THE ENHANCEMENT OF ENVIRONMENTAL LITERACY AWARENESS THROUGH PROBLEM BASED LEARNING

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Abstract
This research aims to improve environmental literacy awareness aspect of the student of class IVC SDN 02 Jayagiri Lembang. The design used for this study is a classroom action research consisting of four stages of planning, implementation, observation, and reflection. The subjects of this study were 27 students of class IVC SDN 02 Jayagiri Lembang. The technique of collecting data is using a non-test. A descriptive technical analysis is used for data analysis technique. The results showed that there was an increase in environmental literacy awareness. First cycle on the environmental literacy awareness obtained the average score of 2.45 with enough category, increased on the second cycle by obtaining the average score of 3.49 with good category, then on the third cycle increased by obtaining the average score of 4.48 with very good category. The conclusion of this research is Problem Based Learning can improve environmental literacy awareness of students from class IVC SDN 02 Jayagiri Lembang.

Keywords: Environmental literacy, Problem Based Learning, Elementary School

INTRODUCTION
Based on the results of reflection conducted by researchers together with collaborators showed that the awareness of environmental literacy of students in class IVC SDN 02 Jayagiri Lembang is less than the maximum, Which indicated by the still found a lot of paper waste in the classroom. Based on the arisen problems, the researcher applied one of the models of contextual learning of Problem Based Learning.

Environmental literacy is a student's concern for the environment that is characterized by awareness, knowledge, attitudes, skills, and action (UNESCO, 1978). This research focuses on environmental literacy awareness aspect.

Problem Based Learning according to Tan is an innovation in learning, because, in PBL, the students' thinking ability is optimized through a systematic group or team work process so that students can empower, sharpen, test, and develop their thinking ability continuously (Tan, 2003). Problem Based Learning provides issues that preparing the learners actively and their curiosity to investigate and find the solution of the problem (Arends, 2012). In Problem Based Learning, there is no right or wrong answer, there is only a reasonable answer, the most sensible solution to solving the given problem (Delisle, 1997).

Problem Based Learning can be expressed as an ego process to solve questions, curiosity, doubt, and also uncertainty about the phenomena found in life (Barrel, 2007). A solution to answer all questions is needed, this is the most important process in Problem Based Learning, which is finding the solution of all problems. In this research, it is to find the solution of the environmental problem.

The application of Problem Based Learning model is an alternative to improve the environmental literacy awareness aspect. Based on the description, the researchers conducted a classroom action research entitled "Improving the environmental literacy of students through Problem Based Learning".

The formulation of the problem in this research is: how the improvement of environmental literacy of students in class IVC SDN 02 Jayagiri Lembang is?
Alternative problem solving is by applying Problem Based Learning. Here are the stages in Problem Based Learning, 1) Orienting students to the problem, 2) Organizing students to learn, 3) Guiding both individual and group investigations, 4) Developing and presenting the work, and 5) Analyzing and evaluating the problem-solving process. The aims of this research are to improve environmental literacy of students in class IVC SDN 02 Jayagiri Lembang.

**EXPERIMENTAL METHOD**

The design of this study is a classroom action research. The research design used in this research is Kemmis and MC. Taggart's spiral model. This model is the development of Kurt Lewin model, which consists of four stages of planning, action, observation and reflection. The subjects of the study were 27 students of class IVC SDN 02 Jayagiri Lembang. The data source of environmental literacy awareness of students comes from the data result of students' questionnaire test. The technique of collecting data used is the non-test technique. Data analysis uses descriptive analysis which includes qualitative data. The variable in this research is the awareness aspect of the students' literacy environment through the Problem Based Learning in the students of class IVC SDN 02 Jayagiri Lembang.

**RESULT AND DISCUSSION**

The learning process in this research is by applying model Problem Based Learning. Problem Based Learning is a learning model that presents contextual problems that stimulate students to learn (Delisle, 1997). Students work in teams to solve environmental waste paper problems. In addition, this is also in accordance with the statement of the Research and Development Center of the Curriculum and Book Center that stated Problem Based Learning models in learning activities can be used as strategies for developing environmental literacy characters (BPPPKP, 2011).

The environmental literacy aspect assessed in this research is the awareness aspect which is a component of environmental literacy (Ramdas, 2014). Environmental literacy refers to act or actions that begin with awareness and concern about environmental issues (Ibrahim, 2004; Blessing, 2012). And one of the goals of environmental education according to UNESCO is to improve the awareness and provide opportunities for everyone to gain the attitude needed to solve current environmental problems and prevent further problems (UNESCO, 1978).

The result of awareness data of environmental literacy student in the first cycle obtained the average score of 2.45 with enough category, increased on the second cycle by obtaining the average score of 3.49 with good category, then on the third cycle increased by obtaining the average score of 4.48 with very good category.

The comparison of the result of students' awareness of environmental literacy using Problem Based Learning can be seen in the following table:

<table>
<thead>
<tr>
<th>Cycle</th>
<th>Action</th>
<th>Mean</th>
<th>Cycle’s Average</th>
<th>Cycle’s Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cycle I</td>
<td>Action I</td>
<td>2.36</td>
<td>2.45</td>
<td>Enough</td>
</tr>
<tr>
<td></td>
<td>Action II</td>
<td>2.43</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Action III</td>
<td>2.48</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Action IV</td>
<td>2.55</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cycle II</td>
<td>Action I</td>
<td>2.91</td>
<td>3.49</td>
<td>Good</td>
</tr>
<tr>
<td></td>
<td>Action II</td>
<td>3.36</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Action III</td>
<td>3.67</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Action IV</td>
<td>4.03</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The calculation of the scores of the students' environmental literacy awareness are based on eight indicators, which are the ability to 1) shows concern about the environmental problem of waste, 2) support environmental conservation activities against waste, 3) shows concern about paper, 4) believing that environmental conservation activities are everyone’s duty, 5) believing that environmental conservation activities are a form of respect for others, 6) believing the activity to care about paper waste is a form of environmental care, 7) showing concern for forest through waste paper recycling, and 8) shows environmental awareness of paper waste recycling.

**CONCLUSION**

The conclusion of this research is the awareness of students’ literacy environment increased from the first cycle obtained the average score of 2.45 with enough category, increased on the second cycle by obtaining the average score of 3.49 with good category, then on the third cycle increased by obtaining the average score of 4.48 with very good category. It has fulfilled the success indicator that is at least 80% of students of class IVC SDN 02 Jayagiri Lembang experiencing completeness of good category.

Based on the conclusion that has been described above, it is shown that the proposed hypothesis has been proven that the Problem Based Learning model can improve the awareness of students' literacy environment of class IVC SDN 02 Jayagiri Lembang.

**SUGGESTION**

Based on the conclusions of classroom action research conducted on students of class IVC SDN 02 Jayagiri Lembang, researchers can give suggestions as follows.

1) For teachers

The teachers applies approaches, methods, models, or contextual learning strategies so as to be able to conduct interactive learning that is able to train students to understand and solve environmental problems. Teachers also reflect on the learning that has been done so that it can be found a solution to improve the quality of learning. In addition, teachers can use Problem Based Learning models to improve the awareness of students' environmental literacy. Problem Based Learning model can help students in problem-oriented learning.

2) For School

Schools facilitate the necessary infrastructure facilities during the learning process by getting used to innovative approaches, methods, models, or learning strategies as well as creating a conducive learning climate for improving the quality of education.

**BIBLIOGRAPHY**


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