

Enhancing Environmental Education: An Analysis of EFL Elementary School Coursebooks in Chile and Indonesia

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Abstract

The integration of environmental education (EE) into English as a Foreign Language (EFL) coursebooks is common. This article aims to bridge gaps in understanding the representation of environmental themes by employing ecolinguistics and EE frameworks for (1) identifying environmental themes within EFL coursebooks for primary school students in Indonesia and Chile, (2) examining the alignment of these themes with EE objectives and ecolinguistics categories, and (3) learning from the EE content in the two sets of coursebooks to develop ideas that can guide EE content in future EFL coursebooks for primary school students. The study examines the presence and treatment of environmental content in the selected coursebooks using content analysis. The analysis focuses on identifying themes and assessing their correspondence with EE goals. The findings indicate the presence of positive environmental content in the coursebooks, although with incomplete integration, often reflecting an anthropocentric (human-centric) perspective. The study emphasizes the importance of better incorporating insights from ecolinguistics and EE into EFL materials. It also identifies areas for improvement in both sets of coursebooks and offers recommendations for further research.

Keywords: Ecolinguistics, Elementary Education, Environmental Education, EFL Coursebooks, Learning Materials.

The global environmental crisis necessitates a comprehensive approach to education, integrating the environment into various subjects, including language learning. Environmental Education (EE) aims to cultivate an informed and proactive global citizenry capable of understanding and addressing environmental challenges (UNESCO, 1977). Integrating EE into English as a Foreign Language (EFL) instruction provides a unique opportunity to enhance language skills while fostering ecological consciousness and provoking action on behalf of environmental protection.

The Berlin Declaration on Education for Sustainable Development underscores the critical necessity of embedding EE into national curricula worldwide, emphasizing EE's pivotal role in addressing global environmental challenges (UNESCO, 2022). The present study examined EFL materials in Chile and Indonesia, countries that are included in what is referred to as the Global South, "the counties of the world which are regarded as having a relatively low level of economic and industrial development and are typically located to the south of more industrialized nations" (Oxford English Dictionary, n.d.). Despite the increasing focus on green growth (environmentally sustainable economic growth) and innovation in these regions, environmental issues persist, with empirical evidence on resource utilization and carbon emissions contradicting green growth theory (Fuhr, 2021; Herman, 2021; Hickel & Kallis, 2019). This poses significant economic and environmental challenges for vulnerable populations in the Global South (e.g., Indigenous communities, low-income families and individuals, and migrant workers). These challenges are further exacerbated by socio-economic, political, and gender inequalities (Ngcamu, 2023). Furthermore, given the global nature of the planet's climate crisis, greenhouse gases generated in the Global North, the main sources of such gases, inescapably worsen the crisis for everyone.

Chile and Indonesia differ in significant ways; Indonesia is a majority Muslim nation (87%) (Beshay, 2024) with a tropical climate and a large population of 285,200,551 ranking 4th globally (Worldometer, n.d.-a), while Chile is predominantly Catholic (56%) but has a nonreligious population of almost 30% (Wormald & Wormald, 2024). Chile has a temperate climate and a smaller population (19,837,848), ranking 64th globally (Worldometer, n.d.-b). The median income in Indonesia is approximately \$4,876 USD, and in Chile, it is around \$17,067 USD (World Bank Open Data, n.d.). Despite these differences, both countries share some similarities, including a history of experiencing dictatorships and a reliance on a mixed economy with significant contributions from natural resources. Chile experienced a military dictatorship from 1973 to 1990, during which a neoliberal economic model was implemented. This model prioritized privatization and the intensive exploitation of natural resources for export, especially in sectors like mining and forestry, while sidelining environmental protection. As a result, during that time, environmental issues received little attention in public policy, hindering the development of environmental education and long-term sustainability planning (Carruthers, 2001). Similarly, Indonesia was ruled by General Suharto's authoritarian New Order regime from 1966 to 1998, a period marked by crony capitalism and unsustainable resource exploitation. Environmentalism and education on sustainability were largely neglected, as the state had little interest in regulating natural resource use or promoting ecological awareness (Parker & Prabawa-Sear, 2019). After the end of their respective dictatorships, both Chile and Indonesia made significant strides in advancing EE, though they faced distinct challenges and adopted different approaches.

In Chile, the end of Pinochet's dictatorship in 1990 marked the beginning of a democratic transition that gradually opened space for environmental reform. The newly democratic government acknowledged the severe ecological degradation caused by years of unchecked neoliberal economic growth and began establishing environmental institutions, such as the National Environmental Commission (CONAMA) in 1994. However, environmental policies and education continued to reflect the legacy of elite control and exclusion rooted in the dictatorship, with limited grassroots participation and weak integration into public education systems (Carruthers, 2001; Lacunza, 1996).

In Indonesia, the fall of Suharto's authoritarian regime in 1998 similarly created an opening for environmental discourse. During the dictatorship, EE had largely been controlled by state priorities, aligning with economic development agendas. However, after the regime's collapse, non-governmental organizations (NGOs) and civil society began playing a more prominent role

in promoting EE (Prayogo et al., 2024). These efforts reflected growing public concern over social justice and sustainability, and they shifted the focus from top-down control to more participatory and critical approaches. Still, challenges remained, such as the risk of co-optation by neoliberal interests and a lack of cohesive policy implementation (Nomura, 2009).

Considering the parallel yet distinct journeys of Chile and Indonesia in navigating authoritarian legacies and fostering environmental education, this study now shifts its attention to the concrete embodiment of these efforts within their educational resources. Specifically, it examines how environmental education is currently reflected in the elementary-level EFL coursebooks utilized in both nations. It compares the frequency and type of environmental content and examines how well these themes align with the goals of environmental education. Moreover, this research highlights the need for more ecologically grounded narratives in EFL materials and suggests ways to strengthen the integration of environmental education.

Literature Review

Environmental Education

Environmental Education (EE), as defined by UNESCO's Tbilisi Declaration in 1977, is a process aimed at cultivating global awareness and concern for the environment, alongside the knowledge, attitudes, motivations, skills, evaluation ability, and participation necessary for individuals to address current environmental problems and prevent future ones. This definition, noted by Parker and Prabawa-Sear (2019) for its advanced perspective, remains highly relevant today. Furthermore, Palmer (1998) and Srisathan et al. (2024) emphasized the critical significance of EE in enriching citizens' environmental knowledge and values, thereby nurturing positive attitudes and prompting behavioral shifts toward sustainability. Through EE, individuals are empowered to become proactive agents in environmental stewardship, contributing to a sustainable future for all.

To attain such goals, the Belgrade Charter (UNESCO-UNEP, 1975) delineated six key objectives of environmental education, as illustrated in Table 1.

Table 1. Environmental Education Objectives

Objective	Description
Awareness	Foster sensitivity and awareness among individuals and groups towards the environment and its issues.
Knowledge	Provide a foundational understanding of the environment, associated problems, and humanity's role within it.
Attitude	Cultivate values, motivation, and active participation in environmental protection and enhancement.
Skills	Equip individuals and groups with problem-solving abilities for addressing environmental challenges.
Evaluation	Enable the assessment of environmental measures and educational programs from diverse perspectives.
Participation	Instill a sense of responsibility and urgency in taking action to address environmental issues.

The Belgrade Charter (UNESCO-UNEP, 1975) highlighted the importance of education across all stages of life, advocating for interdisciplinary methods and active involvement in addressing environmental issues. It also stresses the significance of global viewpoints while acknowledging regional variations and the essential role of collaboration at local, national, and international levels to tackle environmental challenges efficiently.

Environmental Education in EFL: Benefits and Challenges

The integration of EE into EFL instruction has emerged as a powerful pedagogical approach that serves multiple educational objectives. This integration enhances language proficiency because it gives meaning to language use (Jacobs & Goatly, 2000; Jung & Dos Santos, 2022; Mete, 2018; Suwaed, 2022; Turner-Hill et al., 2021). At the same time, it hopes to foster a deeper understanding of ecological issues and cultivate critical thinking skills and a sense of environmental responsibility among students (Nkwetisama, 2011; Setyowati et al., 2022).

EE in EFL classrooms relies on diverse teaching strategies and methodologies. For instance, environmental topics can be used in discussions, debates, and presentations, which provide valuable opportunities for language practice while nurturing environmental awareness (Mliless & Larouz, 2018). Essay writing and project-based learning are additional methods for fostering both language skills and environmental values (Setyowati et al., 2022; Suwaed, 2022). Moreover, local context plays a crucial role, with research suggesting the importance of building environmental values based on local wisdom and providing early exposure to local environmental content (A. H. Hermawan et al., 2021). Additionally, promoting teacher sensitivity and maintaining a comprehensive perspective on environmental education have shown positive results (Gunansyah et al., 2023).

Despite its importance, the integration of EE into EFL curricula faces several significant challenges. Many institutions struggle with a limited curriculum emphasis on environmental education, insufficient resources, and inadequate teacher training (Acton & Saxe, 2020; Obasi & Osah, 2022). The success of EE programs often depends heavily on institutional support and resources, with better-equipped schools showing higher levels of achievement in environmental participation (Salazar et al., 2022). Most importantly, government initiatives frequently lag in formally integrating EE into educational curricula, despite its recognized advantages (Prihantoro, 2015).

Solutions and future directions addressing these challenges require a multi-faceted approach. Continuous teacher training and support have been identified as crucial elements for successful implementation (Dhull & Verma, 2017; Ortega, 2020). One area for teacher development could be Freire's (2000) concept of critical consciousness, e.g., educators could engage students in meaningful discussions about environmental challenges, fostering proactive involvement.

Environmental Education in Elementary EFL: Coursebooks and Materials Development

In the realm of environmental education, EFL coursebooks tailored for elementary schools play an essential role in accessibility and engagement while aligning with national curriculum objectives (Damayanti, 2014). These coursebooks serve as structured frameworks for EFL teaching and learning (Khoo & Knight, 2015; Yang & Coxhead, 2022).

However, evaluating the quality of the EE content in these coursebooks requires considering a complex interplay of factors (Ghorbani, 2011). Student characteristics, parental involvement, community values, and cultural norms all influence learning. Moreover, in the development of instructional materials, a focus on connecting classroom learning to real-world environmental applications is paramount (Tomlinson, 2016). Here, teachers play a key role. When teachers actively participate in creating and supplementing learning materials, they gain the ability to personalize resources, aligning them with students' unique needs and interests, e.g., when doing projects. This personalized approach fosters self-directed learning, empowering students to take ownership of their education (Esa, 2010; Stevenson, 2007). For instance, when students do

collaborative projects such as community gardens, they deepen their understanding of environmental issues and sustainable practices.

Ecolinguistics

Halliday's seminal speech in 1990 at the International Association of Applied Linguistics Congress introduced the term "ecolinguistics," highlighting language's significant interaction with environmental issues (Penz & Fill, 2022). He critiqued linguistic anthropocentrism, i.e., placing humans' welfare and interests at the center of all matters, emphasizing how everyday discourse often diminishes nature's value and promotes unsustainable actions (Halliday, 1990). In the 21st century, ecolinguistics evolved into a well-established discipline (do Couto, 2014) defined by the International Ecolinguistics Association (2024), as a discipline exploring the role of language in the life-sustaining interactions of humans, other species, and the physical environment.

Ecolinguistics examines the complex relationship between language, culture, and the environment, particularly in diverse cultural and Indigenous communities (Inglis & Pascual, 2023; Skorek, 2021; Sultan, 2023). It highlights how language reflects and shapes our understanding of environmental issues, emphasizing the importance of incorporating local wisdom and cultural values into education (A. H. Hermawan et al., 2021). While English coursebooks can influence students' environmental perceptions, studies have shown a need for greater cultural diversity and representation of local perspectives in these materials (B. Hermawan & Noerkhasanah, 2012; Silvia, 2015; Sulistiyo et al., 2021).

Therefore, ecolinguistics offers a powerful framework for integrating ecological consciousness into education. Scholars such as Roe et al. (2023) have advocated for the incorporation of ecolinguistics into curricula, empowering students not only with linguistic skills but also a deeper understanding of environmental issues. This integration fosters a broad approach to language education, encouraging learners to critically examine how language shapes perceptions of the environment and influences behaviors. Novawan et al. (2022) emphasized the transformative potential of ecolinguistics in both language theory and practice, highlighting the importance of fostering environmentally aware language learners. Furthermore, ecolinguistics intersects with environmental education and disaster mitigation efforts, as illustrated by Ramadhan et al. (2019).

Stibbe (2014) emphasized the need to shift from anthropocentric (human-centered) to ecocentric (centered on all life, including humans) narratives to foster a more sustainable relationship with the environment. Stibbe (2024) advocated for the emergence of new narratives that promote an ecocentric ecological philosophy (ecosophy), one that supports sustainable practices (Rudyshyn, 2023).

Visual Environmental Communication

Visual environmental communication employs various visual tools to convey complex information effectively to diverse audiences. Moreover, visual content such as infographics, images, and videos helps to clarify complex environmental concepts and highlight challenges, especially in the case of infographics that carry a persuasive potential (Lazard & Atkinson, 2014). Overall, visual communication is indispensable for effective environmental messaging (Jones et al., 2022).

Furthermore, Hansen and Machin (2013) explored how visual communication shapes cultural perceptions and societal norms. They emphasized the influence of images on values and beliefs, urging a deeper understanding of how audiences interpret visuals and how they can reinforce but also undermine power structures and dominant ideologies. Their work calls for a broader view of visual culture, including diverse media, to improve environmental communication.

Previous Studies

Previous research on the representation of environmental issues in educational materials has been conducted across various countries, educational levels, and systems. Table 2 presents these studies in chronological order.

Table 2. Previous studies on EFL textbooks using EE and ecolinguistics (table adapted from Gavilan Tatin et al., 2024)

Author	Country	Textbook Level	Framework	Findings
Jacobs and Goatly (2000)	International	Seventeen randomly selected ELT tertiary-level coursebooks.	United Nations EE objectives. (UNESCO–UNEP, 1975)	Environmental themes are present to a small degree but lack participation-related tasks.
Xiong (2014)	China	Secondary Schools	Eco-CDA by Fairclough (1992, 2010), Goatly (2000), and Stibbe (2004)	Focus on awareness, not on promoting active engagement and change.
Mliless and Larouz (2018)	Morocco	High School	Euphemism (Schultz, 2001), agency by Alexander (1996), and passive voice (Lutz, 1988) and Stibbe (2015).	Euphemisms lessen the impact of environmental issues. Lack of agency obscures meaning. Passive voice hides individual responsibility for environmental harm.
Zahoor and Janjua (2019)	Pakistan	Elementary Schools	Ecopedagogical (Gaard, 2008); Transitivity analysis model (Halliday, 1994)	Promote an anthropocentric worldview, lack ecopedagogical value.
Curdt-Christiansen (2020)	China	Elementary Schools (six books for lower primary grades)	Environmental Literacy by Clayton et al. (2019) Language socialization by Curdt-Christiansen (2017)	Ambiguous discourse on consumerism/resource exploitation and love for nature
Faramarzi and Janfeshan (2021)	Iran	Junior and Senior High School	Ecolinguistics by Stibbe (2015)	Inadequate representation of ecolinguistics in addressing environmental problems.
Hamed (2021)	Egypt	2 nd grade Kindergarten, 1 st year Primary, 1 st year Prep., 1 st year Secondary.	Eco-CDA (Stibbe, 2014); Anthropocentric representation or values of nature in capitalist discourse (Kahn & Kellert, 2002)	Reflect shallow conservationism, consumerism, and anthropocentric reasoning.
Majeed et al. (2022)	Pakistan	Grades 9 and 10	Ecolinguistics by Stibbe (2015)	Erasure, metaphor, and evaluation are crucial for uncovering ecological analysis and ideologies.
Triyono et al. (2023)	Indonesia	High School (level XII)	Eco-CDA (Cheng, 2022; Stibbe, 2014); Principles for visual analysis (Hansen, 2017)	Mostly includes eco-beneficial discourse, with few eco-ambivalent and eco-destructive elements.
Ekasiwi and Bram (2023)	Indonesia	High School (levels X-XI)	Representation of ecolinguistic elements (Stibbe, 2020)	Some textbooks lack ecolinguistic aspects in their content.
Mou and Wu (2023)	German	Chinese Universities	Systemic functional grammar (Halliday, 1994) Ecolinguistics (Haugen, 1971)	Environmental content often ignores the cultural and political roots of environmental damage.
Gavilan Tatin et al. (2024)	Indonesia	Elementary Schools (Level I-VI)	Ecolinguistics (Stibbe, 2021) United Nations EE objectives. (UNESCO–UNEP, 1975)	Lack of EE objectives of participation and evaluation. The environmental content present was often anthropocentric.

This study aims to explore the inclusion of environmental content in elementary school materials in Chile and Indonesia, focusing on image modalities and the integration of ecolinguistics and EE. We argue that understanding how environmental issues are presented to young learners in these countries is essential for shaping early attitudes toward sustainability and informing educational policy and curriculum development. Accordingly, this research seeks to address the following questions:

RQ1 How and how often are the specific environmental themes presented in elementary school EFL coursebooks in Indonesia and Chile?

RQ2 To what degree do the environmental themes presented in Indonesian and Chilean elementary school EFL coursebooks fit the stated objectives of environmental education?

RQ3 What can be learned from applying tools from ecolinguistic analysis to environmental education content in EFL textbooks for elementary school students in two diverse countries?

Method

This study involved a qualitative content analysis (Schreier, 2012) with a mixed approach. This approach combined inductive coding (data-driven) for theme identification (Drisko & Maschi, 2016) and deductive coding based on UNESCO-UNEP (1975) for recognizing the EE objectives. The content analysis allowed for the examination of unorganized data through their meanings, symbolic attributes (e.g., the depiction of communities collaborating to protect the environment or the visual representation of pollution levels), and expressive elements, such as the use of rhetorical questions (e.g., how many more species should die before we act?) that inspire action and highlight an urgency (Krippendorff, 2019). The content analysis focused on multimodal resources in the coursebooks, including visual and textual elements (Serafini & Reid, 2023). This method gave a comprehensive understanding of how these coursebooks integrate environmental content into their educational narratives.

Data Collection and Analysis

Chile and Indonesia were selected for this comparison as part of a convenience sample, given that the first and second authors are originally from these countries. This positionality offers them a deeper contextual understanding of each nation's sociopolitical and environmental landscape, allowing for more nuanced insights into how historical and cultural factors have influenced environmental education and policies.

Data were downloaded and sourced from each country's online platforms of the respective Ministries of Education. The Indonesian coursebooks reviewed were *My Next Words* for Grades 1-6, while the Chilean coursebooks were *Get Ready with English* for Grades 1-6.

A coding frame comprising two dimensions was developed based on Schreier's (2012, 2014) content analysis framework. The first dimension identified environmental themes through an inductive approach, directly deriving themes from the data (image and text modalities). Moreover, to facilitate uniform coding practices, a codebook was developed to organize codes systematically and ensure their consistent use. The second dimension evaluated how well the themes matched the environmental education objectives set by UNESCO-UNEP (1975).

Finally, an assessment (Krippendorff, 2019) was conducted to contrast the findings from the Indonesian and Chilean coursebooks in the two above-mentioned dimensions, leading to suggestions for improvement from both EE and ecolinguistic inclusion useful for different learning levels and countries.

MAXQDA software (VERBI Software, 2021) facilitated data collection and analysis. The software automatically assigned a unique identifier to each segment (e.g., GRWI 1: 47: 296|565 - 47: 594|743) while organizing the data. This identifier indicates the document name (e.g., GRWI 1; Get Ready with English 1st grade), the page number where the coding appears (e.g., page 47, counting cover and blank page after the cover), and the exact position of the coded segment in the page (296 to 565 and from 594 to 743). Moreover, inter-rater agreement was used in the themes or subcategories to avoid bias in the categorization. The percentage of agreement across subcategories was consistently high, ranging from 84.3% to 99.1%, indicating strong reliability in the coding process.

Results

The results section is structured to provide a comprehensive analysis of environmental representation in the selected EFL coursebooks in Chile and Indonesia. The initial stage of our analysis involved identifying and categorizing environmental themes. These themes were organized into four primary categories based on their relationship to ecosophy and environmental perspectives: *Negative Themes* (Modalities that are anthropocentric), *Ambivalent Themes* (modalities displaying conflicting environmental intentions, thereby falling short of fully aligning with the ecosophy), *Beneficial Themes* (modalities demonstrating a closer alignment with the tenets of ecosophy), and *Other Themes* (modalities that could not be definitively placed within the Negative, Ambivalent, or Beneficial classifications). Following this categorization, we documented the frequency of each main category and its specific sub-themes. The subsequent step in our analysis was to evaluate how these identified themes align with the EE objectives.

Environmental Themes

The analysis of environmental themes in Indonesian and Chilean coursebooks reveals both commonalities and significant differences in the frequency and coverage of specific themes, as Common ground was found concerning the themes in the *Negative*, *Ambivalent*, *Beneficial*, and *Others* categories, with twenty (20) common themes (or subcategories) found in both countries, except for the theme *Conservation and waste management practices*, which was only present in Chilean coursebooks.

Negative environmental themes were identified in both sets of coursebooks, but their prevalence varied. Indonesian coursebooks dedicate a small minority (13%) to *Negative* themes, while Chilean coursebooks have a slightly lower focus (8.1%). Indonesian coursebooks have more mentions of *Animal-based food* (7%) and *Disposable objects or waste* (3%) compared to Chilean coursebooks, where these themes appear less frequently (3.2% and 1.23%, respectively). Examples of these themes can be seen in Figure 1. The relatively lower representation of negative themes in Chilean coursebooks suggests a more selective inclusion of content that aligns with sustainability principles.

Table 3. Identified Environmental Themes and their Frequencies in Indonesian and Chilean Coursebooks

Category	Themes (subcategories)	Indonesian Frequency	Chilean Frequency
Negative	1 Animal-based food	13%	8.10%
	2 Disposable objects or waste	7%	3.20%
	3 Unsustainable mobility	3%	1.23%
	4 Caged and working nonhuman animals	3%	2.73%
	5 Human interaction with nonhuman animals	0.18%	0.37%
Ambivalent		0.03%	0.49%
	1 Environment and tourism	1%	4.39%
	2 Nonhuman animal dichotomy	0.40%	2.76%
	3 Exploitation of resources	0.37%	1.44%
Beneficial	4 Anthropomorphism	0.18%	0.15%
		0.11%	0.03%
	1 Plant-based food	28%	32 %
	2 Reusable/recyclable Objects	13%	7%
	3 Nonhuman animal appreciation/knowledge	7%	1.29%
	4 Sustainable mobility	5%	13%
	5 Horticultural practices	2%	2.42%
	6 Conservation & waste management practices	1 %	0.86 %
7 Ecosystems and biodiversity	0%	2.82%	
Others	8 Nonhuman animal pronouns	0.05 %	4.48 %
		0.03%	0.03%
	1 Likely to be animal-based	8%	5.74%
	2 Undefined food ingredients	2 %	3.19 %
Total	3 Likely to be plant-based	4%	1.20%
	4 Likely to be reusable/recyclable	1%	1%
		1%	0.31%
		21	100%





Indonesia	Chile
Animal-based food	
	
MNW III: 14: 135 389 - 14: 278 489	GRWI 1: 47: 296 565 - 47: 594 743
Disposable objects or waste	
	
MNW I: 112: 97 90 - 112: 284 262	GRWI 5: 106: 145 224 - 106: 232 350

Figure 1. Excerpts of Negative Themes

Ambivalent themes, which include content that can be interpreted as both favorable and harmful to the environment, appear more frequently in Chilean coursebooks, with a total frequency of 4.39%, compared to 1% in Indonesian coursebooks. In the coursebooks, this ambivalence is evident in the portrayal of tourism *Environment and tourism* (2.76%), e.g., which can boost local economies but also harm the environment, and *Nonhuman animal dichotomy* (1.44%), or ambiguities when referring to nonhuman animals, e.g., when they are simultaneously presented as beings deserving of affection and as commodities for amusement (See Figure 2). Perhaps, ambivalent subcategories could be presented in a manner that encourages students to weigh the benefits and drawbacks before deciding on what actions they should take and advocate for.




Environment and tourism	
	
MNW VI: 75: 26 5 - 75: 466 715	GRWI 4: 121: 13 107 - 121: 553 558
Nonhuman animal dichotomy	
<p>Cici and Aisyah go to the zoo. They look at a cage. There are an elephant, a giraffe, and two deers. The elephant eats the grass uses his thrunk. The giraffe eats the leaves.</p>	
MNW V: 78: 269 512 - 78: 481 612	GRWI 5: 94: 4 191 - 94: 277 440

Figure 2. Excerpts of Ambivalent Themes

Beneficial themes are prevalent in both sets of coursebooks, with Chilean coursebooks having slightly more (32%) compared to Indonesian ones (28%). Indonesian coursebooks place greater emphasis on *Plant-based food* (13%) and *Reusable/recyclable objects* (7%), while Chilean coursebooks focus more on *Nonhuman animal appreciation and knowledge* (13%) and *Plant-based food* (7%), see Figure 3.

Indonesia	Chile
Plant-based food	
 <p>MNW VI: 45: 104 91 - 45: 225 223</p>	 <p>GRWI 6: 82: 44 54 - 82: 536 515</p>
Reusable/ recyclable objects	
 <p>MNW V: 26: 90 317 - 26: 185 434</p>	 <p>GRWI 6: 76: 40 458 - 76: 180 539</p>
Nonhuman animal appreciation/knowledge	
 <p>MNW VI: 106: 55 421 - 106: 466 603</p>	<p>Some Chilean animals are in danger. An endangered species is at risk of becoming extinct. Growing cities, forest fires, and the extraction of natural resources are the main reasons for their disappearance.</p> <p>What can we do to protect endangered animals and their habitats?</p> <p>GRWI 2: 68: 159 - 68: 371</p>

Figure 3. Excerpts of Beneficial Themes

In contrast, both countries give minimal attention to themes like *Horticultural practices* (Indonesia at 1% and Chile at 0.86%) and *Nonhuman animal pronouns* (0.03% in both), indicating missed opportunities to promote sustainable food production and a more ecocentric worldview. Furthermore, the *Ecosystems and biodiversity* theme in Indonesian coursebooks is minimal (0.05%), referencing just two coded segments under this theme and the *Conservation and waste management practice* theme appears exclusively in Chilean coursebooks (2.82%) further reinforcing this emphasis on responsible resource management and conservation efforts that Indonesian coursebooks tend to lack (see Figure 4).

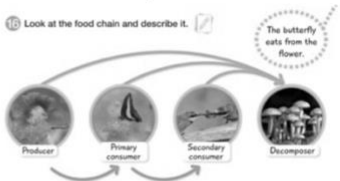


Indonesia	Chile
Ecosystems and Biodiversity	
<p>waterfall</p> <p>MNW VI: 107: 113 - 107: 121</p>	 <p>GRWI 4: 88: 8 142 - 88: 561 421</p>
Conservation & waste management practices	
	 <p>GRWI 4: 24: 26 511 - 24: 558 659</p>

Figure 4. Excerpts of Beneficial Themes

The *Others* category included themes that could not be classified (examples can be found in Figure 5). Indonesian coursebooks contained more content in this category (8%) than Chilean coursebooks (5.74%). Notably, *Undefined food ingredients* appeared 4% of the time in Indonesian materials compared to 1.2% in Chilean ones. While Chilean coursebooks showed a significant presence of *Likely to be animal-based* content (3.19%), both countries' materials demonstrate a need for greater clarity in food categorization. This lack of precise classification could limit students' understanding of the impact of their dietary choices.

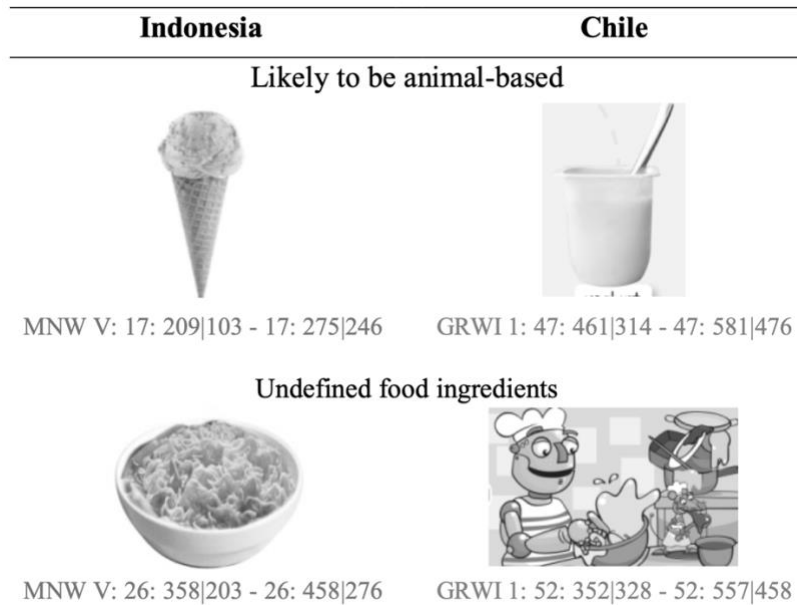


Figure 5. Excerpts of Other Themes

Alignment with EE Objectives

The alignment of environmental themes with EE objectives is crucial for evaluating their effectiveness in fostering environmental awareness and action. Since *Negative* or anthropocentric themes do not support EE objectives, our analysis focused solely on *Ambivalent* and *Beneficial* content.

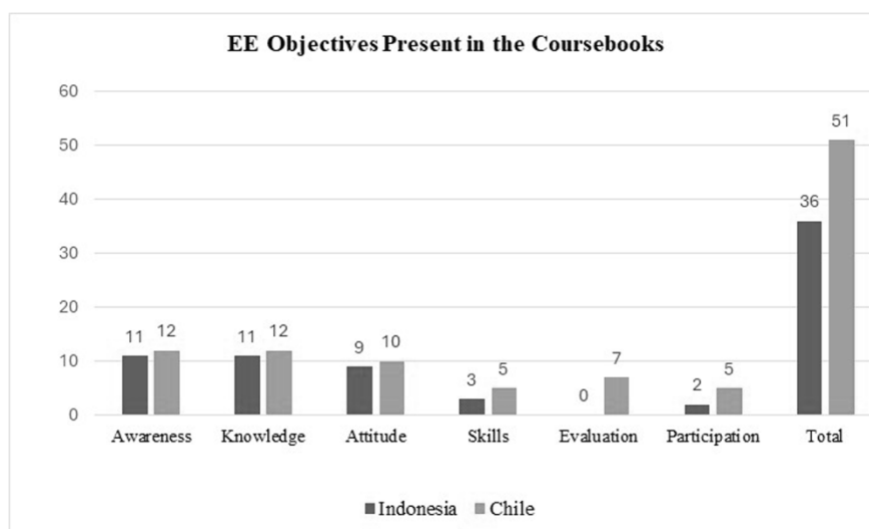


Figure 6. EE Objectives Present in Indonesian and Chilean Coursebooks

The results per EE objective (see Figure 6) showed alignment with certain EE objectives, such as raising *Awareness* and providing *Knowledge* about environmental issues in both Indonesian and Chilean coursebooks. However, Chilean coursebooks incorporated a higher number of EE objectives beyond *Awareness* and *Knowledge*. Specifically, *Skills*, *Evaluation*, and *Participation* objectives were more prominent in Chilean materials, suggesting a stronger pedagogical approach that encourages student engagement and problem-solving in environmental contexts. In contrast, Indonesian coursebooks demonstrated a limited focus on these critical objectives, which highlights a gap in participatory environmental education in Indonesian curricula. The total score for Chile (51) was notably higher than for Indonesia (36), reflecting a stronger integration of environmental education across all categories in Chilean EFL coursebooks.

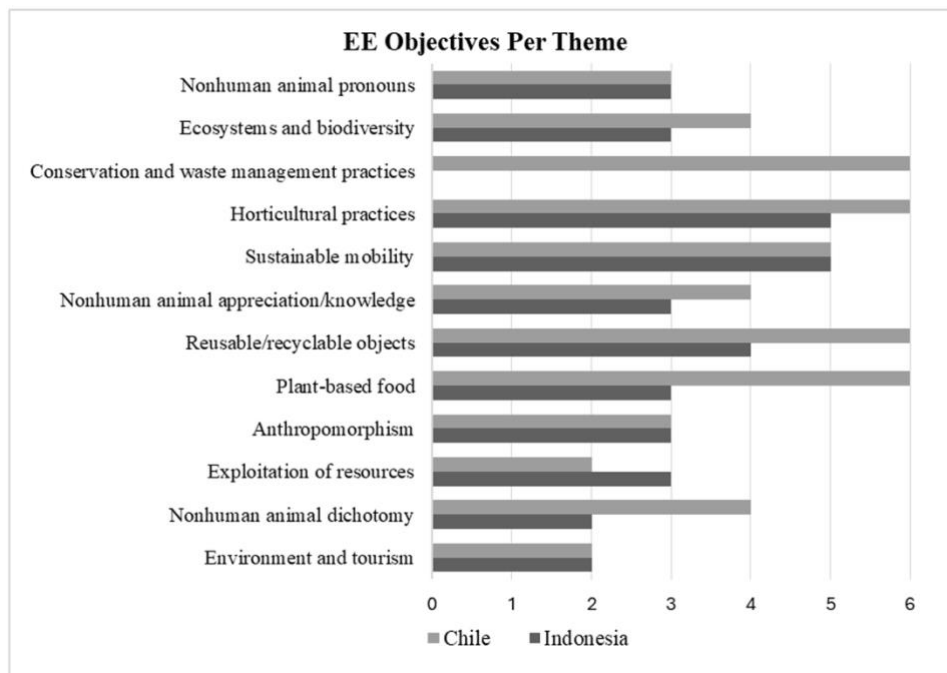


Figure 7. Total of EE objectives in Indonesian and Chilean coursebooks

Based on the environmental themes, both countries' elementary school English coursebooks exhibited various facets of environmental awareness and activism (see Figure 7). For instance, themes like *Plant-based food* (Chile: 6, Indonesia: 3), *Reusable/recyclable objects* (Chile: 6, Indonesia: 4), *Conservation and waste management practices* (Chile: 6, Indonesia: 0), and *Horticultural practices* (Chile:6, Indonesia: 5) scored highly in Chilean coursebooks. These results reflect a comprehensive approach that includes sustainable lifestyle choices and responsible resource management. In contrast, Indonesia's coursebooks also cover these themes but to a slightly lesser extent, suggesting that while both countries address similar environmental issues, Chile's curriculum explores certain topics related to sustainability and conservation, including EE objectives more thoroughly. Other themes, including *Environment and tourism*, *Anthropomorphism*, and *Sustainable mobility*, received equally low scores, indicating a limited alignment with the EE objectives (see Figure 8). This suggests that both sets of coursebooks should enhance their coverage of these themes to better integrate environmental education.







Indonesia	Chile
Environment and tourism	
	
MNW VI: 107: 184 348 - 107: 362 608	GRWI 1: 76: 64 113 - 76: 399 318
Anthropomorphism	
	
MNW V: 54: 86 259 - 54: 446 627	GRWI 1: 41: 232 358 - 41: 438 532
Sustainable mobility	
	
MNW III: 58: 84 382 - 58: 247 612	GRWI 2: 113: 44 56 - 113: 297 454

Figure 8. Excerpts of Environment and tourism, Anthropomorphism and Sustainable Mobility Themes.

Discussion

This study investigated the representation of environmental themes in Indonesian and Chilean elementary EFL coursebooks and their alignment with EE objectives. Through an ecolinguistic analysis, we aimed to identify environmental content's presence and frequency and explore the underlying narratives that could influence learners toward nature.

In this section, we examine how these patterns manifest across the four main thematic categories—*Negative*, *Ambivalent*, *Beneficial*, and *Other*—and discuss their alignment with EE objectives. We also consider how ecolinguistic analysis helps illuminate the implicit narratives in EFL materials and what this means for future textbook development in environmentally diverse educational contexts.

One notable observation is the predominance of beneficial environmental themes in both the Indonesian and Chilean coursebooks, which might suggest that environmental consciousness is being nurtured. However, having a majority of these themes does not guarantee a full shift toward an ecocentric ecosophy. While beneficial themes are prevalent, they are not always framed in ways that challenge the anthropocentric worldview that dominates much of the environmental discourse in these coursebooks (e.g., nature is valued for its aesthetic and recreational benefits in camping activities or calls for protection of nonhuman animals because

of their cuteness or their utility, rather than for their intrinsic value), sending a mixed environmental message or *Ambivalent*. In this regard, Stibbe (2021) argued that true ecolinguistic integration requires moving beyond superficial engagement with environmental issues towards narratives (educational content) that position humans as interconnected with, rather than separate from, or superior to, the natural world. Educators need to be attentive to how such materials may subtly reinforce human-centered ideologies and, ideally, find ways to reframe them during instruction.

Chilean coursebooks include more content related to biodiversity and conservation practices than their Indonesian counterparts, which suggests a more comprehensive approach to ecological literacy. Teachers working with these materials are better positioned to foster critical thinking and eco-conscious behavior. In Indonesia, however, the materials have a more limited treatment of these themes, suggesting a need for teacher-led supplementation (e.g., the use of more multimodal resources or the development of supporting materials that can promote action), an approach also emphasized by Triyono et al. (2023).

Moreover, *Negative* or anthropocentric narratives continue to dominate many environmental themes in both Chilean and Indonesian coursebooks. For example, themes such as *Animal-based food*, *Disposable objects*, and *Unsustainable mobility* are consistently framed through an anthropocentric lens, positioning human needs and desires above ecological considerations, which is a common trend not only in EFL coursebooks for elementary schools but also in other levels of educational materials, as noted by Xiong (2014) and Hamed (2021). The prevalence of such content underlines the need for deeper engagement with ecocentric narratives that emphasize the intrinsic value of nature and encourage students to see themselves as part of a larger ecological system, rather than as overseers of a world that exists for their benefit.

In general terms, the content analysis revealed that Indonesian coursebooks frequently address environmental problems through simple images and text modalities without including specific content to involve students in a more active and critical role and think about solutions, as suggested by Jacobs and Goatly (2000). In contrast, Chilean coursebooks provide more detailed discussions on environmental issues, including their causes, effects, and potential solutions (e.g., exploring meat consumption, students examined texts on the benefits of a plant-based diet, the impacts of excessive meat consumption, and for strategies to reduce it at home). They also incorporate activities that encourage students to take action to reduce environmental harm (Figure 4). These findings align with Sass et al. (2020), who found that young students are capable of proposing various actions for sustainable development in both private and public spheres.

The visual and multimodal communication strategies in the coursebooks further highlight the differences between the sets of coursebooks. Chilean coursebooks frequently employ detailed images and infographics to illustrate environmental issues and solutions, making the content more engaging and accessible. This approach helps students visualize and understand complex concepts, such as the growing process of plants or the role of nonhuman animals in ecosystems (Figure 4), aligning with the effectiveness of visual tools in conveying complex information (Bannister et al., 2021; Lazard & Atkinson, 2014). On the other hand, Indonesian coursebooks often use more simplistic visuals, such as images of watering plants, farmers working, eating or buying fruits and vegetables, omitting visuals that depict current environmental problems, or proposing solutions to the problematic as in the case of Chile (see Figure 3, *Plant-based food*). While these images are mostly culturally resonant, they lack intentional efforts to engage young learners or encourage critical thinking about environmental solutions; their effectiveness may be limited unless teachers actively work to address these goals.

Furthermore, from ecolinguistics, there is an interplay of anthropocentric and ecocentric narratives. The predominance of anthropocentric content, even within favorable themes (e.g., learning about nonhuman animals but presenting them in zoos or aquariums), suggests that these coursebooks may inadvertently perpetuate the notion of human dominance over nature, echoing the findings of Zahoor and Janjua (2019), Curdt-Christiansen (2020), and Hamed (2021). This ambivalent content further complicates the picture, indicating a lack of a clear ecocentric stance in some instances. As Ponton (2022) argued, even positive discourses should not shy away from a critical perspective, and the absence of a strong ecocentric narrative in some stories represents a missed opportunity to challenge dominant anthropocentric views.

The high amount of anthropocentric content in Indonesian and Chilean coursebooks aligns with Stibbe's findings in economics textbooks, where the narrative of "humans are fundamentally selfish" (Stibbe, 2020, p. 3) is prevalent. This narrative can be seen in the coursebooks' emphasis on human needs and desires, often at the expense of the environment. For example, the focus on food products derived from animals and other unsustainable practices (Figure 1) reinforces the idea that humans are separate from and superior to nature, echoing Stibbe's (2020) critique of neoclassical economics' erasure of the natural world. Educators can serve as mediators who help students unpack the underlying values in the coursebooks. For instance, rather than accepting the narrative of using highly polluting transportation without critique, teachers could guide students into an ethical reflection of the effects of their indiscriminate use.

Concerning the alignment with EE, our analysis reveals a varied landscape. While both countries address *Awareness* and *Knowledge* objectives (Figure 3), this research indicates that Chilean coursebooks demonstrate a stronger emphasis on *Skills*, *Evaluation*, and *Participation* objectives (Figure 4), aligning more closely with the comprehensive aims of EE as stated in the Belgrade Charter (UNESCO-UNEP, 1975), but still lacking their inclusion in some areas. On the other hand, there was a limited alignment of Indonesian coursebooks with these objectives, particularly in fostering active environmental participation among students. Furthermore, Djuwita and Benyamin (2019) have noted the need for increased emphasis on practical application and action-oriented approaches in environmental education and the need for inclusion of parents and other family members (Suharti et al., 2023). Future educational material development should prioritize ecocentric narratives that empower students to critically assess and engage with environmental challenges (Jacobs & Goatly, 2000) rather than passively acquiring knowledge.

Furthermore, the differences in how environmental themes are presented in Indonesian and Chilean coursebooks can be understood, in part, through the lens of each country's cultural and historical relationship with the environment. Indonesia faces the challenge of balancing its rich biodiversity and cultural respect for nature with the pressures of economic development and modernization (OECD, 2024a; Prawiradilaga & Soedjito, 2013). This challenge is reflected in its environmental education curriculum, which tends to focus on anthropocentric themes rather than emphasizing the *Skill*, *Evaluation*, and *Participation* EE objectives. This suggests a struggle to integrate conservation efforts with the demands of a growing economy. Chile faces a similar economic situation, with a stronger repertoire of environmental activism and a greater recognition of the importance of ecological sustainability (OECD, 2024b). Moreover, environmental education is explicitly included in the Chilean curriculum (Ministerio de Educación de Chile, n.d.), reinforcing its role in shaping students' ecological awareness and responsibility. This institutional commitment may contribute to a more comprehensive and ecocentric approach to EE. The greater emphasis on themes like *Ecosystems and Biodiversity* and *Conservation and waste management practices*, along with a stronger alignment with EE objectives, reflects an intentional effort to foster environmental consciousness and empower students to act (Salazar et al., 2022).

Finally, it is important to recognize that the materials examined are designed for elementary-level learners. The inclusion of environmental themes, however anthropocentric, can still be seen as a valuable starting point. Both of these sets of coursebooks offer important opportunities for teachers to enrich and extend the content through ecocentric supplementation and extracurricular activities (e.g., planting tasks in school gardens, guided visits to conservation centers, or critical discussions about food choices and animal welfare) that can help bring abstract environmental ideas into students' lived experiences. It is expected that such interventions not only foster skill development and critical evaluation but also enable participation, key pillars of the Belgrade Charter's vision for environmental education (UNESCO-UNEP, 1975). With thoughtful guidance from educators and, ideally, community involvement, even early-stage materials hold the potential to significantly contribute to ecological literacy and action among young learners.

Limitations of the study

This study analyzed Indonesian and Chilean elementary school EFL coursebooks. It is important to highlight that both image and text can be interpreted differently, according to the researcher. Audio multimedia was excluded from the analysis due to access limitations. Future research could broaden the scope by examining other countries and educational levels to provide a more comprehensive understanding of how EE is integrated globally. Furthermore, it would be valuable to investigate how effective these materials are in fostering environmental literacy and promoting pro-environmental behavior among students. Studies could also explore how teachers enact these materials in their classrooms and how students react to these materials.

Conclusion

This study has examined the presentation of environmental topics in EFL coursebooks for elementary schools in Chile and Indonesia, pointing out both commonalities and notable variances. Both sets of coursebooks provide high levels of positive environmental content, but there are notable differences in how well they incorporate ecocentric viewpoints and support EE goals. According to the findings, merely incorporating environmental topics is insufficient; how they are framed and used pedagogically is vital in influencing students' ecological attitudes and awareness.

The aims of EE are more closely aligned with Chilean coursebooks, especially when it comes to encouraging participation and critical thinking. Their incorporation of topics such as waste management techniques and biodiversity conservation suggests a more methodical approach to environmental education. While covering environmental subjects, Indonesian coursebooks, on the other hand, place more emphasis on knowledge acquisition than on problem-solving and active participation. The prevalence of anthropocentric narratives in both situations points to the necessity of a more deliberate transition to ecocentric materials.

Future materials should more explicitly include ecocentric perspectives and EE objectives to strengthen the role of EFL coursebooks in environmental education. This will ensure that EE objectives, like critical assessment and participation, are completely integrated. Working together with ecolinguists, environmental education specialists, and curriculum designers can help create resources that help young students develop a profound and practical environmental conscience in addition to improving their language skills.

Ultimately, this study emphasizes how crucial it is to improve EFL coursebooks as environmental literacy resources, enabling students to evaluate environmental issues critically and take an active role in sustainability initiatives.

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