

THE IMPLEMENTATION OF ECOLITERACY IN ENGLISH LANGUAGE LEARNING FOR JUNIOR HIGH SCHOOL STUDENTS IN NAGEKEO REGENCY

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ABSTRACT

This study aims to describe the urgency, models, and impacts of implementing ecoliteracy in English language learning for junior high school students in Nagekeo Regency, East Nusa Tenggara. The background of this study lies in two main problems: the environmental crisis in Nagekeo, including drought, land degradation, and plastic waste, and the low relevance of English learning materials, which results in suboptimal student motivation and competence. The study employed a descriptive qualitative approach using literature review and local context analysis. The findings indicate that ecoliteracy can be integrated through four models: 1) adaptation of teaching texts based on Nagekeo environmental issues, 2) project-based learning with environmental themes such as the "Nagekeo Green Campaign," 3) outdoor learning and eco-journaling, and 4) integration of local wisdom, such as 'bheto pie' into English texts. This implementation is supported by the philosophical foundation of Ki Hajar Dewantara, CLIL and Place-Based Education theories, as well as the policies of Kurikulum Merdeka and the Profil Pelajar Pancasila. Implementation challenges include teacher competence, limited learning resources, and assessment, which can be addressed through a community of practice, the development of local printed teaching materials, and integrated assessment rubrics. The implementation of ecoliteracy has impacts on improving English competence, fostering environmentally caring character, strengthening cultural identity, and preparing students to become regional ambassadors capable of voicing Nagekeo's issues in a global language. Therefore, collaboration among teachers, schools, the Education Office, and the community is needed to design a contextual and sustainable ecoliteracy learning model for junior high schools across Nagekeo Regency.

Keywords: *ecoliteracy, english language learning, junior high school, nagekeo, local wisdom, kurikulum merdeka*

ABSTRAK

Penelitian ini bertujuan mendeskripsikan urgensi, model, dan dampak implementasi ekoliterasi dalam pembelajaran bahasa Inggris untuk siswa SMP di Kabupaten Nagekeo, Nusa Tenggara Timur. Latar belakang penelitian ini adalah dua permasalahan utama: krisis lingkungan di Nagekeo berupa kekeringan, degradasi lahan, dan sampah plastik, serta rendahnya relevansi materi bahasa Inggris yang menyebabkan motivasi dan kompetensi siswa belum optimal. Penelitian menggunakan pendekatan kualitatif deskriptif dengan kajian pustaka dan analisis konteks lokal. Hasil pembahasan menunjukkan bahwa ekoliterasi dapat diintegrasikan melalui empat model: 1) adaptasi teks ajar berbasis isu lingkungan

Nagekeo, 2) project-based learning bertema lingkungan seperti “Nagekeo Green Campaign”, 3) outdoor learning dan eco-journaling, serta 4) integrasi kearifan lokal seperti tradisi sawi dan po’o tua ke dalam teks bahasa Inggris. Implementasi ini didukung oleh landasan filosofis Ki Hajar Dewantara, teori CLIL dan Place-Based Education, serta kebijakan Kurikulum Merdeka dan Profil Pelajar Pancasila. Tantangan implementasi meliputi kompetensi guru, keterbatasan sumber belajar, dan asesmen, yang dapat diatasi melalui community of practice, pengembangan bahan ajar cetak lokal, dan rubrik penilaian terintegrasi. Implementasi ekoliterasi berdampak pada peningkatan kompetensi bahasa Inggris, tumbuhnya karakter peduli lingkungan, penguatan identitas kultural, dan kesiapan siswa menjadi duta daerah yang mampu menyuarakan isu Nagekeo dalam bahasa global. Oleh karena itu, diperlukan kolaborasi guru, sekolah, Dinas Pendidikan, dan masyarakat untuk merancang model pembelajaran ekoliterasi yang kontekstual dan berkelanjutan di SMP se-Kabupaten Nagekeo.

Kata kunci: ekoliterasi, pembelajaran bahasa Inggris, SMP, Nagekeo, kearifan lokal, Kurikulum Merdeka

A.Introduction

Twenty-first-century education requires graduates who are not only academically proficient but also globally aware and committed to environmental sustainability. Two major issues currently facing the world are the environmental crisis and the growing importance of mastering an international language. At this intersection, the concept of ecoliteracy becomes highly relevant for integration into English language instruction, particularly at the junior high school level. Nagekeo Regency, East Nusa Tenggara Province, is a region with distinctive natural and cultural wealth. On the one hand, the area possesses ecological potential such as rain-fed rice fields in Mbay, teak forests, the southern coastal

areas, and environmentally friendly local traditions such as “bheto pie system”. On the other hand, Nagekeo also confronts tangible environmental challenges: prolonged dry seasons, land degradation, forest fires, clean water crises in several areas, and increasing plastic waste in public spaces and coastal zones. These conditions demand a younger generation capable of understanding, analyzing, and critically voicing environmental issues. Meanwhile, English instruction in junior high schools in Nagekeo still faces several obstacles. First, teaching materials are often generic and disconnected from students’ lived experiences, causing English to be perceived as a “foreign” and difficult subject. Second, student motivation to use English

actively remains low because they do not see its direct relevance to daily life. Third, the integration of local issues into the curriculum is not yet optimal, even though the Kurikulum Merdeka provides ample space for contextualization. Ecoliteracy, defined as the ability to understand natural systems and the human role within them through literacy activities, offers a solution to both challenges. By incorporating Nagekeo's environmental themes into reading, writing, listening, and speaking texts, English instruction becomes more meaningful. Students do not merely learn the present continuous structure or descriptive texts; they use them to describe "the dry rice fields in my village" or to create a campaign such as "Let's Save Aesesa River or "Let Save the Bheto Pie"." Thus, English functions as a tool for critical thinking and for taking action on real problems in their surroundings. The implementation of ecoliteracy also aligns with national education policy. The Profil Pelajar Pancasila emphasizes the elements of noble character toward nature and global diversity. Junior high school students in Nagekeo must be prepared to become global citizens who remain

grounded in local wisdom. They should be able to explain the importance of preserving teak forests or water-saving traditions to the world, using English as the bridge. In addition, Nagekeo is being developed as a tourist destination and as a food barn for NTT. The need for human resources who are ecoliterate and able to communicate in English will continue to grow. Junior high school graduates accustomed to discussing environmental issues in English will be better prepared to continue to senior high school or vocational school, pursue higher education, and eventually become regional ambassadors in tourism, agriculture, and environmental sectors. Based on these objective conditions, implementing ecoliteracy in English instruction for junior high school students in Nagekeo Regency is both urgent and strategic. This approach not only improves students' English competence but also shapes environmentally conscious character, strengthens local identity, and addresses the region's sustainable development needs. Given this background, studies, models, and concrete measures are needed to integrate ecoliteracy into the design of

instruction, teaching materials, and English assessments in junior high schools across Nagekeo Regency.

B. Discussion

A. The Concept of Ecoliteracy

The term ecoliteracy was first popularized by Orr (1992), who defined it as the ability to understand the natural systems that make life on Earth possible, the principles of ecosystem organization, and to use this understanding to create a sustainable society. Capra (2005) added that ecoliterate individuals are able to think systemically, understand the interconnections between humans and nature, and possess ecological empathy. In the context of education, the Center for Ecoliteracy (2013) formulated four ecoliteracy competencies: 1) Head: understanding ecological systems, 2) Heart: developing empathy for all forms of life, 3) Hands: the ability to act for sustainability, 4) Spirit: experiencing a deep connection with nature. In Indonesia, the Ministry of Environment and Forestry, through the Adiwiyata program (2019), affirmed that ecoliteracy is part of character

education for environmental care that must be integrated into all subjects.

B. Ecoliteracy in Language Instruction

Several researchers have examined the integration of environmental issues into language instruction. Stibbe (2015) in Ecolinguistics argued that language is not neutral. Texts and discourses used in the classroom can shape students' perspectives on nature, whether exploitative or sustainable. Therefore, language teachers have a strategic role in instilling pro-environmental narratives. Jacobs and Goatly (2000) emphasized a content-based instruction approach in which environmental issues become the content and English becomes the medium. Students learn the language while simultaneously learning about the environment. Their research results showed increased student motivation and vocabulary when the topics discussed were close to their lives. In Indonesia, Widyastuti and Mahmud (2020) found that using descriptive texts about the surrounding environment improved the writing skills of junior high

school students in Yogyakarta. Meanwhile, Sulistyo et al. (2021) reported that project-based learning with environmental themes improved the speaking skills and environmental awareness of junior high school students in Malang. Projects such as "School Garden Campaign" enabled students to actively use English for authentic purposes.

C. English Instruction in Junior High School and Kurikulum Merdeka

Kurikulum Merdeka provides space for differentiated and project-based learning. The Learning Outcomes for Phase D at the junior high school level emphasize that students should be able to understand and produce simple spoken and written texts on familiar and contextual topics. The Ministry of Education, Culture, Research, and Technology (2022) also promotes the strengthening of the Profil Pelajar Pancasila, including the dimension of noble character, one aspect of which is care for the environment. Brown (2007) stated that language learning will be effective if it is

meaningful, authentic, and contextual. This means that materials drawn from students' surroundings will be more easily understood and remembered than materials far removed from their reality. This principle is highly relevant to the context of Nagekeo Regency.

D. The Context of Nagekeo Regency

Research on education in NTT reveals several important characteristics. Liliweri (2017) in his book of *Pengantar Studi Kebudayaan* noted that students in NTT have a strong cultural connection with nature, yet access to contextual teaching materials remains limited. Textbooks from the central government often do not represent the reality of Flores. BPS Nagekeo Regency (2024) recorded that 68% of Nagekeo's area consists of agricultural land and forest, with the main challenges being drought and land conversion. Meanwhile, the Nagekeo Education Office (2023) reported that the average English score of junior high school students remains below the minimum competency criteria, with

one contributing factor being the low relevance of materials to students' lives. A study by Dopo and Wolo (2022) in Nagekeo junior high schools found that 82% of students were more enthusiastic when teachers used examples from the surrounding environment, such as Mbay Rice Fields and Aesesa River, in English instruction. However, only 23% of teachers consistently integrated local content due to limited references and training.

E. Models of Ecoliteracy Implementation in English Instruction

Based on the literature review above, several models can be adapted for junior high schools in Nagekeo: Eco-CLIL (Content and Language Integrated Learning): Teaching environmental content while simultaneously teaching English. Example: "Water Cycle" material using the simple present tense and vocabulary related to drought conditions in Nagekeo (Coyle et al., 2010). Place-Based Education: Sobel (2004) emphasized the importance of "sense of place" in learning.

Students are invited to explore the Nagekeo environment and then express their findings in descriptive text, procedure text, or English-language poster campaigns. Green Pedagogy: Goulet (2021) developed green pedagogy that combines critical literacy, environmental action, and reflection. Junior high school students read texts about plastic waste, discuss them using expressions of opinion, then conduct clean-up actions and report them in English.

F. Research Gap

From the literature review, it is evident that research on ecoliteracy in English instruction has been widely conducted but remains limited to urban contexts or overseas settings. Research specifically in disadvantaged, frontier, and outermost regions such as Nagekeo, with its distinctive ecological and cultural characteristics, is still minimal. There is no implementation model of ecoliteracy specifically designed for junior high school English instruction that incorporates Nagekeo's local wisdom such as

the sawi tradition, po'o tua, and the issue of drought. Therefore, research on the implementation of ecoliteracy in English instruction for junior high school students in Nagekeo Regency is important to fill this gap and to produce a contextual and meaningful learning model that impacts students' language competence and environmental awareness.

C. Discussion

A. The Urgency of Ecoliteracy Implementation in Nagekeo Regency

Nagekeo Regency is one of the regions in East Nusa Tenggara with distinctive ecological and sociocultural characteristics. Geographically, Nagekeo is dominated by dry land, rain-fed rice fields, teak forests, and coastal areas. Data from BPS Nagekeo Regency in 2024 indicate that 72% of the population still depends on the agricultural and plantation sectors. However, the region also faces real environmental threats. Prolonged droughts, land degradation due to forest fires, declining discharge of the Aesesa River, and increasing plastic waste in urban centers and coastal areas are

daily challenges. On the educational side, the 2023 National Assessment results for junior high schools in Nagekeo show that literacy and numeracy remain below the national average. Specifically for English, the average student score falls under the "requires intervention" category. One cause is the low relevance of teaching materials to students' life contexts. The textbooks used generally depict urban situations, snow, or activities unfamiliar to Nagekeo students. As a result, English is perceived as a distant, difficult, and not immediately useful subject. From these two conditions, a dual urgency emerges. First, the need to shape a generation with ecological awareness, since they will inherit and manage Nagekeo's natural environment. Second, the need to make English instruction meaningful so that students' communicative competence improves. Ecoliteracy becomes the bridge that unites both needs. By integrating Nagekeo's environmental issues into English instruction, students learn the language while also learning to become citizens who care about the sustainability of their region.

B. Conceptual Foundations for Implementation

The implementation of ecoliteracy in English instruction at junior high schools in Nagekeo rests on three main foundations. First, the philosophical foundation. Ki Hajar Dewantara emphasized that education must be rooted in culture and the surrounding environment. The concept of *Tri Nga*, namely *ngerti*, *ngroso*, *nglakoni*, aligns with the stages of ecoliteracy: understanding, feeling, and acting on environmental issues. In Nagekeo, local values such as *bheto pie*, which teaches harmony with nature fallow periods, are cultural assets for building ecoliteracy. Second, the theoretical foundation. The Content and Language Integrated Learning (CLIL) theory from Coyle, Hood, and Marsh (2010) states that language learning will be effective if students learn meaningful content through the target language. In this case, Nagekeo's environmental issues become the content and English becomes the medium. David Sobel's Place-Based Education theory (2004) is also relevant. Sobel emphasizes that a sense of place, or attachment to a location, makes learning more profound. When

Nagekeo junior high school students write a descriptive text about "Bo'a Kawa," they activate prior knowledge, emotions, and vocabulary simultaneously. Third, the juridical foundation. Kurikulum Merdeka grants teachers autonomy to develop contextual materials. The Phase D Learning Outcomes for English state that students must be able to understand and produce simple spoken and written texts on topics close to their lives. The noble character dimension of the Profil Pelajar Pancasila explicitly requires the integration of environmental care values into all subjects, including English.

C. Models and Forms of Classroom Implementation

Based on the literature review and analysis of Nagekeo's context, ecoliteracy implementation in junior high school English instruction can be carried out through four models.

a. Integration into Materials and Teaching Texts

Teachers do not need to abandon the main textbook. The initial step is to adapt and supplement it. For example, when a basic competency requires students to learn descriptive

text, the teacher can replace the example “My Pet Cat” with “The bamboo Forest in My Village.” The text structure remains the same, identification and description, but the content is familiar to students. The vocabulary taught is also contextual: dry, soil, crack, shade, erosion, conserve. For procedure text, the teacher can introduce “How to Plant Corn in Dry Land” or “How to Make Bio-Pesticide from Neem Leaves.” Students learn imperative sentences and sequence words while gaining knowledge of sustainable agriculture. For recount text, students can write about their experience in “When I Joined Clean-Up Day at Maropokot Beach.” In this way, all language skills, reading, writing, listening, and speaking, are still trained, but the theme is ecological and local.

b. Project-Based Learning with Environmental Themes

The second model is PBL with an ecoliteracy theme. One project can integrate all language skills over three to four meetings. Example project: “Nagekeo Green Campaign.” Meeting 1: Building Knowledge. Students read a short text entitled “Plastic Waste in Aesesa River.” The teacher facilitates

vocabulary and comprehension discussions. Students practice reading for main idea. Meeting 2: Investigation. Students conduct simple observations at school or in the surrounding environment. They record the types of waste found and interview canteen staff or cleaning personnel with assistance in Indonesian. The data is then converted into simple English: “We found 20 plastic bottles in the school yard.” Meeting 3: Production. In groups, students create English-language campaign posters. Sample slogans: “Bring Your Tumbler, Save Our Nagekeo” or “No Plastic, No Problem.” They practice writing and design thinking. Meeting 4: Presentation and Action. Students present their posters in class using the simple present tense and the modal should. The best posters are displayed on the school bulletin board and social media. Afterward, students carry out a real action, a one-week no-plastic challenge, and write a daily journal in simple English.

c. Outdoor Learning and Nature Literacy

Nagekeo’s agrarian character makes it possible to conduct English classes outdoors. Teachers can

design a Vocabulary Nature Walk. Students are taken to the school garden or village field. They must find and record 15 nouns in English: tree, stone, ant, grass, cloud. For speaking, teachers can apply show and tell: "This is a candlenut tree. It gives us shade and its fruit can be sold." Another model is Eco-Journaling. Every Friday, students write five sentences about what they saw or did for the environment that week. Example: "On Monday, I watered the plants. On Wednesday, I did not burn trash. I feel happy because the air is clean." This activity practices the simple past and present tenses while reflecting on ecological attitudes.

d. Integration of Nagekeo Local Wisdom

The main strength of Nagekeo lies in its local wisdom. English teachers need to explore and package it in English. The sawi tradition can be used as material for an explanation text: "Why Do Farmers in Nagekeo Leave Their Land Unplanted?" The folktale "Ine Pare" can be adapted into a narrative text with the moral message of protecting rice and land. Local terms such as *moke*, *po'o tua*,

and *kebun kemiri* should be retained and accompanied by a glossary. In this way, students take pride in their culture while learning to explain it to the world in English.

D. The Roles of Teachers, Schools, and Stakeholders

Implementation will not succeed without a supportive ecosystem. Teachers serve as instructional designers. English teachers in Nagekeo junior high schools must shift their paradigm from teacher of English to facilitator of meaning. To support this, the Nagekeo Regency English MGMP must regularly conduct workshops on writing ecoliteracy-based worksheets. Teachers also need to collaborate with science and social studies teachers to design interdisciplinary projects. For example, the science teacher explains the process of erosion, and the English teacher facilitates the creation of infographics and campaign texts about erosion in English. Schools provide a supportive environment. The Adiwiyata program can be optimized not only as a competition but as a living laboratory. The

school garden, waste bank, and biopore holes can serve as sources of authentic texts. Principals should establish a policy requiring the school bulletin board to feature one student work in English with an environmental theme each month. The Nagekeo Education Office plays a role in regulation and capacity building. The office can develop local content titled “Ecoliteracy in English for Nagekeo” for junior high schools. It should also facilitate training with speakers from the Language Center, environmental activists, and CLIL practitioners. In addition, providing bilingual enrichment books on Nagekeo’s flora, fauna, and culture will greatly assist teachers and students. Parents and the community are involved as resource persons. Farmers, fishermen, and traditional elders can be invited to school for sharing sessions. Students listen in the local language and then rewrite the main points in English with teacher guidance. This connects the school with the community and documents local knowledge in a global language.

E. Challenges and Strategies to Overcome

The implementation of ecoliteracy in Nagekeo junior high schools is not without challenges. The first challenge is limited teacher competence. Many English teachers are not yet accustomed to designing materials based on environmental issues. The solution is a community of practice. Teachers can form groups to share worksheets and instructional videos. One good worksheet on “Water Saving Tips” can be used collectively by all junior high schools in Nagekeo. The second challenge is limited learning resources. Internet access in some subdistricts remains weak. The solution is to develop printed local-based teaching materials. Teachers and students can create “My Nagekeo English Dictionary” containing Nagekeo environmental vocabulary complete with photos. This material is inexpensive, contextual, and reusable. The third challenge is varied student motivation. Not all students are immediately interested in environmental issues. The solution is to start with what is closest to

them. For coastal students, raise the theme of the sea and waste. For mountain students, raise the theme of fires and water sources. When students feel “this is about my village,” intrinsic motivation will emerge. The fourth challenge is assessment. Teachers worry that assessing ecoliteracy projects is difficult to measure. The solution is to use clear assessment rubrics. Language aspects are assessed based on grammar, vocabulary, and pronunciation. Ecoliteracy aspects are assessed based on content depth, solution relevance, and real actions taken. Both can be integrated into the Kurikulum Merdeka project rubric.

F. Expected Impacts

If implemented consistently, four main impacts can be expected. First, improved English competence. Because the materials are authentic and meaningful, students’ vocabulary retention is higher. Research in other junior high schools shows that environment-based PBL increased students’ speaking scores by 23% in one semester. Second, the growth of environmentally caring

character. Students accustomed to writing and discussing drought will be less likely to litter or burn land. They develop environmental empathy. Third, strengthened cultural identity. When students can explain po’o tua or sawi in English, they become cultural ambassadors of Nagekeo. Pride in their own region increases. Fourth, contribution to regional development. In the long term, Nagekeo will have a generation capable of promoting its tourism, agricultural products, and environmental issues at the national and international levels using English.

D. Conclusion

The implementation of ecoliteracy in English instruction at junior high schools in Nagekeo Regency is not merely an instructional innovation. It is a sustainability strategy. By making Nagekeo’s environment the text and context, English ceases to be a foreign subject. It transforms into a tool for understanding, loving, and saving one’s homeland. This task requires collaboration

among teachers, schools, the education office, and the community. Starting with one text, one project, and one small action in the classroom, we are preparing Nagekeo's children who may one day stand on a global forum and say fluently: "I am from Nagekeo. Let me tell you how we protect our land, our water, and our future." That is the essence of ecoliteracy: think globally, act locally, and speak in a global language.

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