



**Development of E-Portfolio-Based Authentic Assessment of PNFI Learning Media  
Development Courses in the Out-of-school Education Study Program (PLS) Faculty of  
Teacher Training and Education (FKIP) Unpatti Ambon**

**Lamberthus J. Lokollo**

Faculty of Teacher Training and Education (FKIP) Pattimura University Ambon

Email : [lambertuslokollo@gmail.com](mailto:lambertuslokollo@gmail.com)

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**Abstract:**

The general objective of this research is to produce an e-portfolio-based authentic assessment model for the PNFI Learning Media Development course in the Foreign Education Study Program. School (PLS) Faculty of Teacher Training and Education, Pattimura University. The findings of this study indicate that developing an authentic portfolio-based assessment model has met all the criteria for an e-portfolio-based assessment model, and can be implemented as an assessment model in the PNFI Learning Media Development Course in the Out-of-school Education Study Program (PLS) Faculty of Teacher Training and Science. Education (FKIP) Unpatti Ambon.

**Keywords:** assessment, authentic, e-portfolio, development

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**INTRODUCTION**

Assessment is an integral part of teaching and learning and is fundamentally an important component of the entire educational process, because it can be used to support student development, and its findings can be applied to establish educational goals and objectives. Based on the information collected, either through written tests, or in the form of assignments to make paper or written reports, lecturers use assessment data to identify learning difficulties and monitor student learning progress, to then make decisions to make improvements related to lecture plans including: management class, the next learning activity.

Article 20 Regulation of the Minister of Research, Technology and Higher Education of the Republic of Indonesia Number 44 of 2015 concerning National Standards for Higher Education requires the principles of assessment in higher education which include educative, authentic, objective, accountable, transparent and carried out in an integrated manner. Meanwhile article 21 requires that the assessment must cover both the process and student

learning outcomes using a combination of various assessment techniques, including observation, participation, performance, written tests, oral tests, and questionnaires as well as assessment instruments consisting of process assessments in the form of rubrics and/or assessment of results in the form of a portfolio or design work.

The regulation above explains that it is not enough to assess the process and student learning outcomes only in the form of *paper-and-pencil tests*, which are commonly used and have been around for a long time and have a long history of assessing student performance. Assessments that only use traditional assessment tools such as tests, quizzes, and papers are not sufficient to describe the actual abilities of students, because they tend to focus too much on remembering and repeating concept knowledge and understanding (Russell III, Waters, and Turner, 2014:79). . While the positive features of the assessment may be achieved through a performance test or portfolio which can facilitate a more authentic and form of assessment. broader assessment strategies are results-based and provide students with greater choice in how they meet program learning requirements. The evidence collected in the portfolio can provide a richer picture of the strengths and achievements of students. In addition, for some students the assessment with a portfolio is also not as scary as traditional assessments.

Along with the development of information and communication technology, in the literature, various terminology can be found regarding the development of the portfolio concept, including *electronic portfolios*, *ePortfolios*, *e-portfolios*, *efolios*, *digital portfolios*, *webfolios*, *web-based portfolios*, *online portfolios*, and so on. , which according to Nicole Buzzetto-More (2010:112) refers to:

Selected and structured collection of information that is collected for a specific purpose and shows/proves a person's achievements and progress that is stored digitally and managed using appropriate software and developed using multimedia appropriate and usually in a web environment and can be obtained through the website or delivered using a CD-ROM or DVD

By looking at the potential of e-portfolios allowing document formats such as text, graphics, images, sound, and animations to all be connected via LAN (*Local Area Network*) or WAN (*Wide Area Network*) in the form of multimedia and software such as database management systems can be used to set and combine boundaries that are not possible in traditional portfolio-based assessment formats, so in 2020 it is planned to develop an e-portfolio-based authentic assessment model for the PNFI Learning Media Development course in the Out-of-school Education Study Program (PLS).

## **LITERATURE REVIEW**

### **The concept of Authentic Assessment**

The revolution in the field of learning assessment in the last two decades has given birth to new ones, including: *alternative assessment*, *authentic assessment*, performance assessment, and *portfolio assessment*. The need for an alternative assessment model is based on an assessment model that has been relied on so far, namely *paper-pencil tests* and assignments (*drills*) which are considered to only evaluate performance and do not fully describe the knowledge and competencies of students (Smith, Schalkwyk and D'Amato, 2012:81). Whereas students should be given enough opportunities to demonstrate cognitive and academic skills and understanding through various methods, such as portfolios, discussions, presentations, or projects as a companion to the traditional test-based assessment model.

Authentic assessment is normally interpreted as an alternative form of assessment that involves students in real-world tasks. Authentic assessments are also often referred to as performance assessments or alternative assessments. The term alternative is used to describe this assessment as an alternative to *multiple-choice* or *short-answer tests*. While it is called authentic, because this assessment allows students to show what they have been able to do in

real situations (Russel and Airaisian, 2012:202). In the performance assessment or authentic assessment, students are not asked to show their knowledge by choosing or explaining something. On the other hand, this assessment gives students tasks with certain criteria that require them to apply certain skills or knowledge to complete them.

Thus the authentic assessment model is not designed as a substitute, but is an alternative that can be combined with traditional assessment models to measure student performance. According to Lisa M Beck and Thomas Hatch (in Clauss-Ehlers, 2010: 135), authentic assessment is designed to encourage students to perform tasks that they might find in the real world; encourage students to generate knowledge and involve them in the inquiry process; increase in-depth understanding to solve problems, and use a variety of skills and knowledge, provide opportunities for them to revise and improve their performance, and involve them to participate actively in evaluating performance, and the development of the learning process. This assessment can be carried out and implemented in various formats and ways, including through portfolios, journals, debates, and research projects.

Authentic assessment can enhance learning in many important ways. Johnson (2002:166) identified several advantages of this authentic assessment, including being able to encourage students to:

- a. fully disclose how well they have understood the academic material
- b. improve skills in gathering information, using various resources and technology, and thinking systemic
- c. linking learning to their own experiences, their own world, and the larger society
- d. sharpen higher thinking skills because they analyze, synthesize, identify problems, create solutions, and link cause and effect
- e. accept responsibility and make choices
- f. collaborate in carrying out tasks
- g. learn to evaluate one's own performance (Newmann & Wehlage, in stepahani) "

### **E-portfolio as an Authentic Assessment tool**

The word portfolio comes from the Italian "*portare fogliou*" which means "to carry paper" and has been used extensively in various professions,, such as art, photography, architecture and music for decades (Rassin et.a. in Timmins, 2008:22), while Marianne Jones and Marilyn Shelton (2011:21-22) define a portfolio as follows:

Portfolio is a rich, contextual document. , and highly personal of one's learning journey that intentionally contains documentation that clearly demonstrates knowledge of specific skills, dispositions and accomplishments achieved over time.Portfolios represent the relationships created between actions and beliefs, actions thoughts, evidence and criteria and serve as is a medium for reflection through constructing meaning, making the learning process meaningful become more transparent in sight, crystallize insights, and anticipate future directions.

Along with the development of information and communication technology so that in a lot of literature, various terminology can be found regarding the development of the portfolio concept, including *electronic portfolios*, *ePortfolios*, *e-portfolios*, *efolios*, *digital portfolios*, *webfolios*, *web-based portfolios*, *online portfolios*, and so on. which according to Nicole Buzzetto-More (2010:112) refers to:

Selected and structured collection of information that is collected for a specific purpose and shows/proves a person's achievements and progress that is stored digitally and managed using appropriate software and developed using appropriate multimedia. appropriate and typically are in the web environment and can be obtained through the website or delivered using a CD-ROM or DVD

Based on the above definition of digitizing portfolio enables document formats such as text, graphics, images, sounds, and animations can all be connected through a LAN(*Local Network*) or WAN (*Wide Area Network*) in the form of multimedia and software such as database management systems can be used to set and merge boundaries that are not possible in traditional portfolio learning formats.

The results of various studies show that in addition to helping students to develop critical and reflective thinking, the use of e-portfolios can be an authentic assessment tool that can provide benefits on a larger scale. Research by Buyarski and Landis (2014), found that e-portfolios are a rich source of authentic evidence in learning assessment. The evidence is related to the rubric score that shows the insight and depth of students' thinking levels regarding certain topics including self-understanding. Meanwhile, the results of research by Hsleh, Lee, Chen (2015), found that students need to be encouraged to develop e-portfolios because it is useful for increasing reflection and self-evaluation which facilitates their preparation for careers in the future. This study also suggests the need to consider the right technology system to start with e-portfolios, such as the use of mobile phone-based applications that can motivate students to actively develop e-portfolios for lifelong learning.

## RESEARCH METHOD

In accordance with the general objective of this research, which is to produce an e-portfolio-based authentic assessment model for the PNFI Learning Media Development course at the Out-of-School Education Study Program (PLS) Faculty of Teacher Training and Education, the method used in this study is a research method. development(*development research*), which according to Seels and Richey (1994: 137) is the "systematic study of the design, development and evaluation of programs, processes and products that must meet the criteria of internal consistency and effectiveness .. thus a study development is a process used to develop and validate educational products whose main stages include analysis, design and development as well as evaluation and revision. Referring to the three main stages of the development design proposed by Tjeer Plomp (2013:16), this research design can be described as follows:



Figure 1. Fishbone Diagram

## RESEARCH RESULTS AND DISCUSSION

### Results of the Design and Development Phase

This research and development study resulted in an e-portfolio-based authentic value assessment model as visualized in Figure 2.

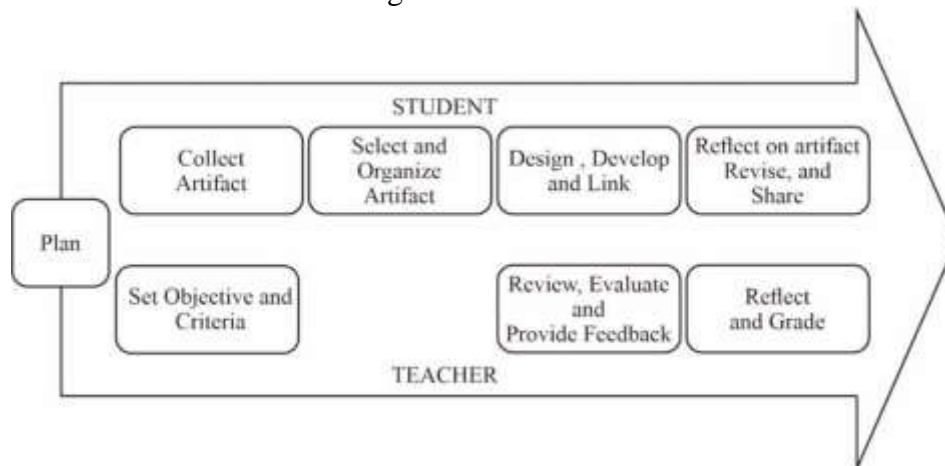


Figure 2. An e-portfolio-based authentic assessment model

Development of an e-portfolio-based authentic assessment model using Google Site, which is an application service provided by Google that can be fully controlled by students. The e-portfolio initiative begins with the planning stage, where lecturers and students plan portfolio products to be produced. The role of the lecturer in this model is to set learning objectives and competencies that must be mastered by students which are shown in their product portfolios. In addition, the lecturer also sets the criteria that must be met, including the format, content, and time limit given to complete the product portfolio. Portfolio development by students begins by collecting artifacts that are relevant to the learning objectives in the form of text, images, sound, video, or multimedia. The artifacts that have been collected are then selected and arranged based on the topics and themes that have been planned at the beginning of the meeting. Next, students design, develop their e-portfolios and share e-portfolio links to lecturers. Furthermore, the lecturer provides feedback on student portfolio products as material for reflection and revision. The final result of the product is then distributed to be assessed based on predetermined criteria.

### Formative Evaluation Results The formative

evaluation stage contains a series of tests which include expert review, one-on-one tests with students, small group tests and large group tests. In a large group test involving three experts to test the prototype model developed, the results of the expert assessment are presented in table 1.

Table 1. The results of the expert assessment regarding the development of an e-portfolio-based authentic assessment model

Aspect	Expert 1	Expert 2	Expert 3
Storage Capacity	4.10	3.22	3.97
Collaboration Opportunities	3.85	3.14	4.35
Ease of Use	4.10	3.25	4.10
Cost	3.75	4.30	4.50
Support availability	4.29	3.50	4.27
Attractiveness	4.04	3.75	3.85
Average	4.02	3.53	4.17

The results of the expert review in table 1 show that overall, the prototype model developed is a good and very good criterion. After revisions are made based on the results of expert reviews, formative evaluation proceeds to the next stage: one-to-one with students, small group evaluation and field trials. Field trials were conducted to determine students' perceptions of the developed model, the data obtained as visualized in Figure 3.

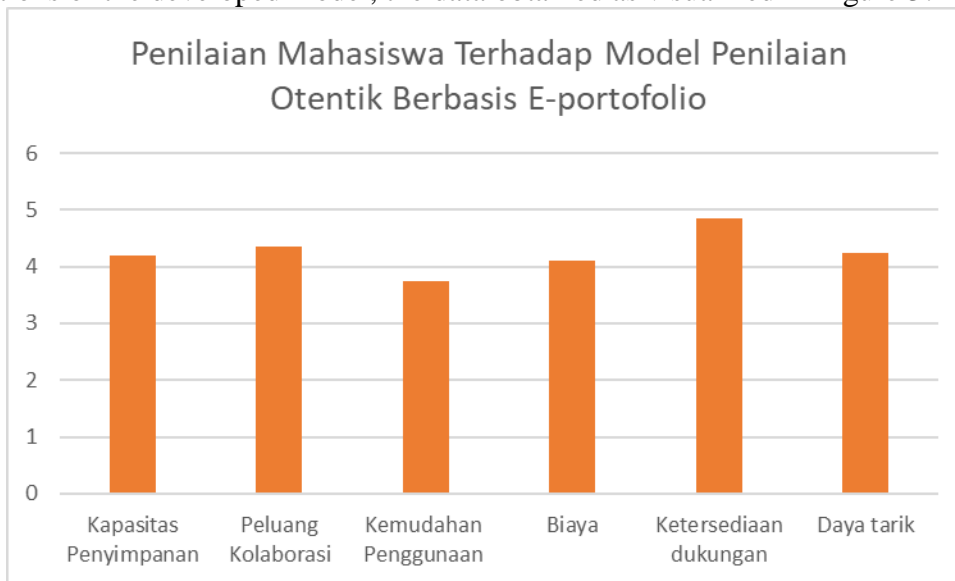


Figure 3. Students' perceptions of the e-portfolio-based authentic assessment model

Based on the data in Figure 4.2, the overall model developed is in good and very good criteria. Thus, the entire series of formative evaluations shows that the value-added assessment model developed is feasible to be used as an assessment model in the PNFI Learning Media Development Course at the Out-of-School Education Study Program (PLS) Faculty of Teacher Training and Education (FKIP) Unpatti Ambon.

## DISCUSSION

Assessment should not only aim to assess student achievement or learning outcomes but should also aim to make critical assessments of the effectiveness of lecturer learning. Utilization of technological tools such as e-Portfolio software allows lecturers to collect evidence for student learning. According to Slade & Downer (2020) learning with e-portfolios not only provides students with a basis for using technological tools that will support their practice, but also provides a structure for planning their future career advancement. Alajmi, (2019), Dray & Howells. (2019), found that learning and assessment using e-portfolios can: (1) encourage students to articulate their learning and self-development goals, (2) incorporate self-monitoring and evaluation of their learning progress and guide self-reflection, (3) provide feedback and encourage the use of feedback to inform students' future goals, (4) encourage students to articulate appropriate strategies to achieve their goals,

E-portfolios basically collect and evaluate student work products that demonstrate mastery of learning objectives. The ability of e-portfolios to combine performance appraisal principles with student self-reflection becomes a powerful tool for enhancing student learning.

Standardized assessments and many other forms of assessment have become a regular part of learning programmes. However, tests and assessments should not cause any fear to students. For most students, tests may be frightening for even the best students. This is referred to as a phenomenon known as "exam anxiety as stated by Kennedy, Peters, and Thomas (2012). Through e-portfolio-based authentic assessment, assessment is no longer something scary, but

can be something challenging and fun, because students do not only challenged to produce their best work, but the work can also be exhibited and published so that it can be seen by everyone. In addition to assessing learning outcomes, this assessment can also assess the process to which students display their best performance.

Based on the whole series of formative evaluations of this research , the e-portfolio-based assessment model that was developed has met all the criteria for an authentic assessment model, and can be implemented as an assessment model in the PNFI Learning Media Development Course at the Out-of-school Education Study Program (PLS) Faculty of Teacher Training and Education (FKIP) Unpatti Ambon.

## CONCLUSION

An authentic assessment based on e-portfolio is a very powerful tool to determine the effectiveness of lecturers to recognize student learning progress. E-portfolios provide a more promising way to assess student learning progress as the most authentic instrument to demonstrate student learning processes over time. The findings of this study indicate that developing an authentic portfolio-based assessment model has met all the criteria for an e-portfolio-based assessment model, and can be implemented as an assessment model in the PNFI Learning Media Development Course in the Out-of-school Education Study Program (PLS) Faculty of Teacher Training and Science. Education (FKIP) Unpatti Ambon.

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