

Extent of Awareness of Pre-Service Teachers in the Development of E-Portfolio

Joy B. Cabaltea^{1*}, Wynona Jade F. Cabingan¹, Andrea B. Agnes¹, Jean Louise A. Merenciano¹, Ronilo Jr. T. Bruzola¹, Lialanie S. Bellere¹, Archie A. Perpetua¹

College of Education, Central Bicol State University of Agriculture, Sipocot, Philippines

***Corresponding Author**

DOI: <https://doi.org/10.47772/IJRISS.2025.91200263>

Received: 18 December 2025; Accepted: 24 December 2025; Published: 15 January 2026

ABSTRACT

The increasing integration of digital technologies in teacher education has positioned the e-portfolio as a key tool for documenting learning, fostering reflection, and supporting professional identity formation among pre-service teachers (PSTs). Despite its growing adoption, limited local evidence exists on PSTs' awareness of e-portfolio concepts, purposes, components, and related digital applications, particularly within Field Study courses in Philippine teacher education institutions. This study employed a quantitative descriptive-evaluative research design to determine the extent of awareness of fourth-year PSTs at Central Bicol State University of Agriculture–Sipocot during the first semester of AY 2025–2026. Sixty respondents were selected through random sampling across majors. Data were gathered using a researcher-made, expert-validated questionnaire covering four dimensions: concept, purpose, components, and digital awareness of e-portfolios. Reliability analysis yielded excellent internal consistency (overall Cronbach's $\alpha = 0.957$). Data were analyzed using weighted mean, average weighted mean, standard deviation, and ranking techniques. Results revealed a generally high level of awareness among PSTs. Strong awareness was observed in the concept and purpose of e-portfolios, particularly their role in digital literacy, self-assessment, reflection, and employability. Awareness of components and digital applications was rated at an "agree" level, indicating adequate but comparatively lower confidence in structuring content and consistently showcasing skills. Among all dimensions, digital awareness ranked highest, while conceptual understanding ranked lowest. PSTs demonstrate strong readiness to engage with e-portfolios, supported by adequate digital awareness, though foundational conceptual clarity and structural competence require strengthening. Findings suggest the need for targeted institutional support, explicit instruction, and scaffolded integration of e-portfolio development to enhance reflective practice, digital literacy, and professional preparedness in teacher education programs.

Keywords: extent of awareness, pre-service teachers, e-portfolio

INTRODUCTION

The rapid integration of digital technology in education has significantly reshaped how learners acquire knowledge, communicate, and demonstrate their competencies. Among these innovations, the electronic portfolio, or e-portfolio, has emerged as a dynamic platform for showcasing learning outcomes and professional growth. As defined by Babaee et al. (2021), an e-portfolio is a digital collection of a learner's academic and professional outputs—such as text, graphics, audio, and video—that allows users to organize and present evidence of learning through an interactive and reflective medium.

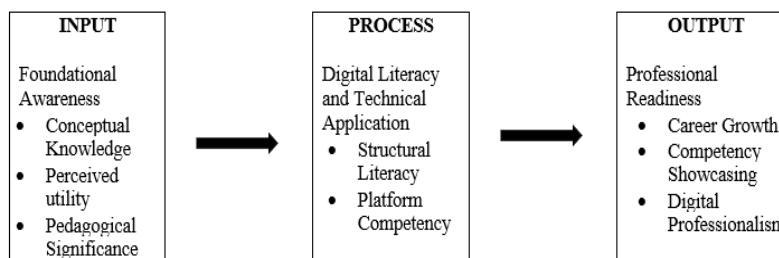
In teacher education, the e-portfolio serves not only as a tool for documentation but also as an instrument for reflection, assessment, and lifelong learning. Babaee et al. (2021) emphasize that crafting an e-portfolio enables pre-service teachers (PSTs) to assemble evidence of their competencies aligned with professional standards, supporting both self-evaluation and employability. Similarly, Barrette (2020) noted that e-portfolios enhance reflective practice, helping PSTs connect theory to actual classroom experience. The relevance of this tool is further rooted in constructivist and reflective practice theories, which highlight that meaningful learning occurs when students actively construct understanding through reflection and synthesis of their experiences

(Jonassen, 1999; Schön, 1983). From this perspective, e-portfolio creation is not merely a technical task but a reflective learning process that deepens professional identity formation. This study frames pre-service teachers' awareness of e-portfolio use as a multidimensional construct involving their understanding of its pedagogical function, its role in professional development, and its structural elements. Awareness encompasses familiarity with the concept of e-portfolios, insight into their purpose for reflection and assessment, and recognition of key components such as artifacts, narratives, and evidence of practice. This framework guides the examination of how PSTs engage with e-portfolios as tools for learning and identity formation. These dimensions align with the framework of digital literacy, which involves not only technical proficiency but also critical understanding and creative application of digital tools in educational settings (Spante et al., 2018; Ng, 2012). Studies have shown that higher levels of digital literacy promote stronger engagement with technology-based learning tools such as e-portfolios (Hadullo et al., 2018; Nguyen & Ikeda, 2015)

Empirical findings worldwide demonstrate varying levels of awareness and proficiency among PSTs. For instance, Lin (2020) found that while PSTs recognized the benefits of e-portfolios for self-reflection, many lacked confidence in digital design and technical execution. Similarly, Alawdat and Hazaimeh (2022) observed moderate awareness among Jordanian PSTs, emphasizing the role of institutional training in fostering competence. In contrast, Maher and Gerbic (2021) reported high awareness and frequent utilization among Australian PSTs, where e-portfolio creation was systematically integrated into teacher education programs. These mixed results indicate that while the global relevance of e-portfolios is established, levels of awareness and competence vary depending on institutional context and support systems. Despite the growing body of international research on e-portfolio adoption and teacher education, limited evidence exists on how pre-service teachers in local institutions in Bicol such as Central Bicol State University of Agriculture perceived and engaged with this digital tool. In the Philippine context, there remains a scarcity of studies examining PSTs' awareness of e-portfolios—particularly in terms of their concept, purpose, and components—within the framework of Field Study courses that bridge theoretical and practical learning.

The theoretical framework exploring the connection between awareness, digital literacy, and professional readiness within the context of e-portfolio integration posits a multi-stage developmental trajectory that transitions from conceptual understanding to career-ready application. At the foundational level, awareness serves as the primary cognitive and affective driver, encompassing both a student's understanding of the e-portfolio definition and their recognition of its pedagogical significance. While students often demonstrate high agreement regarding the theoretical importance of e-portfolios—perceiving them as vital for reflective learning—this conceptual clarity does not inherently equate to technical proficiency. This discrepancy creates a significant "theory-to-practice" gap, where a learner may fully value the potential outcomes of a digital portfolio while lacking the specific procedural knowledge required for its successful execution.

Figure 1. Conceptual model of the relationship between awareness, digital literacy, and professional readiness within the context of e-portfolio integration



The intermediary stage of this framework is defined by digital literacy, which serves as the essential technical bridge between abstract knowledge and professional output. This dimension comprises digital awareness—the ability to identify and utilize specific platforms such as Google Sites or Canva—and component proficiency, which involves the sophisticated organization of multimedia artifacts and reflective narratives. Statistical evidence reveals a robust correlation between these two technical areas, suggesting that as a student's familiarity with digital tools grows, their ability to structure a well-organized e-portfolio increases commensurately. However, the negligible correlation between foundational awareness and digital literacy highlights a critical instructional bottleneck: the belief in a tool's importance does not spontaneously generate the skill required to operate it.

The professional readiness emerges as the synthesized behavioral outcome of the framework, representing the point where internal awareness and external technical skill converge to create a market-ready professional identity. In this final stage, the e-portfolio transcends its role as a mere digital archive and becomes a dynamic instrument for career construction and competency showcasing. Readiness is characterized not only by the completion of a digital product but by the student's ability to maintain academic honesty, navigate privacy settings, and continuously update their work to reflect professional growth. This framework posits that professional readiness is only achievable when instructional design moves beyond simply motivating the student through awareness and focuses on the rigorous development of digital literacy as the primary engine for professional transition.

At CBSUA–Sipocot, fourth-year education students undertake Field Study 1 for classroom observation and Field Study 2 for teaching assistantship. These field experiences enable PSTs to apply pedagogical knowledge in real educational settings, culminating in the submission of an e-portfolio as part of their course requirements. However, the effectiveness of this output largely depends on the students' awareness, understanding, and perceived competence in using digital tools. This study determined the extent of awareness of pre-service teachers on crafting e-portfolios. Specifically, it aimed to assess their level of awareness in terms of the concept, purpose, and components of an e-portfolio. In addition, the study sought to evaluate pre-service teachers' knowledge of the digital applications appropriate for developing e-portfolios, as well as their extent of awareness regarding the utilization of these applications. By identifying these dimensions, the study addressed the existing research gap and provided insights that could guide teacher education institutions in enhancing digital literacy, reflective practice, and professional preparedness among future educators.

MATERIALS AND METHODS

This study utilized a quantitative research design employed through the descriptive-evaluative method of research. The descriptive-evaluative method was used to determine the extent of awareness of pre-service teachers (PSTs) in crafting e-portfolios in terms of concept, purpose, and components. It focused on identifying the level of understanding among PSTs regarding the pedagogical function, relevance, and structural elements of e-portfolios as part of their Field Study courses.

The respondents of this study were fourth-year education students enrolled in Field Study 1 and Field Study 2 at Central Bicol State University of Agriculture – Sipocot during the First Semester of Academic Year 2025–2026. A total of 60 PSTs were selected through random sampling, with 10 students randomly chosen from each major to ensure balanced representation.

This study used a researcher-made survey questionnaire as the primary data-gathering instrument. The questionnaire face validation was conducted by experts to ensure accuracy of the indicators and was structured around three dimensions: conceptual understanding, purpose, and components of e-portfolios. Each item was rated using a four-point Likert scale, ranging from Strongly Disagree (1) to Strongly Agree (4). Prior to administration, participants were informed of the purpose of the study and assured that their participation was voluntary and that they were not compelled to answer the survey questionnaire.

The reliability analysis of the instrument was conducted using Cronbach's Alpha to determine the internal consistency of each scale. The results showed that the sections measuring Concept of e-Portfolio achieved an $\alpha = 0.817$ indicating good internal consistency. The sections measuring Purpose of e-Portfolio produced an $\alpha = 0.825$ which also reflects good reliability. The Components of e-Portfolio subscale yielded $\alpha = 0.838$ demonstrating good reliability for this set of items. The Digital Awareness section produced an $\alpha = 0.829$, all demonstrating good internal consistency, signifying that the items in each section reliably assess their corresponding constructs. Furthermore, the overall instrument achieved a Cronbach's Alpha of 0.957, which is categorized as excellent reliability. This indicates that the complete scale is characterized by a high level of consistency and is appropriate for assessing the intended variables.

The data gathered were analyzed using statistical tools such as Weighted Mean, Average Weighted Mean (AWM), standard deviation, and Ranking Technique to describe and interpret the extent of awareness of pre-service teachers in crafting e-portfolios.

RESULTS

This section presents the findings of the study conducted among 60 pre-service teachers at CBSUA–Sipocot Campus during the Academic Year 2025–2026. The study examines the respondents' level of awareness regarding e-portfolios, specifically in terms of their conceptual understanding, purposes, and key components. Furthermore, it assesses the pre-service teachers' knowledge of digital applications suitable for e-portfolio development and evaluates the extent of their awareness in utilizing these digital tools effectively.

Table 1. Extent of awareness of the pre-service teachers in the concept of E-Portfolio.

Concept of E-Portfolio	Mean	SD	Rank	Interpretation
I understand what an e-portfolio is.	3.82	0.39	6.5	Strongly Agree
I am aware that an e-portfolio is a digital collection of academic and professional outputs.	3.90	0.35	2	Strongly Agree
I recognize the pedagogical significance of using e-portfolios in teacher education.	3.68	0.47	10	Strongly Agree
I know that e-portfolios support reflective learning and professional growth.	3.82	0.43	6.5	Strongly Agree
I can distinguish between traditional portfolios and e-portfolios.	3.83	0.42	5	Strongly Agree
I understand that e-portfolios promote digital literacy and technological proficiency.	3.92	0.28	1	Strongly Agree
I am aware that e-portfolios include multimedia elements (text, video, audio) to enhance communication of ideas.	3.80	0.40	8	Strongly Agree
I understand that e-portfolios are stored online and accessible from anywhere.	3.86	0.35	3	Strongly Agree
I know e-portfolios allow me to choose who sees my work, like teachers or classmates.	3.85	0.36	4	Strongly Agree
I know that e-portfolios are dynamic and can be updated continuously.	3.77	0.43	9	Strongly Agree

Mean Score Range	Verbal Interpretation
1.00 - 1.75	Strongly Disagree
1.76 - 2.50	Disagree
2.51 - 3.25	Agree
3.26 - 4.00	Strongly Agree

This table presents the students' level of awareness of the concept of e-portfolio, with an overall mean ranging from 3.68 to 3.92, all interpreted as Strongly Agree, indicating a high level of conceptual awareness among the respondents. The highest-rated indicator was the understanding that e-portfolios promote digital literacy and technological proficiency ($M=3.92$, $SD=0.28$), ranking first, which indicates that PSTs strongly recognize the role of e-portfolios in developing essential digital skills. This was followed by awareness that e-portfolios are a digital collection of academic and professional outputs ($M=3.90$, $SD=0.35$), and that they are stored online and accessible from anywhere ($M=3.86$, $SD=0.35$), highlighting students' clear understanding of the fundamental nature, and accessibility of e-portfolios.

Table 2. Extent of awareness of the pre-service teachers in the purpose of e-portfolio

Purpose of E-Portfolio	Mean	SD	Rank	Interpretation
I believe e-portfolios help document my learning progress.	3.73	0.55	8	Strongly Agree
I understand that e-portfolios can be used for self-assessment and evaluation.	3.80	0.40	1	Strongly Agree
I see e-portfolios as useful tools for showcasing my teaching competencies.	3.78	0.42	2.5	Strongly Agree
I am aware that e-portfolios can support my employability as a future educator.	3.78	0.42	2.5	Strongly Agree
I believe e-portfolios help connect theory to classroom practice.	3.63	0.49	10	Strongly Agree
I find e-portfolios beneficial for tracking my academic growth.	3.78	0.42	2.5	Strongly Agree
I recognize e-portfolios as a method for personal reflection and grading.	3.75	0.44	6.5	Strongly Agree
I acknowledge that e-portfolios can enhance my job prospects after graduation.	3.65	0.52	9	Strongly Agree
I appreciate how e-portfolios link classroom learning to practical experience.	3.77	0.43	5	Strongly Agree
I consider e-portfolios valuable for presenting my skills as an educator.	3.75	0.44	6.5	Strongly Agree

Mean Score Range	Verbal Interpretation
1.00 - 1.75	Strongly Disagree
1.76 - 2.50	Disagree
2.51 - 3.25	Agree
3.26 - 4.00	Strongly Agree

The highest-ranked purpose of the e-portfolio is students' understanding that e-portfolios can be used for self-assessment and evaluation ($M = 3.80$, $SD = 0.40$) and is interpreted as strongly agree. This result indicates a very strong consensus among respondents that e-portfolios function not merely as repositories of outputs but as reflective assessment tools that support metacognitive awareness and continuous self-monitoring of learning. The second highest rank is jointly occupied by multiple indicators, foremost among them students' perception of e-portfolios as useful tools for showcasing teaching competencies ($M = 3.78$, $SD = 0.42$) and is interpreted as strongly agree. This indicates that respondents strongly view e-portfolios as professional artifacts capable of evidencing pedagogical skills, instructional design, and teaching identity. Similarly, the belief that e-portfolios support employability as future educators ($M = 3.78$, $SD = 0.42$) and is interpreted as strongly agree. This perception reflects an emerging instrumental value attributed to digital portfolios, where students see them as strategic assets in recruitment, hiring, and career advancement.

Table 3. Extent of awareness of pre-service teachers in the components of an e-portfolio.

Components of E-Portfolio	Mean	SD	Rank	Interpretation
I know what types of content should be included in an e-portfolio.	2.97	0.78	6	Agree
I am familiar with the use of artifacts such as lesson plans and teaching materials.	2.93	0.84	7.5	Agree
I understand the importance of including reflective narratives in my e-portfolio.	3.10	0.82	3	Agree
I can organize multimedia elements (e.g., images, videos) in my e-portfolio.	2.93	0.80	7.5	Agree
I am confident in identifying the key components of a well-structured e-portfolio.	3.05	0.81	5	Agree
I can integrate different digital tools and applications to enhance my e-portfolio.	3.18	0.81	1	Agree
I ensure that my e-portfolio is well-organized and visually appealing.	3.07	0.78	4	Agree
I regularly update my e-portfolio to reflect my current learning progress and achievements.	2.88	0.80	9	Agree
I am able to maintain academic honesty and professionalism in the contents of my e-portfolio.	3.13	0.91	2	Agree
I can effectively showcase my skills, experiences, and reflections through my e-portfolio.	2.87	0.79	10	Agree

Mean Score Range	Verbal Interpretation
1.00 - 1.75	Strongly Disagree
1.76 - 2.50	Disagree
2.51 - 3.25	Agree
3.26 - 4.00	Strongly Agree

Table 3 shows that the highest-rated indicator was the ability to integrate different digital tools and applications to enhance the e-portfolio ($M=3.18$, $SD=0.81$). This indicates that students are confident in using various digital platforms and tools to improve the functionality and presentation of their e-portfolios. Closely following was the ability to maintain academic honesty and professionalism in e-portfolio contents ($M = 3.13$, $SD = 0.91$), which ranked second, reflecting students' awareness of ethical standards and professional responsibility in digital documentation. The third highest mean is the importance of including narratives in the e-portfolio ($M=3.10$, $SD=0.82$). This finding suggests that students recognize reflection as a key component that supports learning documentation, and professional growth.

Table 4. Digital awareness of pre-service teachers in the use of various technology-based applications for the development of e-portfolio

Digital Awareness	Mean	SD	Rank	Interpretation
I recognize various digital platforms and tools that can be used to create e-portfolios.	2.92	0.77	10	Agree
I understand the purpose and advantages of using digital applications in developing an e-portfolio.	3.07	0.80	6	Agree
I identify design platforms such as Canva and Google Sites as tools for creating e-portfolios.	3.05	0.81	7	Agree
I recognize applications that support teacher and peer feedback for e-portfolio development.	3.03	0.84	8	Agree
I identify video-editing applications, such as CapCut, as tools that enhance multimedia content in e-portfolios.	3.17	0.72	2	Agree
I know how screen-recording applications can be used to create video reflections for e-portfolios.	3.10	0.80	4.5	Agree
I understand how cloud-based applications support regular updating and backup of e-portfolio content.	3.10	0.86	4.5	Agree
I recognize the importance of privacy settings in applications used for e-portfolio sharing.	3.18	0.81	1	Agree

I identify reflective blogging applications as tools for documenting teaching experiences in an e-portfolio.	2.97	0.84	9	Agree
I recognize AI-powered applications that can assist in designing or organizing e-portfolios.	3.15	0.82	3	Agree

Mean Score Range	Verbal Interpretation
1.00 - 1.75	Strongly Disagree
1.76 - 2.50	Disagree
2.51 - 3.25	Agree
3.26 - 4.00	Strongly Agree

Table four indicates that students demonstrate adequate level of digital awareness in relation to e-portfolio development, with all indicators interpreted as Agree. The highest level of awareness was observed in recognizing the importance of privacy settings in applications used for e-portfolio sharing ($M=3.18$, $SD=0.81$), emphasizing students' understanding of data security. This was followed by identification of video-editing applications, such as CapCut, as tools for enhancing multimedia content ($M=3.17$, $SD=0.72$), and the recognition of AI-powered applications for organizing and designing e-portfolios ($M=3.15$, $SD=0.82$).

Table 5. Summary table on the extent of awareness of pre-service teachers on the Concept, Purpose, Components, and Digital Awareness of e-Portfolio

Indicator Area	Average Mean	Average SD	Ranking
Concept of e-Portfolio	2.97	0.82	4
Purpose of e-Portfolio	3.02	0.82	2
Components of e-Portfolio	3.01	0.81	3
Digital Awareness	3.07	0.81	1

Among the four indicator areas, Digital Awareness emerged as the highest-ranked dimension ($M=3.07$, $SD=0.81$), indicating that respondents demonstrate the strongest agreement and familiarity with the digital competencies required for engaging with e-portfolios. The second-highest indicator is the Purpose of e-Portfolio ($M=3.02$, $SD=0.82$). This result indicates that students generally understand and value the functional roles of e-portfolios, particularly in relation to self-assessment, professional presentation, and employability. Ranking third is the Components of e-Portfolio ($M=3.01$, $SD=0.81$). The findings suggest that students are moderately aware of the structural elements of an effective e-portfolio, such as artifacts, reflections, evidence of competencies, and alignment with learning outcomes. The Concept of e-Portfolio ranked last among the four indicator areas ($M=2.97$, $SD=0.82$), indicating that respondents exhibit comparatively weaker clarity in their foundational understanding of what an e-portfolio is and how it is theoretically framed within teaching and learning.

Table 6. Correlation between awareness, digital literacy, and professional readiness within the context of e-portfolio integration

Variables	p-value	r-value	Interpretation
Concept & Purpose	0.0003	0.4509	Moderate Positive Correlation, Significant
Concept & Components	0.4734	0.0943	Negligible Positive Correlation, Not Significant
Concept & Digital Awareness	0.6157	-0.0661	Negligible Negative Correlation, Not Significant
Purpose & Components	0.1284	0.1985	Negligible Positive Correlation, Not Significant
Purpose & Digital Awareness	0.2144	0.1626	Negligible Positive Correlation, Not Significant
Components & Digital Awareness	0.0000	0.8291	Very Strong Positive Correlation, Significant

The highest correlation exists between Components and Digital Awareness ($r = 0.8291, p < .01$). This indicates that respondents who have a high awareness of digital tools (like Canva, Google Sites, and CapCut) are also highly proficient in organizing the actual elements of an e-portfolio. Also, there is a significant moderate relationship between Concept and Purpose ($r = 0.4509, p < .01$). This suggests that a student's basic understanding of the e-portfolio concept directly supports their appreciation of its pedagogical and professional purposes. However, correlations between theoretical variables (Concept/Purpose) and practical variables (Components/Digital Awareness) were generally not significant ($p > .05$). This suggests that understanding *why* to use an e-portfolio does not automatically translate to knowing *how* to build one technically.

DISCUSSION

The comparative analysis of the four indicator areas revealed a differentiated profile of pre-service teachers' readiness for e-portfolio implementation. Digital Awareness emerged as the highest-ranked dimension ($M = 3.07, SD = 0.81$), followed by Purpose of e-Portfolio ($M = 3.02, SD = 0.82$) and Components of e-Portfolio ($M = 3.01, SD = 0.81$). In contrast, the Concept of e-Portfolio ranked lowest ($M = 2.97, SD = 0.82$). This pattern suggests that respondents demonstrated stronger competence in technical engagement and perceived instrumental value than in conceptual and theoretical understanding. Although perceptions across all domains are generally positive, the relative weakness in conceptual clarity signals a misalignment between operational familiarity and pedagogical comprehension.

The prominence of digital awareness indicates that technological readiness is not a limiting factor in e-portfolio adoption. Instead, it functions as an enabling condition that can support more sophisticated pedagogical and reflective practices when appropriately guided. This finding corroborates Lee et al. (2024), who reported that pre-service teachers view e-portfolios as effective platforms for organizing and presenting professional competencies, while simultaneously encountering challenges in aligning portfolio content with conceptual intentions. The convergence of these findings suggests that technical competence alone does not ensure pedagogical depth; rather, it must be accompanied by structured instructional mediation.

The relatively high ranking of the purpose of e-portfolios reflects respondents' recognition of e-portfolios as tools for self-assessment, professional presentation, and employability. This aligns with Cheng and Chau (2008), who emphasized that e-portfolios extend beyond archival functions to support reflective learning, competency documentation, and career preparation. The present findings reinforce the notion that pre-service teachers increasingly attribute instrumental and professional value to e-portfolios, positioning them as bridges between academic preparation and professional practice. However, this perceived value does not automatically translate into coherent portfolio construction, particularly in the absence of strong conceptual grounding.

Findings related to e-portfolio components further illuminate this gap. Consistent with Gómez-Rey et al. (2022), the results show that students' confidence in integrating digital tools and reflective narratives is associated with higher engagement and self-efficacy. Nevertheless, moderate ratings in areas such as organization, continuous updating, and effective showcasing of competencies suggest uneven procedural mastery. This indicates that while respondents possess foundational knowledge of e-portfolio elements, their ability to synthesize artifacts, reflections, and professional standards into a cohesive narrative remains underdeveloped. Such fragmentation may limit the transformative potential of e-portfolios as reflective learning systems. This gap mirrors findings from the study of Nacion et al. (2025), which examined the experiences and challenges during internship of PSTs. Their study revealed that while pre-service teachers demonstrated strong content delivery skills and effective student engagement, they experienced difficulty in addressing student misconceptions and applying adaptive teaching strategies. This parallel suggests that limited conceptual and reflective grounding—both in teaching practice and e-portfolio development—may constrain pre-service teachers' ability to respond flexibly to complex classroom realities.

The consistently lower ranking of the conceptual dimension underscores the need for explicit instructional scaffolding. Without clear theoretical framing, students may approach e-portfolios as compliance-driven digital tasks rather than as integrative tools for metacognition and professional identity formation. This finding reinforces prior research advocating for the use of exemplars, transparent rubrics, and iterative feedback to support students in translating abstract learning goals into structured and meaningful portfolio outputs (Lin,

2008; Lee et al., 2024). Guided reflection and theory-informed dialogue are particularly critical in helping learners articulate the connections between evidence, reflection, and professional standards.

The findings suggest that while pre-service teachers are digitally prepared and recognize the functional value of e-portfolios, the pedagogical effectiveness of e-portfolio implementation depends on strengthening conceptual and structural understanding. Purposeful instructional design that integrates reflective scaffolding, theoretical grounding, and continuous formative feedback is essential to move e-portfolios beyond digital repositories toward powerful tools for metacognitive development, professional identity construction, and lifelong learning in teacher education.

CONCLUSION

The study concludes that pre-service teachers at CBSUA–Sipocot demonstrate a generally high level of awareness of e-portfolios, particularly in terms of their purpose and the digital tools used for their development. While respondents show strong digital awareness and appreciation of e-portfolios as reflective and professional tools, comparatively lower clarity in conceptual understanding and structural components suggests areas for further support. The findings indicate that e-portfolios are well-received in Field Study courses, but their educational value can be strengthened through more explicit guidance and systematic integration.

RECOMMENDATION

The result suggests that respondents are technically prepared to engage with e-portfolio systems. However, there is a need for targeted orientation or professional development to strengthen conceptual understanding. It is therefore recommended that institutions complement technical training with clear pedagogical guidance on the purpose, components, and instructional value of e-portfolios to ensure more meaningful and effective implementation.

REFERENCES

1. Alawdat, M., & Hazaimeh, W. (2022). Pre-service teachers' perceptions and attitudes toward using e-portfolios for professional development. *International Journal of Education and Practice*, 10(3), 272–286. <https://doi.org/10.18488/journal.61.2022.103.272.286>
2. Babaee, M., Chandran, R., & Nordin, H. (2021). Electronic portfolios in teacher education: A comprehensive review. *Education and Information Technologies*, 26(5), 6213–6235. <https://doi.org/10.1007/s10639-021-10582-1>
3. Barrette, C. (2020). E-portfolios as tools for reflective practice in teacher education: A review of implementation and impact. *Teaching and Teacher Education*, 89, 103013. <https://doi.org/10.1016/j.tate.2019.103013>
4. Hadullo, K., Oboko, R., & Omwenga, E. (2018). Factors influencing quality of e-learning in developing countries: E-learning success model. *Cogent Education*, 5(1), 1496621. <https://doi.org/10.1080/2331186X.2018.1496621>
5. Jonassen, D. H. (1999). Designing constructivist learning environments. *Educational Technology Publications*.
6. Lin, C. (2020). Exploring pre-service teachers' experiences and awareness in creating e-portfolios. *Australasian Journal of Educational Technology*, 36(5), 67–81. <https://doi.org/10.14742/ajet.5913>
7. Maher, M., & Gerbic, P. (2021). E-portfolio practices in Australian initial teacher education: Towards digital professional identity. *Asia-Pacific Journal of Teacher Education*, 49(1), 46–63. <https://doi.org/10.1080/1359866X.2019.1653147>
8. Ng, W. (2012). Can we teach digital natives digital literacy? *Computers & Education*, 59(3), 1065–1078. <https://doi.org/10.1016/j.comedu.2012.04.016>
9. Nguyen, L., & Ikeda, M. (2015). The effects of e-portfolio-based learning model on student self-regulated learning. *Active Learning in Higher Education*, 16(3), 197–209. <https://doi.org/10.1177/1469787415589532>
10. Schön, D. A. (1983). *The reflective practitioner: How professionals think in action*. Basic Books.

11. Spante, M., Hashemi, S. S., Lundin, M., & Algers, A. (2018). Digital competence and digital literacy in higher education research: Systematic review of concept use. *Cogent Education*, 5(1), 1519143. <https://doi.org/10.1080/2331186X.2018.1519143>
12. Lee, K. W., Ngui, W., Yu, C. X., & August, A. L. (2024). Pre-service Teachers' Perceptions of Digital Portfolio in Enhancing Learning Experiences During Teaching Practice. *Computer-Assisted Language Learning Electronic Journal*, 25(2), 91-108. <https://callej.org/index.php/journal/article/view/451>
13. Lin, Q. (2008). A study of the learning experiences of pre-service teachers in an e-portfolio learning environment. *Computers & Education*, 51(3), 1201–1212. <https://www.sciencedirect.com/science/article/abs/pii/S1096751608000456#:~:text=rights%20and%20content-,Abstract,well%20as%20review%20technology%20skills>.
14. Blanco-Gandía, M. Carmen; Valdivia-Salas, S., Fidalgo,C., Sánchez-Pérez, N. (2022). The educational e-portfolio: Preliminary evidence of its relationship with students' self-efficacy and engagement. *Education and Information Technologies*, 27(5), 5233–5248. <https://eric.ed.gov/?id=EJ1336871>
15. Nacion, SC., San Buenaventura, JM., Zuela, E., Aycocho, M., Palacay, LJ., Inocencio, A., Perpetua, A. (2025) Pre-service Teachers in Action: Experiences and Challenges During Internship. *International Journal For Multidisciplinary Research*. <https://www.ijfmr.com/research-paper.php?id=46288>