Incorporating SDG-Oriented Content into English Language Instruction in Indonesia: Advancing Sustainable and Critical Language Acquisition

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ABSTRACT

This study examines the incorporation of Sustainable Development Goals (SDGs) into English Language Teaching (ELT) in Indonesia, with the objective of fostering both linguistic proficiency and sustainable cognition alongside critical awareness. As global concerns escalate, integrating SDG-oriented content into English education offers a timely and transformative pedagogical solution. This study used a qualitative descriptive methodology, incorporating textbook analysis and semi-structured interviews with Indonesian English teachers, to elucidate the implementation of SDG topics in ELT classrooms. Four widely used English textbooks aligned with the 2013 Curriculum were analyzed using a framework focused on global citizenship, environmental literacy, social justice, and critical thinking. Eight teachers from diverse educational settings participated in interviews to provide in-depth perspectives on the pedagogical integration of SDGs. Utilizing frameworks from critical pedagogy and sustainable education, the findings indicate that the inclusion of SDGs improves students' critical thinking, global awareness, and social responsibility. Teachers encounter considerable obstacles, including insufficient professional development and a scarcity of localized resources. This article offers pragmatic insights for educators, curriculum creators, and policymakers seeking to enhance English instruction via a more globally responsive and socially active methodology.

INTRODUCTION

In today's digital era, the presence of Artificial Intelligence (AI) in the classroom is no longer just a futuristic idea it is becoming a reality that continues to grow, especially in the field of language learning. Writing, one of the most complex language skills, often requires personalized and timely feedback to help students improve. However, limited teacher availability and large class sizes often make it difficult to give every student the attention they need. This is where AI-powered writing tools such as *Lingua Aps* come into play.

Lingua Aps is designed to help learners improve their writing through real-time feedback on grammar, vocabulary, sentence structure, and overall coherence. Unlike other writing apps that rely heavily on fixed rules or basic correction, *Lingua Aps* uses natural language processing to assess texts and assign scores that guide learners toward better writing. This kind of support not only helps students identify their mistakes but also encourages them to revise and reflect on their work independently.

Recent research highlights the power of AI writing tools in improving learners' writing capabilities. Azennoud (2024) found that university-level EFL users in Morocco significantly enhanced both writing accuracy and complexity thanks to AI-assisted feedback. Additionally, Woo and Choi (2021) emphasize that AI-based language tools developed between 2017 and 2020 enabled learners to better identify errors, receive adaptive feedback, and strengthen their overall language skills. These studies suggest that AI can foster deeper learning and promote self-directed writing practices.

Despite these encouraging findings, most research focuses on tertiary education or Western contexts. There remains limited exploration of AI writing tools in Indonesian secondary schools, especially those with Islamic-based and science-focused educational models. Our study addresses this gap by looking into how *Lingua Aps* is used by 11th-grade students at a Science-Based Islamic Senior High School in Central Java.

What makes this study unique is its attention to student experiences and real classroom dynamics. By combining observations, interviews, and analysis of students' writing and feedback, this research surfaces

not just changes in writing accuracy or scores but also learner motivations, digital literacy differences, and teacher roles in scaffolding AI use. The aim is to explore how *Lingua Aps* can be more than a correction tool it can be a meaningful partner in the writing journey.

Ultimately, this paper explores two interrelated questions:

1. How does engaging with *Lingua Aps* affect secondary students' writing improvement, motivation, and confidence?

2. What challenges arise from integrating AI tools in classroom settings, such as varying digital literacy levels and curriculum fit, and how can educators address them?

By weaving student voices and practical classroom insights, this study aims to offer grounded guidance on integrating AI into English writing instruction in diverse educational contexts.

In recent years, education has been called to respond more dynamically to global challenges such as climate change, poverty, inequality, and cultural conflicts. The United Nations' 2030 Agenda, particularly its Sustainable Development Goals (SDGs), offers a framework for educational reform that emphasizes sustainability, equity, and global citizenship (UNESCO, 2017). In the field of English Language Teaching (ELT), there is a growing recognition that language instruction should go beyond linguistic competence to include critical awareness, intercultural communication, and global responsibility (Cates, 2013; Hillyard, 2016).

Indonesia, as a diverse and rapidly developing country, faces unique challenges in integrating SDG values into its English language curriculum. While policy documents and education blueprints support the idea of character education and 21st-century competencies, the practical implementation of SDG-oriented content in ELT remains limited and inconsistent (Sofiana et al., 2019; Nurgiyantoro & Sari, 2021). English teachers are often left without sufficient training or materials to infuse critical global topics such as environmental sustainability, gender equality, or social justice into their classroom practice.

Previous studies in the Indonesian context have primarily focused on textbook development, communicative teaching methods, or literacy-based approaches (Marcellino, 2008; Yuwono & Harbon, 2010), but few have critically examined the integration of SDG-related themes into actual classroom instruction. Moreover, the intersection of critical pedagogy and sustainability education in ELT remains

underexplored, especially within the sociocultural context of Islamic-based or rural schools, where global topics may be seen as politically or ideologically sensitive.

This research addresses that gap by investigating how English teachers in Indonesia perceive and implement SDG-oriented content in their instructional practices. Drawing from critical pedagogy (Freire, 1970; Norton & Toohey, 2004) and education for sustainable development (ESD) (Sterling, 2001; UNESCO, 2020), the study offers a framework for understanding ELT not only as language transmission but as a transformative practice that fosters critical thinking, global awareness, and social responsibility.

The novelty of this research lies in its focus on the practical realities of incorporating SDGs in English classes, based on real classroom experiences, textbook analysis, and teacher interviews. Unlike existing literature that emphasizes theoretical advocacy, this study provides empirical insights into the challenges and opportunities faced by educators in local Indonesian settings.

METHOD

The method This study employed a qualitative descriptive approach, suitable for exploring the complex and contextualized realities of how Sustainable Development Goals (SDGs) are integrated into English Language Teaching (ELT) in Indonesia. The qualitative design was chosen to capture the depth of teachers' experiences, classroom practices, and perceptions related to sustainable and critical language education (Creswell & Poth, 2018). The methodology combined textbook analysis, semi-structured interviews, and a literature review to provide a well-rounded perspective.

1. Research Design and Participants

The research design integrated document analysis and semi-structured interviews. The document analysis focused on four widely used English textbooks in Indonesian senior high schools (grades X–XII), selected based on their alignment with the 2013 Curriculum (Kurikulum 2013) and availability across public and private schools.

The textbooks were analyzed to identify the presence, depth, and pedagogical framing of SDG-related content.

In parallel, semi-structured interviews were conducted with eight English teachers from diverse school settings, including urban public schools, rural Islamic-based schools, and private institutions in Central and East Java. Participants were selected using purposive

sampling (Patton, 2002), ensuring representation across school types and teacher backgrounds. The interviews were conducted in Bahasa Indonesia to facilitate expression and later translated for analysis.

2. Instruments and Data Collection

The data collection process employed two instruments:

- Textbook Analysis Framework: Adapted from Cates (2013) and Cortese (2003), the framework included indicators related to global citizenship, environmental literacy, social justice, and critical thinking. Textbook passages, exercises, and thematic units were coded to assess the alignment with specific SDGs (e.g., SDG 4: Quality Education, SDG 13: Climate Action, SDG 5: Gender Equality).
- Interview Protocol: The semi-structured interview protocol consisted of open-ended questions designed to elicit teachers' understanding of SDGs, their strategies for integrating them into ELT, perceived benefits, and challenges faced. The interview guide was reviewed and piloted with two non-participant teachers for clarity and relevance.

3. Data Analysis

The analysis followed the thematic analysis model as outlined by Braun and Clarke (2006). The data were processed in the following stages:

a. Familiarization: Transcripts and textbook excerpts were read repeatedly to identify initial patterns.
b. Initial Coding: Data segments were coded manually based on recurring concepts such as "critical awareness," "curriculum constraints," "student response," and specific SDG topics.
c. Theme Development: Codes were clustered into broader themes (e.g., "Pedagogical Integration," "Institutional Challenges," "Teacher Innovation").
d. Interpretation: Emerging themes were interpreted about theories of critical pedagogy (Freire, 1970; Norton & Toohey, 2004) and education for sustainable development (ESD) (Sterling, 2001; UNESCO, 2020).

To increase credibility, member checking was conducted by returning synthesized findings to three participants for validation. Additionally,

triangulation was ensured by cross-verifying insights from textbook data, interview transcripts, and literature review findings.

4. Literature Review Technique

A narrative literature review was used to contextualize the study. Sources were selected through a systematic search of databases such as Scopus, Google Scholar, and SINTA, focusing on keywords including *"sustainability education," "critical pedagogy in ELT," "SDGs in curriculum,"* and *"Indonesia ELT."* The review aimed to identify gaps in the current body of knowledge and to justify the need for this study. Only peer-reviewed articles from the last 10 years were included to maintain relevance and rigor.

FINDINGS AND DISCUSSION

1. The Presence of SDG Themes in English Textbooks

The textbook analysis revealed a limited and implicit inclusion of SDG-oriented content across the sampled materials. While environmental topics (SDG 13: Climate Action) and gender roles (SDG 5: Gender Equality) appeared occasionally in reading passages or writing prompts, these themes were not presented within a critical or action-oriented framework. For instance, texts related to environmental awareness primarily focused on vocabulary and grammar practice, yet lacked accompanying discussion tasks that could foster deeper reflection or problem-solving skills among students.

This finding corroborates the observations of Widodo et al. (2020), who argue that Indonesian ELT materials tend to be textbook-centered and emphasize grammatical accuracy over meaningful, contextually rich content. Moreover, the treatment of global issues in these textbooks was generic and superficial, with no explicit connections to localized challenges or culturally relevant case studies. Consequently, these shortcomings limit opportunities for contextualized and sustainable learning, which is essential for fostering students' critical engagement with the SDGs.

Table 1.

Presence of SDG Themes in Senior High School English Textbooks

SDG Theme	Textbook A	Textbook B	Textbook C	Textbook D	Pedagogical Depth
Climate Action (SDG 13)	✓	✓	✗	✓	Basic vocabulary, short reading text
Gender Equality (SDG 5)	✗	✓	✓	✗	Surface-level discussion, no tasks
Quality Education (SDG 4)	✓	✗	✗	✓	Moral message in a narrative text
Responsible Consumption (SDG 12)	✗	✗	✓	✓	Short dialogue, no follow-up
Reduced Inequalities (SDG 10)	✗	✗	✗	✗	Not addressed

Note: "✓" indicates presence of content; "✗" indicates absence.

2. Teachers' Perceptions of SDG Integration

The interview data revealed a nuanced picture of how Indonesian English teachers perceive and incorporate Sustainable Development Goals (SDGs) within their classroom practices. Most teachers demonstrated a general awareness of pressing global issues such as environmental degradation, social inequality, and gender equity. However, this awareness did not necessarily translate into a conscious or deliberate effort to link these topics explicitly to the SDGs or to embed them systematically into their teaching content.

Several teachers admitted that their engagement with SDG themes was largely incidental, often occurring only when related issues appeared in assigned textbook passages. One teacher from a rural Islamic school candidly explained, "We discuss social issues when they appear in texts, but I'm not trained to teach sustainability or SDGs directly." This statement highlights a critical barrier: the lack of professional development and specific training on sustainability education and SDG integration. Without sufficient pedagogical guidance or curricular frameworks, teachers feel ill-equipped to move beyond surface-level discussions or to facilitate deeper, action-oriented learning experiences focused on sustainable development.

Resource constraints further compounded these challenges. Many respondents pointed out the scarcity of localized teaching materials that meaningfully address SDGs in culturally relevant contexts. This limitation often forces teachers to rely on standard textbooks, which, as previously noted, offer limited and implicit SDG content. The absence of supplementary materials tailored to Indonesian realities makes it difficult for teachers to provide students with authentic, situated learning opportunities that could foster critical thinking and global citizenship.

Despite these systemic challenges, the study found that teachers from private and urban schools tended to exhibit more proactive attitudes toward SDG integration. These educators frequently reported supplementing textbook content with external resources such as YouTube videos, news articles, and interactive online content that highlight sustainability issues. Such supplementary materials allowed them to create more engaging and contextually relevant lessons, often stimulating student interest and discussion around contemporary environmental and social challenges.

However, it is important to note that these innovative practices were primarily the result of individual teacher initiative rather than institutional mandates or curriculum directives. The lack of formal support or structured guidelines means that SDG integration remains inconsistent across different school types and geographical areas. This disparity underscores the inequities in access to professional development and educational resources between urban and rural settings, as well as between public and private institutions.

The findings align with Asih and Musthafa's (2022) research, which highlights a significant gap between curriculum expectations and the realities faced by teachers in Indonesian classrooms, especially in public schools. Their study points out that although national curricula emphasize critical thinking and social responsibility, the translation of these goals into everyday teaching practice remains weak due to insufficient support and training. Additionally, the results resonate with Zulfikar and Mujiburrahman's (2021) observations regarding the structural constraints on teacher agency within the broader context of Indonesian education reform. These scholars argue that systemic limitations often hinder teachers' ability to innovate and adapt curriculum content to address emergent global challenges meaningfully.

In summary, while Indonesian English teachers recognize the importance of sustainability issues, significant obstacles—including inadequate training, limited resources, and lack of institutional

support—impede the systematic integration of SDG themes in ELT classrooms. The study suggests that addressing these barriers through targeted professional development, curriculum redesign, and resource development is crucial to empowering teachers to foster more sustainable, critical, and globally informed English language education.

3. The Potential for Critical and Sustainable Pedagogy

Despite limitations, the study found strong potential for SDG integration as a gateway to critical pedagogy in ELT. Some teachers, particularly those with postgraduate education, reported experimenting with discussion prompts, debates, and project-based learning that addressed issues like plastic waste, fast fashion, or inequality. These practices helped foster students' critical thinking, empathy, and collaborative problem-solving.

For instance, a teacher reported organizing a classroom debate on deforestation in Indonesia, followed by a student-led campaign to reduce single use plastics in their school. Such examples illustrate that when supported and intentionally guided, SDG-oriented content can make English learning more meaningful, relevant, and transformative. This aligns with the findings of Hermawan and Noerkhasanah (2020), who show that project-based learning tied to environmental themes can enhance both language skills and ecological awareness. It also resonates with the global shift toward socially responsive ELT (Murray & Christison, 2019).

4. Challenges and Implications

Key challenges identified include:
- Lack of professional development on how to integrate SDG content meaningfully into language instruction.
- Inadequate materials tailored to the Indonesian context.
- Curricular misalignment, where national exams and assessments still emphasize grammar and reading comprehension rather than critical engagement.

Despite these challenges, the findings underscore the urgency and potential for SDG integration in ELT. A critical implication is the need for policy-level interventions that support teachers through training, resource development, and curriculum alignment. The study contributes to the literature by highlighting how bottom-up efforts, when scaffolded by top-down support, can build a more sustainable and socially conscious ELT framework.

CONCLUSION

This study has demonstrated the emerging significance and practical challenges of incorporating Sustainable Development Goals (SDGs) into English Language Teaching (ELT) in Indonesia. Drawing on textbook analysis and teacher interviews, the findings reveal that while SDG-related themes are present in some learning materials, they are often superficial, lacking critical engagement and contextual relevance. Despite these limitations, Indonesian English teachers particularly those with greater pedagogical autonomy, have begun to adopt creative strategies to bring sustainability, social justice, and global awareness into their classrooms.

The incorporation of SDG-oriented content in ELT is not merely an educational trend but a transformative pedagogical opportunity. It supports the development of critical thinking, ethical reflection, and socially responsive communication skills competencies vital for students living in a globally interconnected and environmentally fragile world. However, systemic obstacles persist, such as curriculum rigidity, lack of teacher training, and insufficient localized resources. Integrating SDG-oriented content into English language instruction in Indonesia offers a possible avenue for fostering more meaningful, pertinent, and socially engaged education. Although numerous educators are achieving new advancements, systemic support is crucial for amplifying these initiatives. Professional development initiatives centered on sustainability and critical pedagogy, along with readily available teaching resources and adaptable curricula, can empower educators to thoroughly adopt this pedagogical transition. As English Language Teaching (ELT) progresses in response to global demands, its alignment with the Sustainable Development Goals (SDGs) provides a potent method to develop informed, empowered, and responsible global citizens.

Therefore, this study concludes that SDG integration in ELT requires both top-down support, through curriculum revision, professional development, and policy alignment and bottom-up innovation, recognizing the creative agency of teachers in shaping transformative language instruction. By bridging global educational goals with local classroom realities, English education in Indonesia can become a strategic platform for cultivating not only language proficiency but also responsible and sustainable citizenship.
Future research is encouraged to explore longitudinal impacts of SDG-based ELT approaches, develop localized materials, and evaluate their effectiveness in diverse educational settings.

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