NOBEL
Journal of Literature and Language Teaching

REVISITING E-PORTFOLIO IN HIGHER EDUCATION: ENGLISH LANGUAGE EDUCATION STUDENTS' POINT OF VIEW

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Article Info	Abstract
	This study aims to explore the implementation of portfolio in higher education, particularly in an English Language Education Department in Indonesia. Mixed method with concurrent combination was selected. Quantitative data were collected with a questionnaire (n = 74), while qualitative data were collected by three FGDs sessions (n= 21). The quantitative data were analyzed using descriptive statistics, while the qualitative data were analyzed thematically. These data were then interpreted simultaneously and four key themes were generated from the data: 1) Superficial understanding and skills in using portfolio, 2) Scarce and Partial Implementation of e-Portfolio, 3) Digital Technology as a Norm in Portfolio Implementation, and 4) Internalized Positive Views on Portfolio Implementation. Overall, the study concludes that in this higher institution under study, the implementation of e-portfolio was still limited and partial with predominant support of digital technology. It was also found that despite the students' lack of understanding and skills in the implementation, they showed positive views on its implementation. Some recommendations were offered for further study and to improve future implementation of e-portfolio.

INTRODUCTION

This century has witnessed a great revolution in industry and related sectors, called the Fourth Industrial Revolution (henceforth 4IR). Driven by the rapid advancement of technology, 4IR has brought about widespread changes in every aspect of human life including education. As stated by Marr (2019), 4IR "… will dramatically change the way we relate to one another, live, work, and educate our children" (para. 4). He further urged the need to re-invent education and cited several things education should do to prepare the students for the changes. Among others, he proposed the needs for redefining the purposes of education, particularly in higher education, and familiarizing oneself with life-long learning models. This highlights the importance of preparing the students for a disrupting job market.

It is a well-known fact that industries nowadays value tangible evidence of skills more than a "mere" diploma. Graduates are expected to show that they have the required skillsets for the job and proofs of these skills. This calls for the use of "portfolio" Generally defined as "a compilation of academic and professional materials that exemplifies your beliefs, skills, qualifications, education, training, and experiences" (Clarke University, n.d.), portfolios serve as tangible evidence of one's previous works and thus skills.

Portfolio is also a popular term used in educational context with a slight difference in meaning. In education, portfolio is known as a form of alternative assessment (Brown & Abeywickrama, 2019) where students collect their works as means of showcasing their learning achievement.

Various aspects of portfolio implementation, especially in English language education has been well documented. Some studies have indicated the potential of portfolio to improve students' language skills, for example in writing (Taki & Heidari, 2011), reading, vocabulary and grammar (2010). It also helped enhance students' soft skills including cross-cultural communication, learning motivation, and autonomy (Huang, 2012), and even improved awareness of writing as a recursive process (Romova & Andrew, 2011). Cleveland (2018) also highlighted the role of digital portfolios in enhancing students' reflection. Some studies also reported students' positive attitude and opinion towards portfolio (Aydin, 2014; Baturay & Daloğlu, 2010).

In addition, as digitization has become commonplace in this era, portfolio previously associated with printed materials, has transformed into its digitized format known as digital portfolio, electronic portfolio, or e-portfolio. Al Kahtani (1999) noted that electronic portfolio has been introduced to English classes in the late twentieth century, especially in form of web-

based medium. Chang, Wu, and Ku (2005) reported their effort in introducing digital portfolio to teaching and assessment in Taiwan. Efforts to design an electronic portfolio have also been documented, for example, Beckers et. al (2019), reported their efforts to design an e-portfolio system named PERFLECT to support self-directed learning.

As the current trend and orientation of higher education in Indonesia emphasize on the linking and matching between education and job markets, innovations in education including implementations of student-centered learning (SCL) models such as project-based learning and experiential learning, among others, are sought for. Many conventional classes have been transformed into project-based classes or other SCL models, where students collaborate to accomplish a project, and thus require more authentic assessments including portfolio. Hence, portfolio has regained its centrality in education.

However, based on the researchers' initial observation in their institution, there is a tendency that portfolio is taken for granted and it is either not fully implemented or even abandoned, and in turn may affect the students' learning process. As Abrar-ul-Hassan et. al (2021) highlighted, after several decades of its history, the need to revisit its implementation has emerged, particularly due to the changes in pedagogical theories and technological development. It is particularly important to study how portfolio is implemented in higher education context since it serves as a transitional stage connecting education to job market. This study is an attempt to fill the gap between theory and implementation of portfolio in a particular context of higher education. Students' point of view becomes the center of this research as they are the principal "player," and their view is assumed to be influential towards a successful implementation. This study is hoped to shed light on e-portfolio implementation in a higher education institution and how students view its implementation. To guide this study, the research questions are formulated as follows:

1. How is e-portfolio implemented in courses in an English language education department?
2. What are English language education study program students' views of this e-portfolio implementation?

REVIEW OF LITERATURE
Portfolio: Definitions and Historical Context

The term portfolio is not new. Farell (2020), conducting a comprehensive literature search, concluded that the term could be traced back to Renaissance Italy era. Initially called

portafoglio, the practice of collecting examples of work was first associated with artists and architects. Portfolio was basically a practice of carrying loose papers or pictures inside a case or a folder to showcase and document one's works or ideas. The aim was to seek approval and consequently for a job.

As stated by Farrell (2020), "Over time the meaning of portfolio evolved from its origins as a case for holding loose papers for use in other contexts such as finance, government and education". The first practices of portfolio were generally professional. Such professional portfolio known as Career Portfolio or Work Portfolio is aimed at job applications or career advancement. Such a portfolio is used to showcase evidence of one's skills, experiences, etc., to prove their suitability with a certain job or position.

On the other hand, the term portfolio is also quite popular in education, despite a slight difference. According to Farrell (2020), the use of portfolio in education can be traced back to around 1970s. As defined by Genessee and Upshur (1996), portfolio is "a purposeful collection of students' work that demonstrates . . . their efforts, progress and achievement in given areas" (p. 99). Portfolio in education is considered as one type of alternative assessment. While students also collect their assignments and work, the main aim is to show their learning achievement. By doing so, teachers can then assess their performances. In line with this Greenhalg and Koehler (2015) define portfolio as a means of formative and/or summative assessment. The practice includes collecting students work that they called "artifacts" aimed at showcasing skills and proficiency. As stated by Brown and Abeywickrama (2019), it is a powerful means of assessment method. Yang et. al (2017) also supported this idea by citing portfolio potential in enhancing the quality of students' learning outcomes. The portfolio in this context is often called Learning Portfolio. In this current study, the term portfolio is used in this context.

Digitization of Portfolio

With the development of technology, portfolio has evolved into a digital form, changing from a folder containing paper into a digitized version usually called as e-portfolio, electronic portfolio, or digital portfolio. Farrell cited years 1989–1999 as the first era where e-portfolio was introduced. A substantial number of studies have documented the added benefits of e-portfolio in comparison to its traditional, printed form. Yang et. al (2017), for example, cited some advantages of e-portfolio such as "easy storage, management, and sharing" (p. 2). Barret (2007) also highlighted the role of technology as a "container" in which students can collect and organize the artifacts in various digital formats. Studying the available literature, it can be

concluded that in this era, technology is assumed to be the norm, meaning that when the term portfolio is mentioned, it almost always refers to the digital practices. Thus, in this study, the term portfolio and e-portfolio will be used alternately to refer to the same practices.

Types of Portfolios

With regards to the functions, portfolios are usually categorized into several types. Abrar-ul-Hassan et. al (2021) for example, categorize them into three types, i.e.:

1. Showcase portfolio, which aimed at displaying examples of a learner's best work. Therefore, in this portfolio, a selective curation is required

2. Progress portfolio, which includes multiple drafts of work and comparison between the drafts. The purpose is to observe the changes reflecting learning progress

3. Working portfolio, which includes examples of work that illustrates "mastery of learning goals or units of study" (p. 3).

While some other categorizations and labels are available, this current categorization is considered sufficient and will be able to cover all available types of portfolio implementation.

CRADLE Approach to Portfolio Development

Gottlieb (1995)'s proposal on portfolio is often considered as a seminal work in this field, as she managed to map the various forms of portfolio in educational context (See, for example, Brown and Abeywickrama, 2019). She proposed an acronym CRADLE, whose each letter represents a form of portfolio development: Collecting, Reflecting, Assessing, Documenting, Linking, and Evaluation. Each of these forms and its brief explanation is shown below.
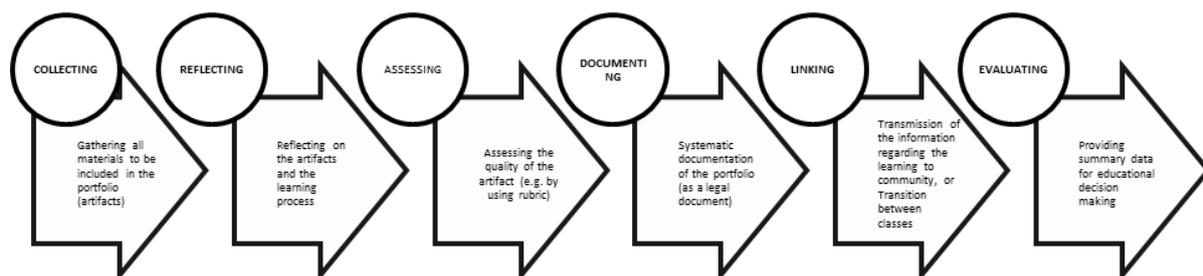
Figure 1: CRADLE Approach to Portfolio Development (Gottlieb, 1995)

CRADLE approach is quite useful because it does not only offer a means of categorizing portfolios into implementation models. Instead, as can be seen, these labels also show logical sequences of portfolio development. As admitted by Gottlieb (1995), CRADLE forms a continuum of the practices starting from the simplest to the most complex. Each stage is built upon the previous. For example, Reflecting is only possible after all the materials collected. Therefore, reflecting model also consists of Collecting stage, and so on.

In this study, this model will serve as a benchmarking tool for portfolio implementation. That is, it can be used to measure how much portfolio is implemented in a certain context.

METHOD

This study aims at exploring the implementation of e-portfolio in higher education and the learners' perceptions towards implementation. Therefore, a comprehensive view of the issue is needed. To achieve this, this research employed mixed-method approaches aimed at providing multiple perspectives on this issue and expanding understanding through data triangulation. In particular, concurrent combinations of quantitative and qualitative research were selected as the design (Dörnyei, 2007). Under this design, quantitative and qualitative studies were conducted simultaneously and were independent of each other. Creswell & Creswell (2018) called this design Convergent Parallel Mixed Methods Design, and as they stated, "The key assumption of this approach is that both qualitative and quantitative data provide different types of information—often detailed views of participants qualitatively and scores on instruments quantitatively—and together they yield results that should be the same" (p. 300).

After each data type was collected and analyzed, the results were integrated and interpreted simultaneously. These processes were schematically shown below.
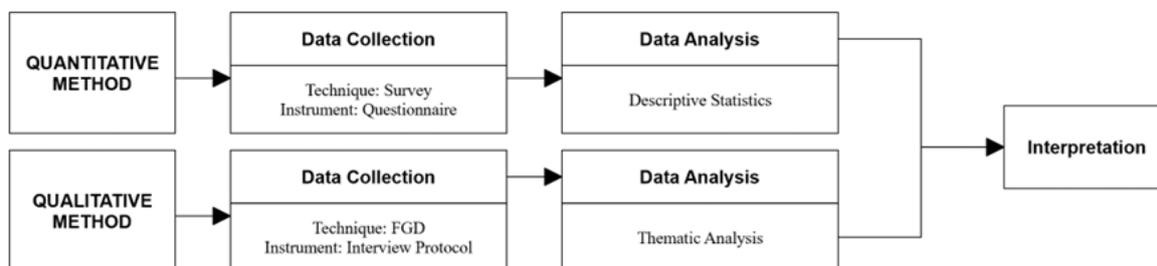
Figure 2: Research Design

Context and Participants of the Research

This research was conducted at an English Language Education department in a public university in Indonesia (hence ELED). ELED is a department managed by the College of Teacher Training and Education (FKIP). The general aim of this study program is to prepare future teachers of English as a Foreign Language, particularly for secondary school in Indonesia. As such, these students are prepared with knowledge and skills in general and EFL pedagogy as well as English language skills. This provides a rich context for the study to shed light on how portfolio is implemented in higher education. From the researchers' initial observation and informal interviews with students and lecturers, some lecturers often

implemented portfolio in their course, however its implementation is yet to be investigated and thus this study was proposed. In the academic year 2022/2023, 432 active students were registered, even though in practice only students in the third year and above were academically active. All active students were invited to the survey, and 74 students (17.12%) completed the questionnaire. From this survey participants, some consenting students were invited to participate in an FGD. In total 18 participants were involved in the subsequent FGDs.

Procedure for Data Collection

There are two types of data collected in this study. The first is quantitative data capturing the students' understanding of and experiences with e-portfolio in their courses. To collect this data, a survey was conducted. A questionnaire (Appendix 1) was distributed, and all active students were voluntarily invited to participate. The questionnaire consisted of close-ended types of questions with Likert-scale of 1 – 5 and several open-ended questions. In total, 74 students participated (17.12%). The profile of the survey participants is shown below.

Table 1. Profile of Survey Participants

Batch	Gender		Total
	Male	Female	
2017	2	7	9
2018	7	15	22
2019	3	19	22
2020	0	5	5
2021	0	16	16
Total	12	62	**74**

The second type of data is qualitative data in form of verbal statements collected via a series of focused group discussions (FGD). FGD was selected as the data collection technique as this allows all participants to synergize and provide a comprehensive insight supported by peers. Three FGDs were conducted with 5 – 8 participants involved in each FGDs. Each FGD was facilitated by one facilitator providing guiding questions during the FGDs. In total, there were 18 students involved in the FGDs. The profile of the participants is shown in the table below.

Table 2. Profile of FGD Participants

FGD Group	Participants	Facilitator	Total Participants
Group 1	8	1	9
Group 2	5	1	6
Group 3	5	1	6
Total	18	3	**21**

All FGDs were recorded (audio and video) and were transcribed for the analysis. To protect the participants' confidentiality, a pseudonym was assigned to each participant. These pseudonyms will be used in the results and discussion section.

Procedure for Data Analysis

The data collected were analyzed accordingly. The quantitative data from the survey were analyzed with descriptive statistical analysis. The results were then displayed in forms of tables and diagrams. Some open-ended questions in the survey were transformed into word clouds for visual analysis. The qualitative data was analyzed thematically. Some important themes were generated from the analysis. The results of the quantitative and qualitative analyses were further compared and triangulated with each other, and interpretations and conclusions were drawn from the data synthesis.

RESULTS AND DISCUSSIONS

Findings

This research reveals several interesting findings regarding the implementation of e-portfolio in English language education department and the students' view of portfolio. Based on the integration of findings of quantitative and qualitative data, four key themes are generated and will be discussed in detail below.

Theme 1: Superficial Understanding and Skills in Using e-Portfolio

The first part of the questionnaire reveals some interesting findings on participants' understanding of and skills in implementing learning portfolios. First, as shown in Table 3 below, they had a slightly better than average understanding of portfolio ($\bar{x}$ = 3.34).

Table 3. Understanding of Portfolio

ASPECTS	Very Poor	Poor	Average	Good	Very Good	Mean
Understanding of Portfolio	**1**	**2**	**3**	**4**	**5**	
Definition, Characteristics, and Scope	0	11	33	29	1	3.27
Purposes and Benefits	0	4	30	33	7	3.58
Component/Contents	0	14	25	33	2	3.31
Procedures in Creating a Portfolio	0	17	31	25	1	3.14
Technology Support	0	10	27	33	4	3.42
AVERAGE						**3.34**

In particular, their understanding of definition, characteristics, and scope of portfolio ($\bar{x}$ = 3.27) and procedures in creating portfolio ($\bar{x}$ = 3.14) received the lowest scores indicating their lack of understanding of what a portfolio is and how it should be created and used. The data

also indicated an average understanding of the components/contents of a portfolio. However, the data showed that the participants recognized the purposes and benefits of portfolio relatively well ($\bar{x}$ = 3.58). They also showed an awareness of the importance of technology to support e-portfolio ($\bar{x}$ = 3.34)

This is in line with the findings from the FGD. The majority of the participants were unable to define portfolios formally and completely. However, some keywords such as "collection," "documentation," "track record," and "summary" emerged during FGDs. Even though their definitions tended to be fragmented, they seem to have a general understanding of portfolios. As stated by one of the participants:

> *"portofolio itu bisa digunakan untuk semacam kumpulan dokumentasi yang menunjukkan proses perkembangan kemampuan seseorang."* (Indiana, FGD)
> (**Trans:** a portfolio can be used as a kind of documentation collection showing the developmental process of one's competency").

In addition, participants showed some understanding of the components of a portfolio. For example, a participant stated:

> *"Kalau menurut saya portofolio itu sebagai wadah untuk yang didalamnya itu berisikan seperti berkas-berkas sesuatu yang kita buat seperti yang Delta tadi bilang tugas dari dosen, dan juga kalau kita buat seperti cerita itu dimasukin ke portofolio."* (Felicity, FGD)
> (**Trans:** In my opinion, a portfolio is a dossier containing things such as documents that we created, as previously mentioned by Delta, as an assignment from the lecturer, and also if we created things such as story writing, it should also be included in the portfolio".

This statement showed that students understood the contents that should be included in the portfolio. The majority understood that a portfolio should contain evidence related to their assignments in a course. This evidence can be in forms of files, videos, or other media. During the FGDs the students also often used the term "artifacts" to refer to this evidence, a specific term used when discussing a portfolio (Barret, 2007).

Despite lacking understanding of what a portfolio is, they seemed to show awareness of the benefit of portfolio both for their courses and for their future career. As many of the participants stated, portfolios are associated with professional and personal development. They highlighted the importance of portfolio to monitor their" growth" in learning. They also recognized the benefits in documenting their works as a record keeping mechanism, such as practicing as a participant:

> *"bisa mengulang pelajaran dari mata kuliah yang sudah kita pelajari gitu kan nah dari kesimpulan-kesimpulan ke semua pelajaran itu kita rangkumkan ke portofolio"* (Ursula, FGD)

(**Trans:** "We can repeat the lesson from the courses that we have completed. Well, we then summarize the conclusions of these lessons).

The last point worth discussing here is their understanding of the procedures in creating a portfolio. As these participants admitted, there were no explicit instructions on how to create a portfolio. Instead, they were only instructed to collect and document their learning evidence from a course, and in some cases, they wrote self-reflection. However, in a few cases as admitted by some students, they were given a set of instructions on what to be included in their portfolio. A participant said:

"Jadi intinya kak kalau portofolio itu yang pertama description yang kedua itu artifak yang ketiga itu description of artifak dan yang terakhir itu reflection"
(Nova, FGD)
(**Trans:** So, to sum up, sis, portfolio (consists of) first the description, the second is the artifact, and the third is the description of the artifact, and finally the reflection).

This phenomenon is confirmed by the survey data on their skills in creating a portfolio as shown in Table 4 below:

Table 4. Skills in Implementing Portfolio

ASPECTS	Very Poor	Poor	Average	Good	Very Good	Mean
Skills in Implementing Portfolio	1	2	3	4	5	
Collecting and Documenting	0	9	28	30	7	3.47
Reflecting	0	11	31	29	3	3.32
Assessing and Evaluating	0	13	28	30	3	3.31
Using Digital Technology	0	11	26	28	9	3.47
AVERAGE						**3.40**

As indicated in the table, they have relatively better skills in collecting and documenting ($\overline{x}$ = 3.47) and in using digital technology ($\overline{x}$ = 3.47). However, their scores in reflecting ($\overline{x}$ = 3.32), and assessing and evaluating the portfolio ($\overline{x}$ = 3.31) are slightly lower showing their average skills in implementing portfolio.

Comparing the data from survey and FGD, it can be concluded that the participants had superficial and limited understanding and skills in implementing e-portfolio. Even though they could discuss some issues regarding e-portfolio, even using specific terms, they seemed to have somewhat superficial knowledge of it. In addition, their skills were also limited. Despite these shortcomings, they seemed to have an awareness of the benefits of e-portfolio both for their study and for their future careers as teachers

One possible explanation for this is that while e-portfolio was implemented on some courses, these practices tended to be taken for granted. There were inadequate explicit instructions on how to implement an e-portfolio provided by the lecturers. The portfolios practices were merely considered as a practice of collecting and documenting learning evidence. This in turn will influence its implementation. This is inline with Yang, et al (2017) highlighting the "potentially insufficient teacher guidance and support" (p. 13) as a factor influencing the effectiveness of e-portfolio implementation. As also stated by Wilhelm, et. Al (2006), to implement e-portfolio successfully, sustainable training is mandatory.

Theme 2: Scarce and Partial Implementation of e-Portfolio

The second part of the questionnaire focused on the implementation of portfolio in courses offered in the English Language Education Department. The findings show that portfolio was not much implemented in the courses. As shown in Table 5 below, the average score of implementations is 2.72, indicating that in general portfolio was rarely implemented in the courses. Even in all of these clusters of courses, many participants indicated that they never implemented portfolio. This is particularly true in the Linguistics and Literature course clusters ($\overline{x}$ = 2.36) and in English language skills ($\overline{x}$ = 2.57) which received the lowest scores. In Linguistics and Literature courses, for example, more than 28% of participants admitted that they had never implemented portfolio at all. Multidisciplinary course clusters, on the other hand, had a relatively better score ($\overline{x}$ = 3.00), indicating that portfolio was sometimes implemented in these courses. Even though it is still considered low, portfolio practices were relatively more common on this course.

Table 5. Portfolio Implementation in courses

ASPECTS	Never	Rarely	Sometimes	Often	Quite Often	Mean
Portfolio Implementation in Courses	**1**	**2**	**3**	**4**	**5**	
Portfolio in English Language Skill Courses	17	15	27	13	2	2.57
Portfolio in TEFL Courses	13	14	24	19	4	2.82
Portfolio in Education Study Courses	11	14	25	23	1	2.85
Portfolio in Linguistics and Literature Courses	21	20	19	13	1	2.36
Portfolio in Multidisciplinary Entrepreneurship Courses	15	14	10	26	9	3.00
AVERAGE						**2.72**

This is confirmed by the data from the FGDs revealing that portfolio was mostly implemented in some particular courses. For example, the FGD participants cited courses such as "Introduction to Multimedia in ELT," "Creative Writing," "Technology-enhanced Language Learning," and "ICT in Education." The portfolio practices centered in courses particularly

belonging to Multidisciplinary Entrepreneurship courses and technology-based courses were confirmed by the FGD participants. One participant stated:

> *"Jadi pertama kali itu membuat portofolio dan mengenal portofolio itu pada mata kuliah ICT dan yang kedua itu TELL."* (Ursula, FGD)
> (**Trans:** "So the first time I made and learned about portfolio was in ICT course, and the second was in TELL"

One possible explanation for this is that portfolio better suits certain courses with project-based learning models, as such courses call for product-based evidence. These courses, in turn, require collecting and documenting evidence of learning (artifacts) for assessment, and hence portfolio is used. In addition, in technology-based courses, such as ICT in Education, students were given assignments in forms of digital products and these products had to be documented as a portfolio.

In contrast, in courses such as Linguistics and Literature, which have more theoretical bases, e-portfolio were assumed to be unnecessary or irrelevant. Both the quantitative and qualitative data did not indicate the implementation of e-portfolio in these course clusters, whose assessments are mostly paper-based tests or quizzes

However, it is also important to note that in courses in English language skills, portfolio is not commonly implemented is spite of its nature. In fact, many studies show the relevance of e-portfolio with English language skill courses. Romova (2011) for example, indicated the usefulness of e-portfolio for teaching, learning, and assessing academic writing. Baturay & Daloğlu (2010) also claimed that students perceived the benefits and enjoyment in implementing e-portfolio in an online English course.

The real reasons behind it are yet to be further investigated, however one possible explanation is that e-portfolio implementation is determined by lecturers' personal decision instead of pedagogical relevance and necessity.

To understand how e-portfolios have been implemented, the next part of the questionnaire focused on the stages of e-portfolio implementation.

Table 6. Stages of e-Portfolio implementation

ASPECTS	Never	Rarely	Sometimes	Often	Quite Often	Mean
Stages of Portfolio Implementation	1	2	3	4	5	
Collecting	2	19	23	26	4	3.15
Reflecting	3	10	25	28	8	3.38
Assessing	4	12	23	34	1	3.22
Documenting	5	16	22	25	6	3.15
Linking	9	19	28	16	2	2.77
Evaluating	5	20	19	27	3	3.04
AVERAGE						**3.12**

Developed based on Gottlieb' (1995) CRADLE model, participants were asked how often each of the stages were implemented. As shown in Table 6, in general e-portfolio was only sometimes implemented in the courses ($\bar{x}$ = 3.12).

In average, most of these stages were only sometimes implemented, Reflecting ($\bar{x}$ = 3.38) and Assessing ($\bar{x}$ = 3.22) were relatively more frequently implemented than others. On the contrary, Linking was only implemented rarely ($\bar{x}$ = 2.77). This data indicated occasional implementation of e-portfolio. In particular, these scarce practices were centered around collecting, documenting, reflecting, and assessing. However, Linking, which was a practice in connecting portfolio practices with other people (e.g., family, community) and with other settings (e.g., from class to class or even from class to job fields) (Gottlieb, 1995), was not implemented regularly.

These findings were confirmed by the FGD data. The participants admitted that when e-portfolio was implemented, the practices were limited to collecting, documenting, reflecting, and assessing (see Nova's statement above). However, there was also a reservation on the significance of assessment in the e-portfolio. As stated by Sierra, the assessment tended to be *"asal-asalan"* (careless) and there was an indication of subjectivity among students as stated by Felicity.

In addition, there was no discussion about Linking stage. Students were not aware of the potential in connecting a course portfolio with other courses. Each course and its portfolio were assumed to stand by itself and was not related to other courses. This may result from the fact that e-portfolio was not implemented formally and systematically in this institution, but merely initiatives of individual lecturers.

Another finding from the survey showed the types/models of e-portfolios implemented in the courses. As shown in Table 7 below, the most prevalent type/model of portfolio implemented in the courses are working or cumulative type ($\bar{x}$ = 3.34), while showcase and progress/process portfolios are rarely implemented

Table 7. Types/Models of Learning Portfolio

ASPECTS	Never	Rarely	Sometimes	Often	Quite Often	Mean
Types/Models of Learning Portfolio	1	2	3	4	5	
Showcase	13	18	24	17	2	2.69
Working/Cummulative	4	11	18	38	3	3.34
Progress/Process	13	17	25	16	3	2.72
AVERAGE						**2.91**

Despite the relatively low score, working/cumulative portfolio was the most frequently implemented type of portfolio. Working portfolio is a type of portfolio where students collect all of the learning evidence such as assignment, test results, etc.

This indicates that in most courses implementing portfolio, students collected all results of their learning without any filters. Only in few cases did they curate the collections and selected the best evidence as in showcase portfolio or even collected multiple drafts and reflected around the revisions as in process portfolio.

The FGD results also indicated the same fact. As mentioned by most of the participants, portfolio was used to collect all of their assignments, etc., in one place. There was no mention of systematic approach to select the best evidence to show their excellence as in showcase portfolio, or collection of multiple drafts and their comparison as in process portfolio. In many instances, the participants associated the term portfolio with collection and documents. They described their experiences in implementing a portfolio as collecting artifacts, for example one participant stated:

> *"jadi menurut saya portofolio itu berupa kumpulan pekerjaan siswa atau mahasiswa yang terstruktur dengan rapi dan teratur yang berisi hasil karya atau pencapaian siswa dalam mengembangkan dirinya"* (Nova, FGD)
> (**Trans:** So, in my opinion, a portfolio is a collection of students' work neatly and orderly structured, containing a work or achievement of the students in developing themselves")

To sum up, all of these findings confirm that portfolio implementation in this institution was quite scarce and partial. There is not much evidence of portfolio used in the courses. The practices were also quite limited and tended to be centered in some courses, particularly in project-based and technology-based courses. Meanwhile, in theory-based courses, portfolio was almost never implemented. As for the language skill courses, in spite of many documented studies showing the advantages, portfolio was also rarely implemented. In addition, the implementation was also quite limited to only some aspects of portfolio, i.e., collecting and documenting, with occasional yet questionable practices of reflection and assessment. However, the evaluation and linkage practices were not evident. Compared to Gottlieb (1995), it can be concluded that portfolio was only partially implemented.

Theme 3: Digital Technology as a Norm in Creating a Portfolio

The third key theme generated in this study confirmed the extensive use of digital technology in portfolio implementation. As shown in Table 8 below, digital media was predominantly used to document portfolio ($\bar{x}$ =3.57), compared to printed media ($\bar{x}$ = 2.19).

Table 8. Media for Portfolio Documentation

ASPECTS	Never	Rarely	Sometimes	Often	Quite Often	Mean
Media for Portfolio Documentation	**1**	**2**	**3**	**4**	**5**	
Printed	24	23	16	11	0	2.19
Digital	2	6	23	34	9	3.57
AVERAGE						**2.88**

To comprehend this issue more deeply, one part of the survey asked some open-ended questions regarding the media and forms of documentation they made. The results where then visualized in form of word clouds. The findings are shown below.

As a response to the question of what media they used for portfolio, some keywords were prevalent such as Blog, Digital Portfolio, Website, etc.

Figure 3: Media Used for Portfolio

Analyzing the frequency of the keywords, it can be concluded that students mostly used digital media to document their portfolio. Among others, students mostly used blog-based services such as Wordpress or Blogspot, or general websites such as Google Sites. They also utilized cloud storage such as Google Drive. Also prevalent in the data was the use of YouTube, particularly to document videos. One important note is that students also used a special e-portfolio platform such as Mahara. As confirmed in the FGDs, some students described their special experience in using this special e-portfolio platform provided by the department. As recalled by one of the participants, Sierra:

> *"Media itu disiapkan link sama dosen yang bersangkutan kak, itu e-portfolio English UNJA jadi kami mengumpulkannya disitu kak."* (Sierra, FGD)
> (**Trans:** As for the media, the link was provided by the lecturer, it is English UNJA e-Portfolio, so we collected them (the artifacts) there"

Further check and discussions with the students, some lecturers in this institution prepared Mahara website installation to accommodate the implementation of portfolio. This was open-source software specifically designed for managing e-portfolio (www.mahara.org). Some of

the FGD participants described their experiences in using this platform to document their works.

The second question asked the participants to list all forms of artifacts they collected in their portfolio. The result can be seen in Figure 4 below.

Figure 4: Forms of Artifacts

As visualized in the word cloud, media such as PDF file, Photos, Office Documents (Word and PowerPoint), were the most frequently used artifacts. Other media such as Link and Blog were also mentioned. Link was assumed to refer to the Google Drive link that they used to gather the artifacts, while Blog may refer to the blog posts or contents organized in a blog. A participant confirmed this:

> *"Setiap mata kuliah yang aku ambil tugas-tugasnya terus aku ubah PDF dalam bentuk dokumen terus aku cantumin ke portofolio."* (Molina, FGD)
> (**Trans:** "For every course that I enrolled in, I collected the assignments and then I transferred as a PDF in form of a document, and then I put in my portfolio").

To sum up, the data showed that digital technology was predominantly used in implementing portfolio. Students were used to transferring their works into digital format. They also used digital platforms such as websites, Cloud storage such as Google Drive, or even multimedia platforms such as YouTube to document their videos. It is evidence that portfolio implementation in this digital era is strongly associated with digital practice and thus the term e-portfolio or digital portfolio is a norm suitable for describing the implementation.

Theme 4: Internalized Positive Views on Portfolio Implementation

The final key theme generated by this research is regarding the students' views on portfolio implementation in their department. The final parts of the questionnaire focused on this, and the results are shown below

Table 9. Students' Views on Portfolio

ASPECTS	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree	Mean
Students' Views on Portfolio	**1**	**2**	**3**	**4**	**5**	
Portfolio is useful is for my learning	0	1	4	60	9	4.04
Portfolio is useful for my future career's development	0	0	6	50	18	4.16
Portfolio can show my learning achievement	0	0	3	51	20	4.23
Portfolio can show my competence in a study field	0	0	7	48	19	4.16
Portfolio can motivate me to think critically	0	1	8	50	15	4.07
Portfolio is a fair and accurate type of assessment	0	3	19	48	4	3.72
Creating a Portfolio is easy	1	7	40	26	0	3.23
I prefer creating a portfolio digitally	0	1	17	47	9	3.86
Portfolio should be implemented in our department	1	0	17	46	10	3.86
AVERAGE						**3.93**

In general, the data shows a positive view in favor of portfolio ($\bar{x}$ = 3.93). Most of the students agreed on the importance of portfolio both for their study ($\bar{x}$ = 4.04) and their future career ($\bar{x}$ = 4.16). The slight difference in the score might suggest that the students envisioned the importance of their future career a little more than their current study. As for the ability of portfolio to show their learning achievement ($\bar{x}$ = 4.23) and their competence ($\bar{x}$ = 4.16), the data indicated their general agreement that portfolio is a valid measurement of their achievement and competence in each area. They also admitted that portfolio motivated them to think critically. This is supported by the data from FGD as they discussed the benefits of portfolio for their study and their envisioned career. Some participants used the term "achievement" to describe the benefits of portfolio.

However, they were in little doubt with fairness and accuracy of portfolio as an assessment ($\bar{x}$ = 3.73). In the FGD it was found doubt rooted in their doubt in the process of peer-assessment among students and in the quality of the artifacts they collected. As discussed previously, some students showed reservation if they or their peers provided a fair peer-assessment for each of the assignments they documented in the portfolio. As stated by Felicity:

> *"Bisa dibilang setuju sih, soalnya kadangkan kalau mahasiswa-mahasiswa lain yang kurang aktif mereka hanya bikin tugas yang asal-asalan."* (Felicity, FGD)
> (**Trans:** You can say I agree, because sometimes other student who are not active, made the assignment carelessly)

This highlights their reservation towards the effectiveness of portfolio as an assessment, due to habits of some students to carelessly do their assignments as well as assess other students' work.

As for the ease in creating portfolio, the students indicated they were unsure ($\bar{x}$ = 3.23). This was in line with the previous discussions on their understanding and skills in

implementing portfolios showing their lack of skills to implement portfolios. This in turn influenced their perceptions of ease of use of portfolio.

The final question was about their view on whether e-portfolio should be implemented in the department. Their responses tended to agree o. This showed that in general they supported implementation of portfolios in the department, even though some concerns were also documented in the FGDs. Some participants cited technical difficulties that they had. Irene, one of the participants, for example, stated that:

> *"Kayak instruction apa-apa saja yang harus dilakukan, mungkin juga bisa dibuat PDF gitu tata caranya gimana, mungkin kalau platform-nya disediakan bisa dikasih tutorial atau mungkin pilihan web yang bisa digunakan"* (Irene, FGD)
> (**Trans:** For example, the instructions of what to do, may be a PDF document can be made containing the procedures, or may be if the platform is provided, a tutorial can be made, or may be alternatives of website that can be used.")

Another participant mentioned the need for human resources to support students having problems with the digital platforms of e-portfolio. She stated:

> *"Mungkin ya benar tadi SDM itu harus penting, selain persiapan untuk memperkaya kontennya"* (Diva, FGD)
> (**Trans:** Maybe yes, that was right that human resources must be important, besides preparation to enrich the content)

This highlighted the problems that they faced and what should be prepared before portfolio is implemented in the department. In general, they believed that to support effective implementation of e-portfolio, guidelines, and instructions, as well as technical support must be prepared prior to the implementation.

Based on these data, it can be concluded that in general students have positive views about the implementation of e-portfolios in higher education institutions, even though they may still have some concerns regarding its effectiveness and thus suggested some preparation to be made. They also showed concerns regarding the validity of the assessment process, citing lack of quality control in the learning process as the root of the problems, and thus calling for more serious training on the students' side to be able to produce a quality e-portfolio. One possible explanation of the contradiction between positive view and concerns is that their views are internalized, that is, a set of behavior influenced by learning or other kinds of socialization (Scott, 1971). That is, their positive view derived from what they learned in the courses rather than their own awareness, especially the benefits of portfolio. They believed that portfolio was important because the lecturers told them so and they had to implement it as a requirement of the courses.

Discussion

This current study aimed at exploring the implementation of e-portfolio in higher education context, particularly in an English language education department. From the data analysis, four key themes have been identified and discussed in detail in the previous sections. These key themes are visually summarized in the figure below.
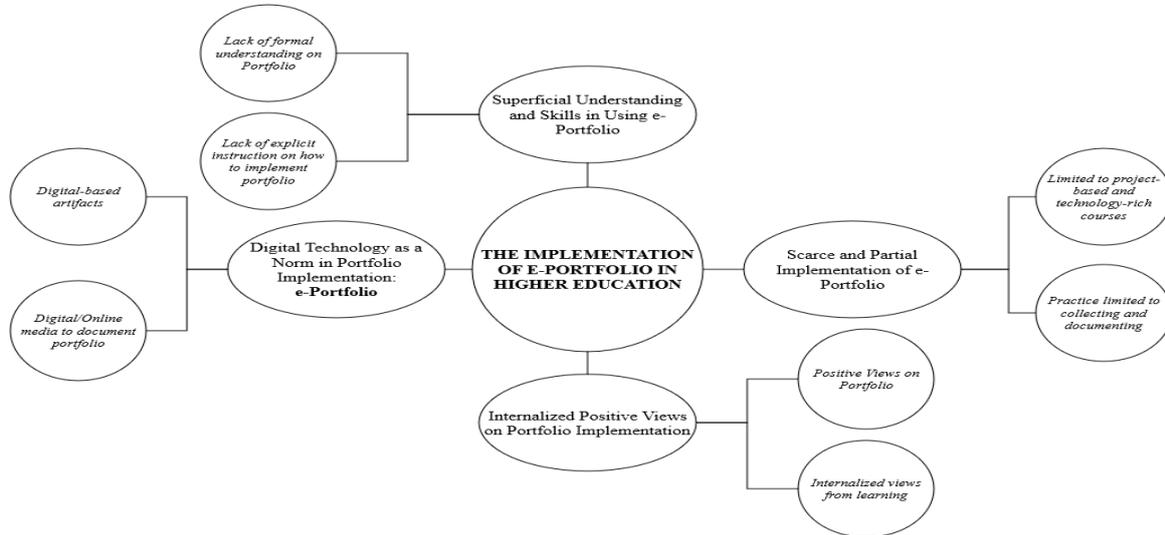

Figure 5: Visual Summary of Findings

Following the visual summary presented above, some statements encapsulating the key findings are discussed in line with the research questions.

The Implementation of e-Portfolio

The first research question was focused on the implementation of e-portfolio in higher education context. It was found that the implementation was quite limited and partial. First, in terms of number, only few courses implemented e-portfolio. E-Portfolio was not implemented institution-wide. The decision to implement e-portfolio seemed to be made by the lecturers. There was no explicit instruction or agreement in the department on the implementation. It was also found that e-portfolio was predominantly implemented by courses with project-based designs and/or courses related to technology. In other courses, the implementation was more uncommon and even not found. One plausible reason behind this is that project-based courses usually require students to collect and document the results of students' projects that may come in different forms such as the product, report, peer assessment, etc. This is in line with Bender's (2012) notion of e-portfolio as an ideal assessment technique in project-based courses, This also happens with technology-based courses where students were usually required to create several technology-based products and collect them into a portfolio. Interestingly with English

language skill courses, the implementation was also quite limited, despite of a vast number of studies suggested e-portfolio benefits for English language skills (For example Romova and Andrew, 2011).

Secondly, the findings also showed that even when e-portfolio was implemented, its implementation was partial, i.e., only some of the stages and the elements of the e-portfolio were implemented. Comparing it with CRADLE's model (Gottlieb, 1995), the implementation in the institution under study was focused more on the collecting and documenting stages. Students' activities in creating e-portfolio were more centered toward collecting evidence and documenting them, particularly in digital format. There was also evidence of reflecting and assessing, however the implementation was also limited. In few instances, students' reflections were included as a part of the e-portfolio. In addition, even though the learning evidence was assessed (graded), only in few instances did the lecturers instruct the students to include the assessment as a part of the portfolio and no evidence of connecting the assessment results with the reflection was made. Furthermore, the was no linkage made between courses or between students' e-portfolio and community (family, etc.).

Finally, it was also found that portfolio was predominantly implemented in digital/electronic media. The students mostly used and preferred digital formats to save their learning evidence (artifacts). In addition, they also preferred digital/web-based platforms to document the portfolio, thus highlighting the existence of e-portfolio as the norm of implementation. This is in line with the vast majority of literature in e-portfolio (See for example Yang et. al, 2017).

Students' View on e-Portfolio Implementation

The second research question is related to students' view on e-portfolio implementation. The findings revealed that in general students have positive views on e-portfolio. They agreed that portfolio was beneficial both for learning and their future career. They also agreed that portfolio could be used to show their learning achievement and competence. This is in line with previous studies confirming students' positive views on portfolio use (see, for example, Aydin, 2014; Baturay & Daloğlu, 2010).

Despite this, they also showed some concerns about its fairness and accuracy as a means of assessment, and its ease of creating portfolio. Slight reservations were also shown in the use of digital technology and future possibilities in implementing e-portfolio in the institution. The data suggested that these concerns rooted from their lack of understanding and skills in using e-portfolio, as well as lack of an explicit, systematic instruction in the use, which in turn,

influenced the "imperfect" implementation, including in the assessment process. Their surface-level understanding and skills may also influence their portfolio implementation. One possible explanation is that their positive view was rooted in the internalization (Scott, 1971), where their positive view was merely influenced by the learning process, i.e., they believed that e-portfolio was useful because the lecturers instructed them so. However, this knowledge was not supported with sufficient complete procedural knowledge required for effective implementation of e-portfolio. This highlights the importance of adequate preparation prior to e-portfolio implementation and the students' understanding and skills as underlying factors in a good implementation of e-portfolio.

CONCLUSION

This study has managed to provide a comprehensive description of e-portfolio implementation in higher education context in an Indonesian English language education department and how the students viewed the implementation.

In conclusion, E-Portfolio holds a significance in transforming education, especially in Indonesian higher education as documented in a vast number of studies. However, for the more effective implementation of e-portfolio, several preparations should be made. This study highlighted the interplay between complete understanding and skills, adequate pedagogical and technical support, and an effective implementation of e-portfolio in higher education. By bringing about all these supporting aspects, e-portfolio may be implemented effectively, and may in turn bring about a transformative value in education, particularly in English language education.

Limitation of the Study

The current study has provided comprehensive information regarding the implementation of e-portfolio in higher education. However, some limitations should be acknowledged. First, this study used a relatively small sample size, particularly for the quantitative data, and the context is limited to the English language education department under study. These may raise questions on the generalizability. The descriptions and analyses provided here may only apply to this context and variations may occur in other contexts. However, as this study was aimed at exploring practice in an institution, the context plays a key role that must be recognized as influencing the practice. In fact, some of the findings, given some similarities of the context, may also be observed as applies to other institutions. In the future, a bigger sample size and exploration of multiple sites are strongly recommended to yield more generalizable findings.

Second, this study only took students' point of view. Some biases may occur due to the subjectivity of the participants, for example due to their desire to align with social expectations. One way to be recommended in the future study is to complement these findings with other sources as a means of triangulation, for example by involving lecturers, observation, even document analysis to observe how a portfolio is implemented.

Recommendation

Given the scope and limitations of this research, further studies can be recommended. This includes the implementation of e-portfolio from other perspectives (e.g., lecturers), the use of different methods to capture various aspects of e-portfolio, a potential connection between e-portfolio in the course and students' career, etc.

Furthermore, some practical recommendations can be offered in order to yield a more effective implementation of e-portfolio, particularly in the English language education department, including: 1) preparing the students with comprehensive training in pedagogical, technical, and technological aspects of e-portfolio, 2) providing technical supports, complete guidelines in e-portfolio implementation, and easy-to-use e-portfolio platform, and 3) Providing an institution-wide policy regulating the e-portfolio implementation. By following these recommendations, it is hoped that a higher education institution not only provides a comprehensive assessment geared toward quality graduates but also prepares them for their future career and employment opportunities (Cleveland, 2018) in the era of Fourth Industrial Revolution.

Acknowledgments

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APPENDIX 1: QUESTIONNAIRE ON IMPLEMENTATION OF E-PORTFOLIO AND STUDENT'S VIEWS

Instruksi:

Kuesioner ini disebarkan untuk mengumpulkan data untuk penelitian tentang potensi penggunaan Portofolio Pembelajaran di Prodi Pendidikan Bahasa Inggris FKIP Universitas Jambi. Jawaban lengkap dan jujur dari anda akan sangat membantu kami mendapatkan hasil yang bermanfaat untuk Prodi. Oleh karena itu, dimohon kesediaannya untuk mengisi kuesioner ini. Untuk mengisi kuesioner ini hanya membutuhkan waktu sekitar 10 menit. Atas bantuannya diucapkan terima kasih

A. DATA PRIBADI

1. Nama Lengkap   :

2. NIM   :

3. Angkatan   :

4. Jenis Kelamin   : L/P

B. PENGETAHUAN DAN KETERAMPILAN

1) Pengetahuan saya terkait Portofolio Pembelajaran (disingkat PP) dalam aspek berikut ....

ASPEK	PENILAIAN				
	Sangat Kurang	**Kurang**	**Sedang**	**Baik**	**Sangat Baik**
1. Definisi, karakteristik & Ruang Lingkup					
2. Tujuan dan Manfaat					
3. Komponen/Isi					
4. Prosedur Penyusunan					
5. Teknologi Digital yang Digunakan					

2) Keterampilan saya terkait Portofolio Pembelajaran (disingkat PP) dalam aspek berikut ....

ASPEK	PENILAIAN				
	Sangat Kurang	**Kurang**	**Sedang**	**Baik**	**Sangat Baik**
1. Mengkoleksi dan Mendokumentasikan					
2. Merefleksi					
3. Menilai dan Mengevaluasi					
4. Menggunakan Teknologi Digital					

3) Bagaimanakah pengalaman anda dalam menggunakan portofolio pembelajaran di kelas?

ASPEK	PENILAIAN				
	Tidak Pernah	**Jarang**	**Kadang-kadang**	**Sering**	**Sangat Sering**
1. Pada MK Language English Language Skill					
2. Pada MK TEFL					
3. Pada MK Ilmu Pendidikan (KIP)					
4. Pada MK Linguistics & Literature					
5. Pada MK Multidisciplinary Entrepreneurship					

4) Seberapa sering dosen anda menugaskan anda melakukan kegiatan berikut

ASPEK	PENILAIAN

Dedy Kurniawan et al.

	Tidak Pernah	Jarang	Kadang-kadang	Sering	Sangat Sering
1. COLLECTING. Mengumpulkan dokumen/artifak hasil belajar					
2. REFLECTING. Menuliskan refleksi atas hasil belajar yang telah anda lakukan pada PP					
3. ASSESSING. Melakukan penilaian atas PP yang dibuat (baik oleh dosen maupun teman sejawat)					
4. DOCUMENTING. Mendokumentasikan hasil belajar dalam bentuk PP (baik secara digital maupun cetak)					
5. LINKING. Menggunakan PP untuk membangun koneksi dengan teman sejawat, keluarga, pihak eksternal, dll (misal dengan membagikan hasil pembelajaran)					
6. EVALUATING. Melakukan evaluasi terhadap hasil pembelajaran yang ditunjukkan pada PP dengan capaian pembelajaran MK					

5) Bagaimana model penggunaan PP yang biasa diterapkan oleh dosen?

ASPEK	PENILAIAN				
	Tidak Pernah	Jarang	Kadang-kadang	Sering	Sangat Sering
1. SHOWCASE. Mengumpulkan hasil terbaik/final saja					
2. WORKING/CUMMULATIVE. Mengumpulkan SELURUH hasil belajar saya untuk setiap unit pembelajaran					
3. PROGRESS/PROCESS. Mengumpulkan dan membandingkan draf awal dan draf akhir hasil pembelajaran saya					

6) Moda yang digunakan untuk mendokumentasikan portofolio

ASPEK	PENILAIAN				
	Tidak Pernah	Jarang	Kadang-kadang	Sering	Sangat Sering
1. Cetak					
2. Digital					

7) Bagaimana pendapat anda terhadap pernyataan berikut tentang portofolio pembelajaran

ASPEK	PENILAIAN				
	Sangat Tidak Setuju	Tidak Setuju	Netral	Setuju	Sangat Setuju
1. Portofolio sangat bermanfaat dalam proses pembelajaran saya di kelas					
2. Portofolio sangat bermanfaat untuk karir saya di masa depan					
3. Portofolio dapat menunjukkan ketercapaian/hasil pembelajaran saya					

4.	Portofolio dapat menunjukkan kompetensi/ kemampuan saya dalam suatu bidang ilmu					
5.	Portofolio mendorong saya untuk berfikir kritis					
6.	Penilaian berbasis portofolio adalah bentuk penilaian yang adil dan tepat					
7.	Membuat portofolio itu mudah					
8.	Saya lebih suka menggunakan moda digital untuk membuat portofolio					
9.	Portfolio harus diterapkan dalam pembelajaran di Prodi					

8) Sebutkan media digital yang digunakan untuk mendokumentasikan hasil pembelajaran anda (Portofolio digital). Jika tidak ada, tuliskan N/A

_____

9) Sebutkan bentuk-bentuk artifak/dokumen hasil belajar yang dikumpulkan dalam portofolio (misal: Video, paper, dll). Pisahkan setiap bentuk dengan titik koma (;)

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