

The Influence of Portfolio Assessment on Early Childhood Student's Environmental Concern Character

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Abstract: Strengthening the value of national character for the learners in early childhood education in elementary school becomes a problem which still sought the relevant efforts. This study aims to prove influence pattern of portfolio assessment beyond the learning to the character of environmental care. The study was conducted on the sample of students in two elementary schools in Bekasi City, Jawa Barat, Indonesia. The research method used is experiments with manipulated variables are the application of portfolioassessment of learners in the context of school environment cleanliness. The data were analysed using non parametric statistical test with Mann Whitney Test. From the results of hypothesis testing above, obtained price $Z = -5.778$ with $\text{AsympSig. (2-tailed)} = 0.00 < \alpha = 0.05$. These results indicated significant tests. This means differences in environmental awareness between students who were given the task of preparing a portfolio and students who were not given the task of preparing a portfolio of significant environmental cleanliness activities. The conclusion of this research is the implementation of portfolio assessment pattern outside of the learning has significant effect toward the environmental caring character of the learner in primary school ($p < 0,05$).

Keywords: Early childhood, environmental concern character, portfolio pattern.

1. Introduction

Education in Early Childhood is a strategic way to form human resources into a more characteristic figure, from an early age. Character education in schools has become a concern of the Indonesian government at this time, but in fact on the ground, schools have not been able to implement it intensively.

This is due in addition to the new policy and the limited learning tools in each school. In fact, school hours, not applying the character education in particular. However, the character values must be integrated on a variety of learning activities at school. With such conditions, it takes an innovative and practical effort that can be done by the teacher in order to organizing the character education for the students.

In this context, character education can be designed by optimizing aspects of student behavioural assessment in the primary school environment through the structured tasks assigned by the classroom teacher. Design character education within the scope of daily behaviour in the school environment is possible and unobtrusive teaching and learning process. The application of portfolio assessment through classroom teachers is possible because in one semester, teachers can constantly monitor the behaviour of students in their classes. Thus, the problem in this study is "Is there any influence of portfolio assessment on the character of environmental concerns in early childhood?"

2. Literature Review

The application of portfolio assessment on the nature of environmental concerns can be explained conceptually, each below. According to Paulson (1991) quoted Carton and Untari (2007) defines the portfolio as a collection of students' work showing efforts, developments, and skills in one or more areas. This set should include student participation in content selection, content criteria, selection criteria, assessment criteria, and evidence of self-reflection. According to Budimansyah (2002), learning-based portfolio, when juxtaposed with the concept of assessment, then we can call it as the term "portfolio based assessment". Portfolio assessment is different from other ratings. Portfolio assessment aims to measure the extent of students' ability to construct and reflect on a job. By collecting the materials that relevant to the purpose and desire constructed by the student so that the results of the construction can be assessed and commented upon by the teacher within a certain period.

Surapranata and Hatta (2004: 187) stated that there are two methods to organize the evidence portfolio of the learners. First, both the teachers and learners place all the evidence of learners to a specific place (eg in a corner of space, or a particular folder in the closet). Second, the teacher selects all the evidence of the learner to be included in the documentation portfolio. Organizing the portfolio also becomes part of the learner's task. The trick is to record all the results of activities in a diary, whether or not having a physical document, before it is inserted into the portfolio bundle. In the main design of character education within the school environment compiled by the Ministry of Education and Culture (2010: 28), it is stated that character education can be implemented in an integrative way through four important pillars: learning activities in the classroom, the development of education unit culture, co-curricular activities, and extracurricular activities in particular, this study takes a focus on the pillars of cultural development of educational units.

Culture in the educational unit in this case, is elementary school. Environmental cares are identified in the Character Education Implementation Guidelines, Curriculum and Bookkeeping Centers (2011: 6-7), Environmental cares are identified in the Character Education Implementation Guidelines, Curriculum and Bookkeeping Centers (2011: 6-7), as the 16th of 18 (eighteen) character values that have been identified. Thus it cannot be denied that environmental awareness becomes an important value to be instilled to children from an early age.

The term "caring" in relation to the environment is often referred to as "concern". Therefore, environmental concern is closely related to the actions or behaviour of a person or group of people based on environmental considerations or insights. According to Unesco-UNEP (1976), everyone has a concern for the environment. However, the level of awareness is varied, some are high and some are low.

The description of someone who has an environmental concern is stated by Nenggala (2007: 173) using the following indicators: 1) always maintaining the sustainability of the surrounding environment; 2) not taking, cutting or removing herbs contained along the journey; 3) not scribble, incised writing on point, stones, roads or walls; 4) always throw garbage in place; 5) do not burn garbage around residential areas; 6) carrying out environmental cleansing activities; 7) stockpiles of unused goods; and 8) clean up clogged garbage.

Environmental awareness becomes an important variable, Hidayat's research result (2016), with a survey method of the lubricant / engine oil consumption population in Magelang, as many as 165 people showed that, environmental awareness positively affected sceptical attitude on green advertisement as evidenced from t value count 4,814 with

significance value $0,00 < 0,05$. According to Saptono (2011), the attitude of environmental awareness can be established by students' self-actions. Involving students plunge directly into the environment will cultivate a caring attitude towards the environment. The context of student involvement in this environment in this study becomes a reference for the assignment of structured tasks of students to directly use the cleanliness equipment provided in the classroom to maintain the cleanliness of the classroom and the surrounding environment. In relation to the value of environmental awareness, students must be holistically placed in the school, in the classroom and outside the classroom. This means it can simply be practiced both within the sphere of the classroom and in the schoolyard.

3. Research Methods

This research is an experiment carried out on two schools as a sample of research, namely: State Elementary School 01 Bekasi and State Elementary School 03 Bekasi. The time of the research is from October to December 2017. The experimental design used was to treat the randomly selected schools, namely the State Elementary School 03 Bekasi as a comparison variable. In the experimental school, grade 3 students were given a structured task through the classroom teacher's instruction, that each student activities on the use of classroom-provided cleaning tools : sweep stick, floor sweep, washclothes, garbage bin, and duster are recorded by using a diary sheet as a portfolio report. Meanwhile, the students of state elementary school 03 Kota Bekasi were not given the task of compiling a diary as a portfolio, but they were given the same cleaning tools in the classroom. The process of observing the classroom environment cleanliness activity carried out for 15 days. The data of the activities of the two schools with each class of 28 students as data with nominal scale were analysed using non-parametric statistical analysis, the Mann Whitney test.

4. Result And Discussion

a. Description of Environmental Concerns of Experimental Results

First, the results obtained from the application of portfolio assessment for environmental awareness of students from the State Elementary School 01 Bekasi with the assessment of portfolio assessment obtained recap of the use of environmental cleaning tools in the class, can be shown in the table as follows:

Table 1. Environmental Concern for the Classroom with Portfolio Assessment

Activity	Hygiene Tools Type					Proportion Rate
	1	2	3	4	5	
Using the hygiene tools	21 (75%)	20 (71%)	20 (71%)	22 (78%)	18 (72%)	73%
Not using the hygiene tools	7 (25%)	8 (28%)	8 (28%)	6 (21%)	10 (28%)	26%
Total	28	28	28	28	28	-

*) Tool Type: 1 = Swipe stick; 2 = Floor sweep;
3 = washcloth; 4 = garbage bin; 5 = Duster.

The students' environmental awareness, which can be seen from the behaviour in the form of activities using the cleaning tools, then the class where students are given the task of compiling the portfolio of classroom cleaning activities and the class page can be described as follows:

- 1) In each of the hygiene tools used by students in a 15-day observation range, groups of students that using the cleaning tools have a greater frequency than students who do not use cleaning kits.
- 2) Overall, the average proportion of activities using the cleaning kits in the class given the task of compiling a portfolio is higher than the other group. The mean proportion of students using cleaning tool is 73,71%. While the mean proportion of students who do not use the cleaning tool is only 26.29%. From the above facts, it can be concluded that, in the classroom where students are given the task of preparing a portfolio of daily activities in maintaining cleanliness by using the tools provided in the classroom, obtained a higher environmental awareness. Second, the results obtained from activities that are not carried out the application of portfolio assessment for environmental awareness of elementary school students 03 Kota Bekasi can be detailed in the description below. With the absence of treating "portfolio assessment" at the State Elementary School 03 Bekasi, obtained recap of the use of environmental cleaning tools class, which can be shown in the table as follows:

Table 2. Environmental Concern for the Class without Portfolio Assessment

Activities	Hygiene Tools Type					Proportion Rate
	1	2	3	4	5	
Using Hygiene Tools	11 (39%)	7 (25%)	12 (42%)	5 (17%)	11 (39%)	32%
Not using Hygiene Tools	17 (60%)	21 (75%)	16 (57%)	23 (82%)	17 (60%)	67%
Total	28	28	28	28	28	-

*) Tool Type: 1 = Swipe stick; 2 = Floor sweep; 3 = washcloth; 4 = garbage bin; 5 = Duster.

From the students' environmental awareness data (Table 2) seen from the behaviour of using hygiene tools, the class where students are not given the task of preparing the portfolio of classroom cleanliness activities and the class page can be described as follows:

- 1) In each of the cleaning tools used by students in the observation range for 15 days has a frequency smaller than students who do not use a hygiene tool.
- 2) Overall, the mean proportion of the students who use the cleaning tools in the class room that were not given the task of preparing the portfolio is lower than those who did not use the cleaning tool. The mean proportion using cleaning tool only amounted to 32.86%. While the mean proportion of students who did not use the cleaners reached 67.14%.

The above facts show that, in a class where students are not given the task of compiling a portfolio of everyday activities in maintaining classroom cleanliness by using the tools provided in the classroom, there is a lower level of environmental awareness. From the two descriptions above, we can obtain the comparison between environmental awareness among the students who were given the task of compiling the portfolio of environmental cleanliness activities class as follows:

- 1) The use of hygiene tools by students who were given the task of compiling a portfolio of environmental hygiene activities in the classroom and class yard, has a higher frequency of use of cleaning tools compared to students who were not given the task of preparing the portfolio.
- 2) The proportion of environmental awareness of students who are given the task of compiling the portfolio of classroom and classroom cleanliness activities is higher than the students

who are not given the task of preparing the portfolio of classroom and classroom cleanliness activities.

a. Hypothesis Test Results

From the description of the data above, qualitatively there is a difference between students who are given the task of preparing the portfolio and not given the task of preparing the portfolio with regard to environmental concerns. These needs to be tested statistically with non-parametric test techniques is Mann Whitney test obtained the following results:

Table 3. Hypothesis Test Results Differences Environmental Concern between the Students given the task of Compiling Portfolios of Environmental Hygiene Activity and Students Who were Not Given the task.

	Environmental Awareness
Mann-Whitney U	48.500
Wilcoxon W	454.500
Z	-5.778
Asymp. Sig. (2-tailed)	.000

a. Grouping Variable: Scoring

From the results of hypothesis testing above, obtained price $Z = -5.778$ with Asymp price. Sig. (2-tailed) = 0.00 $< \alpha = 0.05$. These results indicate significant tests. This means differences in environmental awareness between students who are given the task of preparing a portfolio and students who are not given the task of preparing a portfolio of significant environmental cleanliness activities. Thus both qualitatively and quantitatively experimenting with the treatment of portfolio assessment on environmental concerns is significantly tested.

From the description of the data and the result of the hypothesis test above, there is no empirical fact that is contradictory to theoretical explanation regarding the problem formulation in this research. The facts that have been obtained in this study are in accordance with the nature of the portfolio, in which Carton and Untari (2007) mentioned that, the portfolio as a collection of student work showing their efforts, development, and skills in one or more field. This collection should include student participation as evidence of the student's self-reflection.

The high level of environmental awareness of students in the class given the task of preparing the portfolio also reflects that with the assessment of portfolio by the teachers of elementary school class successfully established environmental care behavioural culture. This is in accordance with the opinion of Saptono (2011), which states that the attitude of environmental care can be formed in students by acting directly. Students who directly perform activities to clean up the classroom environment with the equipment already provided, can actually grow the attitude of environmental awareness. From both result of this research hence in order to grow the character of environmental care in the early childhood in elementary school environment which still fostered by classroom teacher, portfolio assessment is a very strategic tool to be applied.

4. Conclusion

Based on the results of research that has been tested and conducted discussion, it can be concluded as follows:

- 1) There is an effect of applying portfolio assessment to environmental awareness in early childhood, especially in grade 3 primary school students.
- 2) Elementary school students who are given the task of portfolio assessment of classroom environmental hygiene activities, have a higher environmental concern than students who are not given portfolio assessment.

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