

## Ecoliteracy Representation in Life Today English Textbook: A Content Analysis

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| Article Info                                                                                                                                                                                                                                                                                                      | ABSTRACT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
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| <p><b>Article History:</b><br/>Submission: 2026-07-01<br/>Revised: 2026-07-18<br/>Accepted: 2026-07-20<br/>Published: 2026-07-31</p> <p><b>Keywords:</b><br/>Content analysis;<br/>Ecoliteracy;<br/>English textbook;<br/>Environmental<br/>education;<br/>Sustainability.</p>                                    | <p>Environmental problems require school curricula to develop learners who understand ecological issues and act responsibly toward the environment. English textbooks are important because they teach language while also transmitting ecological meanings through texts, images, dialogues, and tasks. This study analyzed how ecoliteracy is represented in the Grade XII English textbook Life Today. Using qualitative content analysis and Roth's ecoliteracy framework, the study coded textual, visual, and instructional units into four aspects: knowledge, skills, affect, and behavior. The analysis identified 214 ecoliteracy-related segments. Knowledge was dominant with 119 occurrences, followed by skills with 44, affect with 28, and behavior with 23. The findings show that the textbook integrates environmental and sustainability themes, but the representation is cognitively dominant and less balanced in developing affective engagement and concrete environmental action. Future English textbooks should include more project-based, reflective, and community-oriented tasks to strengthen holistic ecoliteracy.</p> |
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### 1. INTRODUCTION

Environmental education has become an urgent concern in contemporary schooling because students are growing up in a period shaped by climate change, biodiversity loss, waste accumulation, energy transition, and unsustainable consumption patterns. These issues are no longer distant scientific topics; they are experienced in daily life through heat, floods, pollution, food insecurity, and

changing relationships between human communities and natural systems. In this context, schools are expected to cultivate learners who can understand environmental problems, interpret their causes, respond ethically, and participate in sustainable practices. Ecoliteracy provides an important conceptual basis for this educational task because it links ecological knowledge with skills, attitudes, emotions, and responsible behavior (Roth, 1992; McBride et al., 2013).

Ecoliteracy can be understood as the ability to understand ecological systems and to act in ways that support the health and sustainability of those systems. It is broader than the memorization of environmental facts. It includes the capacity to recognize interdependence, analyze ecological problems, evaluate solutions, care about human and non-human life, and translate awareness into sustainable action. Previous studies have emphasized that ecoliteracy can improve students' understanding of environmental problems, shape ecological responsibility, and encourage more sustainable behavior in educational settings (Kadarisman & Pursitasari, 2023; Safitri et al., 2023; Syofyan & Rachmadtullah, 2019; Setiawati et al., 2020). Therefore, ecoliteracy should not be treated as an additional topic placed at the margins of the curriculum. It should be integrated into learning materials that students encounter regularly.

English Language Teaching is one of the curricular spaces where ecoliteracy can be developed. English lessons typically involve reading texts, dialogues, discussion topics, visual materials, vocabulary work, writing tasks, and project activities. These components provide opportunities for students to encounter environmental themes while developing language proficiency. When environmental issues are embedded in English learning, students can simultaneously practice communicative competence and expand their awareness of ecological problems. This integration is especially relevant in Indonesia, where English textbooks increasingly include contemporary social themes, including health, technology, local wisdom, and environmental awareness.

Textbooks are central learning resources in Indonesian schools. In many classrooms, they provide the sequence of topics, the reading materials, the vocabulary input, and the structure of learning tasks. Because of this centrality, textbooks do more than support language learning; they also shape what students repeatedly see as important knowledge, values, and practices. If ecoliteracy is represented only as factual information, students may learn about environmental problems without being encouraged to feel concern or take action. If ecoliteracy is represented through reflective, affective, and practical tasks, English lessons may contribute more meaningfully to sustainable citizenship.

Previous research has shown that ecoliteracy can be promoted through modules, project-based learning, local wisdom, storybooks, differentiated pedagogy, and problem-solving activities (Syah et al., 2021; Kim et al., 2017; Putri et al., 2023; Nurdiansah et al., 2021). Other studies have linked ecological knowledge with environmental attitudes and pro-environmental behavior (Palupi & Sawitri, 2018; Liu et al., 2020; Wahyuni et al., 2022). However, less attention has been given to how ecoliteracy is represented in English textbooks, particularly in the Indonesian senior high school context. This gap is important because textbooks are widely used and officially endorsed, making them influential vehicles for environmental education. Analyzing textbook content can reveal whether students are being exposed to ecoliteracy in a balanced way or whether the textbook still privileges cognitive information over ecological values and action.

The present study focuses on *Life Today*, an English textbook for Grade XII senior high school students. The textbook contains several themes that can be connected to ecological issues, including local wisdom, alternative energy, carbon footprint, nature protection, consumer behavior, and personal responsibility. These topics make the book a relevant object for examining ecoliteracy representation. The analysis is based on Roth's ecoliteracy framework, which categorizes ecoliteracy into knowledge, skills, affect, and behavior (Roth, 1992). This framework enables the researcher to identify not only the presence of environmental content but also the kind of ecoliteracy emphasized by the textbook.

This study is guided by one research question: How is ecoliteracy represented in the senior high school English textbook *Life Today*? The question is deliberately formulated as a single integrative question because representation includes both the aspects of ecoliteracy that appear in the textbook and the ways in which they are integrated into learning content. The objective of the study is to identify the distribution of ecoliteracy aspects and to interpret their pedagogical meaning for English language learning and textbook development. By doing so, the study offers evidence for teachers, textbook writers, curriculum developers, and policymakers who aim to strengthen environmental education through language learning materials.

## 2. METHOD

### 2.1. Study Design

This study employed a qualitative content analysis design. Content analysis was selected because the object of the study was a textbook, and

the main purpose was to identify, classify, and interpret meanings embedded in textual and visual learning materials. Qualitative content analysis is appropriate for examining how concepts, values, and themes are represented in documents because it allows the researcher to move beyond counting words and to interpret the pedagogical meaning of the content (Mackiewicz, 2018). In this study, the analysis was deductive because the coding categories were derived from Roth's ecoliteracy framework rather than generated entirely from the data (Roth, 1992).

The study treated the textbook as an educational document that contains language input, instructional tasks, and value-laden representations. The analysis therefore did not only examine reading passages but also dialogues, images, instructions, vocabulary contexts, and tasks. This broader unit of analysis was necessary because ecoliteracy can appear in many forms. It may appear directly through explanations of environmental problems, indirectly through stories about local communities, or practically through tasks that ask students to propose solutions.

### 2.2. Data Source

The primary data source was *Life Today*, a senior high school English textbook for Grade XII used in the Indonesian context. The textbook was selected because it contains several units that include environmental, social, and sustainability-related themes. The analyzed content included textual and instructional units that explicitly or implicitly addressed ecological issues, such as access to electricity in remote areas, alternative energy, carbon footprint, global

warming, consumer waste, local wisdom, care for nature, and environmental action.

Although the textbook was designed primarily for English language learning, its thematic content makes it relevant for ecoliteracy analysis. The study focused on units and sections that contained

environmental meanings. Purely mechanical language exercises with no ecological context were excluded, as were front matter, administrative pages, answer keys, and non-instructional materials. The purpose of this selection was to ensure that all coded segments were directly relevant to the research objective.

*Table 1. Data source and analytical focus of the study*

| Component          | Description                                                                                                          | Analytical relevance                                                |
|--------------------|----------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| Textbook           | Life Today, Grade XII senior high school English textbook                                                            | Primary document for content analysis                               |
| Content examined   | Reading passages, dialogues, images, vocabulary contexts, instructions, and tasks                                    | Units where ecoliteracy may be represented explicitly or implicitly |
| Selection criteria | Sections related to environmental issues, sustainability, local wisdom, energy, waste, nature, and ecological action | Ensures alignment with ecoliteracy framework                        |
| Excluded content   | Administrative pages, answer keys, and purely grammatical items without environmental meaning                        | Keeps the analysis focused on ecological representation             |

### 2.3. Coding Framework

The coding framework was adapted from Roth's environmental literacy model, which identifies four major dimensions of ecoliteracy: knowledge, skills, affect, and behavior (Roth, 1992). Knowledge refers to factual, conceptual, and scientific understanding of ecological systems and environmental issues. Skills refer to the capacity to analyze problems, evaluate alternatives, manage resources, and identify practical solutions. Affect refers to emotional connection, concern, empathy, cultural attachment, and inspiration related to nature. Behavior refers to individual or

collective actions that support environmental care and sustainability.

Each major aspect was divided into subcategories to make the coding process more operational. Knowledge included scientific context, issue explanation, and solutions awareness. Skills included actionable advice, policy solutions, and resource management. Affect included emotional appeals, cultural values, and hope or inspiration. Behavior included community actions, individual responsibility, and advocacy or participation. These categories allowed the researcher to capture both explicit and implicit representations of ecoliteracy across different types of textbook material.

*Table 2. Ecoliteracy coding scheme used in the textbook analysis*

| Aspect    | Subcategory                | Descriptor                                                                                            |
|-----------|----------------------------|-------------------------------------------------------------------------------------------------------|
| Knowledge | Scientific context         | Factual or conceptual explanation of ecological systems, environmental processes, or scientific terms |
| Knowledge | Issue explanation          | Description of an environmental problem, including causes, consequences, or conditions                |
| Knowledge | Solutions awareness        | Presentation of possible solutions, technologies, conservation efforts, or sustainable alternatives   |
| Skills    | Actionable advice          | Practical steps or recommendations that can guide students or communities                             |
| Skills    | Policy solutions           | References to rules, institutional strategies, government programs, or structured solutions           |
| Skills    | Resource management        | Efficient use, reuse, conservation, or responsible management of natural or material resources        |
| Affect    | Emotional appeals          | Language or situations that evoke concern, urgency, empathy, or responsibility                        |
| Affect    | Cultural values            | References to local wisdom, tradition, or cultural ties to nature                                     |
| Affect    | Hope and inspiration       | Positive examples that motivate environmental engagement                                              |
| Behavior  | Individual responsibility  | Personal commitment or everyday eco-friendly practice                                                 |
| Behavior  | Community actions          | Collective action to protect or restore the environment                                               |
| Behavior  | Advocacy and participation | Public involvement, campaigns, proposals, or participation in environmental change                    |

#### **2.4. Data Collection and Analysis**

Data collection was conducted by reading the selected textbook sections carefully and identifying segments that reflected ecoliteracy. A segment could be a sentence, paragraph, dialogue turn, activity instruction, image caption, or task prompt. Each segment was coded according to the predetermined coding scheme. The coding process was supported by ATLAS.ti to organize excerpts, attach codes, retrieve coded

segments, and compare patterns across categories.

The analysis followed several stages. First, the researcher selected textbook sections containing environmental or sustainability-related meanings. Second, each relevant segment was coded into one or more ecoliteracy categories. Third, the codes were grouped into major aspects and subcategories. Fourth, frequency counts were calculated to show the distribution of each aspect. Fifth, the

coded data were interpreted qualitatively to explain how ecoliteracy was represented and what pedagogical implications emerged from the pattern.

To support trustworthiness, the study used a clear coding scheme, repeated reading, and comparison of coded excerpts with the operational definitions. The analysis also examined not only the presence of ecoliteracy but also its instructional function. This means that a segment was interpreted in relation to how it might help students understand, feel, think, or act in response to ecological issues. The combination of descriptive frequency and qualitative interpretation allowed the study to identify both the quantity and the quality of ecoliteracy representation.

### 3. FINDINGS AND DISCUSSION

#### 3.1. Overall Distribution of Ecoliteracy Aspects

The analysis identified 214 ecoliteracy-related segments in the Life Today textbook. The four ecoliteracy aspects were all present, but their distribution was uneven. Knowledge was the most dominant aspect, appearing 119 times, or approximately 55.6% of all coded segments. Skills appeared 44 times, representing 20.6%. Affect appeared 28 times, representing 13.1%. Behavior appeared 23 times, representing 10.7%. This distribution shows that the textbook strongly emphasizes environmental information and conceptual understanding, while affective engagement and ecological action receive less attention.

The dominance of knowledge is not surprising because textbooks often introduce environmental issues through explanatory texts. Students are first given facts, causes, effects, and definitions before being asked to respond. In Life Today, knowledge appears through descriptions of remote villages, access to electricity, carbon footprint, alternative energy, consumer waste, and the consequences of human activity. Such content is useful because students need conceptual understanding before they can engage in deeper problem solving. However, ecoliteracy requires more than knowing. It also requires students to develop the skills to analyze issues, the emotional concern to care, and the behavioral readiness to act (Roth, 1992; McBride et al., 2013).

The smaller proportion of affect and behavior is pedagogically important. A textbook may mention sustainability without creating sufficient opportunities for students to internalize environmental values or practice ecological action. If English learning only presents environmental problems as reading topics, students may become passive receivers of information. A stronger ecoliteracy-oriented textbook should move students along a pathway from information to reflection, from reflection to concern, and from concern to action. The present distribution suggests that Life Today has made a meaningful start, but it has not yet achieved a balanced representation of the four ecoliteracy aspects.

Table 3. Frequency and percentage distribution of ecoliteracy aspects in *Life Today*

| Ecoliteracy aspect | Frequency | Percentage (%) | Interpretation          |
|--------------------|-----------|----------------|-------------------------|
| Knowledge          | 119       | 55.6           | Dominant representation |
| Skills             | 44        | 20.6           | Moderate representation |
| Affect             | 28        | 13.1           | Limited representation  |
| Behavior           | 23        | 10.7           | Least represented       |

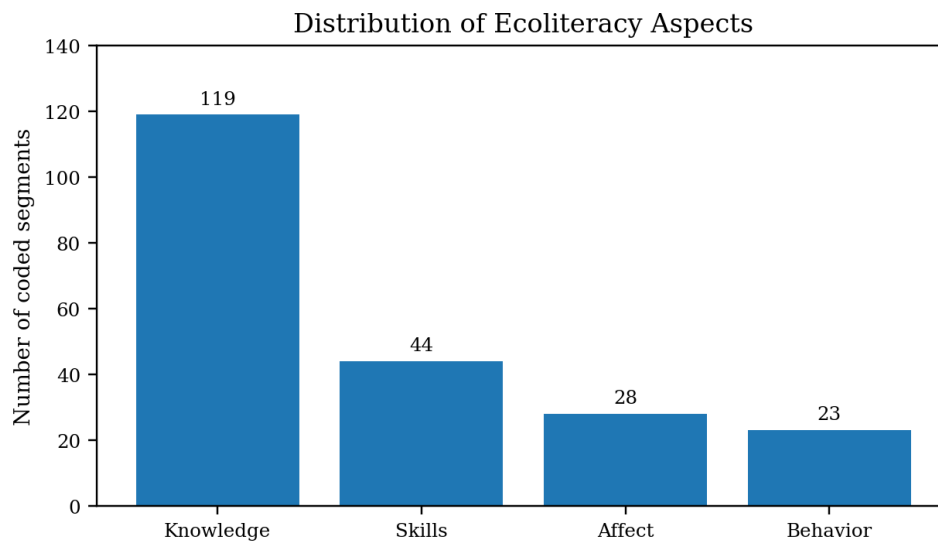


Figure 1. Distribution of ecoliteracy aspects identified in the *Life Today* textbook.

### 3.2. Knowledge as the Dominant Ecoliteracy Aspect

Knowledge was the strongest ecoliteracy aspect in the textbook. It appeared through three subcategories: issue explanation, scientific context, and solutions awareness. Issue explanation and scientific context each appeared 48 times, while solutions awareness appeared 23 times. This pattern indicates that the textbook frequently explains environmental problems and provides factual or conceptual background, but it offers fewer segments that explicitly present solutions. The textbook therefore helps students recognize ecological issues but gives less space to solution-oriented learning.

Issue explanation is represented when the textbook describes environmental or social-ecological problems in concrete contexts. For example, one segment explains that a village was located far from electricity installation facilities. This is not merely a social problem; it opens discussion about energy access, geographic inequality, infrastructure, and sustainable alternatives. Such representation is valuable because students can connect environmental issues to human needs and local contexts. Ecoliteracy becomes more meaningful when environmental problems are presented as lived realities rather than abstract scientific terms.

Scientific context is represented when the textbook introduces concepts such as carbon footprint, greenhouse gas emissions, and the ecological impact of daily consumption. These sections are important because they provide students with the conceptual tools to understand the relationship between personal choices and global environmental consequences. For example, a discussion of carbon footprint helps students see that transportation, food, electricity, clothing, and purchased products are linked to emissions. This type of content supports ecological systems thinking, a key component of ecoliteracy (McBride et al., 2013).

Solutions awareness is present but less frequent. It appears when the textbook mentions possible responses to environmental problems, such as alternative energy use, conservation, or sustainable practices. The lower frequency of this subcategory indicates that the textbook is more diagnostic than transformative. It explains problems well, but it does not consistently guide students toward solution pathways. This imbalance matters because environmental education should not stop at problem recognition. Students also need repeated exposure to feasible solutions, local innovations, and examples of ecological restoration so that environmental learning does not produce only awareness but also agency.

The dominance of knowledge aligns with previous studies indicating that environmental content in textbooks and classroom materials often foregrounds cognitive information (Wahyuni et al., 2022). Cognitive grounding is necessary, but not sufficient. Knowledge becomes

powerful when it is linked with analysis, emotion, and practice. Therefore, the knowledge aspect in Life Today should be seen as a strong foundation that needs to be complemented by more affective and behavioral tasks.

### ***3.3. Skills Representation through Practical and Reflective Tasks***

The skills aspect appeared 44 times. The most frequent subcategory was actionable advice, with 21 occurrences. Policy solutions appeared 12 times, and resource management appeared 11 times. These findings show that Life Today includes several opportunities for students to think about what can be done in response to environmental problems. However, compared with knowledge, the skills aspect remains moderately represented. This means that students are exposed to some problem-solving elements but not enough to make skills development a central feature of the textbook.

Actionable advice appears when the textbook provides practical steps, suggestions, or examples of what individuals or communities can do. One example is a narrative situation where a character is encouraged to write a proposal for a solar power plant. This segment is important because it connects language learning with civic action. Students are not only reading a story; they are encountering a form of environmental problem-solving that involves communication, planning, and institutional engagement. In English learning, this could be developed into a proposal-writing task, a presentation activity, or a debate on renewable energy.

Policy solutions are represented when the textbook introduces structured or institutional responses to

environmental issues. These may include proposals, local government involvement, public facilities, or community decision-making. This subcategory is pedagogically valuable because it helps students understand that environmental problems are not solved only through individual habits. They also require policy, coordination, and social participation. This point is crucial for ecoliteracy because sustainable action often depends on the ability to connect personal responsibility with institutional systems.

Resource management appears when the textbook highlights how resources are used, wasted, conserved, or managed. For instance, a section discussing returned goods and disposal practices can prompt students to consider wasteful consumption, product life cycles, and the need for reuse or sorting. This type of content allows English learning to support critical reflection on consumer culture. It also shows that ecoliteracy is not limited to forests or wildlife; it includes the everyday economic systems that produce waste.

Despite these strengths, the skills representation remains relatively basic. Many tasks invite students to think or write about issues, but fewer tasks require them to design, implement, and evaluate real environmental action. To strengthen ecoliteracy, skills-based content should include project-based tasks, data collection, school waste audits, local environmental interviews, poster campaigns, proposal writing, and reflective reports. Previous research has shown that project-based and problem-solving approaches can improve ecoliteracy because they allow students to apply knowledge in authentic contexts (Putri et al., 2023;

Nurdiansah et al., 2021; Gustian et al., 2022).

### ***3.4. Affective Representation: Concern, Local Meaning, and Inspiration***

The affect aspect appeared 28 times. Emotional appeals were the most frequent affective subcategory, with 16 occurrences. Hope and inspiration appeared 8 times, while cultural values appeared only 4 times. This pattern indicates that the textbook includes emotional and motivational elements, but these are not yet strongly developed. The affective dimension is important because students do not act for the environment merely because they know facts. They are more likely to act when they feel concern, responsibility, attachment, or hope (Palupi & Sawitri, 2018; Liu et al., 2020).

Emotional appeals are represented through questions, dialogues, and narrative moments that invite students to feel urgency or responsibility. A short question such as 'who else will change it for us' positions the learner as someone who must consider responsibility rather than simply observe a problem. Such language can stimulate reflection because it shifts environmental issues from distant information to personal and communal obligation. This is a strong entry point for affective ecoliteracy.

Hope and inspiration appear when the textbook presents positive outcomes of environmental action. For example, the improvement of village life after sustainable energy access creates an optimistic message that ecological responsibility can support community prosperity. This matters because environmental education can sometimes become problem-heavy and

discouraging. Students need to see that sustainable solutions are possible and that ecological action can produce tangible benefits. Hope is therefore not decorative; it is pedagogically necessary for sustaining motivation.

Cultural values are the least frequent affective subcategory. This is a missed opportunity because Indonesian contexts offer rich ecological traditions, local wisdom, community practices, and cultural relationships with nature. Local wisdom can help students see ecological care as part of identity, heritage, and community life rather than as an external scientific requirement. Previous research has shown that local cultural values and traditional ecological knowledge can strengthen ecological awareness and make environmental education more meaningful (Kim et al., 2017; Juhriati et al., 2021).

The limited affective representation suggests that Life Today can be improved by adding reflective questions, personal response tasks, local stories, environmental poetry, student journals, and community narratives. These tasks would allow students to articulate how they feel about environmental problems and how their own communities are connected to nature. Without affective engagement, environmental content risks remaining cognitive and detached.

### ***3.5. Behavioral Representation: From Individual Responsibility to Collective Action***

Behavior was the least represented aspect, with 23 occurrences. Individual responsibility appeared 14 times, community actions appeared 5 times, and advocacy and participation

appeared 4 times. This distribution indicates that the textbook mostly frames environmental behavior as personal responsibility rather than collective or public action. Personal responsibility is important, but ecoliteracy should also prepare students to participate in community efforts and civic environmental decision-making.

Individual responsibility is represented through characters who show willingness to contribute, sacrifice, or take responsibility for environmental or community improvement. These representations can help students understand that change begins with personal commitment. In language learning, such content can support discussions about personal habits, energy use, waste reduction, and sustainable lifestyle choices. However, if the textbook overemphasizes individual responsibility, students may fail to see the structural dimensions of environmental problems.

Community action appears when groups of people collectively protect the environment, such as villagers protecting forests or maintaining water supplies. This subcategory is crucial because many environmental problems require cooperation. Community-based representation teaches students that ecological care is relational and social. It also connects ecoliteracy with collaboration, leadership, and public participation. Yet its low frequency suggests that students receive limited exposure to collective ecological practice.

Advocacy and participation appear least frequently. This is the most critical limitation because advocacy is one of the clearest signs of active ecoliteracy. Students should learn not

only to understand and care about environmental issues but also to communicate concerns, propose improvements, join campaigns, and participate in decision-making. English lessons can support this by including persuasive speeches, campaign posters, argumentative essays, public service announcements, letters to local authorities, and community project reports.

The weak behavioral representation confirms a broader problem in environmental education:

textbooks often stop before action. They describe problems, present some solutions, and occasionally evoke concern, but they do not always provide structured routes for students to act. This is the point where textbook development must be more ambitious. Environmental education in English classes should not be reduced to reading comprehension about pollution or climate change. It should invite students to use English as a tool for ecological communication and social participation.

*Table 4. Distribution of ecoliteracy subcategories in Life Today*

| Aspect    | Subcategory                | Frequency | Pedagogical meaning                                          |
|-----------|----------------------------|-----------|--------------------------------------------------------------|
| Knowledge | Issue explanation          | 48        | Helps students recognize ecological problems and causes      |
| Knowledge | Scientific context         | 48        | Provides conceptual understanding of environmental processes |
| Knowledge | Solutions awareness        | 23        | Introduces possible sustainable responses                    |
| Skills    | Actionable advice          | 21        | Encourages practical steps and problem-solving               |
| Skills    | Policy solutions           | 12        | Links ecological problems with institutional response        |
| Skills    | Resource management        | 11        | Builds awareness of responsible use and waste reduction      |
| Affect    | Emotional appeals          | 16        | Promotes concern and responsibility                          |
| Affect    | Hope and inspiration       | 8         | Shows that ecological action can produce positive change     |
| Affect    | Cultural values            | 4         | Connects environmental care with local and cultural meaning  |
| Behavior  | Individual responsibility  | 14        | Encourages personal ecological commitment                    |
| Behavior  | Community actions          | 5         | Represents collective environmental practice                 |
| Behavior  | Advocacy and participation | 4         | Supports civic engagement and public action                  |

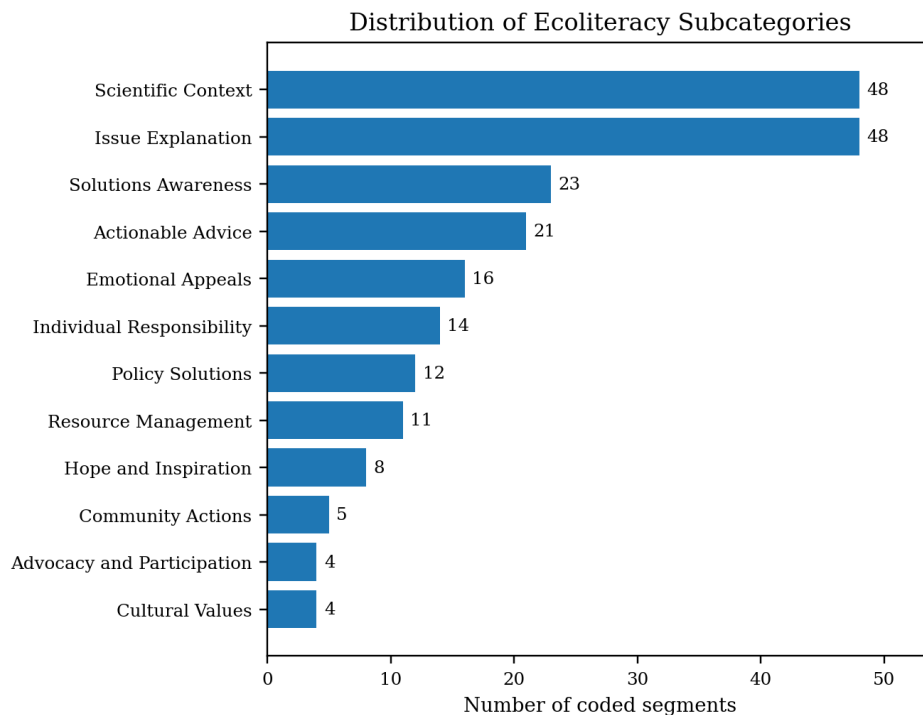


Figure 2. Distribution of ecoliteracy subcategories identified in the textbook.

### 3.6. Forms of Integration in Textbook Content

Ecoliteracy in Life Today is integrated through several forms of material presentation. The first form is informative and descriptive text. This form is mainly associated with the knowledge aspect. Through explanation, description, and factual information, the textbook introduces students to environmental problems such as energy access, carbon footprint, wasteful consumption, and the relationship between human activity and ecological impact. Informative texts are useful for building background knowledge, vocabulary, and conceptual clarity.

The second form is narrative and dialogue. Narratives allow ecoliteracy to be presented through human experience. In the textbook, environmental issues are not always described as scientific reports; they are

also embedded in stories of characters, villages, choices, and conflicts. This form is pedagogically important because it allows students to connect environmental learning with emotion, culture, and human decision-making. Dialogues and stories can make ecological issues more relatable for students because they show how environmental problems enter ordinary life.

The third form is contextual exercise. Writing tasks, discussion prompts, and comprehension activities provide opportunities for students to process environmental content through English. These tasks can support skills development when they ask students to propose solutions, explain causes, compare alternatives, or respond to social-ecological problems. However, the quality of integration depends on how far the task moves beyond comprehension. A question that asks

students to identify information is weaker than a task that asks them to design a solution, justify a proposal, or evaluate an environmental practice.

The fourth form is visual representation. Images, illustrations, and textbook layouts help students understand environmental themes more concretely. Visuals can support affective and behavioral ecoliteracy when they show environmental damage, community action, sustainable technology, or everyday ecological practices. In the analyzed textbook, visual elements support comprehension and make ecological themes more accessible. However, visuals should be accompanied by tasks that require interpretation and reflection. Without guided questions, images may become decorative rather than pedagogical.

The fifth form is vocabulary and conceptual language. Terms such as carbon footprint, greenhouse gases, hydropower, forest protection, and waste management expose students to environmental discourse in English. This is important because ecoliteracy in

English learning also involves the ability to name, discuss, and communicate environmental issues. Students who acquire environmental vocabulary can participate more effectively in global conversations on sustainability. This supports the role of English as both a language subject and a medium for environmental citizenship.

Taken together, these forms show that Life Today has attempted to integrate ecoliteracy multidimensionally. The textbook does not isolate environmental content into a single unit only; rather, ecological meanings appear through information, stories, tasks, images, and language. Nevertheless, the integration remains uneven because the strongest emphasis is placed on cognitive knowledge. Skills, affect, and behavior appear, but their occurrence and instructional depth are lower. This means that the textbook has potential, but it requires stronger task design to develop holistic ecoliteracy.

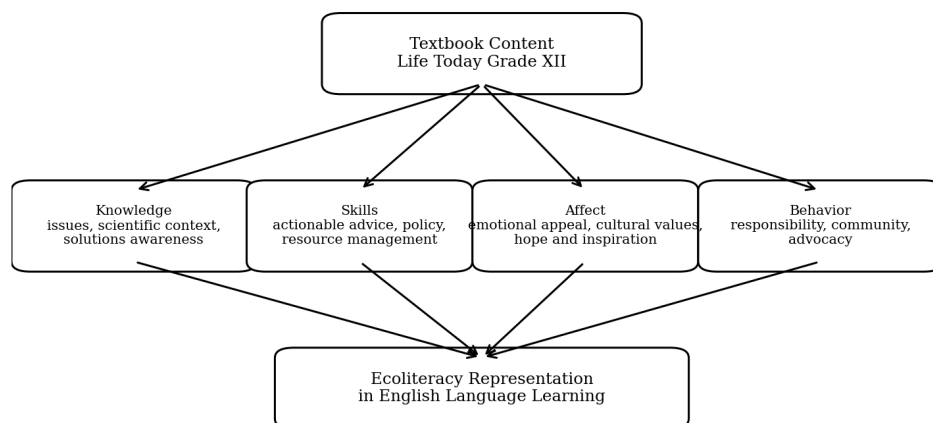


Figure 3. Conceptual framework for analyzing ecoliteracy representation in Life Today.

### ***3.7. Pedagogical Implications for English Language Teaching***

The findings have several implications for English teachers. First, teachers should not assume that the presence of environmental topics automatically means that ecoliteracy has been adequately developed. A textbook may contain many environmental references but still be dominated by factual explanation. Teachers therefore need to extend textbook activities by adding reflective, collaborative, and action-oriented tasks. For example, after students read about carbon footprint, they can calculate a simple class footprint, discuss realistic reductions, and write a persuasive paragraph about one achievable change.

Second, teachers can use the existing knowledge-rich content as a foundation for project-based learning. The textbook already provides topics such as alternative energy, waste, local wisdom, and environmental responsibility. These topics can be developed into projects such as designing an environmental campaign, producing a school recycling guide, interviewing community members about local ecological practices, or presenting solutions for reducing waste in the classroom. Such tasks would connect language skills with ecological practice.

Third, teachers should strengthen the affective dimension. Students need opportunities to express concern, hope, fear, responsibility, and ethical

judgment about environmental problems. Reflection journals, personal response paragraphs, role-play, storytelling, and discussion circles can help students internalize ecological values. These activities are not separate from English learning because they require students to use language for meaningful expression. In fact, affective engagement can make language learning more authentic.

Fourth, teachers should expand behavioral learning. Environmental behavior can be integrated into English tasks through action plans, campaign scripts, letters, posters, oral presentations, and community reports. Students can be asked to identify one environmental issue in their school, propose a solution, implement a small action, and report the result in English. This would transform English from a subject about language forms into a tool for ecological communication and participation.

The findings also have implications for textbook writers and curriculum developers. Future textbooks should balance the four ecoliteracy aspects. Knowledge should remain strong, but it should be linked to skills, affect, and behavior in a structured sequence. Each environmental topic should ideally include factual explanation, critical analysis, emotional reflection, and an action-oriented task. This sequence would create a clearer pathway from awareness to ecological agency.

### From Information to Ecological Action



The textbook strongly supports the first stage but provides fewer prompts for affective engagement and sustained ecological behavior. Future materials should rebalance the pathway.

Figure 4. Interpretive pathway from ecological information to action-oriented ecoliteracy.

### 3.8. Discussion in Relation to Previous Studies

The findings support previous studies that emphasize the importance of ecoliteracy in shaping environmental knowledge, awareness, and behavior. Studies by Syah et al. and Wahyuni et al. indicate that ecological knowledge contributes to environmental care and pro-environmental behavior (Syah et al., 2021; Wahyuni et al., 2022). The present study confirms that knowledge is well represented in the textbook, especially through scientific and issue-based content. However, the study also shows that knowledge alone dominates the representation, which may limit the development of holistic ecoliteracy.

The limited representation of skills aligns with research suggesting that ecoliteracy should be supported by problem-solving, project-based learning, and creative thinking (Putri et al., 2023; Nurdiansah et al., 2021; Gustian et al., 2022). Life Today includes some practical and policy-oriented content, but the tasks do not consistently require students to carry out complex problem-solving or real-world environmental action. This

indicates that textbook content can be strengthened by connecting environmental themes with active inquiry and project outcomes.

The affective findings are consistent with research showing that emotional concern, moral responsibility, and cultural connection play important roles in shaping environmental behavior (Palupi & Sawitri, 2018; Liu et al., 2020). Life Today includes emotional appeals and hopeful narratives, but cultural values are less represented. This is a significant issue in Indonesia because local wisdom can provide strong ecological meaning. Cultural representation can make environmental education more locally grounded and more relevant to students' identities.

The behavioral findings also align with studies that explain how environmental knowledge must be mediated through attitudes and intentions before becoming pro-environmental behavior (Liu et al., 2020). In Life Today, behavior appears mainly as individual responsibility, while community action and advocacy receive fewer examples. This means

that students may be encouraged to act personally but receive limited modeling of public participation. A stronger textbook should show that ecological responsibility includes both personal habits and collective citizenship.

Overall, the findings contribute to the literature by showing how ecoliteracy is represented in a senior high school English textbook, not only in science or social studies materials. This is important because ecoliteracy should be cross-curricular. English textbooks can support sustainability education by giving students language resources to understand and communicate environmental issues. However, for this potential to be realized, textbook design must move beyond environmental topics as reading content and toward ecoliteracy as integrated knowledge, skills, values, and action.

#### 4. CONCLUSION

This study examined how ecoliteracy is represented in the senior high school English textbook Life Today. Using Roth's ecoliteracy framework, the analysis identified four aspects of ecoliteracy in the textbook: knowledge, skills, affect, and behavior. The findings show that the textbook contains 214 ecoliteracy-related segments, with knowledge as the most dominant aspect. Knowledge appeared through issue explanation, scientific context, and solutions awareness. Skills appeared through actionable advice, policy solutions, and resource management. Affect appeared through emotional appeals, cultural values, and hope or inspiration. Behavior appeared through individual responsibility,

community action, and advocacy or participation.

The study concludes that Life Today has integrated environmental and sustainability-related themes into English language learning. The textbook provides useful factual and conceptual foundations for students to understand ecological issues. However, the distribution of ecoliteracy aspects is uneven. The cognitive dimension is much stronger than the affective and behavioral dimensions. This means that the textbook is more effective in informing students about ecological issues than in systematically guiding them toward emotional internalization and concrete environmental action.

The study also shows that ecoliteracy is represented through informative texts, narratives, dialogues, contextual exercises, visual elements, and environmental vocabulary. These forms demonstrate that English textbooks can serve as important media for sustainability education. Nevertheless, future textbook development should provide more balanced integration of ecoliteracy by including project-based tasks, reflective activities, local ecological narratives, community-based assignments, and advocacy-oriented language tasks. Teachers are encouraged to extend textbook materials so that students not only read about environmental issues but also discuss, feel, plan, act, and communicate solutions. In this way, English learning can contribute more directly to the development of ecologically aware and responsible citizens.

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