

Research Article

Biocultural Conservation-based Narrative Text: An Effort to Enhance Conservation Literacy of the Local Community in the Sanctuary Area

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Abstract.

The objective of this research is to increase awareness about conservation among the residents of Pematang Gadung Village in the sanctuary region of Ketapang Regency, West Borneo. This will be achieved by employing a biocultural conservation approach through narrative texts, with the goal of addressing environmental issues like illegal logging, poaching, and mining. The research and development process is divided into three stages based on the Successive Approximation Model (SAM): preparation, iterative design, and iterative development. This work focuses primarily on the iterative design phase, expanding on the findings of the research completed in the first year, when the local people perceived forests as commodities due to their lack of conservation literacy. Their biocultural conservation, on the other hand, was profoundly based on indigenous Muslim Malay ethnic beliefs and traditions. The present study seeks to develop a narrative text based on biocultural conservation as an initial effort to create conservation material that aligns with the local wisdom of the community, utilizing a biocultural approach involving 12 students from middle and high schools in Pematang Gadung, West Kalimantan. The findings of this research include the emergence of awareness among respondents regarding the importance of conservation and an improvement in the creative writing skills of the participants.

Keywords: conservation literacy, biocultural conservation approach, SAM, REB, local community of Pematang Gadung Village

1. Introduction

Pematang Gadung Village, located in Ketapang Regency, West Borneo, is home to the largest conservation forest in the region, yet its local community possesses limited knowledge about conservation. The conclusion is drawn from the findings of the first-year research. The distribution of Responsible Environmental Behavior (REB) questionnaires, in-depth interviews, and a focused group discussion (FGD) involving

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Published 15 March 2024

Publishing services provided by
Knowledge E

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Selection and Peer-review under the responsibility of the I-CALLED Conference Committee.

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30 participants, including village leaders, religious figures, public figures, teachers, students, parents, and youth community members, were used to identify participants. The surveys had nine items that addressed three major dimensions: (1) cognitive (knowledge of environmental threats), (2) emotional (fear and anger), and (3) conative (willingness to act). During the in-depth interviews, 19 questions about environmental literacy and awareness were presented to assess REB. The FGD method featured intergenerational communication, debates, and talks on their local tales, beliefs, traditions, viewpoints, symbolic power, and symbolic violence. The outcomes of the questionnaires and in-depth interviews revealed that the community's level of conservation literacy was deficient, as they primarily viewed forests as a mere commodity. On the other hand, the biocultural conservation practice was intricately linked to their shared memories, symbolic influence, and narratives of conflict and reconciliation, illustrating the amalgamation of nature and culture evident in their belief systems, values, and their identity as indigenous, Muslim, and mystical Malay ethnic group (Leiliyanti et al., 2022) .

The research conducted in its inaugural year is further corroborated by the prevailing state of the research site and the impact of YIARI's efforts to enhance community knowledge about the environment. The chosen research locale is the conservation forest situated in Pematang Gadung Village, within the Matan Hilir Selatan District, representing the last vestige of natural forest in Ketapang Regency, West Kalimantan. Nevertheless, the ecological integrity of this area is under siege from illegal logging, poaching, and illicit mining activities [1]. An examination of the monitoring data amassed by Yayasan Inisiasi Alam Rehabilitasi Indonesia (YIARI) concerning the West Kalimantan conservation forest indicates that this predicament is indirectly tied to the inadequate level of conservation literacy within the local community.

In Scholz's perspective, conservation literacy encompasses an individual's disposition and capacity to grasp and effectively communicate matters pertaining to conservation, thereby nurturing heightened environmental consciousness and personal engagement [2]. The findings arising from the feasibility evaluation of the REDD+ (Reducing Emissions from Deforestation and Forest Degradation) program [3] within the Pematang Gadung Peat Swamp Forest ecosystem reveal that, according to the SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis, the primary deficiency lies in the limited efficacy of conservation measures due to the prevalent dearth of conservation knowledge among local communities and key stakeholders.

These results suggest that a bilingual storytelling learning model in Years 2 and 3 that is filled with local wisdom might be a useful strategy for improving community involvement in conservation literacy initiatives. The findings imply that by including indigenous

worldviews, indigenous storytelling becomes an important component of improving conservation literacy. Therefore, in the second-year of this research, the research team from the Faculty of Languages and Arts at the Universitas Negeri Jakarta collaborated with Yayasan Inisiasi Alam Rehabilitasi Indonesia (YIARI), also known as International Animal Rescue (IAR) Indonesia, to establish a virtual community dedicated to crafting narrative texts rooted in biocultural conservation. These texts serve as the foundation for various creative content based on local wisdom with a biocultural approach. The Biocultural approach is a result of dialogues between generations, as initiated during in-depth interviews in the first year. The worldview of the local community tends to lean towards the Muslim and mystical Malay ethnic group, connecting nature with superstition. The Biocultural approach is a result of dialogues between generations, as initiated during in-depth interviews in the first year. The worldview of the local community tends to lean towards the Muslim and mystical Malay ethnic group, connecting nature with superstition.

Fernández-Llamazares and Cabeza (2017) stress the significant connection between the revitalization of biocultural aspects and the implementation of conservation strategies [4]. They underscore the necessity of establishing links between indigenous communities and their natural surroundings, facilitating the exchange of traditional knowledge, promoting conservation discussions across generations, and encouraging the active engagement of local communities in conservation efforts, particularly through narrative activities. Conservation initiatives often encounter doubt and hesitation within local communities [4]. In their view, programs like REDD+ have, for example, primarily focused on the economic value of forests as carbon sinks, potentially neglecting the cultural values and perspectives held by local communities. This approach may have inadvertently widened the gap between these communities and established conservation practices.

The research by Fernández-Llamazares and Cabeza has not yet reached the stage of implementing solutions to the issues. This study addresses this gap by applying a biocultural approach in creating narrative texts infused with local wisdom containing conservation values practiced by the younger generation of Pematang Gadung. Thus, the approach undertaken is expected to be better understood by the community as their traditional customs and local wisdom are explored and utilized to enhance their awareness of the importance of conservation.

2. Material and Methods

The research and development process follows a structured approach called the Successive Approximation Model (SAM), which is divided into three key stages: preparation, iterative design, and iterative development. This paper places particular emphasis on the iterative design phase, building upon the insights obtained during the research conducted in the previous year. The research focused on a group of 12 junior and high school students from Ketapang, West Borneo. The current study's primary objective is to create a narrative text grounded in biocultural conservation. This text serves as the initial step in crafting conservation content that resonates with the local community's traditional knowledge, utilizing a biocultural approach. The creation of the narrative text involves the application of the mind mapping technique developed by Buzan & Buzan (1996) [5]. Buzan's Mind Mapping technique is founded on how the brain stores information through neural networks, facilitating efficient information retrieval and organization [5]. This approach, using color and symbols in a hierarchical structure, encourages creativity, multidirectional thinking, and is particularly valuable for enhancing writing skills in education.

3. Results and Discussion

Prior to initiating the task of crafting biocultural-based narrative texts, participants are invited to undertake a preliminary free writing exercise. Elbow (1973), a distinguished figure in the field of writing theory, is attributed with the introduction of the freewriting technique [6]. Harnessing the subconscious as a writing instrument enables the subconscious mind to unearth a multitude of critical information. This methodology entails the setting of a ten-minute timer, during which participants are encouraged to jot down their thoughts as they arise. Participants are instructed not to cease writing until directed to do so by the facilitator.

During the practice of free writing, participants engage in the exploration of various themes that depict their thoughts and emotions. Some craft fictional stories involving wood theft, while others confide in the broken state of their family life. Their writings serve as an opening to a plethora of ideas and important subconscious information that may surface. This activity also aims to enhance the participants' self-confidence in writing and impress upon them that writing is an accessible endeavor, with themes emanating from virtually anywhere. However, upon closer examination, their writings often exhibit inadequately structured ideas, with one of them expressing a view of

nature as a commodity. One participant recounted a theft that transpired in his yard and witnessed the thief felling a tree, which evoked a strong sense of anger within him. During the question and answer session, the facilitator inquired about the reason behind the participant's intense anger when the tree in his yard was being felled. Instead of responding with concerns for environmental preservation or disapproval of illegal logging, the participant, rather surprisingly, mentioned feeling aggrieved because the wood from the felled tree could have been sold for profit. This response from the participant illuminates how the younger generation still perceives nature primarily as a commodity. The focus of their problem-solving perspective lies not in the preservation of the tree but, rather, in the benefits the tree can yield for humanity. Hence, providing knowledge about biocultural conservation is imperative to shift their focus from what nature can provide to what they can contribute to nature.

Subsequently, in the following session, the writing of short stories centered around the theme of biocultural conservation is conducted, employing the Tony Buzan mind mapping technique. The purpose is to establish a foundation in the form of a local script by selecting from three themes:

1. Local legends concerning the relationship between humans and nature
2. Traditional rituals related to the ecosystem
3. Stories about the conservation of rare species.

And nine sub-themes:

1. Biodiversity
2. Ecosystems
3. Traditional Customs and Culture
4. Human-Environment Conflicts
5. Awareness and Education
6. Conservation Actions
7. Impact of Climate Change
8. Appreciation for Nature and Culture
9. Hopes for the Future

Furthermore, the participants are divided into four groups, and each group elaborates on their ideas from three overarching sub-themes that concentrate on legends, traditional rituals, and various activities embodying the local wisdom of the Pematang Gadung community. After selecting the overarching theme, they will be tasked with narrowing down their story topics by choosing one of the related sub-themes associated

with conservation. Here is an example of a mind mapping exercise undertaken by one of the participants.

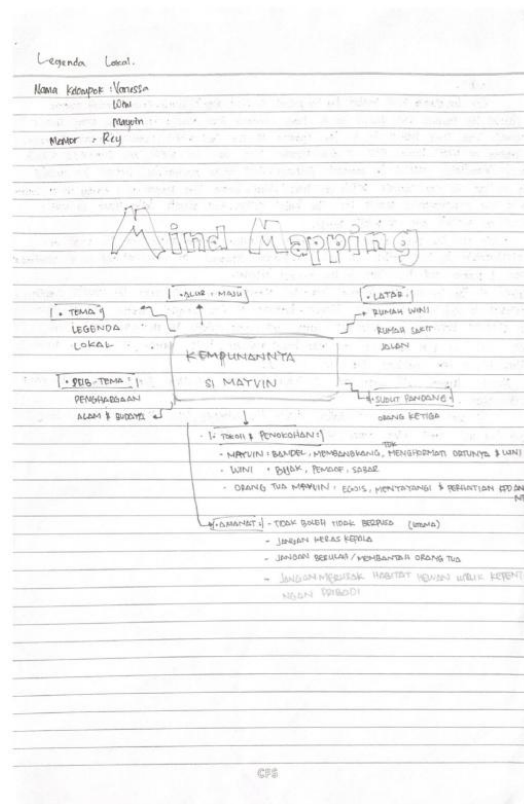


Figure 1: Example of a participant’s mind mapping.

In this instance, the participant chose to explore the local wisdom of the Pematang Gadung community, a practice known as “pusa.” Pusa is a custom in which, if one is offered food or drink but does not wish to partake, they are obligated to touch the palm of their hand to the plate or bowl and then place it against their neck or under their chin to ward off “kempunan” or misfortune. The central character in their story neglects to observe pusa, resulting in them experiencing misfortune associated with a natural phenomenon: venomous snakes suddenly invading the community due to the irresponsible burning of land. Because the main character did not adhere to the pusa tradition, they ultimately fall victim to the snakes. Towards the conclusion of the story, the mentors assist the participants in developing the plot where the main character contributes to resolving this natural calamity. Here is an example of one of the participants’ writings that has been evaluated by an expert panel.

During the evaluation process, several errors were identified in the participants’ work, including the use of uppercase letters at the beginning of words for naming, spelling

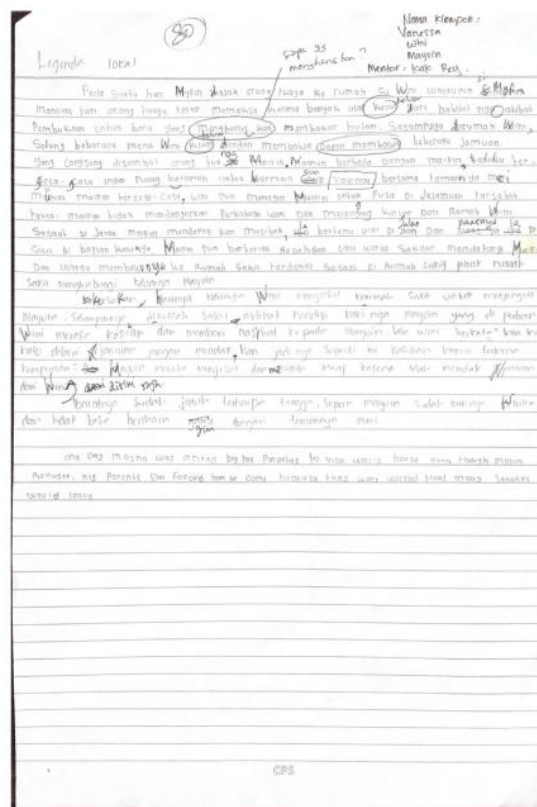


Figure 2: Example of participant's writing.

mistakes, and sentence structure issues. Narratively, the participants failed to sufficiently explore the story's resolution leading towards conservation activities. After reviewing the evaluation results, the participants typed their stories into a Google document and revised them based on the feedback received during the evaluation. Subsequently, the stories were translated into English. Here is an example of the final story from a participant, along with its translation.

The story will be further developed into an initial product to create other creative content, such as a puppet show, podcast, and documentary video. The application of mind mapping techniques in crafting this short story demonstrates that participants can more easily develop their narratives and maintain the flow, ensuring that the story stays on topic and conveys the desired worldview. This outcome is compared with the results obtained during the free writing activity. Additionally, the biocultural conservation approach demonstrates the participants' progress in recognizing the importance of paying attention to the surrounding environment, implementing preventive measures in the face of environmental threats, and understanding the significance of conservation.

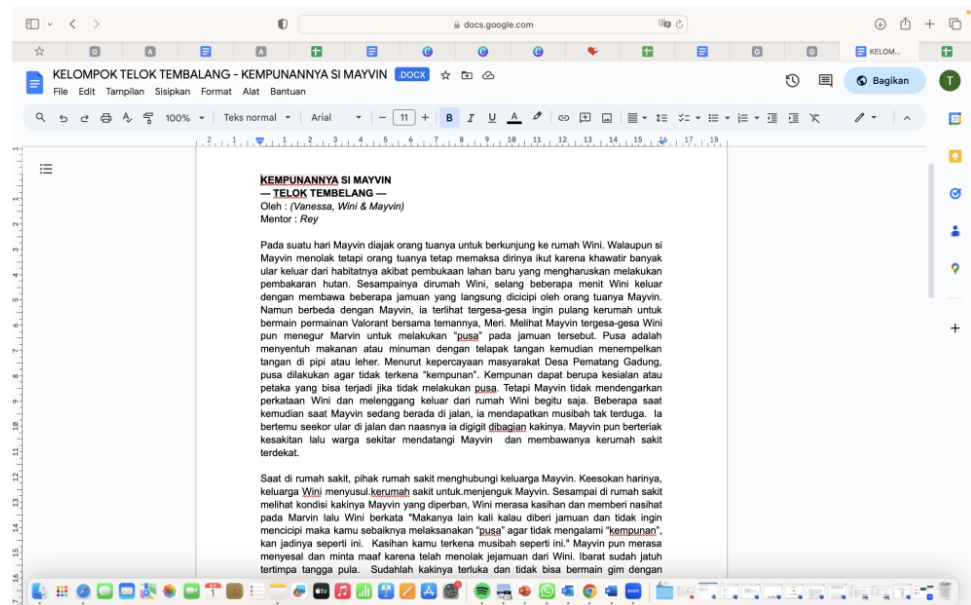


Figure 3: example of final writing.

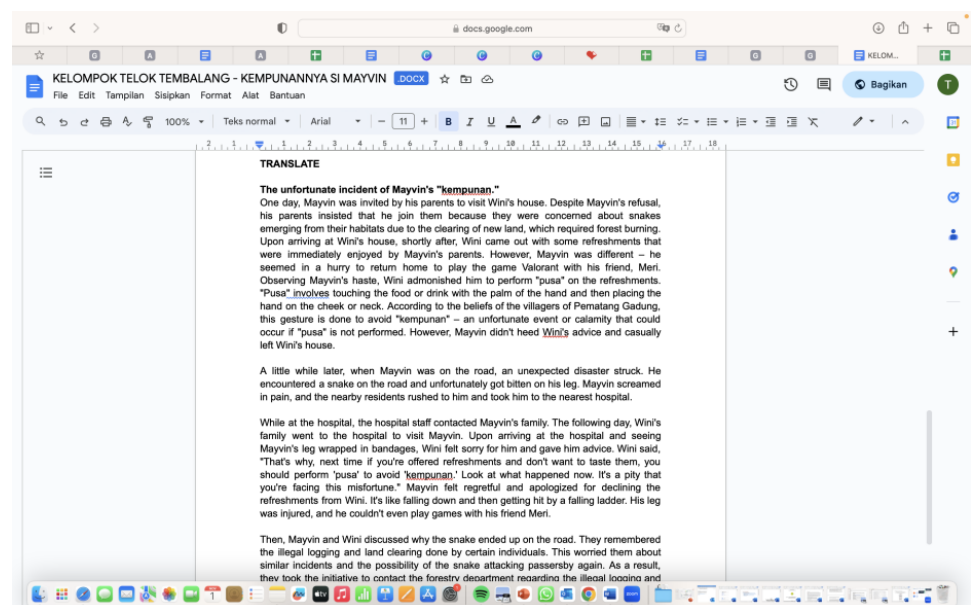


Figure 4: The translation of final writing.

4. Conclusion

The implementation of free writing at the outset of the program can serve as an initial foundation that motivates and fosters participants' self-confidence in writing. Meanwhile, the application of the mind mapping technique greatly assists participants in structuring ideas and maintaining consistency when composing short stories rooted in local wisdom with an emphasis on biocultural conservation. Furthermore, this activity is conducted in the form of a Focused Group Discussion (FGD), facilitating participant access for inquiries

and collaborative exploration of their abilities. The ultimate output of this research takes the form of a narrative text based on biocultural conservation, which serves as the cornerstone for the creation of other creative content.

The participants' writings indicate a growing awareness of the importance of preserving the environment and engaging in conservation efforts. Further research is required in the future to explore the utilization of this narrative text transformed into other creative contents as part of an educational initiative aimed at enhancing conservation literacy. Nevertheless, it is worth noting that this research remains open to various possibilities and alternative methods of generating narrative texts based on biocultural conservation.

Acknowledgment

The authors would like to express their gratitude to the Institution of Research and Community Services at Universitas Negeri Jakarta, Indonesia, for offering financial support for this project. The support was granted to Prof. Eva Leiliyanti, Ph.D., the research chairperson, and provided by LPPM UNJ on behalf of Prof. Dr. Iwan Sugihartono, M.Si., under contract number 6/KN/LPPM/III/2023. We also want to convey our sincere thanks to YIARI, who served as a valuable partner in the successful completion of this research. Furthermore, our gratitude goes to the Head of Pematang Gadung Village, located in Ketapang, West Kalimantan, for their invaluable assistance in ensuring the success of this research.

Conflict of Interest

The authors declare no conflict of interest.

Funding

This research receives no external funding.

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