Teacher Perception on The Use of e-Portfolio as Formative Assessment for Pre-Service Teacher in English Department

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Abstract

The aim of this research is to explore how the teacher's perception of the use e-Portfolio as formative assessment for Pre-service teachers. The setting of this research was in English Department study program in a higher education. The participant in this research are 3 lecturers. The participants are lecturers of one university in Yogyakarta who teach in microteaching class. The research design is a qualitative method, which specifically employed thematic analysis thematic analysis. The researcher chose a thematic analysis research design because this type of research will facilitate the researcher in exploring and describing teachers' perception uses e-Portfolio as formative assessment in their class with their students. The data were collected through interviews involving the lectures assigned in higher education in Yogyakarta. The most types applied by the participant were in terms of recognition and aggression. An appealing finding was found that the use of e-Portfolio as a formative assessment in the classroom are very helpful and facilitate the teacher in the learning process.

***Keywords:** e-Portfolio, Formative assessment; Teachers' perception; Pre-Service Teachers*

INTRODUCTION

Current discussions on formative assessment mostly highlighted on the use of students' respond system (Fuller, 2017). That is to say that formative assessment is always used in the classroom as a basis for giving feedback on the teaching and learning process (Hargreaves, 2008). In addition, it also becomes one of the important things in learning assessment (Angus & Watson, 2009).

One of the formative assessments is using e-portfolio as a media. It is likely to increase the students' motivation to do assignments as well as help teachers to provide feedback outside the classroom. As such, e-portfolios an outcome of the digitalization of paper-based portfolios have been adopted as digital assessment tools in a growing number of HEIs around the world (Buzzetto, 2010). e-portfolios for classroom learning have also been used as a means of formative assessment to facilitate students' deep understanding about a certain subject content (Gikandi, et al., 2011).

The concept of e-portfolio or Electronic Portfolio is constructed to answer the educational challenge of globalization. From the beginning of the 21st century there has been a lot of interest in using e-learning and choosing technology as a support for learning (Gray, 2008). Due to the rapid development of technology, the use of technology as a medium to improve the efficiency and effectiveness of the learning process is unavoidable (Sulisworo et al., 2016).

Moreover, the existence of the internet becomes an epidemic that is inevitable for the young generation in this nation. In addition, the development of technology also affects the formative assessment in Indonesian where it develops the portfolio into online media namely e-portfolio. According to Yancey (2001) e-portfolios can be called as a complement of online learning that generally refers to using computer-assisted learning activities. Therefore, the use of e-portfolios in Indonesia is only used in higher education and only focused for writing tasks and

usually seen as the end result. However, there are some educational programs that have used the e-portfolio assessment especially in formative assessment.

Previous studies on the use of e-portfolio as formative assessment in the classroom had been carried out as a means of providing feedback to the students in the class (Hargreaves, 2008). In addition, e-portfolio is usually used to facilitate students' in-depth understanding of a particular subject content (Gikandi, Morrow, & Davis, 2011). However, in Indonesia, the studies related to e-portfolio only discuss the students' perception of challenges on the implementation of e-portfolios used in micro teaching class (Matra & Rukmini, 2017). In Indonesia, rarely research pertinent to the implementation of e-portfolio examining the teachers' perceptions conducted in higher education. Thus, to fill this gap, the researcher wants to observe the teachers' perception on the use of e-portfolio as a formative assessment in higher education.

This study employs the construct from (Wiliam, 2007) because it represents e-portfolio as an assessment in comparison to Pachler et al. (2010) that highlights most of formative assessment. The framework is displayed below:
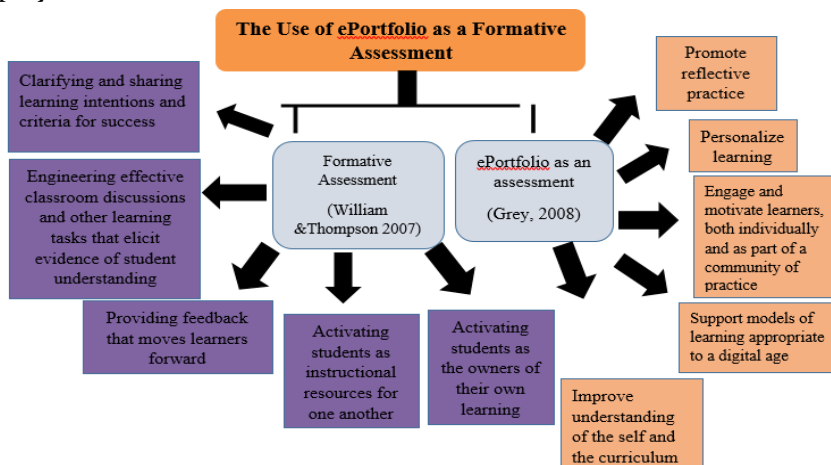

Figure 1. Theoretical Framework of ePortfolio as Formative Assessment

METHODS

This research aims to know the teacher perceptions on the use or of e-portfolio as a form of formative assessment for pre-service teachers in microteaching class. Current studies assessing this issue commonly use qualitative methods (Baleni, 2015) and (Matra & Rukmini, 2017). Due to the effective data collection and analysis of qualitative methods, thus, to investigate teachers' perceptions, the research design is qualitative method, specifically thematic analysis. Thematic analysis is a method for identifying, analyzing, and reporting patterns data. And aims to organize and explain your data set in detail (Braun & Clarke, 2006). The researcher chose a thematic analysis design because this research wants to explore deeper comprehension on the use of e-portfolio as a form of formative assessment in the class through teachers' verbal input by interviewing the lectures of Micro-Teaching class. This research involved 3 lecturers at Microteaching class as the participants. The participants in this research are 3 lecturers at Microteaching class and used e-portfolio as a formative assessment to their students. The participants are determined by the objective of this research is to describe how to use the e-portfolio in their classes from the teacher's perspective. The data were collected through an interview session with lecturers in one of university in Yogyakarta in order to investigate the use of e-portfolio as a formative assessment.

RESULTS AND DISCUSSION

The data that the researcher got was from the interview with Micro-Teaching lectures. After the researcher contacted and met with the teachers, the researcher transcribed data which took two weeks. The researcher has reflected and reviewed through the process of re-listening, rereading, and rechecking data than the researcher did the theoretical coding process. The codification is based on the theoretical framework that the researcher used.

Coding Translation

Construct	Themes	Sub-Themes	Codes	Coding Translation
e-portfolio as assessment tool	Benefits of e-portfolio for Pre-Service Teachers.	Digital age learning	(INT/DL/P1/078) (INT/DL/P2/118) (INT/DL/P3/048) (INT/DL/P3/054)	INT: Interview DL: Digital age learning RF: Reflective RS: Response System PR: Procedure P1: Participant 1 P2: Participant 2 P3: Participant 3
	Functioning e-portfolio to support reflective practicing		(INT/RF/P1/110) (INT/RF/P2/118) (INT/RF/P2/149) (INT/RF/P3/040) (INT/RF/P3/044)	
The strategies in formative assessment	Strategies to implement Formative Assessment through the e-portfolio.	Responses System	(INT/RS/P1/048) (INT/RS/P2/082) (INT/RS/P2/092) (INT/RS/P3/026) (INT/RS/P3/040)	

Based on ten components of e-portfolio as formative assessments that have been employed in the theoretical framework, all of them were fully conducted by the participants. Those components are Clarifying and sharing learning intentions and criteria, engineering effective classroom discussions, providing feedback that moves learners forward, activating students as an instructional resource for one another, Activating students as owners of their own learning, improve understanding of the self and the curriculum, engage and motivate learners, personalize learning, support models of learning appropriate to a digital age, promote reflective practice. From ten components that have been employed. The transcript of the interview which was in Indonesian language was translated into English and was thematized. Moreover, the researcher found three big themes and two sub-themes from the transcript. Below (figure 4.2) is one example of translated transcription of the interview.

Sample of Translated Interview's Transcript

I	111	*Kalau disimpulkan berarti kalo misalnya untuk e-portfolio nya sendiri digunakan sebagai formative assessment. Menurut ms Ina berguna sekali atau tidak? Kayak ini tepat atau nggak kek gitu* **If it is concluded that, for the e-portfolio it is used as a formative assessment. Ms. Ina thinks it's really useful or not? Like it's right to use or not**
T	112	*Sebenernya kalo e-portfolio itu lebih kepada hmm apa ya e organization nya.* **Actually, e-portfolio is more for the organization.**
I	113	*He'em* **Heem**
T	114	*Jadi gini, kalau, kalau tidak pake e-portfolio, kemungkinan saya akan mendapatkan e file yang sangat banyak*

		so if you don't use e-portfolio, chances are I'll get a lot of files
I	115	*He'em* **Heem**
T	116	*Saya punya file yang berapa gitu kan ya. Punya file segitu banyaknya untuk mengumpulkan semuanya tapi dengan e-portfolio kan ndak saya gak harus menyimpan semuanya saya hanya butuh tetap link nya nanti saya bisa akses ke situ kapan aja. E sebenernya ada di sisi efektivitas completeness, completeness e kemudian easy access e kemudian lebih mulai menilainya karna saya gak perlu bawa-bawa barang yang banyak* **I have so many files to collect everything, but with the e-portfolio, I don't have to save all of them. I just need to keep the link later. I can access it anytime. actually on the effectiveness side of completeness, then easy access, and easier because I don't need to carry a lot of stuff**
I	117	*Banyak ya* (tertawa kecil) **Lots , eh? (chuckle)**
T	118	*Harus dibawa kemana-mana gitu ya kertas apa gitu kan gak perlu. Sehingga saya bisa mengakses dimana saja jadi kalo ya ya bisa dimana saja dimana kapan saja saya bisa mengakses. Jadi lebih kesitu. Sebenarnya itu memudahkan mahasiswa juga sebenarnya karena dia tidak perlu kehilangan apa ya oh iya kemaren kertasnya ketinggalan dimana gitu sebenarnya itu juga gitu karna mereka mengerjakannya semuanya kan pake file* **You have to carry it around like that, you don't need paper. So that I can access anywhere and anytime I can. Be more there. Actually it makes it easier for students because they don't need to lose or miss their files.**

The result of interview data by the researcher indicated that Ms. Ina confirms that the use of e-portfolio for pre service teachers has a positive impact and is effective when implemented in the classroom. In the data mentioned that, Ms. Ina was greatly helped by the use of e-

portfolio as an organization in the assignment of her students. Not only makes it easier for teachers, as explained by Ms.Ina that the use of e-portfolio also makes it easier for students in sending and storing files. According to Ms.Ina if she does not use this e-portfolio then she will get a lot of paper assignments from her students and it will make teachers and students overwhelmed.

From the sample data above, it has been explained that this e-portfolio really helps the effectiveness of the class in managing students 'and teachers' assignments to be easier and more efficient without having to fear losing files, easy to access anywhere and anytime.

1.   **Benefits of e-portfolio for Pre-Service Teachers**

In terms of e-portfolio employment, Grey (2008) suggests that it may generate students' reflective practice, support a model of learning that is appropriate to a digital age, personalize learning, engage and motivate learners, and improve students' understanding towards given materials. It means that regardless of learning model, e-portfolio is doable. These five benefits were found in all participants of this research. The first participant is Ms Ina, the second participant is Ms Dia and the last participant is Ms. Nura

A research conducted by Barrett (2001) An electronic portfolio (e-portfolio) uses electronic technologies which allows the portfolio to be collected in various forms such as audio, video, graphics and text. This can be interpreted to help students in collecting their tasks using technology that is always developing. e-portfolio becomes a media or support model of the digital age to submit students' tasks or data. The data are provided below:

 "all can be covered there, all uploaded and can be shared. Anyone can share it, we don't need to send the file, I mean, for example, "miss, I'm asking for an example of what is a teaching practice?" I don't need to give the file, but I just simply send the link."

(INT/DL/P1/078)

"easy of accessibility profile as one of the teachers. So you are easy to access your documents and easy to see by you as well as others"

(INT/DL/P2/118)

"Google site is like a blog, so I think it's more flexible to be personalized by each student. If you use Google classroom, the control is in the lecturers and students can only contribute if they are given access. while on Google site each student can do their own management. so each of them can be creative and there is personalization and creativity that can be displayed by them through the google sites platform. The name is also like microblogging so it's more flexible and can hold a lot of things. it can be a text, video and document "

(INT/DL/P3/048)

"Google has features that are relatively user friendly, so they can automatically handle themselves. and actually given training to them is expected later they can continue on their own"

(INT/DL/P3/054)

The data showed that learning using e portfolios makes everything more flexible and easier for students. There are so many benefits that can be gained by teachers and students. As said by the teacher on the data (INT/DL/P1/078), if students ask for some examples of teaching practice, the teacher does not need to bother sending files or searching the files again. the teacher only needs to send the link to the student. This is one of the benefits for teachers when using e-portfolio. And the same with data (INT/DL/P2/118) which shows the benefits of e-portfolio for teachers.

The beneficial of using e Portfolio as digital age learning for students as in the data (INT/DL/P3/048), (INT/DL/P3/054) in addition having friendly and flexible features to use, students can also manage

their own work automatically whenever and wherever and not only to that, students can also access the work of other friends for example and they will never lose their files.

As said by Yancey (2001) e-portfolio is digital media that is developed from technology and internet-based portfolios for learning media to facilitate students and teachers. Therefore, e-portfolio are created through the same basic processes used for print portfolios: collection, selection and reflection. This is directly related to the data obtained that e-portfolio is a technology system that helps every student in their assignments and collecting files easily and keeps abreast of the era in which technology learning is applied in the classroom and easily accessible wherever and whenever.

2. functioning e-portfolio to support reflective practicing

(Goldsmith, 2007; Reese & Levy, 2009; Lin, 2008) said that, in this learning there is a reflective process because e-portfolios require reflection of one's own learning, so students can self-reflect and assess their learning processes by e-portfolios. The reflection process here is very important because it is part of the purpose of the e-portfolio itself. by facilitating students to do self-reflection that aims to learn from the mistakes that they have made and do their best in the future. The data are provided below:

"For self-reflection it actually has more benefits. The benefits are more for students not for grades. So if students do self-reflection actually they are trying to assess themselves like 'okay am I ready to prepare the lesson plan' actually for themselves and if they honestly answer then they will know their weaknesses and strengths"

(INT/RF/P1/110)

"reflection is also mandatory. if it's not done you won't know what your progress will be like. rather than just doing reflection in a piece of paper then forgetting. why not make self-branding as well"

(INT/RF/P2/118)

"how can it be maximized don't just be a tool to give assignments but also beyond that. The point of reflection must be that output."

(INT/RF/P2/149)

"They can see their journey. like 'did I progress from the first teaching practice to the second teaching practice and the third teaching practice' like that."

(INT/RF/P3/040)

"reflecting on what they do with the expectation that they will do after that is the result of the lessons they reflected before"

(INT/RF/P3/040)

The data (INT/RF/P1/110) showed that Self-reflection has many advantages for students. they can see their abilities from self-reflection and also from the data (INT/RF/P2/118) students can know their progress during the learning process. Self-reflection is also carried out aimed at helping students prepare for the future and as learning material from their shortcomings this also found in the data (INT/RF/P2/149), (INT/RF/P3/040), and (INT/RF/P3/040).

Based on the data above, the teacher feels a beneficial impact in using e-portfolio to students. They describe some of the advantages in using e-portfolios that can be relied upon as a vehicle for student self-reflection that will be stored for a long time without fear of being lost so that they can be accessed easily. Similar findings found from Maharsi (2019) self-reflection in the e-portfolio between teachers and students is their teaching practices. Their teaching experience is a form of learning that is useful for further internship programs and professional development in the future.

From the result presented above, it can be concluded that self-reflection is one way to help students correct themselves for future

planning. and then, self-reflection can show the progress of students in learning. In this case the teacher hopes that self-reflection can be useful as much as possible for students in supporting their abilities.

3. Strategies to implement Formative Assessment through the e-portfolio

In supporting the use of e-portfolios, William (2007) has five key strategies including: (1) Clarifying and sharing learning intentions and criteria. (2) Engineering effective classroom discussions, (3) Providing feedback that moves learners forward. 4) Activating students as an instructional resource for one another. (5) Activating students as owners of their own learning. These five strategies were found in all participants of this research.

According to Hargreaves (2008). Formative assessment is frequently applied in the classroom as a source of ongoing feedback with the aim to improve teaching and learning. In higher education the use of formative assessment is always carried out until now, with the same method. that is, assess the learning process of each student and provide regular feedback, it can be responses from teachers to students and students to students. The data are provided below:

"The lesson plan <u>I always give feedback via email and face to face</u>. <u>depending on the time and depending on the students</u> because, there is a cognitive already good. For example, they can make their own lesson plan at home then their email to me then I give feedback. The feedback is written so I will comment on this plus and it's lacking. while for students with cognitive impairment they have face to face I usually ask them to spend more time so they can meet me for a consultation. even for consultations it must be told one by one too"

(INT/RS/P1/048)

"I told students we would try 2 different ways to convey feedback. The first is the oral one, the first is today I will give feedback after everyone finishes the

presentation and tomorrow I will give feedback after one presentation. and then I let them feel and I let them proceed the way I gave the feedback which one do you think suits you the best. I specified it to be one presenter one feedback"

(INT/RS/P2/082)

"The feedback is not only for the performers but also others"

(INT/RS/P2/092)

"more direct feedback. And if the microteaching class is indeed the direct feedback, it is usually directly after the students' finish teaching practice"

(INT/RS/P3/026)

"The feedback given by friends or lecturers is only a catalyst and a stimulus. it is also a prompt but if it is not contemplated in the future, it is not analyzed and lessons are not taken by students so it will not have an actual impact. So that's the point of the lecturer way to make them like 'you know it's like to write what

they do and then eventually do what they write' "

(INT/RS/P3/040)

The data (INT/RS/P1/048) show that Ms. Ina provides responses or feedback to her students via email and face to face, this can also be referred to as oral feedback and written feedback. giving the feedback according to the needs and abilities of her students. It is also similar to Ms. Nura in data (INT/RS/P3/026) she also does the same thing when giving feedback to students in microteaching classes. And in data (INT/RS/P2/082) Ms. Dia also responds to students regarding their performance both in class or not. The data also shows that after students are given feedback, students will be independent to proceed in accordance with the feedback given by the teacher.

From the data (INT/RS/P2/092) and (INT/RS/P3/040) show that Ms. Dia and Ms. Nura telling a feedback or suggestion given by friends or teachers is just a stimulus. Students must reflect on the feedback they

found from the teacher and their friends as material to change their performance in the future. They also hope that the feedback given will also have a good impact on all students. The data also show that students are also intended to think independently and also have to make a given feedback into self-reflection until they can be processed and give good results.

Based on the data above the teacher believes that the response to students or feedback given to students is very important to be able to change performance, mindset and learning processes of students in the micro teaching class. As said by (Gikandi et al, 2011) formative assessment activities are designed to monitor learning and assess learners' understanding and aim at modifying instruction, informing further learning through continuous and timely feedback until the desired level of knowledge is achieved. Then, in supporting learning using e-portfolio, feedback is also needed by students so that they also have provisions in the future. and feedback is also important to be applied in the learning process by teachers and students.

CONCLUSION

The researcher investigates the teacher's perceptions on the use of e-portfolio in the class. In this study the target is lecturers from the micro teaching class who use e-portfolio as a formative assessment to pre-service teachers. The results obtained by interview with Micro-Teaching class lecturers. Based on the discussion in chapter four, it was found that using online platforms such as e-portfolio can help teachers and students maintain their files and there are so many benefits from using e-portfolio as a media in gathering student assignments. Some data from Ms. Ina states that e-portfolio is also very supportive in the process of self-reflection for students and their friends. as well as said by Ms. Dia and Ms. Nura uses e-portfolio as organized student tasks that are able to

provide high learning motivation because of the ease of accessing wherever and whenever.in the learning process that occurs the feedback process carried out also becomes easier and more relevant. So far, researchers have not found difficulties or obstacles in using e-portfolio in microteaching classes based on teacher perception. If concluded many advantages in using e-portfolio: (1) Digital Age learning. It can help students and teachers maintain their file and be easy to access anytime and anywhere by using high technology. (2) Self-Reflection conducted by students in e-portfolio can be effective and fun. (3) Response System. Giving feedback to the students from the teacher and students from students can be more relevant and effective. The limitation in this study is the respondent used from the same university because there are only a few lecturers who use e-portfolio in their micro-teaching classes. for future researchers, they can use the same but focused research on students' perception on the use of e-portfolio as a formative assessment

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