EXPLORING YOUNG LEARNERS' NEEDS IN MULTIMODAL TEXT DESIGN FOR INTEGRATING SUSTAINABLE EDUCATION INTO ELT

[1]Malihah Putri Jasmine, [1]*Sary Silvhiany, [1]Rita Inderawati

[1]Language Education, Faculty of Teacher Training and Education, Universitas Sriwijaya, Indonesia

*Corresponding Author Email: ssilvhiany@unsri.ac.id

Article Info	Abstract
	This study investigates the integration of sustainable education into English Language Teaching (ELT) for fifth-grade students at SDN 115 Palembang. As sustainable development gains global urgency, education plays a crucial role in fostering environmental awareness among young learners. However, limited resources integrating climate change topics into ELT highlight a significant research gap. In this context, multimodal texts-combining text, visual, audio and interactive elements-are a solution as an effective and interesting learning media. This research focuses on conducting a needs analysis regarding the use of multimodal texts in climate change learning in ELT. A mixed-methods approach was employed, combining quantitative surveys with 30 students and qualitative interviews with English teacher and vice principal of curriculum. Data were analyzed using descriptive statistics for the quantitative data and thematic analysis for the qualitative data. Findings highlight the urgent need for multimodal texts to support sustainable education literacy in ELT. Students showed a strong interest in learning about climate change and taking action to protect their environment, emphasizing the effectiveness of multimodal texts in making these concepts more engaging and accessible. While students recognize the importance of learning English and climate change topics, existing ELT materials lack sufficient multimodal resources to facilitate this integration. It can be concluded that multimodal texts are urgently needed to support sustainable education literacy in ELT. Therefore, this study advocates for the integration of digital multimodal texts to enhance both language learning and sustainability education.

INTRODUCTION

Sustainable development is emerging as one of the most urgent matters subject for international policy at the 1992 United Nations Earth Summit in Rio de Janeiro. Sustainable development is a concept that aims to advance human well-being without causing irreversible damage to ecosystems, depletion of essential resources, or harm to future generations (Klarin, 2018). Sustainable Development (SD) has accepted the growing attention from academics, industry representatives, and policymakers (Silvestre & Țîrcă, 2019). Sustainable development is an overarching principle that seeks to achieve human development goals while ensuring the ability of natural systems to meet the needs of present and future generations. The Brundland Commission's early definition of sustainable development emphasized the interdependence between sustainability's social, economic, and environmental dimensions (Rasouli & Kumarasuriyar, 2016). Sustainable development aims to achieve a balance between economic progress, environmental conservation, and social well-being, thereby meeting the needs of the

present without compromising the ability of future generations to meet their own needs. The emphasis on meeting the needs of future generations in the Brundtland Commission's definition aligns with the principles of global citizenship education. Education fosters a sense of global responsibility, encouraging individuals to contribute to a more sustainable and equitable world.

The global context of education has brought a new focus to education policy and practice in recent years. The 'global character' of contemporary education has become evident in education policy and discourse, as well as in the educational practices of teaching development, and education for sustainable development. UNESCO defines Education for Sustainable Development (ESD) as a holistic and transformational learning process that aims to improve cognitive, social, emotional, and behavioral dimensions of learning (Jeronen, 2017). The incorporation of Education for Sustainable Development (ESD) into the broader educational landscape will enrich the learning experience by providing a holistic and future-oriented perspective (Nurhaliza et al., 2024). By linking sustainability principles with academic subjects, education becomes a powerful tool to develop environmentally conscious, socially responsible, and culturally aware individuals, capable of contributing to a more sustainable and equitable global society.

ESD highlights the critical role of education in sustainable development. ESD is a dynamic concept that contains important issues for sustainable development such as climate change, biodiversity, sustainable production and consumption, and poverty reduction, and relies on education stakeholders as an instrument to achieve sustainable development and to integrate the principles in the education system. Various fields of education, such as environmental education, global education, economic education, development education, multicultural education, conservation education, outdoor education, global change education, and others, are complemented by sustainability education (Agbedahin, 2019).

Education plays a critical role in implementing sustainable development strategies by providing the knowledge and skills to understand and implement the necessary changes (Krayneva et al., 2021). Education for sustainable development (ESD) requires a relevant curriculum, effective teaching strategies, and an evaluation plan that emphasizes practical experience. This can be challenging for primary school educators, who may be unsure how and when to introduce these concepts to their students, perhaps because they received little teaching on environmental topics during their education (Putri & Silvhiany, 2022). The inclusion of social and economic issues marks a change from the established model of environmental education, which has strong links to traditional disciplines and has traditionally been taught to secondary school students. Traditional environmental education has primarily been designed for secondary students, whereas younger learners require age-appropriate, engaging approaches, such as community-based activities and interactive learning resources. One effective method to introduce sustainability concepts to young learners is through sustainability-focused children's literature and multimodal texts.

Literacy is a fundamental competency essential for individual and societal functioning, extending beyond basic reading and writing skills (Zua, 2022). Literacy activities in the school environment are an activity that seek to improve the positive character of literate learners that support the learning process. Through literacy, learners can develop their ability to understand, use, evaluate, and reflect on various types of texts. Learners learn to find and understand the explicit and implicit meaning of the text, analyze and evaluate the truth, benefits, and purpose of the information contained in the text, and then they can use and reflect on the content of the text to overcome the problems they find in everyday life (Durriyah et al., 2024). In text-based learning, appropriate learning strategies and media are needed to strengthen literacy. Literacy-based learning strategies that incorporate multimodal texts can enhance comprehension, engagement, and knowledge retention. Therefore, reading materials that can attract learners' enthusiasm are multimodal texts.

Multimodality is an important learning concept for developing 21st-century learning skills. Multimodal is one of the theories in linguistics that are quite popular nowadays as a tool or aid in teaching language (Herman et al., 2022). Multimodal text is a combination of written or spoken text and images or animations. Multimodal text combines language and other means of communication such as visual, sound, or oral presented in one complete text and present simultaneously. Unlike traditional ELT materials, which primarily rely on textual content, multimodal texts provide a more immersive and context-rich approach, making abstract sustainability concepts more accessible to young learners. Picture books and posters are common examples, offering an engaging resource for language learning and literacy development (Eisenmann & Summer, 2020). Teachers apply multimodal texts as teaching aids that provide flexibility for teachers to innovate and develop creativity. The development of multimodal text-based literacy activities is expected to help students master multiliteracy skills.

Some studies have been conducted by scholars related to sustainable education and multimodal text. The first study was conducted by (Pauw et al., 2015) found that Education for Sustainable Development (ESD) has the potential to be effective in promoting sustainability consciousness among students. The findings of the study suggest that ESD can play a key role in promoting sustainability awareness among students, and certification programs need to focus on supporting schools and teachers in developing skills for pluralistic approaches in teaching. The study also provides valuable insights into the effectiveness of ESD, emphasizing the need for a more comprehensive and tailored approach to ESD implementation to promote sustainability awareness among students at different grade levels. The second related had been done by (Ajayi, 2012), which found that the teachers used visual images to contextualize instruction and CD-ROMs to model pronunciation for students. They also used images to help students make connections between the textbooks and their cultural lives. The implications of the study emphasized the importance of additional training for ELL teachers on how to make better use of the affordances of multimodal textbooks and the development of critical views of images in textbooks.

Despite an increased focus on sustainability in education, there is still a gap in integrating climate change topics into English language teaching (ELT) for primary school students. The latest curriculum in Indonesia, Kurikulum Merdeka, emphasizes relevant and flexible learning experiences that allow students to creatively explore critical global issues. However, the development of ELT materials that effectively incorporate sustainability themes is still lacking, especially for fifth graders. With the growing use of technology in education, digital multimodal texts offer an innovative solution to bridge this gap. This study aims to explore how digital multimodal texts can enhance fifth-grade students' understanding of climate change within English lessons. By examining the perspectives of students, English teachers, and other stakeholders, this research seeks to identify key elements necessary for integrating sustainable education into ELT. By conducting surveys and analysing their opinions, we hope to find the key elements needed to use digital multimodal text to improve students' understanding of climate change in English classes. The primary research question guiding this study is: How can digital multimodal texts be used in English lessons to effectively engage fifth-grade students at SDN 115 Palembang in learning about climate change while supporting their language development?

RESEARCH METHOD
Research Design
This study used a mixed-methods research design, combining both quantitative and qualitative approaches to achieve a more comprehensive analysis of students' needs regarding digital multimodal texts and sustainable education in ELT. The rationale for using a mixed-methods approach is that it allows for a more holistic understanding of the research problem by combining the numerical strength of quantitative data with the depth and contextual richness of

qualitative insights. The quantitative data was collected through a questionnaire administered to 5th-grade students, while the qualitative data was obtained from semi-structured interviews with the English teacher and vice principal. To ensure the validity and reliability of the findings, several strategies were employed. For the quantitative data, the questionnaire was piloted with a small group of students before being fully utilized to improve clarity and consistency. For the qualitative data, triangulation was applied by comparing interview responses from teachers and stakeholders, to ensure credibility and reduce potential bias.

Research Participants or Population and Sample

The population for this study consisted of 5th-grade students at SDN 115 Palembang, along with their English teacher and school stakeholders. The sample was selected using purposive sampling, which involves deliberately choosing participants based on specific criteria relevant to the study. One class of 30 students from grade 5C was selected based on their demonstrated high interest in learning English, as observed through their active participation in classroom discussions and engagement with English learning activities. One English teacher and one vice principal responsible for academic affairs and curriculum development were also selected for interviews. This sample was chosen to represent key individuals involved in the implementation of the Merdeka Curriculum and sustainable education initiatives at the school.

Instruments

Data collection was carried out using a questionnaire and semi-structured interviews. The questionnaire, consisting of 34 items, was designed to assess students' needs, perspectives, and aspirations regarding sustainable education in ELT. It included three categories: Target Situation Analysis (TSA), Deficiency Analysis (needs and wants), and Present Situation Analysis (PSA). The questionnaire was developed based on existing research and the framework by Hutchinson & Waters (1987). To enhance reliability, the items were adapted from validated needs analysis instruments used in previous ELT studies and reviewed by experts in language education and curriculum development. Although no formal pilot study was conducted, the questionnaire underwent a preliminary review to ensure clarity and relevance. The semi-structured interviews were conducted with the English teacher and the vice principal to gain insights into the availability of teaching materials and the feasibility of integrating digital multimodal texts.

Data Analysis

For the quantitative data, the responses from the questionnaire were analysed using descriptive statistical analysis, calculating frequencies and percentages to identify trends in students' needs and perspectives. For the qualitative data, the interview responses were transcribed and analysed thematically using manual coding. Both types of data were then compared and synthesized to provide a comprehensive understanding of the research questions, ensuring that quantitative trends aligned with qualitative insights for a more holistic interpretation of the findings.

RESEARCH FINDINGS AND DISCUSSION
Research Findings

The study results are divided into two parts: (1) students' perceived needs, which are described using target situation analysis (TSA), deficiency analysis and current situation analysis (PSA) and (2) teachers' and stakeholders' perceived needs.

Analysis of Students' Needs

A comprehensive needs assessment is conducted to determine the needs of each student in relation to reading materials. Target situation analysis (TSA), deficiency analysis, current situation analysis (PSA), and strategy analysis are part of the analysis.

Target Situation Analysis (TSA)

This section focuses on students' needs, goals and expectations regarding English language learning. The data obtained is shown in Table 5.

Table 1
The Viewpoints of Student on TSA

No.	Questions/Statements	Students' View	Percentage
1.	How important is it for you to learn English?	Very Important	96.1%
2.	Do you think English language skills are important for your further education?	Very Important	100%
3.	How confident are you in your English skills?	Confident	33.3%
4.	Do you feel that the English classes you have taken at school have prepared you enough to use the language in the future?	Yes, of course	72.5%
5.	Do you feel confident speaking in English in class?	Quite Confident	35.3%
6.	How often do you use English outside of school?	Rarely	51%

The data shows students' opinions about learning English and their confidence in using the language. Most students, 96.1%, believe that learning English is very important, and 100% agree that English skills are crucial for their future education. This highlights the high value they place on the language. However, despite recognizing its importance, only 33.3% feel confident in their English skills. This suggests that while students understand the value of English, they struggle to feel secure in their abilities. When asked if their school English classes have prepared them for future use, 72.5% responded positively. This indicates that the majority feel their classes are helpful, but there is still a significant portion (27.5%) who might need more support. Confidence in speaking English during class is also a concern, with only 35.3% feeling quite confident. This low percentage might reflect a lack of practice or fear of making mistakes. Outside of school, 51% of students answered they rarely use English. This could explain why their confidence is low, as regular practice is essential for building language skills. The data suggests a gap between students' recognition of the importance of English and their actual use and confidence in the language. Table 2 presents students' engagement with different English skills, highlighting their preferences and confidence levels.

Table 2
English Language Skills

No.	English Skill	Percentage of Students Engaged
1.	Reading	45.1%
2.	Listening	43.1%
3.	Writing	31.4%
4.	Speaking	5.9%

Students demonstrated stronger engagement with receptive skills (reading and listening) compared to productive skills (writing and speaking). Speaking had the lowest engagement, indicating a lack of confidence or practice opportunities.
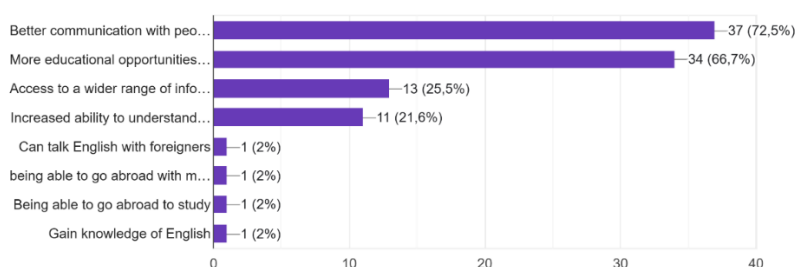
Figure 1 The Benefits of Learning English for Elementary School Students

Figure 1 shows the benefits of learning English for primary school students. The results show that most students value English as a tool for communication and academic advancement, with fewer associating it with cultural understanding. These responses suggest that while these benefits are recognized, they are less prioritized than communication and education. Overall, the data shows that most students view English as a tool to expand their opportunities and connect with others socially, academically and culturally.

Deficiency Analysis

This section looks at the current needs and wants of the students as well as the gaps or weaknesses in the intended environment. Table 2 provides information on current students' wants and needs regarding the subjects or inputs needed to use digital multimodal texts to facilitate the integration of sustainable education in ELT.

Table 3
Students' Perceptions on Current Wants and Needs

No.	Questions/Statements	Students' View	Percentage
1.	In learning reading, the topic that I want	Education	72.5%
2.	In learning reading, the learning materials or media that I want	Text that describes climate change	68.8%
3.	In my opinion, incorporating the topic of climate change using text with pictures into English lessons	Important	49%
4.	In my opinion, the things about environmental issues that are important to include in English reading texts	Polluted Environment	70.6%

The table presents data about students' preferences and opinions on incorporating environmental topics, particularly climate change, into English reading lessons. When asked about the topic they would like to explore while learning reading, 72.5% of students expressed a preference for education-related themes. This indicates that students find educational topics both engaging and relevant to their learning goals. Additionally, 68.8% of students stated that they prefer learning materials or media that describe climate change. This preference highlights a growing interest in environmental issues and their potential integration into English lessons. Regarding the use of texts with pictures to introduce the topic of climate change in English lessons, 49% of students believe this approach is important. While this percentage is slightly lower compared to other responses, it suggests that nearly half of the students recognize the value of using visual aids to better understand complex topics such as climate change. Furthermore, when asked about the specific environmental issues that should be included in English reading texts, 70.6% identified a polluted environment as the most significant issue.

This reflects students' awareness of environmental challenges and their desire to learn about these problems through reading materials.

Table 4
Types of Activities in Learning English Reading

No.	Type of Activity	Percentage of Students Who Agree
1.	Reading aloud a text with correct pronunciation and intonation	49%
2.	Reading a text individually and then answering questions	23.5%
3.	Translating the text into Indonesian	17.6%
4.	Discussing the content of the text in groups to understand it	11.8%
5.	Analyzing the meaning of new vocabulary based on context	3.9%
6.	Other activities	2%

Table 4 illustrates the types of activities that students usually do in learning English reading, along with their respective percentages. The results show that reading aloud with correct pronunciation and intonation is the most common activity among students, while analyzing vocabulary in context and other activities are the least practiced.

Present Situation Analysis (PSA)

This section focuses on the material that has been studied and provided and presents students' proficiency in English, climate change knowledge, and digital multimodal texts to facilitate the integration of continuing education in ELT.

Table 5
Materials Learned and Students' Skill Levels

No.	Questions/Statements	Students' View	Percentage
1.	Students' level of English proficiency	Beginner	84.3%
2.	Literacy Ability (reading, listening, speaking and writing)	Quite Good	47.1%
3.	The difficulty level of English reading texts in English textbooks used at school	Easy	47.1%
4.	The topics in the English reading texts in the English textbooks used at school	Interesting	58.8%
5.	Types of reading texts that are often found or studied in English lessons	Short Reading Text	45.1%
6.	Does your English teacher often provide reading texts and questions related to the topic of climate change?	Never	98%
7.	In the teaching and learning process, English teachers provide reading materials or texts accompanied by questions related to climate change using picture books.	Never	98%
8.	My knowledge and understanding of the use of multimodal texts (such as picture books, using learning videos, audio, etc.) is..	Good	41.2%
9.	My knowledge and understanding of climate change is..	Not Good Enough	74.5%
10.	I am aware of the climate change that is in	My place of residence (district or city) only	58.8%

Table 5 provides insights into the materials learned by students and their skill levels in English, based on their views and responses. Most students (84.3%) identify their level of English proficiency as beginner. Regarding literacy abilities (reading, listening, speaking, and writing), 47.1% of students rate themselves as quite good. When it comes to the difficulty level of English reading texts in their school textbooks, 47.1% find them easy. The topics in these textbooks are considered interesting by 58.8% of students. Short reading texts are the most commonly studied type of material, with 45.1% of students indicating this preference. However, nearly all students (98%) report that their English teachers never provide reading texts or questions related to climate change, nor do they use picture books accompanied by questions on this topic. Despite this, 41.2% of students rate their knowledge and understanding of multimodal texts, such as picture books, videos, and audio, as good.

In terms of climate change, 74.5% of students feel their knowledge and understanding are not good enough. Additionally, 58.8% state that their awareness of climate change is limited to their local area, such as their district or city. In conclusion, the table highlights those students have limited understanding of climate change and rarely engage with multimodal texts in their learning process. This suggests a need for more integration of contemporary issues and diverse learning resources in English teaching to enhance students' knowledge and engagement.

Table 6
Materials that teachers use to teach

No.	Teaching Material Used	Percentage of Students Who Agree
1.	Using textbooks	90.2%
2.	Telling students to speak in English	68.6%
3.	Telling stories in English	21.6%
4.	Using pictures and videos	5.9%
5.	Playing English games	3.9%

Table 6 shows the different approaches teachers use in teaching. The results highlight that textbook and speaking activities are the most commonly used teaching materials, while games and multimedia resources are used less frequently. The types of climate change that students know and understand.

Perceived Needs of Teachers and Stakeholders

Interviews conducted with the 5th grade English teacher and the vice principal for curriculum at SDN 115 Palembang offered valuable insights into the current state and perceptions of climate change education within the primary school context. From the discussions, ten key themes emerged that reflect the educators' awareness, priorities, and instructional strategies related to environmental issues. These themes include the perceived importance of climate change education, the methods of teaching climate-related content, the extent to which the current English curriculum addresses climate topics, and the practical incorporation of climate change-related skills within English language instruction. Further, the interviews explored the integration of technology as a pedagogical tool to enhance students' understanding of climate change, revealing that digital media and online resources are increasingly used to make lessons more engaging and relevant.

The English teacher emphasized that introducing climate change topics in English lessons not only improves language skills but also raises students' environmental awareness from an early age. This dual benefit is considered essential in cultivating responsible, informed future citizens. Similarly, the deputy principal for curriculum highlighted the need for more structured and policy-driven approaches to embed climate education across subjects, including English. Both interviewees acknowledged existing challenges, such as limited resources and a lack of formal training, but showed strong commitment toward advancing climate literacy in the

classroom. The table that follows summarizes the ten central themes discussed in the interviews, each supported by verbatim quotes to illustrate the educators' authentic voices and deepen the understanding of how climate education is being realized at the school level.

Table 7
English Teacher Highlights of Integrating Climate Change Topics into English Education

No.	Themes	Findings	Interview Excerpts
1.	Importance of Climate Change Education	English teachers should have knowledge of climate change to guide students in learning about environmental issues while improving their English skills.	*"Having knowledge about climate change is crucial for English teachers, as well as teaching the topic in class."*
2.	Climate Change in the English Curriculum	Climate change topics are absent in English lessons but included in Science under the Merdeka Curriculum.	*"In the Merdeka Curriculum, climate change material is included in Science subjects, so there is no material on climate change in English lessons."*
3.	Teaching Strategies	Storytelling and visual aids (e.g., images) help students understand climate change while improving their English skills.	*"By telling stories about current climate changes, such as rising temperatures, extreme weather, or environmental damage, students can better understand these issues in an easy-to-understand and engaging way."*
4.	Integration of Climate Change Topics	Climate change concepts can be linked to existing English materials without major curriculum revisions.	*"We can link climate change topics to the materials already in the curriculum."*
5.	Interdisciplinary Collaboration	No current collaboration between English and other subjects, but future interdisciplinary efforts are encouraged.	*"Maybe in the future, there will be collaboration between English and other subjects on climate change topics, so the topic can be evenly distributed across subjects."*
6.	Challenges in Teaching Climate Change	Students struggle with climate change vocabulary; repetition helps reinforce learning.	*"Because climate change is an unfamiliar concept to students, learning vocabulary and phrases related to climate change can be challenging for them."*
7.	Student Projects Related to Climate Change	Fifth-grade students participated in tree planting; second-grade students worked on waste management.	*"For fifth graders, their P5 project is a tree planting project, which is directly related to climate change. While the second graders are also involved in a climate-related project, which focuses on waste management by processing waste."*
8.	Role of Technology in Teaching	Laptops, phones, and projectors support climate change education in English lessons.	*" The technology available in this school are laptops, phones, and projectors, which are important tools in supporting climate change education during English lessons."*

No.	Themes	Findings	Interview Excerpts
9.	Use of Digital Multimodal Texts	Stakeholders emphasize the importance of digital learning media (e.g., text, images, audio, video, games) for engaging students.	*"We believe that the use of learning media in the teaching and learning process is very important in the classroom. Multimodal text, such as learning media with text, images, audio, video and games, will be more interactive and engaging for students."*
10.	Impact on students	Teaching climate change fosters responsibility and environmental awareness.	*"By learning about the effects of climate change, students can become more aware of their role in protecting the planet and adopt caring behaviours toward nature."*

The interviews shed light on the need to incorporate multimodal digital learning media texts in climate change education. Stakeholders believe that using additional learning media in teaching and learning is very important in the classroom. The school committee supports all classes with teaching and learning equipment such as laptops and projectors. In particular, for English and other language classes. However, it is important to note that not all classes currently enjoy these facilities as the facilities available are still limited. The level of these facilities may have changed since then. Stakeholders also emphasized that learning materials on climate change should be designed with technology in mind. Multimodal texts, such as learning media with text, images, audio, video as and games, will be more interactive and engaging for the students involved to be more interested and easily understand the topic of climate change.

Discussion

Given the urgency posed by climate change and the increasing frequency of disasters caused by climate change, there is an urgent need for English teachers to actively engage in interdisciplinary efforts aimed at incorporating climate change education into their curriculum. As stated by (Silvhiany et al., 2023) teachers' attitudes towards climate change also play an important role in their readiness to integrate continuing education into the EFL classroom. The study underscores the importance of equipping teachers with the necessary knowledge and tools to incorporate climate literacy in English language teaching, especially at the primary school level. Expanding this effort is in line with global initiatives that support sustainable development and environmental protection.

Incorporating climate change education into English language teaching will benefit students by fostering critical thinking, cross-disciplinary connections and global citizenship. As key figures in shaping future generations, educators have a duty to provide students with the knowledge and skills needed to tackle the complex issues of climate change. As (Monroe et al., 2019) highlight, integrating climate change topics into curricula significantly enhances students' awareness and engagement with sustainability issues. By taking on this responsibility and encouraging interdisciplinary collaboration, English teachers can play a crucial role in promoting a more environmentally conscious and resilient society, aided by effective learning media (Ramadhan & Salma, 2024).

The use of digital multimodal texts in English language teaching presents a practical and effective means of integrating climate change education into the classroom. Digital multimodal texts, which combine textual, visual, and auditory elements, can enhance student engagement and comprehension by presenting climate-related concepts in interactive and relatable ways. This aligns with findings from (Maskana et al., 2024), who emphasize the

effectiveness of audio-visual media in increasing student participation in climate change discussions. Additionally, a survey conducted by (Silvhiany et al., 2023) found that English teachers' knowledge, beliefs, and attitudes about climate change were strongly linked to their preparedness to incorporate climate change education into foreign language classrooms at elementary, junior high, and high school levels. By providing teachers with resources based on digital technology to explore climate change topics, their readiness to introduce climate literacy to students will improve.

Our needs analysis with students and stakeholders at SDN 115 Palembang revealed that climate change was not yet been integrated into English language teaching. While the school has implemented a P5 project on climate change—such as tree planting and waste management—these activities have remained separate from English instruction. This gap indicates an opportunity to enhance ELT curricula by incorporating climate change education through structured lesson plans that utilize digital multimodal texts. By incorporating climate change discussions within English lessons, educators can create meaningful learning experiences that develop both language proficiency and environmental awareness.

The implications of these findings for ELT practitioners are substantial. To effectively integrate climate change education, teachers should incorporate multimodal texts into lesson plans, ensuring that students engage with diverse materials such as interactive videos, audio-visuals and games. For example, a lesson on reading descriptive texts about climate change could involve analyzing infographics on the impacts of climate change, while a listening activity could feature short videos with comprehension exercises. These approaches are in line with research that emphasizes the role of digital media in promoting environmental literacy and student engagement (Monroe et al., 2019; Maskana et al., 2024).

In addition, linking the results of this study with previous research strengthens its theoretical foundation. (Monroe et al., 2019) showed that incorporating sustainability topics into curriculum development can improve students' critical thinking skills and their long-term engagement with environmental issues. Similarly, (Ramadhan & Salma, 2024) highlighted the potential of digital learning tools to facilitate interdisciplinary learning in ELT. This study builds on these insights by advocating for the systematic incorporation of climate change education into English language teaching through multimodal text. By aligning these findings, the study reinforces the need to equip educators with accessible and engaging materials to support continuing education.

The study showed that integrating climate change education into English language teaching through digital multimodal texts offers a practical, engaging and high-impact approach to promoting climate literacy among young learners. By utilizing digital resources and interdisciplinary collaboration, English teachers can bridge the gap between language learning and environmental awareness. Future research should explore how specific multimodal strategies affect student engagement and learning outcomes, ensuring that climate change education becomes a fundamental component of English language teaching.

CONCLUSION

This study found that students urgently need multimodal texts to facilitate sustainable education literacy in ELT. The students expressed their desire to learn more about climate change and how they can take action to protect the environment around them. They also felt that learning by using multimodal texts would be an interesting and easy-to-understand way to learn about climate change in English. The findings of study advocate the use of digital multimodal texts as teaching aids to improve literacy and understanding of climate change within an ELT framework. By combining different forms of media - such as images, audio and video - teachers can create a more engaging learning environment that suits diverse learning

styles. Through innovative teaching methods can significantly increase student engagement in English language learning and sustainable education.

Beyond the development of multimodal learning materials, it is critical to provide proper training to teachers to effectively implement these materials in the classroom. Teachers play a key role in encouraging critical thinking and guiding meaningful discussions on climate change. Integrating multimodal texts into the ELT curriculum can support broader educational policies that promote sustainability and 21st century skills. Future research should explore the long-term impact of multimodal texts on students' language proficiency and environmental awareness. In addition, research on policy implementation and teacher training strategies can provide valuable insights for expanding multimodal approaches in English language education. By equipping students and teachers with the necessary resources and skills, we can ensure that sustainable education becomes an essential part of ELT, empowering young learners to take appropriate action in protecting the planet.

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