



The Perception and Usage of Educational E-Portfolio Among Fine and Applied Arts Undergraduates in Ondo State, Nigeria

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Abstract

Over the past decade, there has been an increased exploration of educational e-portfolios in Universities across disciplines at both the undergraduate and graduate levels. This paper explores the perception and usage of educational e-portfolios among fine and applied arts undergraduates in Ondo state. . The study adopted a descriptive survey research design. 120 respondents were selected using a simple random technique and three (3) universities were purposively selected. Three (3) research questions were raised and answered using mean and standard deviation. The questionnaire was subjected to both face and content validity to check the appropriateness and adequacy of the instrument and it was trial test to check for internal consistency in reliability. The findings of the study were: Fine and Applied Arts undergraduates derived benefits maximally which enable the students to share their projects, documents and sees the students as participants rather than an observer. Also heavy lifting, lamination, trivialization are some of the threats and challenges for implementing the e-portfolio in the universities. It was concluded that the undergraduates benefited maximally using e-portfolio and they perceived its usefulness as a tool for keeping art -work. The research study recommends that Fine and Applied Arts undergraduates should be encouraged to adequately and effectively use e-portfolios because of its numerous benefits in education.

Keywords: Educational e-portfolio, undergraduates, Fine and Applied Arts, perception, threats and challenges.

Introduction

Technological educational tools, such as e-portfolios, increasingly affect how teachers teach and support students in online environments. These technological tools enables instructional content or learning experiences to be delivered by computer-based technology. The use of e-portfolios as a learning tool promotes the active work of the students and encourages the development of reflective thinking and self-regulated learning. Yanti,et al. (2019) defined e-portfolios as collections of students' work that may be posted online (called Webfolio) or saved onto a CD-ROM. Also, Lorenzo and Ittelson (2021) defined e-portfolios can be used to authenticate key skills and achievements for various contexts and periods. It is generally administered and conducted on websites, emails and other kinds of social media. For the purpose of art education, Ersoy (2019) stated that portfolios are more complicated, students prepare portfolios to develop their learning, parents want to see them to learn about their child's learning and institutions need them to learn their own progress. Institutions, educators, students and parents could follow students'

development by collecting and organizing student work samples over a period (Ersoy, 2019).

Abrenica (2020) opined that the usage of e-portfolios in art educations is not a new idea; they have received increasing attention in the past decade but are still in the place of traditional portfolios. In implementing e-portfolios in art education has made a shift of interest from the traditional teacher-centred to the one that is student-centred has left a beneficial impact in art education.

The e-portfolios is a result of technology being readily and conveniently used in most classrooms today. They are highly motivating for the students who are encouraged to exhibit their art works (Yasser, 2021). Tarmizi, et. al. (2019) stated that technological elements use of computers began seeping into art education. This is to show where art students are always technologically capable of designing and creating creative art works using many design software. Therefore, e-portfolios are used for storing the best work of art (Barrett, 2019). Since, they are already familiar with the concept of e-portfolios through traditional way, e-portfolio is a new approach that can

be well utilised especially by students in learning course.

Wuetherick and Dickinson, (2020) enumerates several benefits of e-portfolios such as permit tracking of longer episodes of teaching and learning more effectively than single observations do, as well as encourage important connections between process and product. E-portfolios institutionalize norms of collaboration, reflection and discussion and help to shift responsibility for demonstrating learning to the student as a participant rather than an observer. Well-developed e-portfolios have the potential to enable students to share their projects, documents and reflections from coursework spanning their entire program, with clear program-related criteria, in a collaborative virtual environment (Bryant & Chittum, 2020, Challis, 2019). Successful e-portfolios projects also integrate self-assessment and peer-assessment, are flexible in the types of content they can include, and act as both a means to demonstrate learning over a span of time and a presentation platform from self-promotion and future employment (Wade, et. al. 2019). In addition, e-portfolios projects can facilitate self-regulation and critical reflection in students (Carmeems & Christie, 2020; Jenson, 2019). E-portfolios can also provide students and faculty with an opportunity to perceive learning and teaching as a process of discovery (Challis, 2019). With e-portfolios, professors and students can see and share the learning process over the course of their studies. With some e-portfolios approaches and tools, students can also integrate their reflections with learning that extends beyond their studies, and thus provide not only proof of lifelong learning but also of their life-wide learning (Challis, 2019).

The benefits of e-portfolios as stated by Lorenzo and Ittelson (2021) are presenting a motivated learning situation, facilitating students as well as the teaching to create a portfolio in diverse format, maintaining practicality and low priced since it is not restrained by time and place, matching to the learners' current learning style, and providing free access to other learners. E-portfolios are used for storing best art works (Ritzhust et. al., 2019). E-portfolios assist the students in gaining their first employment and prepare them for lifelong and professional learning. Knowing these bunch of benefits, teachers and institutions, accordingly put more concern about the use of the e-portfolios.

Bolliger and Shepherd (2020) opined that e-portfolios boasted their motivation to study and many agreed with words such as assisted me in reflecting and helped me evaluate my own progress. On the other

hand, most students in Wakimoto and Lewis (2019) found that e-portfolios would help them reflect on their abilities. The portfolios offered them insight into the developmental aspect of becoming a professional. Not all perceptions are positive. Some practitioners think developing e-portfolios is time-consuming. (Harun, et. al., 2021; Zhong & Hartsell, 2019), or the students might be uncertain about using e-portfolios (Chung & Kim, 2020; Oakley et. al. 2019). Lewis (2019) stated that students change their attitudes from negative to positive about the perception on the use of e-portfolios. They believed that e-portfolios were just a job-search tool initially, and thought it was tedious and time-consuming to use, needing the help of teachers and course mates. They also believed that the application's main goal was to achieve graduation requirement. According to Chye, et. al. (2019), students' intrinsic motivation may influence favours attitudes towards e-portfolios use. In practice educators should use appropriate means to motivate learners and optimize their learning experiences. Lewis (2019) stated that incorporating constructive learning and social pedagogy capabilities into e-portfolios. In this way learners perceive a more genuine learning experience when course designers and teachers strongly understand a learning portfolio's processes. Zhang and Tur, (2022) in their study, revealed that the participants' attitudes could be changed if the e-portfolios were employed appropriately and effectively.

Johnson (2019) also articulated several threats that might occur with the use of e-portfolios, including; Lamination: the portfolios can become a mere exhibition, enabling students to show off without giving a true representation of the work. Heavy lifting: It can be powerful, but considering the amount of time portfolios can take to assemble, the benefit may not be worth the effort; trivialization; can result in students documenting things that are not worth reflecting upon, perversion; if the assessment of a portfolio is not done appropriately, it can result in a perversion of the assessment process, becoming like a checklist task; and misrepresentation; this might result in an emphasis on examples of best work that might not be an accurate picture of the student's overall competence in the field. Carney (2019), outlined the challenges of using e-portfolios in five categories; multiple-purpose dilemma, personal-revelation dilemma, cognitive-overload dilemma, self-expression dilemma and dead-end dilemma. There are also some threats and challenges on implementing e-portfolios, such as platforms'

accountability, usability, reliability, sustainability, scalability and interoperability (Bryant & Chittum, 2021); participants' uncertainty, reluctance, and familiarity (Harun et al.; 2021); lack of technical support and scaffolding for participants (both educators and learner) Scully, 2019 et al.

Statement of the Problem

In the past the Fine and Applied Arts Students relied solely on keeping their art works in traditional portfolios which were prone to destructions by insects, fire disasters, erosion and moisture. But with the advancement of Information and Communication Technology (ICT), e-portfolios can be used to accommodate writing samples, photographs, videos, Research projects, observations and evaluation of supervisors, mentors and peers, teaching and learning artefact and reflection of previous evidence. E-portfolios are categorized as students while studying, graduated while moving into or through the workforce, institutions for programme assessment or accreditation purposes and accountability portfolios and formative portfolios. All these attributes and benefits of e-portfolios enable undergraduates to be aware of the usage of e-portfolios in education but much have not been researched by researchers on the usage of e-portfolios by Fine and Applied Arts undergraduates. Therefore, this study examines the undergraduates' perception and usage of e-portfolios among Fine and Applied Art students in Ondo State, Nigeria.

Research Objectives

The study determined:

1. the impacts Fine and Applied Arts undergraduates derive from using e-portfolios
2. how Fine and Applied Arts undergraduates perceive the use of e-portfolios
3. threats and challenges of using e-portfolios by Fine and Applied Arts undergraduates.

Research Questions

In order to achieve the research objectives of the study, the following research questions was raised

1. What impacts do Fine and Applied Arts undergraduates derived from using e-portfolios?
2. How do Fine and Applied Arts undergraduates perceive the usage of e-portfolios?
3. What are the threats and challenges of using e-portfolios by Fine and Applied undergraduates?

Methods

The study used a quantitative research design based on a descriptive survey method through questionnaires. The descriptive survey method was employed for this research study, because it is an efficient way of collecting information from a large number of respondents. The sampling techniques used for this study were cluster and simple random sampling techniques and the entire population consisted of all Fine and Applied Arts' undergraduates from all universities that offered Fine and Applied Arts in Ondo State, Nigeria

Cluster sampling techniques was purposely used to select three (3) universities from all the Universities in Ondo State. This was because the universities selected offered Fine and Applied Arts as a course in their institutions. The universities selected were: Adeyemi Federal University of Education (AFUED), Ondo, Federal University of Technology Akure (FUTA) and Adekunle Ajasin University (AAU), Akungba-Akoko, Ondo State. One hundred and twenty (120) were purposely selected using simple random technique. This was because Fine and Applied Arts requires special skills materials, equipment and not every undergraduate processes the skills and not all universities have the facilities for the course. The students are limited in population compared with other departments. The respondents were selected regardless of their gender and they were selected as follows: AFUED, fifty-two (52) respondents, from FUTA, thirty-two (32) respondents and from AAU, thirty-five (35) respondents making the total respondents selected one hundred and twenty (120).

The main instrument for this study is researcher's designed questionnaire titled "Perception and Usage of Educational E-portfolio by Fine and Applied Arts in Universities (PUEFAAU)". The questionnaire consists of two (2) sections: Section "A" demographic data of the respondents and section "B" contains items on the presentation and usage of e-portfolios among Fine and Applied Arts undergraduates. The instrument was on a 4-point rating scale of Strongly Disagree (SD), Disagree(S), Agree (A) and Strongly Agree (SA). The questionnaire was subjected to both face and content validity to check the appropriateness and adequacy of the content of the instrument. Three (3) lecturers from the Department of Educational Technology, University of Ilorin, Kwara State after they deemed it fit to be validated. Their advice and suggestions were used to modify the questionnaire to produce a final draft.

The questionnaire was tested for reliability on twenty (20) randomly selected students from the Department of Fine and Applied Art at Tai-Solarin University of Education, Ijebu-Ode, Ogun State who are not part of the study. The data gathered from the trial test study was analysed to check for internal consistency in reliability and the Cronbach alpha value was 0.78 on perception, 0.70 on usage of e-portfolio and the value of threats and challenges has the value of 7.87. This indicated that the research instrument was highly reliable.

The researcher visited the Departments chosen for the study to administer copies of the questionnaire to the students having taken permission from the Head of the Departments involved. At the end of this exercise, one hundred and twenty (120) valid copies of the questionnaire were retrieved from the respondents upon which analysis of the result were carried out using percentage, mean and standard deviation, to answer the research questions raised for the study.

Results

Table 1

Mean and standard deviation impacts on Fine and Applied Arts Undergraduates Derived Using e-portfolio

S/N	Item	SA	A	D	SD	Mean	Std. D.	Remark
1	E-Portfolio presents a motivated learning situation by visual.	61	31	16	12	3.18	1.01	Accepted
2	It allows the students to gain a deep sense of self-awareness.	48	48	12	12	3.10	.95	Accepted
3	It helps the students to meaningfully interact with the content, instructors and colleagues.	44	40	23	13	2.96	.99	Accepted
4	It facilitates students and teachers to create portfolios in diverse formats.	53	30	25	12	3.03	1.03	Accepted
5	E- Portfolios have an ease of accessibility, portability and manageability.	30	42	30	18	2.70	1.01	Accepted
6	It provides space for self-reflection and recording personal growth.	58	34	20	8	3.18	.94	Accepted
7	E-portfolios allow students to collect and organize artifacts using multimedia.	42	42	18	18	2.90	1.05	Accepted
8	E-portfolios focus on students' mastery of certain competencies and the assessment system.	44	36	24	16	2.90	1.05	Accepted
9	It permits the tracking and documentation of teaching and learning beyond supervised observation.	47	31	24	18	2.89	1.09	Accepted
10	It motivates students to exhibit their artworks	54	30	24	12	3.05	1.03	Accepted

Key; *SD* = Strongly Disagree, *D* = Disagree, *A* = Agree, *SA* = Strongly Agree

Decision Value for Remark: *Not Accepted* = 0.00-2.44, *Accepted* = 2.45-4.00

Table 1 shows the impacts fine and applied arts undergraduates derive from using e-portfolios. The table shows that the respondents agreed to all the items as follows: e-portfolios presents a motivated learning situation by audio-visual ($\bar{x} = 3.18$), it allows the students to gain a deep sense of self-awareness ($\bar{x} = 3.10$), it helps the students to meaningful interact with the content, instructors and colleagues ($\bar{x} = 2.96$), it facilitates students and teachers to create portfolios in diverse formats ($\bar{x} = 3.03$), e-portfolios have an ease of

accessibility, portability and manageability ($\bar{x} = 2.70$), it provides space for self-reflection and recording personal growth ($\bar{x} = 3.18$), e-portfolios allow students to collect and organize artefact using multimedia ($\bar{x} = 2.90$), e-portfolios focuses on students' mastery of certain competencies and the assessment system ($\bar{x} = 2.90$), it permits the tracking and documentation of teaching and learning beyond supervised observation ($\bar{x} = 2.89$) and it motivates students to exhibit their art works ($\bar{x} = 3.05$). Based on the result from this table and

mean score acceptance by the decision rule, it can be concluded that the impacts fine and applied arts undergraduates derive from using e-portfolios are: motivated learning situation by audio-visual, gaining a deep sense of self-awareness, meaningful interaction with the content, instructors and colleagues, facilitates students and teachers to create portfolios in diverse format, ease of accessibility, portability and

manageability, provides space for self-reflection and recording personal growth, allow students to collect and organize artefact using multimedia, focuses on students' mastery of certain competencies and the assessment system, permits the tracking and documentation of teaching and learning beyond supervised observation and motivates students to exhibit their art-works.

Table 2

Mean and standard deviation on Fine and Applied Arts undergraduates perceptions to the usage of e-portfolios

S/N	Item	SA	A	D	SD	Mean	Std. D	Remark
1	Easy to communicate with lecturers using e-portfolios.	83	12	12	13	3.38	1.05	Accepted
2	It helps students in sharing art works with the teachers	48	30	12	30	2.80	1.21	Accepted
3	It was easy to get feedback from teachers over e-portfolios.	35	36	29	20	2.72	1.06	Accepted
4	It makes collaboration easy with teachers using e-portfolios.	43	31	30	16	2.84	1.06	Accepted
5	I received clear guidance on what to include in my e-portfolios.	39	38	26	17	2.83	1.04	Accepted
6	I received support with my e-portfolios when I experienced challenges.	41	29	23	27	2.70	1.16	Accepted
7	It provides me with avenue for anywhere and anytime connectivity	44	39	18	19	2.90	1.07	Accepted

Key; *SD* = Strongly Disagree, *D* = Disagree, *A* = Agree, *SA* = Strongly Agree

Decision Value for Remark: *Negative* = 0.00-2.44, *Positive* = 2.45-4.00

Table 2 shows the ways fine and applied arts undergraduates perceived the usage of e-portfolios. The table shows that the respondents agreed to all the items as follows: it is easy to communicate with lecturers using e-portfolios ($\bar{x} = 3.38$), e-portfolios helps students in sharing art works with the teachers ($\bar{x} = 2.80$), it was easy to get feedback from teachers over e-portfolios ($\bar{x} = 2.72$), it makes collaboration easy with teachers using e-portfolios ($\bar{x} = 2.84$), they received clear guidance on what to include in their e-portfolios ($\bar{x} = 2.83$), they received support with their e-portfolios when they experienced challenges ($\bar{x} = 2.70$) and it provides them with an avenue for anywhere and anytime connectivity

($\bar{x} = 3.06$). Based on the result from this table and mean score acceptance by the decision rule, it can be concluded that the fine and applied arts undergraduates perceive the usage of e-portfolios as: it is easy to communicate with lecturers using e-portfolios, e-portfolios helps students in sharing artworks with the teachers, it is easy to get feedback from teachers over e-portfolios, it makes collaboration easy with teachers using e-portfolios, they received clear guidance on what to include in their e-portfolios, they received support with their e-portfolios when they experienced challenges and it provides them with an avenue for anywhere and anytime connectivity.

Table 3

Mean and standard deviation on threats and challenges of using e-portfolios

S/N	Item	SA	A	D	SD	Mean	Std. D	Remark
1	Non-availability of the internet.	35	24	35	26	2.57	1.13	Accepted
2	Heavily dependent on students' skill and creativity.	48	21	30	21	2.80	1.15	Accepted
3	Some software applications fail to integrate e-portfolios.	59	27	12	22	3.03	1.16	Accepted
4	Lack of originality and creativity.	48	30	12	30	2.80	1.21	Accepted
5	Skepticism about the spread of innovation.	12	36	18	54	2.05	1.08	Not Accepted
6	Issues of accountability.	13	33	20	54	2.04	1.08	Not Accepted
7	No availability of ICT tools.	43	28	33	16	2.82	1.07	Accepted
8	Lack of motivation function.	12	30	48	30	2.20	.93	Not Accepted
9	Some platforms/tools are not user-friendly	18	17	54	31	2.18	.99	Not Accepted
10	There is shortage of support from institutions	36	25	38	21	2.63	1.09	Accepted

Key; *SD* = Strongly Disagree, *D* = Disagree, *A* = Agree, *SA* = Strongly Agree

Decision Value for Remark: *Not Accepted* = 0.00-2.44, *Accepted* = 2.45-4.00

Table 3 shows the threats and challenges of using e-portfolios by fine and applied arts undergraduates. The table shows that the respondents agreed to the following items: on-availability of Internet ($\bar{x} = 2.57$), heavily dependent on students' skill and creativity ($\bar{x} = 2.80$), some software applications fail to integrate e-portfolios ($\bar{x} = 3.03$), lack of originality and creativity ($\bar{x} = 2.80$), no availability of ICT tools ($\bar{x} = 2.82$) and there is shortage of support ($\bar{x} = 2.63$). Also, the table shows that the respondents disagreed with these: skepticism about the spread of innovation ($\bar{x} = 2.05$), issues of accountability ($\bar{x} = 2.04$), lack of motivation function ($\bar{x} = 2.20$), and some platforms/tools are not user-friendly ($\bar{x} = 2.18$). Based on the result from this table and mean score acceptance by the decision rule, it can be concluded that the threats and challenges of using e-portfolios by the fine and applied arts undergraduates are: non-availability of the internet, heavily dependent on students' skill and creativity, some software application fail to integrate e-portfolios, lack of originality and creativity, no availability of ICT tools and shortage of support.

Discussion of Findings

The study investigated the perception and usage of educational e-portfolio among Fine and Applied Art in Universities in Ondo State, Nigeria.

Based on research question one, the result showed that undergraduates of Fine and Applied Arts benefited a lot from using e-portfolio and they agreed with all items. This is in line with the findings from (Yasser, 2021, Tarmizi, et. al; 2019, Barrett, 2019, Wuetherick & Dickinson, 2020, Bryant & Chittum, 2021 & Challis 2019) Carmeems and Christie (2020) revealed that e-portfolios project can facilitate self-regulation and critical reflection in students. Also, Lorenzo and Itteleon (2021), revealed that e-portfolios are presented in a motivated learning situation, facilitating students as well as the teaching to create a portfolio in an adverse format.

On the perception of Fine and Applied Arts undergraduates on the use of e-portfolio was determined, from the data gathered and analysed it was revealed that all the items were accepted. This conforms with (Bolliger & Shepherd, 2020, Wakimoto & Lewis, 2019, Chye et. al., 2019) Zhang and Tur,(2022) revealed that the participants' attitude could be changed if the e-portfolios was employed appropriately and effectively.

Several threats and challenges occur in using e-portfolios, from the analysed data; it was found that non-availability of internet, heavily dependent on students; skill and creativity, some software applications, failure to integrate e-portfolios, lack of



originality and creativity, no availability of ICTs tools and shortage of support were agreed upon by the respondents as the threats and challenges of using e-portfolio. This conforms with Johnson, (2012) and Carney (2019) Bryant and Chettum, (2021), Harm, et. al. 2021 and Scully et. al. (2019). Who found from the research study that there are various threats and challenges confronting the implementation of e-portfolio in institutions such as lamination, trivialization, and heavy lifting and so on.

Conclusion

The research study brings about the perception of undergraduates usage of e-portfolio among Fine and Applied Arts. The findings on perception were accepted by the respondents meaning that they all perceived the use of e-portfolios as a necessary tool, very effective and can be used to track the undergraduates' progress. Several benefits of e-portfolio that made it popular among Fine and Applied Arts undergraduates because e-portfolio has the potential to enable undergraduates share to their projects and documents with their lecturers and classmates.

There are some threats and challenges that might occur while implementing e-portfolio. All the stakeholders should come together to find lasting solutions to all the

threats and challenges of implementation of e-portfolio among Fine and Applied Arts undergraduates.

Recommendations

Based on the findings of this study, the following recommendations were made:

- (1) Fine and Applied Arts undergraduates should be encouraged to adequately and effectively used e-portfolios because of its numerous benefits.
- (2) Lecturers should also encourage the Fine and Applied Arts undergraduates to be comfortable and confident enough to share their art-works with their lecturers, peer, family and even potential employers.
- (3) The government and all stakeholders in education should join hands together to proffer solutions to the threats and challenges to implementation of e-portfolios in their respective institutions.

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