

Literary Readings as Media to Improve the Environmental Awareness as a Moral Quality of Citizens

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Abstract. An important moral quality that should be continuously developed is environmental awareness. Using examples of the practices stated in the literary resources has been proven to influence the quality of environmental awareness in the lives of people who read literature. Since 2016, the Language Development Center under the Indonesian Ministry of Education and Culture, has been actualizing the procurement of literary reading sources to support the primary national literacy movement and the use of these resources as media to transfer good moral-character, including environmental awareness. Ideally, literacy materials that have been proven to effectively encourage good behaviors should be designed and published in multimodal format. The multimodality has potential to strengthen the understanding of primary messages and later influence the practices in actions. This paper uses a thematic and multimodal analysis approach to examine the representation and visualizations of ecological themes in literacy reading materials published from 2016 to 2021.

Keywords: character education, ecology, environmental awareness, literacy, multimodality reading

1 Introduction

The ecological crisis in Indonesia is already in a state of emergency, which can be seen from the massive environmental damage that has triggered the disaster. Extreme weather is accompanied by forest fires, landslides, floods and droughts. The fact of the impact of the bad practice of extractive industries in Indonesia is covered by blaming rainfall and weather anomalies that cause ecological disasters. By allowing this to continue, it means that we allow disasters to occur with increasing intensity every year. The threat of increasing intensity of ecological disasters and climate crises is evident in the mining paradise, South Kalimantan. Data from Walhi [1] states that 50 percent of the 3.7 million hectares of South Kalimantan area is used for mining and oil palm plantations. In addition, South Kalimantan has become a black gold mining paradise with the operation of 157 coal mining companies that have opened 814 mining holes. The paradigm that places nature as a pile of commodities causes a ecological emergency and a climate crisis by decreasing the carrying capacity and carrying capacity of the environment.

To protect the interests of the environment, sustainable development requires an interactive and progressive legal breakthrough. In addition, moral force and people power are needed so that each country feels responsible for participating in protecting the environment, both globally and locally. Thus, the control over environmental administration law enforcement runs more effectively [2]. For this reason, fostering ecological awareness and environmental management are essential and become an integrated part in fostering the moral and character of citizens.

The provision of literacy reading materials containing environmental awareness is one of the government's efforts to foster character through reading activities. Through the Ministry of Education, Culture, Research, and Technology, the Language Agency (Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi, Badan Bahasa) implements a program of providing literacy materials to support the National Literacy Movement. To obtain quality literacy materials, the Language Agency organizes a writing competition for literacy reading materials. The competition resulted in more than 900 books that have been judged to have passed the Book Center's assessment [3].

The provision of reading books is adjusted to the level of reading ability or the level of readers based on the Pusbuk grading guidelines. By 2022, the aim of providing literacy reading materials is to focus on early readers (approximately 7-10 years of age). In the previous year, the target of the activity was started at the early childhood level (PAUD) aged 4-6 years (pre-read 2) [3]. Another provision is related to the first objective of the competition for the provision of literacy books, which is "to explore the potential of writers to grow the young generation of intelligent and character through themes related to character values". Furthermore, it is clarified that the characters that are the focus to be developed are religious, honest, tolerant, disciplined, hard working, creative, independent, democratic, curiosity, national spirit, love for the homeland, respect for achievement, communicative, love peace, love to read, care, environment, social care, responsibility, critical thinking, problem solving, and self-confidence [3]. The delivery of messages of character education in these goals can be achieved if the elements of the second activity goal can be fulfilled, namely "pouring ideas and creativity in the form of writing and pictures" [3]. In this case, this competition requires not only a book containing writings or stories, but also pictures or illustrations. This provision is certainly motivated by the awareness of the importance of multimodality in strengthening the delivery of messages in literacy reading materials, especially for children's age levels. Therefore, this paper examines the representation of ecological themes and visualizations in literacy reading materials published from 2016 to 2021. This study was conducted through thematic analysis and multimodal analysis.

2 Method

The multimodal analysis in this study departs from the semiotic idea of Kress and van Leeuwen which emphasizes that in social semiotics, signs are not positioned as ready made signs, but semiotic resources or are made and remade endlessly and adapted to the needs and interests of the sign maker [4]. To convey messages in communication, people use certain signs for special interests and needs (motivated) by using various resources. The resources used are social products (cultural resources). Therefore, representation is not built individually, but is institutional. For example, television media institutions will choose the form of expression that

is most considered familiar by the audience. In addition, in multimodality, the various modes used are equivalent because each has a different capacity to convey messages in several stages (strata). The strata include discourse design, production, and distribution. In essence, discourse is the realization of social practices or the transformation of reality into discourse which includes 4 types: exclusion, rearrangement, addition, and substitution. The role of all modes used in multimodal texts in discourse configuration is examined in multimodal discourse analysis [4].

In addition to multimodal analysis, this study of reading material literacy with environmental concerns also uses thematic analysis. Thematic analysis is used to build a pattern of meaning ('themes') on a number of data that lead to the formulation of research problems. In this case, thematic analysis is used in relation to understanding and representation. The pattern of meaning is built by the researcher through a series of processes that include data familiarization, data coding, and theme development and revision [5]. Braun and Clarke [6] formulate this thematic analysis stage formula in six phases: 1) becoming familiar with the data; 2) generating codes; 3) generating initial themes; 4) reviewing themes; 5) defining and naming themes; and 6) producing the report. As a reference for coding in thematic analysis, this research uses an environmental care character instrument developed by Dinah et al [7].

3 Finding and Discussion

The *Balapan Sampah* [Garbage Race] [8] book has the theme of waste management and has the sub-theme of service in repairing environmental damage. This can be seen from the story about the bad habits of two friends, namely Beni and Bedo, which have a bad impact on the surrounding environment. The habit is to throw plastic waste in the river to see whose plastic goes faster in the water. The plastic that goes first will be the winner. They only realized that their game was bad when the plastic waste caused a flood in their school. They are also afraid that the flood will also hit their house. Finally, Beni and Aldo also worked together to clean up the garbage in the dam.

The picture on the cover of this book shows two boys crossing a river, just like running on the surface of the river water. Their eyes were fixed on the trash flowing in the river water. The trash is in the form of two plastic bags tied with different colors, one black and the other white, which leads to different ownership. At first glance, readers can misunderstand the plastic waste picture as a stone if they don't look carefully at the word trash in the book's title. Meanwhile, to mark the existence of a race, in writing the title of the book a racing icon is used, more precisely resembling the hot wheels logo which is familiar as a children's toy. In addition, the children's eyes are described as wide open which indicates the excitement and tension they are experiencing. The excitement of this competition is reinforced by the typeface that glows with a fiery red color.

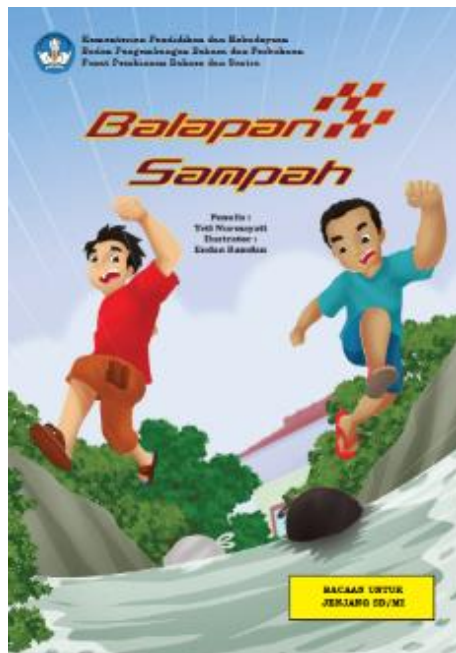


Fig. 1. Book Cover Balapan Sampah [Garbage Race]

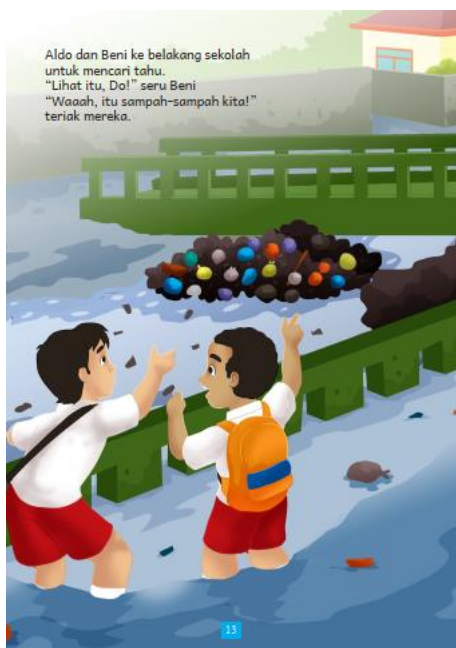


Fig. 2. Edo and Beni Get Flooded

In the picture of Edo and Beni experiencing flooding, they can be seen pointing to a pile of garbage that is thought to have contributed to the flood. The pile of garbage was marked with a

pile of brightly colored plastic to highlight the role of the garbage in the flood disaster that occurred. Thus, readers, especially children, will be able to draw a causal relationship between the image of a knee-length puddle of water and a pile of garbage.



Fig 3. Cleaning Garbage Together

After learning about the consequences of their actions, Beni and Edo show their responsibility by trying to solve the environmental problem. The picture shows various types of waste other than plastic waste such as what Beni and Edo throw into the river. The images of various wastes are displayed in bright colors such as light blue and pink to show that they are the main target of the activities in this picture. Their father showed them how to clean the river from garbage so that the water flowed smoothly again. This initiative is supported by the people around them who voluntarily come to help. From here emerged the sub-theme of service in overcoming environmental problems. In addition, the involvement of adults here also shows the need for role models in the character education process.

In addition to the internalization of character values as described previously, local content in character strengthening is one of the objectives of providing literacy materials in 2016. In the year which is the initial period of this activity, the purpose of providing reading books is to improve literacy culture, improve literacy Indonesian language proficiency, and introduce Indonesian diversity to students in schools and Indonesian citizens. Therefore, the context of locality is highlighted next to the story. The book *Ecosystem on the Slopes of Mount Agung* [*Ekosistem di Lereng Gunung Agung*] [9], which is a reading for elementary school children in grades 4, 5, and 6 raises the context of Balinese locality with the main theme of environmental care and sub-themes of tree planting and dedication to repairing environmental damage. The context of the locality is brought up with the introduction of the slopes of Mount Agung as the background of the story:

Aku adalah Rai. Aku tinggal di lereng gunung Agung bersama kakek, nenek, ayah, ibu, dan kedua saudaraku. Gunung Agung terletak di timur pulau Bali yaitu di Kabupaten Karangasem. Gunung tersebut memiliki ketinggian sekitar 3,142 meter di atas permukaan laut. Gunung yang disucikan ini nampak jelas menjulang tinggi dari rumahku. Lukisan para dewa dengan pepohonan lebat, hijau tersusun rapi bagaikan permadani. Sungguh indah alam di sekitarku.

[I am Rai. I live on the slopes of Mount Agung with my grandfather, grandmother, father, mother and two brothers. Mount Agung is located in the east of the island of Bali, namely in Karangasem Regency. The mountain has a height of about 3,142 meters above sea level. This sacred mountain is clearly visible towering from my house. Paintings of the gods with dense, green trees neatly arranged like a rug. It's beautiful nature around me.]

This area was originally described as a beautiful and prosperous area because of its fertile environmental conditions. Residents also live in peace and security because they always work together in gardening and maintain security together. This beautiful illustration is reinforced by the following image which represents the image of the cool and peaceful atmosphere of the mountainous area. This beauty is not simply presented by nature, but there is also human intervention to care for it, for example by planting bamboo trees to prevent landslides.



Fig. 4. Scenic Mountain Slope

However, this natural beauty is disturbed by the rampant felling of trees. Ironically, this illegal logging of trees actually arises because people's interest in trees, especially bonsai trees, is growing. Unfortunately, many people who want to get bonsai in an instant way are cutting down trees. In addition, natural commodifications that damage the environment also arise due to the trend of precious stones. The spread of the hobby of collecting agate caused mining so that the hill was torn down. Another hobby related to the love of nature that has contradictory results is hunting birds, especially pleci birds. As a result, caterpillars thrive because there are no predators. The farmers' crops were disturbed so that they failed to harvest. Farmers are increasingly using anti-pest drugs so that many residents experience respiratory diseases.



Fig 5. Penambangan

Perburuan Burung

Penebangan Pohon

Activities that destroy the environment disturb the balance of nature or ecosystems. Often humans only realize ecological problems after being directly affected by them. Pictures of the actions of residents regretting their actions to destroy nature are shown, but no pictures of residents' efforts to restore environmental damage are shown. The landslide disaster that threatens the safety of the family makes them give their own confession about their bad deeds. However, the picture shows the role of village authorities which makes them feel powerless. This can be seen from the picture of a resident sitting sadly holding his knees and sitting next to him another resident looking up and talking to the sub-district head.



Fig 6. Residents Admit Their Mistakes in Destroying the Environment

The sub-district head is depicted raising his hand to the residents. This shows the position of the Head of the Camat who gives firmness to the residents to stop the environmental destruction activities that they have been doing so far. With a loud tone, the Camat asked residents to take lessons from the disaster that occurred and forbade residents to carry out activities that destroy

nature again and make efforts to repair environmental damage. Here again the emphasis is on ecosystems, the interdependence of the universe and the law of karma, cause and effect. However, this is also not shown specifically from the wealth of local wisdom of Balinese tradition.

“Kalau alam disakiti, maka alam dapat marah dan memberikan hukuman kepada kita. Semua yang ada di muka bumi ini saling berhubungan. Hubungan timbal balik tak terpisahkan antara makhluk hidup dan lingkungannya.”

["If nature is hurt, then nature can get angry and punish us. Everything on this earth is interconnected. There is an inseparable relationship between living things and their environment."]

Efforts to repair environmental damage are more visible from narratives than pictures. Likewise with the unique image of Bali. The illustrations presented do not use specific Balinese icons. The characteristics of Bali appear more in narratives, such as *awigawig banjar adat* or *adat regulations* containing prohibitions as an effort to prevent environmental damage. Another solution is more of a "forced" discipline through regulation, namely the obligation to plant trees in forests and gardens. On the other hand, this can provide insight into the function of the *banjar* and its institutions in Bali in regulating the social life of the community. However, the value of local wisdom displayed is more universal than typical Balinese, such as *Tri Hita Karana* which is very closely related to the ecological awareness of Balinese people.

The third book, *Putri Resik* [Jv., Beautiful and clean Princess] [10] shows joy, although it is still the theme of waste management and the sub-theme of service in improving the environment. This can be seen from the cover which shows the cheerful faces of children cleaning the gutters. However, the gutter that is the focus of the story here is less visible because it is small in blue, an unusual color found on the surface of the gutter. This picture attracts attention because it looks like children are using shovels and using large sacks in cleaning activities. The main protagonist, Hana, is central in this cover image and shows her big role by holding a shovel, while the rest of her friends only hold the sack.



Fig. 7. Book Cover: Putri Resik [Jv., Beautiful and clean Princess]

Like other children's stories about the environment, awareness about protecting the environment is instilled by giving an overview of the bad consequences of actions that destroy nature. In Putri Resik, the awareness of throwing garbage in its place has been possessed since the beginning. However, his friends around him make fun of him when Hana advises them not to take out the trash. haphazard. They only realized the bad consequences of their actions when their school was hit by a flood. Thus, similar to the previous story, the cultivation of environmental awareness is carried out by providing an overview of the consequences that arise from bad actions on the environment. The children in this picture look surprised to see the garbage they throw in the gutter rising to the surface of the sewer water and blocking the flow of the sewer water, causing flooding. On the other hand, Hana actually shows a satisfied face because now her friends know firsthand that her advice to them about garbage is correct.



Fig. 8. Garbage in the Sewers That Causes Floods

The three stories in the textbooks above are intended as a form of moral teaching, especially about the values of caring for the environment. Stories have always been the preferred teaching instrument by moral educators in the world because stories present an appeal with heart-touching imagination [11]. A good story can move feelings so that it becomes a natural way to bond and become a moral booster by developing the emotional side of a child's character. The story provides space in providing moral reasoning in the process of character building stages. As cognitivists argue that moral reasoning and logical reasoning have significant roles in children's moral development. Therefore, Derya Can and Veli Can highlight the importance of the basic information on logic from an early age since the logical reasoning ability determines the advanced moral reasoning [12].

Moral and logic reasoning in the stories of *Putri Resik* (for kindergarden), *Balapan Sampah* (for lower grade elementary school), and *Ekosistem di Lereng Gunung Agung* (for higher grade elementary school) delivered by depicting the impact experienced when we behave badly towards the environment. The stories of *Putri Resik* and *Balapan Sampah* both make flooding a logical consequence of behavior towards the environment, namely disposing of waste improperly. It seems that the level of these two stories still focuses on the acceptance of the premise and the resulting consequences that flooding is caused by inappropriate waste disposal behavior but have not been asked to assess its validity.

As Derya Can and Vely Can [12] mentioned, "In reasoning studies, individuals are given some promises and results and are asked to evaluate the validity of the results." Maybe because these two stories are aimed at children (kindergarten and lower grade elementary school). These two stories are then followed by a story on the *Ekosistem di Lereng Gunung Agung* (higher grade elementary school) with the theme of other environmental damage premises due to humans not respecting and appreciating nature because of their greed to exploit it for human gain. Again,

the advanced level for assessing the validity of actions that damage the environment will be bad for humans themselves has not been described. In fact, character education is carried out so that students are also able to provide and evaluate results in the form of images that become consequences of actions. It seems that the teacher's role in bringing this theme to an evaluative level from the premise and the results of the discussion on environmental damage due to human actions needs to be done so that students are not trapped in the credibility of stories that are told without any critical thinking. Because, in this case, students will tend to prefer credible results (consequences) because of the reading and the power of the teacher who tells. The stories in books and the power of the teacher become a credible source, as a result students will tend to accept them without questioning their validity. This is because the criticality of students' reasoning needs to be considered and honed so that they are able to accept reality because they understand it logically (validly assess).

In terms of the logic of the story, it seems that there is a story shortcut which is actually a little awkward with the sudden flooding when the children imperceptibly throw away the trash. On the one hand, this story teaches children the importance of protecting the environment by not throwing garbage improperly, either into ditches or rivers, which can lead to environmental disasters, namely flooding. However, on the other hand, this story is simplified by the complexity of other factors that can cause flooding besides garbage. The behavior towards waste that has been taught is limited to throwing garbage in the trash, has not yet reached waste management by sorting waste and reducing waste. Displaying accurate information for early age is indeed a challenge related to the level of understanding and complexity of the story in addition to the limit of storybook pages for early childhood in the writing program of this book. Meanwhile, the problem of environmental damage and its more complex causes can be seen in the *Ekosistem di Lereng Gunung Agung* story. Logic reasoning is formed by inviting children to see a wider scope of interdependence in the environmental ecosystem.

Furthermore, learning about environmental awareness does not stop at floods and landslides which are a logical consequence of the bad actions committed by the main characters or other people around them. If the story only ends in a disaster due to natural damage, children will only feel "punished" as a result of bad actions and are not motivated to do something better [13]. However, these three stories also present a resolution to the environment through various alternative actions that can be taken to overcome the natural damage that has occurred. In the *Balapan Sampah* story, the main character initiates mutual cooperation to clean up the river. In *Putri Resik*, the antagonists gain consciousness when they see people cleaning the ditches that cause flooding. In the *Ekosistem di Lereng Gunung Agung* story, the village community enforces regulations to preserve the environment. Thus, the story does not end with an environmental disaster, but also a resolution to rehabilitate it. This can be a way to anticipate the interpretation of environmental disasters as "punishment" although children need to understand messages about the impact of environmental damage. The resolution at the end of the story can inspire children to be confident in improving themselves and their environment. In addition, children's confidence in solving problems can be helped by inviting children to discuss ways of solving the problems in the stories to improve the environment. Therefore, the solutions presented in children's story books should not be didactic, even authoritarian, but democratic and dialectical by giving space for children to think about the problems that occur.

4 Concluding Remark

This study shows that the internalization of environmental care character values is conveyed by providing moral reasoning in literacy reading materials. This is done by showing the causes of environmental damage and problem solving how to handle and prevent it. This message is conveyed through narratives and images that support each other, both in providing a visual image so that children can be more receptive to messages and to attract children's interest and focus as readers to certain objects that want to be highlighted in these books. However, in sampling the stories raised in this study, the specifications of the locality of the archipelago's culture have not been visually represented even though in terms of inclusiveness the characterizations have been more accommodated.

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