Code: P-5

IMPLEMENTATION OF EXPERIENTIAL LEARNING METHODS ON ENVIRONMENTAL LESSON FOR ELEMENTARY SCHOOL

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Abstract

Research Action is conducted by 2 cycles with stages. Those steps are plan, execution and observation, evaluation and reflection. The focus of the research is the application of methods of experiential learning in science lessons with environmental themes in SD. Application of this method using the starting stages of student conduct, reflect, think conceptually, and then do back in the new situation. Data analysis was supported by the results of the questionnaire, where students are very happy, motivated and actively participating in learning more, consequently increasing student learning outcomes. Questionnaire results are in line with observations and test results. Based on the results of this study suggested the teachers to be able to use the method of experiential learning in the learning activities.

Keywords*: experiential learning, method, environmental, environmental education*

INTRODUCTION

Environmental issues are a problem for all, because all are affected. Degradation of environment occurs everywhere in varying degrees of damage. It takes effort to instill an understanding and awareness of the individual against environmental destruction in order to the behavior can be prevented and reduced.

Human behavior on the environment much harm to the environment. Forms of behaviors are ignorance, irresponsibility, injustice, ignorance, inhospitable environment. A wide variety of objects that were targeted to environment 0f negative actions such as exploitation of natural resources, the bombing of coral reefs, deforestation and burning of forests, sale of endangered animals, killing animals to take certain parts of the body that are considered economically valuable, discard items that can still be utilized, not sparing , consumptive behavior, and others.

Efforts to provide and improve the knowledge and awareness to the community about the environment are through environmental education. According to the National Education Act, which supports the educational institutions to achieve national education goals is a school, community, and family. Schools have a role setrategis to implement environmental education.

One of the factors that can affect an individual's learning out comes, is the ability of the teacher (teacher professionalism) in managing learning with appropriate methods, which make it easy for students to learn the subject matter, resulting in better learning.

Experiential learning method is a method that provides a great opportunity for students to learn firsthand experience learning materials. Students involved from the

beginning to the end of the learning process that is experienced/did, ponder/reflect, gain understanding/concepts, and perform in new circumstances. This paper would like to analyze the application of experiential learning methods in environmental education in primary schools.

THEORETICAL FRAMEWORK

Kolb express that experience as all the thing about what we have done, felt, championed, difficult and happy, love and belief, goal, desire, enjoy, see, confidence, imagine, etc, are process of experience (Kolb, 1984).

Experience can be defined as acts that produce, create, and invent knowledge for effects upon the future. The contents of experience are the "whats" that we experience. The conditions of experience are the "hows" we experience. For example, when some one get heart because of fall, The content (or "what") of this situation is heart, and the condition (or "how") was through fall. (Haynes, 2007).

The important of experience as a teacher by educational expert utilize experience as a learning method. We study from what we experience now and before. Sleigh said that experience is persistent and always continue from one experience to forth.(Sleigh, 2007).

Experiential learning is also referred to as learning through action, learning by doing, through experience, and learning through discovery and exploration. In the book Teaching for Experiential Learning, Wurdinger and Carlson (2010) are found that most college faculty teach by lecturing because few of them learned how to teach otherwise. Experiential learning is a philosophy and methodology in which educators purposefully engage with students in direct experience and focused reflection in order to increase knowledge, develop skills, and clarify values" (Bourdeau, 2004).

Experiential learning is a process where students are involved in learning content in which they have a personal interest, need, or want. Learning through experience is not a new concept for the college classroom. Notable educational psychologists such as John Dewey (1859-1952), Carl Rogers (1902-1987), and David Kolb (1984) have provided the groundwork of learning theories that focus on "learning through experience or "learning by doing."(Kolb, 2005)

In experiential learning, key element those are student with the place that learning happened (Loretto, 2011). Place of experiential learning as the process of learning. In this moment is a time for student interpreting and get a concept (Bear and Wilson, 2006). Proponents of experiential learning assert that students will be more motivated to learn when they have a personal stake in the subject rather than being assigned to review a topic or read a textbook chapter.

The essential of experiential learning that are phases of experiencing (doing), reflection and applying are present. In addition, the stages of reflection and application are what make experiential learning different and more powerful than the models commonly referred to as „learn-by-doing" or „hands-on learning" (Davis, 2011).

Principles of experiential learning as noted from the (Bourdeau, 2004): supported by reflection, critical analysis and synthesis, the student to take initiative, make decisions and be accountable for results,in learning process the student is actively

engaged in posing questions, investigating, experimenting, being curious, solving problems, assuming responsibility, being creative and constructing meaning. Students are engaged intellectually, emotionally, socially, soulfully and/or physically. This involvement produces a perception that the learning task is authentic. (Loretto, 2011).

Integrating Experiential Learning in Teaching

A Teacher identifies a situation which challenges students through problem-solving, cooperation, collaboration, selfdiscovery and self-reflection. At the same time, decide what the students should learn or gain from the learning experience. Below are some primary points to consider when integrating experiential learning in your own teaching. (Loretto, 2011).

a. Plan.
   Plan the experience by making on learning objectives and determine what students will need to successfully complete the exercise (resources such as readings and worksheets, how much time will be allotted for the students to complete the experience?
b. Prepare.
   Teacher prepares some materials, and assessment tools and ensure that everything is ready before the experience begins.
c. Facilitate.
   In this step, teacher should guide students through the process of finding and construct knowledge and determining solutions for themselves.
d. Evaluate.
   Evaluation activity is done in order to know how far the activity of experiential learning making benefit for student, and how to do this experiential learning for specific purpose in the future.

Kolb (1984) defines learning as the "process whereby knowledge is created through the transformation of experience. Kolb's theory suggests that there are four steps in experiential learning, as outline in (Knowles, Holton, and Swanson, 2005).

- concrete experience: simulation, case study, field trip, demonsrations
- observations and reflection: discussion, small groups
- formation of abstract concepts and generalization: sharing content
- testing implications: lab work, internships, practice sessions

They also work through the experiential learning process as outlined by Diem (2004). Here the learning process is divided into five basic steps:

The Experiential Learning Process

a. Experiencing/Exploring “Doing”

Students will perform or do a hands-on minds-on experience with little or no help from the teacher. A key facet of experiential learning is what the student learns from the experience rather than the quantity or quality of the experience.

b. Sharing/Reflecting “What Happened?”

Students will share the results, reactions and observations with their peers. Students will also get other peers to talk about their own experience, share their reactions and observations and discuss feelings generated by the experience.

c. Processing/Analyzing “What’s Important?”

Students will discuss, analyze and reflect upon the experience. Describing and analyzing their experiences allow students to relate them to future learning experiences.

d. Generalizing "So What?"

Students will connect the experience with real world examples, find trends or common truths in the experience, and identify "real life" principles that emerged.

e. Application "Now What?"

Students will apply what they learned in the experience (and what they learned from past experiences and practice) to a similar or different situation. Also, students will discuss how the newly learned process can be applied to other situations (Diem, 2001).

The Effectiveness of Experiential Learning

So why does experiential learning play such an important role in the learning process? According to Cone of experience from Edgar Dale (1954), experiential learning satisfies the fact that we remember "90% of what we see, hear, discuss, and practice." Independently, the above sensory practices of sight, hearing, and speech only account for up to 30% of the learning process, but when combined with actual practice, true learning has occurred (Diem, 2001).

Experiential learning exists when a personally responsible participant cognitively, affectively, and behaviorally processes knowledge, skills, and/or attitudes in a learning situation characterized by a high level of active involvement. Participation in learning means contact with the environment, an attempt to combine the processes of learning with the content of learning, and emphasis on "the 'how'as well as the 'what' of the instruction or training" (Moon, 2004). The environment is unity with all things space, power, state, and living things, including humans and their behavior, which affects the nature itself, the continuity of livelihood, and welfare of humans and other living creatures. There is notion of the environment as in the Law Number 32 of 2009 on the Protection and Management of the Environment.

Learning methods can be interpreted as a means by which to implement the plan that has been prepared in the form of real and practical activities to achieve the learning objectives. There are several methods that can be used to implement learning strategies, including: (1) lectures, (2) demonstration, (3) discussion, (4) simulation, (5) laboratory, (6) field experience; (7) brainstorming; (8) debate, (9) symposium, and so on. According to Arends (2008 : 58) a method of learning is the way in which the teacher used to make contact with students during the course of teaching".The learning method is simply the way it presents the subject matter made by educators to the learning process on students in an effort to achieve the goal.

Based on the definition of understanding of the learning methods mentioned above it can be concluded that the method of learning is an experiential learning method undertaken by a teacher for a process of learning on students in order easier to achieve the goal.

Implementation method of experiential learning in environmental education in primary schools.

Implementation of experiential learning models for elementary school children is done by indoor and outdoor activity. Indoor activity that is taking children to keep

learning in the classroom, learning needs related to material / equipment is provided either by the teacher or students.

Environmental education for elementary school children with experiential learning method which exposes elementary students gain experience by performing environmental learning activities both inside and outside the classroom to gain mastery. Components involved adapted to the material being studied. In general the approach / method experiential learning related to environmental issues and impacts caused by human actions. For the students were invited to the outside classroom environment with the aim that students engage empirically with and exposed to the environment with all the conditions. Involvement of students to object is see, hear, feel, smell, touch, and conduct directly to the object being studied.

Activities of Teaching and Learning in theme of Human and the Environment

1. Students faced with the objects of the environment. Students are invited to an environment outside of the classroom environment where the components are empirically fulfilled the biotic and abiotic.
2. Students see, hear, smell, touch, feel, and examine, collect objects encountered what biotic and abiotic (animals, plants, humans, feel the wind, breathe the air, touching the object that can be seen, as well as collecting objects encountered in small quantities as samples.
3. The teacher asks the students what they can deliver and met both can be seen and be heard and touched, and that can only be felt.
4. Teachers give students the opportunity to report on what they have gained through 5 senses and what he had done to the object.
5. Teacher asks students what happened with his findings, then invite students to discuss through the group that has been formed.
6. The teacher asks the group spokes person and assisted members of what he had experienced on the object, then students ask to share with another group members. (reflection)
7. Results of discussions taking lessons from things that have been experienced by the object
8. Then students formulate in simple language
9. Last seen students implement the acquisition of knowledge, attitudes, and skills in students

Method

Research the application of experiential learning methods in environmental science this theme is a class action. This study was designed with two cycles. Each cycle consists of three stages: planning, implementation and observation, as well as analysis and reflection. Experiential learning methods empirically implemented for elementary school students class V. In order to know the progress made and the obstacles encountered, the process followed by the observation of action, develop and run the initial and final tests, and questionnaires given to students as an input.

Act as the initial planning stages of research activity is to identify the problem, formulate a problem. Then choose an effort to apply the method of experiential

learning. Further planning is established in a single program: to prepare observation instrument, devising tests at the beginning and end of each cycle, and make inquiry.

Prior to the implementation of learning students are given a test early. Whenever completed the learning process, some teachers involved had discussions to discuss the learning process has been conducted. From the results of these discussions will be seen what the advantages and disadvantages of the two sides of the teachers and students. The next step, as a result of the implementation of the cycle is used for guidance in the second cycle, developed the hypothesis that by applying the method of experiential learning, students become more active and more easily understand the learning material environment.

Evaluation is done by the teachers regarding the extent to which the level of achievement of learning objectives. Evaluation of cycle 1 observation sheet, initial tests and questionnaires are very useful in determining the steps to the second cycle. On activities in cycle 1 and cycles the second, Evaluation conducted by the teachers regarding the extent to which the level of achievement of learning objectives. Evaluation is done by the teachers regarding the extent to which the level of achievement of learning objectives. Evaluation of cycle 1 observation sheet, initial tests and questionnaires are very useful in determining the steps to the second cycle. On activities in cycle 1 and cycles the second, Evaluation conducted by the teachers regarding the extent to which the level of achievement of learning objectives.

RESULT AND DISCUSSION

Before Action

The focus of the experiential learning method implementation is to increase the students' understanding of teaching science themed environment. The results are as follows: First, students' understanding of the environment, ecosystems, and ecosystem components is low. When the initial tests, the scores obtained under the KKM. KKM set is 75, while the acquisition value of students achieving KKM only 1 person from the number of students as many as 40 people. The rest are in the range of numbers 50-74. Average rate obtained is 55.

Action in Cycle 1

The focus of the experiential learning method implementation is to increase the students' understanding of teaching science themed environment. The results are as follows: First, students' understanding of the environment, ecosystems, and ecosystem components is low. When the initial tests, the scores obtained under the KKM. KKM set is 75, while the acquisition value of students achieving KKM only 1 person from the number of students as many as 40 people. The rest are in the range of numbers 50-74. Average rate obtained is 55. The data show rationale for the need to perform an action for effective learning to enhance students' understanding of the material environment.

As samples of human and environmental material provided can be described as follows: Students are instructed by teachers discover what is in the places they visit on the environmental component. Then they classified the results of the findings in a group of biotic and abiotic. The findings are reported in writing to the teacher. This method has helped students understand the material sub humans and the environment more easily. Students love to learn, a lot to ask and nobody seems to

load if asked to make a report of what has been gained. As samples of human and environmental material provided can be described as follows: Students are instructed by teachers discover what is in the places they visit on the environmental component. Then they classified the results of the findings in a group of biotic and abiotic. The findings are reported in writing to the teacher. This method has helped students understand the material sub humans and the environment more easily. Students love to learn, a lot to ask and nobody seems to load if asked to make a report of what has been gained.

So are the subject matter of the energy that has been difficult for them to understand it because there is a form of energy which is real and the unreal as wind, gas, geothermal. By using this method the material invisible energy that can be felt directly by the students using the five senses. Students are so much easier to understand the terms associated with much less energy reason why people should recycle energy. In the study of this energy to be sent with each student and the collection of used materials that are still fit for use and in sorted into. Viable materials can be reused, if it can not be recycled. This method teaches children to save energy.

From the overall results of observations, questionnaires and tests to be learnt to cycle 1, to the spirit of curious student increases, increased motivation to learn, not get bored, and easy to understand the material. Test results obtained fairly enjoyable learning teacher. Scores obtained increased quite significantly, 50% of children scored above 70 or approaching KKM. The average value of the increase of students is 72. When implemented learning students do not realize the time has run out for fun learning the process of experiencing teaching materials in the outdoor environment. Report the results of the field that has students doing, show them better understand that the existence of humans as ecosystem components is the most important because it has a mind to think and manage ecosystems. Barriers and weaknesses in the implementation of experiential learning requires a lot of time, substantial costs, and the need for the preparation of many of the teachers and students, especially if it is done outside the classroom.

Steps are taken in the second cycle and then after evaluation measures. From Observation show that an increasing in students' understanding of subject matter. Students asked many questions, and then take a lesson from teacher posed environmental problems. Students realized that forests are important for human life. Because the forest and any content contained therein should be preserved, maintained and preserved. Students say no justifiable act of murder on animals without a positive goal, not actually doing the burning forest. Test results for students in cycle 2 of the material obtained scores increased significantly. In preliminary tests the average score obtained amounted to 53, after the test, scores obtained on average 83 over the KKM. This means that students can follow the method of experiential learning environment for subjects very well. Thus the results of the questionnaire and the results of the test show results coexist.

CONCLUSION

Application of experiential learning methods for environmental lesson in primary students show that this method is very suitable used. The students result in learning increasing much. It is suggested that this method can be applied for secondary and senior high school students.

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This paper can be cited as Zulkardi(2013). Proceeding The First South East Asia Design/Development Research (SEA-DR) International Conference, Sriwijaya University, Palembang, April 22nd-23rd.