148-151). Singapore. https://doi.org/10.1007/978-981-99-5961-7_16
- Zilvinskis, J., Kinzie, J., Daday, J., O'Donnell, K., & Zande, C. V. (Eds.). (2023). *Delivering on the Promise of High-Impact Practices: Research and Models for Achieving Equity, Fidelity, Impact, and Scale*. Taylor & Francis. <https://doi.org/10.4324/9781003444022>

Appendix 1

1. What is the best way to describe your job and position?
2. Have you ever designed ePortfolios before this time?
3. How would you describe your experience in creating ePortfolios (technical-wise)?
4. What were the challenges facing you in creating the ePortfolios?
5. How long did it take to create your ePortfolio at the beginning of the year and how long did it take you to edit it the second time at the end of the year?
6. How do you think that the implementation of the ePortfolios as a HIP helped/didn't help to enhance your skills?
7. How do you think that your ePortfolio could benefit you in the future and after you graduate from this program?
8. Do you think that you will keep developing your ePortfolio even after you graduate from this program? explain
9. How do you think that writing reflections in the courses changed your way of thinking about your education?
10. What is the best element in creating an ePortfolio?
11. What is the hardest element in creating an ePortfolio?
12. Would you implement this method to assess your students' progress?