

## **The Implementation of Environmental Education Based on Action-Portfolio to Improve the Learning Participation of the Student**

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**Abstract:** This study aims to develop the environmental education learning model based on action portfolio model. The research is exploratory research. That has been conducted in teacher primary school education, faculty of education, state university of Makassar. The number of population in this studies that all the students who programmed environmental education subject. The sample in this study is 29 people. The results of the learning is learning model based action-portfolio indicate the basis action, a small group A1 which discusses the forest to the selected group gave the best portfolio with a value of 649.51. The recommendation of the research is expected the lecturer to make the learning model action portfolio as a material consideration in determining the measures to increase student's participation in environmental education program which is principle transfer attention of sustainable development.

**Key words:** Learning model, action portfolio, environmental education, forest, water, air

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### **INTRODUCTION**

Implementation of environmental education creates several problem situations such as the low participation of the students and the community participation who play a role in environmental education due to a lack of environmental problems understanding, the low level of ability or skill and low commitment of the community in solving the problems.

Now a days, the student's participation to study is low, especially in environmental education subject. It is also confirmed Sriyono (2011) in which a student considers environmental education courses less attractive and less challenging to be discussed and discussed. Moreover, contextually rarely associate professor gave concepts and theories with real life going on around students. According to Suprijono (2012), the lack of skills of lecturers in developing learning models because the lecturer only focused on faculty learning (centered on lecturer) and the lack of student participation in the learning process. Therefore, to meet this requirement of environmental learning practise, it would require a pattern, namely by using model-based environmental education portfolio. So, that the learning model can be used as a guidance in planning or implementing the learning in the classroom, tutorials and outside the classroom.

As the assessment instruments, portfolio is focused on documents about the performance of students who are productive and the evidence of what can be answered by the students not what cannot be answered, student

(Moleong, 2002). For faculty, the portfolio presents an insight into improving of student progress in learning like students way of thinking, understanding of environmental education courses, ability to express his ideas, developing students attitude toward environmental education courses and so forth. Portfolio assessment is not only a collection of the work of the students but also a collection of results of student work that has been done deliberately to show proof of competency, understanding and the achievement of students in the subject of environmental education. The portfolio is also a collection of information that needs to be known by the lecturer as a material consideration in determining the corrective measures of learning, or in improving student learning.

Based learning model portfolio, the theory of constructivism learning become basicprinciple that describes the condition of students to form or to construct knowledge through interaction of the environment (Kusumawardani, 2011). In improving the quality of learning, so many things to do, among other things to develop emotional intelligence, to develop creativityin learning, disciplining students to understand and love of science, stimulate participation and understanding to learn, solve problems, leverage resources learning and involving the community of learning.

All the problems that is mentioned, the researchers put them in a base action-portfolio which is a model of learning that lead to action or actions performed by the students which is mostly done in the field or outside the

classroom lectures, in the form of learning based outdoor (Amini and Munandar, 2010; Wibowo, 2012; Susetyo, 2008). Portfolio Action data were compiled in a portfolio.

Learning in environmental education based on action-portfolio can also be regarded as an effort to bring students to the object that is discussed. Learning what makes teaching materials discussed are directly exposed to direct students who are also looking for information on the issues discussed. In essence based learning portfolio in addition to gaining experience of the physical object in learning, students also gain experience or mentally engaged. So, he explained, the environmental education learning model based action-portfolio is provided supplies direct experience to the students about the various problems that exist and appear inside and outside the classroom lecture. Then, students are also working to find the best solution to solve the problem by taking action tested at the screening, presentation and documentation in the form of a portfolio.

Based on the research background, the aims problem in this research to develop the educational learning environment based on action-portfolio, in the form of outdoor-based learning the classroom to increase the participation of student learning and to produce a portfolio of selected groups.

**MATERIALS AND METHODS**

**Research methods:** This research is quantitative research. According Sugiyono (2012, 2013) quantitative research is defined as a method of research that is based on the philosophy of positivism which is used to examine the population or a particular sample using data collection instruments and data analysis. The approach of the research is adjusted based on action-based learning portfolio which environmental education is learning is done in the form of: a field study, roaming environment, or project-based learning.

The first step is prepare educational learning environment using model-based Action-portfolio with step conducted a survey to take the initial data is pre-study, the preparation of a learning tool for environmental education-based action-portfolio and the experimental method used to analyze the level of ability to produce a portfolio which formed in instructional design analysis by education experts and tested in an experimental class to see and assess whether learning device that has been fit for use. This research conducted in classroom of PGSD Department, Tamalate I street Makassar with the consideration that at the location of concentrated lectures students who programmed

Table 1: Categorized of the student’s group which is appropriate with the random result based on the action-portfolio model

Basis action-portfolio	
Small group (A)	Code/task
1	Forest
2	Water
3	Air

the course educational environment. While the area outside of class (field) the location of protected forest Bantimurung (Maros) and the surrounding area power diesel energy is more intended for students who study the field or project-based learning as well as other locations determined later as needed for the benefit of the preparation of the document action portfolio.

Learning environmental education-based action portfolio is a model of learning that lead to action or actions performed by students more in the field or outside the classroom lectures which the researchers categorized as based learning outdoor in field case of studies that is exploring the environment and or project-based learning. Learning tools are implemented and validated by experts and practitioners. Portfolio-based action.

The population in the study, according to all students of PGSD Faculty of Education, Universitas Negeri Makassar (UNM) contains programs for environmental education courses, the jury and the moderator. Samples were selected from students who programmed the course of environmental education amounting to 29 students as a saturated sample. Samples were saturated, according Ihsanuddin (2008) is a sampling technique when all members of the population used as a sample. This is often done when the population of = 30 people or research to make generalizations with a very small error. Thus, the sampling saturated, carried out by considering a scenario of division into small groups of learning-based EMA-portfolio group learning portfolios environmental education-based action 30 students divided into three smaller groups, Group A1-3). Furthermore, each group chose one of each material to the three alternatives is reduced from semester program plan (RPS) contents environmental education material as follows: forest ,water and of air.

The choice of the three alternatives is done at random (lottery) as shown in Table 1. Division of random student group match result based on model-action based learning portfolio. While the lecturer sample consisted of observers, a team of experts, the jury (judges) and moderator with a job description as follows.

**The observer:** Is the researcher who is one of a lecturer of environmental education courses along with a team of

experts provide an assessment of pre-preparation setup environmental education learning model based action portfolio.

**The expert team:** Is one of the professors who are considered experts in the science of PKLH all lecturers who are not subjects of environmental education (in the class who researched this) in PGSD faculty of education UNM along with observers give an assessment of the pre-preparation setup environmental education learning model based EMA-portfolio. The expert team selected and determined based on the willingness and concern for learning education environment.

**The jury:** Is a lecturer who represents the class lectures and representing the people selected and determined based on the willingness and concern for learning education environment. The jury is selected or determined as many as 3 people for their willingness as a lecturer and jury. The third jury judges section assessment and environmental education learning model based EMA portfolio.

**Moderator:** In the implementation of the showcase is a student from another group that is not currently presenting his portfolio. Before fixing the sample population for the purposes of this study as above up to the division of student groups based learning models, it first has to do initial simulation (limited research) to test the 15 students who have never programmed or take off the course for environmental education where students were divided into three smaller groups, namely Educational, management and action that the results show that all three deserve to be followed up in the (group) students who are programmed course when the study was conducted because the average value of each group-portfolio EMA test results are in the top 3 or above average on a scale of suitability (scores) were used as the reference (based on library materials) in the assessment of a portfolio.

**RESULTS AND DISCUSSION**

Learning assessment results-based action environmental education portfolio can be explain on Table 2. From the results of Table 2, apparent when environmental education learning model basis action, a small group 1 to the selected group and the best portfolio with a value of 649.51. The small groups are best chosen and then analyzed the results and compared with two other small groups. environmental education learning model based action-portfolio consisting of preparation

Table 2: Learning assessment results-based action environmental education portfolio

Base learning action-portfolio	Small group			Appraisers
	1	2	3	
Preparation learning models	134.50	150.50	127.50	Observers
Part ratings learning models	366.67	351.70	337.67	Jury
Section oral representations	148.34	141.34	138.33	Jury
Total	649.51	643.54	603.50	

Action-portfolio elected and the best I, I; II; III

study and an oral presentation. In the preparation of action-based learning model portfolio all groups should meet the criteria that was classified in the group action. Besides the indicators in the pre-preparation such as identify the problem, select the problem and collect information in accordance with the study material of each group. In identify problems stage lecturer the goals and looking for problems that is occur in the immediate environment, by giving examples of the problems that is exist with the family to the furthest environmental issues (Taniredja *et al.*, 2012).

In the pre-preparation the data are obtained as follows A1 group scored 52.50 which discussed about the forest, the group A2 scored 43.50 which is about water and A3 group scored 35.00 which discusses the air. So that based on the data obtained, the eligible portfolio of innovative and best, i.e., A1 group with the acquisition value of 52.50 which discusses the forest. In addition, the scale of suitability assessed by observers and experts indicate the indicator during the preparation of the portfolio is it a very appropriate category. So, it is clear that the group A1 which discusses qualify of the forest as the best and innovative portfolio management towards small groups.

Benefits of a field study or field trips in teaching environmental education-based action-portfolio can improve the student understanding of the material besides the opportunity to develop their knowledge and potential to perform in learning activities, gave a positive influence on long-term memory about the natural environment strengthens memory. That is capable of affecting the individual growth and improvement of social skills is also improve the affective and bridging the higher level learning. As the five kinds of field studies or field visits by Wibowo (2012).

Results of the assessment preparation of environmental education learning model-portfolio-based action showed about the group A1 which discusses the forest is the best towards innovative portfolio practise. It can be seen that each of the indicator is a benchmark in this stage among the three groups of action, illustrated that the A1 group that discussed the forest has a value

that is 82.00 while the A2 group that discussed the water has a value of 107 and A3 group that discussed air has a value of 92.50.

In addition, on the scale of conformity assessed by an observer and a team of experts showed that the indicator during the preparation of the portfolio is a very appropriate category, so it is clear that the group A2 which discusses Air qualify as the best portfolio and innovative portfolio management within small groups.

In the assessment, there are some instruments that has indicators of achievement to be achieved from each group containing instruments of describing the problem, the instrument sections examine alternative policies to address the problem, the instrument section that proposes public policy to address the issue of instruments that propose/create plan of action and the instrument. Instruments is the main orally assessment based on the learning model action-portfolio that contains several instruments. It examines an alternative policies to address the problem. Besides, the instrument proposes public policies to address the problem, create a plan of action etc. Thus, instruments load indicators in the preparation of a portfolio-based action. So, it joined in the group action that should met these indicators to become an innovative portfolio.

Based on the description, environmental education through college prospective teachers are given stock of knowledge about the basic concepts of environmental and educational learning environment. It also was confirmed by Amini and Munandar (2010). Thus, according Suherman it is designed to assist students in developing themselves and their surroundings as well as its relationship with the surrounding community. Outdoor learning is using several methods such as lectures, discussions and experiments, using the outdoors as a classroom tool. Outdoor learning and social practice of physical activity of students. Students are more engaged in activities involving teamwork, communication, problem solving decision making, mutual understanding and respect for differences.

Like the reasearch result by Susapti the outdoorsis usedas a classroom tool, where learning outside the space will bring the student can integrate with nature. It will open up a wider horizon students. According to Wibowo (2012), a form of outdoor learning where an observation to uncover the facts in order to obtain data by plunging directly into the field. The field study is a scientific way to do with operational plans, in order to get more accurate results. According to Inayah and Parana Model based learning portfolio is a form of learning practices which is

a learning innovations that are designed to help learners (students) understand the theory in depth through the learning experience practice-empirical. As an innovation the Budimansyah describes two rationale underlying the portfolio-based learning model namely reeducation. Nowadays, assessing the student was not sentenced to death rates, pass or fail. The judge is looking for information about the student learning experience and the information is used as feedback (feedback) to membelajarkan them back; reflect the learning experience. The assessment is an idea that is used as media for reflection (reflecting on experiences that students have had and they have completed activities).

Taniredja *et al.* (2012) defines that learning model portfolios as a learning innovations are designed to help students understand the course material in depth and wide through the development of materials that have been studied in the classroom by using various sources of reading or reference

Portfolio-based learning model allows students to practice combines the concept/theory derived from the explanation of lecturers or from reference books to its application in everyday life; students are given the opportunity to seek information outside the classroom/campus, both information that is the object/reading, sight direct object, TV/radio/internet as well as persons/experts/leaders; create an alternative to address the topics covered (Susanto, 2013)

Group action-portfolio is showing the results of assessments elected and the best start of the preparation of instructional model for environmental education. Part votes instructional model for environmental education up to oral representations instructional model for environmental education that shows the highest value is small A1. Based on the indicators that awakened of the A1 portfolio groups, the discussion about forest is very recommended.

## **CONCLUSION**

Preparation of instructional model for environmental education-based action-portfolio is performed by the students in the form of learning-based outdoor outside of classroom lectures. It can be done by taking and drafting steps assessment of the learning is model of environmental education. Part votes learning model environmental education this is orally presentation section life and environmental education learning models it generates a portfolio of selected small group and bestgroup A1 on the topic about forests in terms of cruising the neighborhood.

## REFERENCES

- Amini, R. and A. Munandar, 2010. [Influence learning model-based environmental education outdoor environmental education concept mastery against candidate for primary school teachers (In Indonesian)]. *J. Educ. Res.*, 10: 300-300.
- Ihsanuddin, 2008. [Population and Sample]. Beranda, New York, USA., (In Indonesian).
- Kusumawardani, C.D., 2011. [The Learning Model Based Economy Portfolio]. Wordpress, San Francisco, California.
- Moleong, L.J., 2002. [Qualitative Research Methods]. PT Remaja Rosdakarya, Bandung, Indonesia, (In Indonesian).
- Sriyono, S., 2011. [Implementation of a green campus for my city as a model of contextual learning in the subject of Environmental Education (EE) to increase the affection of students majoring in geography fis UNNES in realizing the nature conservation (In Indonesian)]. *J. Geogr.*, 8: 1-10.
- Sugiyono, 2012. [Quantitative Research Methods, Qualitative and R & D]. Alfa Beta, Bandung, Indonesia, (In Indonesian).
- Sugiyono, 2013. [Educational Research Methods]. Alfa Beta, Bandung, Indonesia, (In Indonesian).
- Suprijono, A., 2012. [Cooperative Learning: Theory and Applications Paikem]. Pustaka Pelajar, Yogyakarta, Indonesia, (In Indonesian).
- Susanto, H., 2013. [Based Learning Model Portfolio]. PB-PGRI, Jakarta, Indonesia, (In Indonesian).
- Susetyo, B., 2008. [Development Model of Physics Based Learning Four Pillars of Education Through Outdoor Inquiry for Fostering Scientific Work Habits]. PPs Unnes, Semarang, Indonesia, (In Indonesian).
- Taniredja, T., E.M. Faridli and S. Harmianto, 2012. [Innovative Learning Models]. Alfa Beta, Bandung, Indonesia, (In Indonesian).
- Wibowo, Y., 2012. [Forms of outdoor learning]. Department of Biological Science Education UNY, Yogyakarta, Indonesia.