

Internalization of Values of Ecological Literacy through Fantasy-based Indonesian Language Learning on Junior High School Students in Surakarta

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Abstract

The present research seeks to internalize values of ecological literacy through fantasy-based Indonesian language learning. Classroom action research was employed. The research was carried out by giving actions to Grade VII students of SMP N 15 Surakarta who took part in Indonesian language learning with subject matter of fantasy stories. It consisted of three cycles, each of which was conducted in two meetings. Each cycle comprised planning, action, observation, and reflection. Prior to the action, students' assessment was performed to find out their ability in writing environment-themed fantasy stories and the extent of the internalization of values of ecological literacy reflected in their composition. During learning activities, students were asked to read an environment-themed fantasy story and then teacher explained the characteristics of fantasy stories. Students were required to understand and to be able to internalize the values of ecological literacy. Afterwards, students were asked to create an environmental-based fantasy story based on the given example and characteristics. In reference to the composition, it was found out that students gained more understandings and are able to internalize the values. Through description of conflicts, resolutions, and messages written in their fantasy stories, it was clear that students realized potential risks of having no concern on environmental preservation.

Keywords: internalization, values, ecoliteracy, fantasy story

Introduction

Disasters occurring in Indonesia indicate the low level of public awareness in maintaining a balanced ecosystem. Such attempts to cope with the disasters as initiating SSOP Bantal application for early detection of flood-and landslide-prone areas, enhancing society's participation in waste management, and revitalizing river basins (*Daerah Aliran Sungai—DAS*) through empowerment of all elements of society have in fact been made. However, they were partially made; they merely focused on physical and technical elements, while disaster countermeasures by maintaining such mental aspects as change of mindset and internalization of attitude have never been so much done. The internalization of affection toward environment can be done through education. A book is a crucial factor in education since it provides knowledge, skills, and positive attitudes to students on the importance of keeping and preserving environment. Through textbooks which are based on values of affection toward nature and surrounding environment, students are required to possess ecological intelligence—or so-called ecological literacy/ ecoliteracy. Ecological literacy enables students to consider themselves as in control of the natural environment (Jung in Utina, 2012: 2). The ecological literacy is believed to give great contribution to cope with man-made disasters. All elements of education should be concerned with attempts to preserve environment. Preserving environment is not only science teachers' responsibility, but also all school subject teachers' including Indonesian language teachers'. One of subject matters taught in Indonesian language learning is fantasy story. Fantasy stories can be constructed in the form of a book which contains

values of ecological literacy. Reading the book, therefore, allows learners to internalize such values. The internalization of values of ecoliteracy in fantasy-based Indonesian language learning can exert a positive influence on learners' awareness to continuously preserve their environment. The term 'ecology, according to Soemarwoto (1991: 19), was first used by Haeckel, an expert in biological sciences, in the 1860's. This term was derived from Greek, namely 'oikos' meaning 'house' and 'logos' meaning 'science'. Thus, literally, ecology is the study of human beings in their house or a study of the household of nature. Further, Soemarwoto proposes that the subject matter of living environment is the relationship of human beings, particularly human, with their living environment. The study of the interrelationship between human beings and their living environment is called ecology.

Much similar opinions were proposed by other experts. Cooper (2005:235) suggests that ecology is a study of the relationship between organisms and their living environment. According to Sutton and Anderson (2010:3), ecology is a study of interaction between human beings and their environment. Meanwhile, Keraf (2014:127) proposes that ecology is a study analyzing the relationship among household members of universe and the relationship between human beings and universe or environment.

A central concept in ecology is ecosystem, that is a system of ecology resulted from interrelationship between human beings and their environment. Soemarwoto (1991:20) postulates that a system consists of components which work regularly as an integral part. Ecosystem is fostered by living and non-living components in an environment interacting each other and forming a regular unity. The regularity arises out of material and energy flows which are controlled by information flow among components in ecosystem. Each component has its own function or niche. When each of them functions and cooperates well, the regularity in ecosystem will be well-maintained.

In a system of ecology and ecosystem, human performs as a manager which functions to control the system. Human is the main driving and determining factor of ecological system. Human is accountable to manage the harmony of nature and utilize it for the sustainability of human life. Human is equipped with mind to be able to organize nature for the benefits to human life.

Human holds the responsibility in managing environment. According to Soemarwoto (1991:73), environmental management is defined as a conscious effort to keep and/ or improve environment quality so that our basic needs can be met as well as possible. Since every group of society has different and ever-changing opinion on human basic needs, especially for the sustainability of human life, environmental management has to be flexible. With the flexibility, we attempt to give opportunities to particular group of society to meet the demand of their basic needs.

Human has good adaptive ability, both biologically and culturally (Soemarwoto, 1991:73). For instance, human has the ability to adapt when using polluted water. They develop resistance towards diseases in the body, and because of their habits to fight repulsion on dirty water, clean water is no longer considered as their main need. Such kind of adaptation, even though valuable to maintain life sustainability, should be considered as mal-adaptation or unhealthy adaptation. Mal-adaptation cannot be accepted in environmental management. Living with contaminated water should be deemed to be inhuman. Flexibility in managing living environment should not accommodate mal-adaptation.

In order to obtain good quality of environment, some efforts need to be made, including improving the benefits of environment and/ or minimizing environmental risks. Therefore, human is required to understand crises and disasters occurring in living environment, and provide solution. According to Keraf (2014:124), the main solution offered is alternative thought or paradigm since the main cause of the living environmental crises and disasters is an error in thinking. Only by changing the paradigm, there will be new behavior and way of life as a final solution for the overall global living environmental crises and disasters.

The gist of this offer of solution is building a sustainable society, whether in global, national, or

local levels. A sustainable society builds and arranges their life together by relying on awareness on the importance of living environment. This awareness is known as ecoliteracy (Capra, 1997:297). In reference to the aforementioned background, the purpose of present research is to internalize values of ecoliteracy through fantasy-based Indonesian language learning. The achievement of the purpose will contribute to students' increasing concern on environmental preservation and protection.

Results and Discussion

A classroom action research (McNiff, 1992 and Hopkins, 1993) was employed in the present research. The subjects of the research conducted in SMP Negeri 15 Surakarta included Grade VII D students and Indonesian language teachers. Data were collected using observation, document analysis (Lesson Plans (*Rencana Pembelajaran—RPP*) and textbooks), as well as in-depth interview with students and teachers. They were then analyzed through interactive model of data analysis. Below is the explanation of the research results.

Prior to actions, students were assigned to write a fantasy story containing values of ecological literacy. The assignment focused on two aspects: students' ability in writing the fantasy story with regards to its characteristics, knowledge, understanding, and appreciation of values of ecological literacy. It was found out from the activity that students had inadequate writing skills and internalization of values of ecological literacy.

In cycle 1 learning, the teacher explained a material about the nature and characteristics of a fantasy story, a type of narrative story. The characteristics of a fantasy story are explained as follows:

A fantasy story tells supernatural things/ mystery, as well as mystical things beyond the real world. It is included as a genre of fiction (an imaginary world created by the author) in which the impossible becomes common, characters and settings are unreal or modified from the real world, magic and supernatural/ futuristic elements are set as a theme.

The idea of a fantasy story is open to authors' imagination and is not limited by reality or real world life. It can also involve both real and imaginary worlds constructed by the author. It is sometimes simple, but it can convey an attractive message.

Events occur in two settings: real settings and fictional settings. Both settings and plot have typical characteristics. The set of events in a fantasy story use various settings which move around and break through time and space settings.

Characters in a fantasy story are characterized by unique characterization which is not found in everyday real life, possess divine power, experience mysterious events in various time settings (they can exist in different time and space settings, either in the past or in the future).

Fantasy story is fictional (it is not true story-based). It is inspired by commonplace settings and objects exaggerated to create fantasy. In the other words, characters and settings are exaggerated real objects and settings.

The use of synonyms with strong emotion and variance of words adequately stands out. Language used is varied and expressive. Moreover, varied conversational styles (non-formal language) are found.

Afterwards, students were asked to read fantasy stories entitled *Obrolan di Bukit Utara* and *Bumiku*. *Obrolan di Bukit Utara* tells about wind's, trees', soil's, and water's worry on the balance in ecosystem, particularly in forests which in fact play a key role as the lungs of the Earth but are frequently burnt by irresponsible humans.

For students, such story had been interesting to read, but its long story and numerous characters required long time to read. In addition, its character names presented in the story, such as *Angga Angi*, *Pino Pinus*, *Jaka Jati*, *Tata Tanah*, *Jaja Hujan*, *Wawa Awan*, *Mata Matahari*, and *Dara Angin* were so complicated that students were confused when identifying the plot of the story.

Next, students were asked to identify a set of events experienced by the characters in the story by using the following table.

Characters	Set of events
Angga Angin
Pino Pinus
Jaka Jati
Others

Moreover, students were asked to identify a set of events experienced by every character in the story as well as its plot, messages, and settings. They were also assigned in groups to identify existing elements of affection toward environment and to compose a short story which conveys affection toward environment. It was found out from the composition that values of ecological literacy had not been appreciated. For that reason, the following actions were required.

In cycle 2, students were divided into eight groups consisting of 3-4 students and were asked to observe their surrounding school environment, including waste containers, ditches, spots to perform *wudu* (ablution), and toilets. The observation focused on: (1) either surrounding ditches or waste containers (odd groups observed ditches, while even groups focused on waste containers); (2) their sanitary conditions; (3) their maintenance; (4) odor effects from waste containers; (5) causes of the odor effects from either ditches or waste containers; (6) perception of the odors; and (7) actions taken to deal with the problem. It is overviewed in the following table.

Observed Object	Observation Results	Negative Effects	Actions
Waste Containers	Much waste was lying uncollected	Unpleasant to see	Waste was cleaned up and put into waste containers
Ditches	Much plastic waste was found	Water did not flow	Waste was cleaned up from ditches

Then, students were asked to read a fantasy story entitled *Bumiku* which talks about a character named Meli who is so fond of astronomy that she loves the Earth so much. The weirdness of the story is marked by the presence of her twin named Viki. Viki gave an Earth miniature to Meli. If the Earth is preserved, Viki's miniature will disappear. On the contrary, if the Earth is not kept, the miniature will be getting bigger. In the end of the story, Meli handed a piece of paper with the writing "TERIMAKASIH MELI, TELAH MENJAGA BUMI. SAMPAI JUMPA. Viki" ("I THANK YOU FOR PRESERVING THE EARTH. SEE YOU LATER. Viki")

Students considered *Bumiku* as easy-to-understand story. It presented simple story, but contained messages regarding ecoliteracy. The characters of the story include Meli, Viki, and Bunda (Mother). Students were assigned to identify the existing elements of affection toward environment.

In this cycle, students were asked to identify plot, messages, and settings. They were assigned both in person and in groups to identify the existing elements of affection toward environment, to

construct short fantasy story which denotes concern and real actions in preserving environment. The composition indicated that students' appreciation on values of environmental preservation was getting better.

In cycle 3, the learning began by singing national anthem of *Indonesia Raya* and reading Holy Quran and its translation. In apperception stage, students were asked to close their eyes and imagine: (1) if one day there were no tree; (2) if air were so dirty that everyone carried an oxygen tank, (3) if students had a house with clean river and various species of fish in it like an aquarium. This way, students were encouraged to imagine about both environmental damage and well-maintained environment.

After the apperception, students were divided into five groups by counting off and grouping them according to number. Every group was assigned to read a fantasy story entitled *Pohon* in 15 minutes. Then, they were asked to close the book and the teacher pointed out students in random to retell the story. Chain story was created by all of the groups. Students' performance was assessed in terms of fluency, accuracy of content, self-confidence, compactness, as well as accuracy of pronunciation and intonation.

Next, students were asked to make 10 questions related to the story. Questions formulated referred to characters and characterization. In reference to the observation results, students were found to be enthusiastic in taking part in the learning and to be delighted. They were able to be aware of potential risks of having no concern on trees. Trees function as the sources of oxygen and are needed by human, and therefore they should be taken care of and kept for sustainable life.

Similar to cycle 1 and cycle 2, in cycle 3, students were assigned to produce a fantasy story. Analysis of the composition of the story indicated that the level of internalization of values of ecoliteracy in fantasy stories written by students was getting higher. Students were able to possess knowledge and internalize values of ecological literacy, such as maintaining a good relationship with living creatures (humans, animals, and plants) and with abiotic component; appreciating a mutual relationship between living creatures and the environment; being responsible for the control of the balance of nature and for the utilization on behalf of the continuity of human life. In other words, human is required to maximize advantages of environment and/or minimize environmental risks.

The above research results are in accordance with arguments of Abbs and Freebairn (in Cunningsworth, 1995: 97) regarding students' needs in language learning—a need to encounter a challenge. Future challenges, particularly those associated with ecosystem and attempts of preservation will be getting complex.

Conclusions

Based on the research results, it follows that during pre-actions, students had low level of internalization of values of ecological literacy. However, after post-actions using fantasy-based learning, their level of internalization was increasing. The values involved maintaining a good relationship with living creatures (humans, animals, and plants) and with abiotic component; appreciating a mutual relationship between living creatures and the environment; being responsible for the control of the balance of nature and for the utilization on behalf of the continuity of human life. Students were getting aware of the importance of maximizing advantages of environment and/or minimizing environmental risks.

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