Unlocking the Needs to Design Audiovisual Media to Incorporate Climate Change Education in ELT

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Abstract
Climate change is a crucial topic to be included in the Grade 7 Junior High English book, highlighting its significance in educating students about the causes, impacts, and potential solutions to this global issue. This study focuses on conducting a need analysis related to the use of audiovisuals in learning climate change within the context of EFL classrooms as needs analysis will inform us what is suitable for 7th grade students who have just started learning English formally. Specifically, the research investigates the requirements of 7th-grade students at MTs Negeri 2 Palembang for audiovisual resources to enhance climate literacy. Employing a mixed-method approach, combining quantitative and qualitative data collection methods such as questionnaires and interviews, the study uncovers students' strong desire to learn about climate change through audiovisuals. Moreover, it identifies a preference for audiovisual media over traditional text-based materials and highlights the support from teachers and stakeholders at MTs Negeri 2 Palembang for integrating climate change education into EFL teaching practices. In light of these findings, the researchers recommend the development of audiovisual resources tailored to facilitate the seamless integration of climate change education within EFL classrooms. Additionally, they advocate for teacher training to effectively utilize audiovisual media as an instructional tool. This study contributes significantly to climate change education by addressing the identified needs of both students and teachers, thereby guiding the design of effective instructional materials and teaching practices.

Keywords: Audiovisual Media; Climate Literacy; Climate Change Education; EFL Learning; Junior High School

Introduction
The scientific community now considers the consequences of higher average temperatures caused by the greenhouse effect, such as sea level rise, desertification, extinction of plant and animal species, shifting agricultural patterns, and increased frequency of extreme weather phenomena such as cyclones, to be
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Unequivocal evidence (Calvin et al., 2023). Furthermore, the urgency of addressing climate change issues has never been more pressing, considering our interconnected world today. The fourth goal of the United Nations Sustainable Development Goals (SDGs), specifically Target 7, sets a transformative vision for education by 2030. It emphasizes the need for students to acquire essential knowledge and competencies to advance sustainable development, encompassing diverse aspects such as education for sustainable development, adopting sustainable lifestyles, upholding human rights, ensuring gender equality, fostering peace and non-violence, promoting global citizenship, and appreciating the benefits of cultural diversity (Lough, 2023). In this context, climate literacy emerges as a critical component that must be addressed to prepare students for future challenges.

The Education for All movement prioritized literacy among the six Dakar goals by defining it as a vital component of primary quality education (UNESCO, 2004). Since 2013, UNESCO has promoted sustainable education which the focus on climate change education through transformation in teaching and learning process using the whole-institution approach (UNESCO, 2021; United Nations Educational Scientific and Cultural Organization, 2020). Climate change education has been associated with increased awareness of how human activities affect the changing in our planet (Hess & Maki, 2019; Jessani & Harris, 2018). Similarly, research on teacher education informed us that climate change integrated-curricular engagement contributed to preservice teachers’ understanding of the impacts of climate change and how teachers could play a role in fostering climate change awareness in their students (Borgerding & Dagistan, 2018; Pratiwi & Silvhiany, 2023).

Effective communication is critical in addressing this complex issue, such as climate change, and educators play a pivotal role in shaping public understanding. (Beach & Smith, 2021) stated that literacy teachers have a special opportunity to promote climate awareness among diverse students, but in order to do so successfully, they must use multimedia materials. In the age of digital information, people are more likely to rely on internet-based sources, so it is crucial to know how students access information about climate change through the internet. Research highlights the centrality of critical reading in evaluating the reliability of information sources about socio-scientific issues (Silvhiany et al., 2021a, 2021b). Three aspects of reliability of sources include provenance, purpose, and content. In the studies
conducted by (Damico, Baildon, et al., 2018; Damico, Panos, et al., 2018) preservice teachers were found to use three aspects when evaluated media sources, which include having different perspectives represented, wanting more information or evidence to support an argument, and acknowledging one’s own identity and perspectives.

In addition, digital media has been a vital tool for learning and teaching process. Digital literacy will be broadened with current breakthroughs, such as artificial intelligence (Tinmaz et al., 2023). Therefore, it is important to introduce digital tools in teaching and learning process. ICT provides tools for achieving significant educational outcomes. The importance of these tools can be effective in allowing learners to participate in modes of education previously unachievable at a distance (Kirkwood & Price, 2016). Beach et al., (2021) mentioned that the use of digital tools enables students to understand and communicate perceptions of the causes of climate change as shaped by economic and energy systems, as well as changes in agricultural methods, dying coral reefs, energy production, transportation, and water/forest management related to political/community actions.

However, incorporating digital climate literacy in EFL teaching can only be done with the right resources to support teachers in addressing climate change (Beach & Smith, 2021). Teachers need to be well-informed about how climate change affects education and should have their climate change knowledge updated. According to the National Council of Teachers of English (Miller & Krajcik, 2019), English Language Arts (ELA) classrooms have become more interested in discussing climate change. A resolution recognizing the need for climate change education in ELA classrooms was adopted by the National Council of Teachers of English in 2019. Therefore, the opportunity for English teachers to excite, motivate, and empower students to realize the messages and stories surrounding them and learn how to take action may also create an alternative discourse that might transform the present and influence the future.

Moreover, including climate change discussions in English Language Arts (ELA) classrooms aligns with the broader educational shift toward addressing real-world issues and fostering critical thinking skills. Rochmahwati, (2015) cited that critical thinking skill is one of the abilities that should be considered while developing and improving language curriculum since our world is getting increasingly complex to comprehend, and how we process information has become more important than
precise specifications. Therefore, incorporating climate change education into ELA classrooms equips students with the knowledge and critical thinking skills to navigate an increasingly complex world. It empowers them to become informed and responsible citizens.

Research in ESL and EFL teacher education has shown growing interest in exploring the possibilities of engaging preservice teachers with ecological and climatic issues that affect human’s existence. Studies on the effect of writing children’s picture books about environment highlight the role of the curricular engagement in raising ecological generosity (Liu, 2019; Liu & Li, 2019). Furthermore, using combined ecojustice pedagogy and multimodality in exploring issues climate change, (Silvhiany et al., 2023) found that preservice teachers showed critical understanding of unequal impact of climate change in diverse communities.

Other studies at the secondary education level focus on the development of climate change-based report texts and exposition reading materials for high school students. These studies informed us that deliberate design of supplemental textbooks and e-module which incorporated climate change issues contributed to students’ awareness of climate change issues (Becce Tenridinanti et al., 2021; Mufidah et al., 2023; Noto, et al., 2022)

Based on the previous related studies, it is evident that there has been a progressive focus on tackling the issues raised by climate change in educational settings. As what have been mandated in the latest curriculum which is kurikulum Merdeka in one of its characteristics, the focus is on essential, relevant, and in-depth material, allowing ample time for students to develop creativity and innovation in achieving basic competencies such as literacy and numeracy. Despite this growing interest, however, there is still a lack of attention to development of teaching materials to support the integration of ecological and climate change issues in junior high school English language teaching. In particular, there is a growing emphasis on utilizing technology and modern pedagogical approaches to address the challenges of climate change. To address this gap in research, our study seeks to convey the perspectives of 7th-grade students, English teachers, and stakeholders. Through survey and an in-depth analysis of their viewpoints, we aim to determine the essential elements for successfully integrating audiovisual media to enhance climate literacy in EFL education. The overarching research problem is: How can incorporating audiovisual media in EFL teaching cater to the specific needs of 7th-
grade students at MTs Negeri 2 Palembang, ensuring a comprehensive and engaging approach to climate literacy education?

Research Methodology

This article is part of a larger research with the overarching purpose of creating audiovisual media to facilitate the integration of climate literacy in EFL teaching. This article specifically addresses the needs analysis. We used a mixed-method strategy namely convergent design, integrating quantitative and qualitative techniques. The quantitative part employed the questionnaires to gain the students’ perspectives related to the needs of designing audiovisual media to facilitate the integration of climate literacy in EFL teaching which were analyzed using descriptive statistics analysis in the form of percentages. The material gleaned from the interview was interpreted and explained using the qualitative approach. The needs analysis was carried out at MTs Negeri 2 Palembang because this school has implemented Kurukulum Merdeka and this school has a big concern to the environmental issues. Therefore, the researchers were interested in finding out what the school community needs in order to support their sustainable education inclusion in the curriculum. The population in this study were 224 students from 7 classes in the 7th grade at MTs Negeri 2 Palembang, as well as six English teachers and stakeholders. Purposive sampling was utilized in this study to create the sample. As a result, the sample for this study focused on a single class of 32 pupils from language class because their interest in learning language, one English teacher, and one vice principal for academic affairs and curriculum.

Data collection for this research involved the utilization of questionnaires were administered to the seventh-grade students and to the English teacher. These questions were carefully adjusted to align with the study’s goals consisted of 32 items, focusing on students’ necessities, perspectives on the existing situation (including limitations and materials), and their aspirations, adhering to the guidelines proposed by (Hutchinson & Waters, 1987) for conducting student needs analysis. The questionnaire items were grouped into categories: Target Situation Analysis (TSA), Deficiency Analysis (needs and wants), and Present Situation Analysis (PSA).

Furthermore, ten semi-structured interviews were carried out with the English teacher and the vice principal in charge of academic affairs and curriculum development. These interviews predominantly centered on English teaching within
Junior High School, the availability of English reading materials, and the possible integration of audiovisual media addressing climate literacy in facilitating the EFL teaching into English material development. This comprehensive approach for the data collection aimed to understand students’ preferences holistically, as well as the potential impact of incorporating audiovisual media to facilitate climate literacy in EFL teaching. Using quantitative and qualitative methods provided a well-rounded view of the subject matter.

Findings and Discussion

Findings

The results of the study is divided into two parts: (1) students’ perceived needs, which was explained by using target situation analysis (TSA) and present situation analysis (PSA) and (2) stakeholders’ perceived needs.

1. The needs of the students as perceived by the students

The data was obtained based on the viewpoints of the students’ needs as identified by the target situation analysis (TSA), inadequacies analysis, and present situation analysis (PSA). The tables and figures in the article reflected most students’ replies to each survey question.

Target Situation Analysis (TSA)

This section focused on the students’ requirements, broad purposes, and expectations regarding learning English. The obtained data is shown in Table 1.

<table>
<thead>
<tr>
<th>No.</th>
<th>Question/Statement</th>
<th>Students’ View</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>It is important for junior high school students to learn English.</td>
<td>Very important</td>
<td>75%</td>
</tr>
<tr>
<td>2.</td>
<td>English language skills are important for your future career or education.</td>
<td>Yes, of course</td>
<td>87.5%</td>
</tr>
<tr>
<td>3.</td>
<td>I am confident in my English skills.</td>
<td>Confident</td>
<td>62.5%</td>
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</tbody>
</table>
According to Table 1, 75% of students said it was essential for junior high school students to learn English. It showed that students understood the importance of English in their education and future careers. Moreover, 87.5% of students agreed that English language skills were essential for their future career or education. It was a very high percentage, which showed that students were aware of the global importance of English. In addition, a significant portion of students (62.5%) expressed confidence in their English skills. Most junior high school students had a positive self-assessment of their English abilities. Furthermore, a significant majority (65.6%) felt that their junior high English studies had sufficiently prepared them for future language use, which implied that they believed their English instruction had been effective. Most students (62.5%) considered English proficiency very important for academic success, underscoring the belief that English played a crucial role in their education. Many students (59.4%) reported using English often outside of school, indicating that English was not only seen as a classroom skill but also as a practical language used

<table>
<thead>
<tr>
<th>Question</th>
<th>Rating</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. I feel that the English classes I took in junior high school have adequately prepared you for future language use.</td>
<td>Yes, of course</td>
<td>65.6%</td>
</tr>
<tr>
<td>5. How would you rate the importance of English proficiency in your overall academic success?</td>
<td>Very Important</td>
<td>62.5%</td>
</tr>
<tr>
<td>6. How often do you use English outside of school?</td>
<td>Often</td>
<td>59.4%</td>
</tr>
<tr>
<td>7. I believe that English proficiency can enhance cultural understanding and empathy.</td>
<td>Very Confident</td>
<td>46.9%</td>
</tr>
<tr>
<td>8. I think it is important for junior high school students to have opportunities to practice and use their English skills outside of the classroom.</td>
<td>Very Important</td>
<td>53.1%</td>
</tr>
</tbody>
</table>
in daily life. While a notable portion (46.9%) expressed very confident beliefs about English enhancing cultural understanding and empathy, it’s worth noting that this response was slightly lower compared to other questions. Some students may have had varying levels of conviction regarding this aspect. Therefore, most students (53.1%) viewed it as very important for junior high school students to have opportunities to practice and use their English skills outside of the classroom, which aligned with the notion that the practical application of English was valuable.

Figure 1. The benefits of learning English for junior high school students

The survey also highlights the students’ vantage points on the benefits of learning English and the areas of English language that perceived as important. In terms of benefit, as shown in figure 1, better communication with people from various country was chosen by more than 90% of the students as the most important purpose of learning English. This is inline with the students’ perspective that speaking and pronunciation as the area of language to be emphasized. In figure 2, we can see that speaking and pronunciation as well as vocabulary and word usage were chosen as the two most important.
Figure 2. The areas of English learning that should be emphasized in junior high school

Deficiency Analysis

This section looked at the current needs and wants of the students as well as any gaps or weaknesses in their intended environments. Table 2 provides information about the students’ present wants and needs concerning the subjects or input needed to use audiovisual media to facilitate the integration of climate literacy in EFL teaching.

Table 2. The students’ view on current wants and needs

<table>
<thead>
<tr>
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<th>Students' View</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>In learning literacy (reading), the topic I want</td>
<td>Daily life</td>
<td>71.9%</td>
</tr>
<tr>
<td>2.</td>
<td>In learning literacy (reading), the input I want</td>
<td>Text</td>
<td>46.9%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>accompanied by images.</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Aspects of public health that need to be included in English reading texts</td>
<td>Environment</td>
<td>87.5%</td>
</tr>
<tr>
<td>4.</td>
<td>Including lesson topics related to climate change using audiovisual media in English is</td>
<td>Important</td>
<td>77.4 %</td>
</tr>
<tr>
<td>5.</td>
<td>In my opinion, studying climate change using audiovisual media in English in English lessons can help me</td>
<td>Improve the ability of English, especially reading skills (literacy)</td>
<td>87.5%</td>
</tr>
</tbody>
</table>
Table 2 showed that most students, about 71.9%, liked learning literacy (reading) when the topics were about everyday life. They preferred materials with text and pictures, around 46.9%, especially for environmental issues. It suggested that videos and pictures helped them understand and enjoy reading more. Also, 87.5% of students thought learning about public health, which connects to global issues, was essential. Nearly 77.4% believed using videos in English class for topics like climate change was necessary. Students saw the value of multimedia for understanding complex subjects like climate change. Most students, 87.5%, thought studying climate change with videos in English class could improve their English skills, especially reading. It showed that students believe using videos and multimedia helps them learn better.

Figure 3. Types of activities commonly engaged in learning English reading (literacy)

In figure 3, the data shows students’ perspective on the types of activities they usually do when dealing with English texts. They relied on translation as the method of way to understand texts. The least used strategy is group discussion to understand the texts. Further inquiry into students’ perceived difficulties in dealing with English texts, as shown in figure 4, shows that understanding certain vocabularies as the main issues they are facing.

Figure 4. Students’ perceived difficulties in dealing with English texts
These results imply that teacher needs to model how to gain main ideas from the texts and understanding the meaning of vocabularies in context.

![Bar chart showing the perception of climate change topics as important](Figure 5. The incorporation of climate change topics in English reading texts)

In regard to the integration of climate change topics, figure 4 shows that all 84.4% of the students perceived climate change topics as important. 15.6% of the students thought that it was very important to include climate change texts in their English class. None of the students regarded the integration as unimportant. The result indicates students’ interest in learning about the global issues we are currently facing.

**Present Situation Analysis (PSA)**

This part focused on the existing materials learned and provided and presents students’ proficiency in English, climate change knowledge, and audiovisual media to facilitate the integration of climate literacy in EFL teaching.

<table>
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<th>Students’ View</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Students’ current proficiency level of English</td>
<td>Intermediate</td>
<td>68.8 %</td>
</tr>
<tr>
<td>2.</td>
<td>Literacy Ability (reading, listening, speaking and writing)</td>
<td>Good</td>
<td>84.4 %</td>
</tr>
<tr>
<td>3.</td>
<td>The level of difficulty of the English reading texts in the English textbooks</td>
<td>Easy</td>
<td>81.3</td>
</tr>
<tr>
<td></td>
<td>Question</td>
<td>Frequency</td>
<td>Percentage</td>
</tr>
<tr>
<td>---</td>
<td>--------------------------------------------------------------------------</td>
<td>-----------</td>
<td>------------</td>
</tr>
<tr>
<td>4.</td>
<td>The topics in the English reading texts in the English textbooks used at school are interesting.</td>
<td></td>
<td>50%</td>
</tr>
<tr>
<td>5.</td>
<td>The kind of reading material commonly found or learned in English class is descriptive.</td>
<td></td>
<td>46.9%</td>
</tr>
<tr>
<td>6.</td>
<td>In the teaching and learning process, the frequency with which my English teachers provide reading materials or texts along with questions related to the topic of climate change using audiovisual media is often.</td>
<td></td>
<td>59.4%</td>
</tr>
<tr>
<td>7.</td>
<td>In the teaching and learning process, my English teacher frequency provides reading materials or texts along with questions related to climate change using audiovisual media in improving digital literacy.</td>
<td></td>
<td>65.6%</td>
</tr>
<tr>
<td>8.</td>
<td>My knowledge and understanding of climate change and the use of audiovisual media is good.</td>
<td></td>
<td>81.3%</td>
</tr>
<tr>
<td>9.</td>
<td>I know the climate change in All over the world</td>
<td></td>
<td>37.5%</td>
</tr>
<tr>
<td>10.</td>
<td>The level of knowledge and my understanding about climate change is understood.</td>
<td></td>
<td>93.8%</td>
</tr>
</tbody>
</table>

Based on Table 3, the survey showed that many students, 68.8%, thought their English skills were at an intermediate level, suggesting they were pretty good at
English. Also, 84.4% felt confident in their reading, listening, speaking, and writing abilities. Most students, 81.3%, found their English reading materials easy, affecting their learning. About half of the students enjoyed the topics they read about in English, showing different interests among them. Almost half, 46.9%, said they often read descriptive material in English class. The survey also revealed that teachers often used videos and pictures (audiovisual media) to teach about climate change, with 59.4% of students mentioning it.

Moreover, 65.6% said they used materials about climate change to get better at using computers and the internet. While many students (81.3%) felt sure about what they knew about climate change, 37.5% thought it only affected the world a little, suggesting some might need more information. But, a large majority (93.8%) said they understood climate change well, showing they felt confident about it.

Survey in this needs analysis also informed us about students’ learning media preferences and the sources they relied on to learn about climate change. Figure 6 shows that all the students used smartphone as the tools to learn. The second audiovisual media was television, followed by laptop and computer.

Figure 7 reveals how students learned about the issues of climate change. 75% of the students relied on online media to get information about climate change. As the global wicked problem many of the countries in the world are facing, climate change-induced disasters have flooded our newsfeeds through television, online streaming, and social media. Therefore, it is not surprising that students considered online media as the most important resource.
Most students grasped the information of climate change through media, especially online media.

- **Figure 7.** Sources students used to understand the climate change
- **Figure 8.** Knowledge and understanding about elements connected with climate change
In terms of students’ familiarity with climate change issues, figure 8 shows that students considered environmental problem as the issue they are most familiar with. The next familiar issues are climate, extreme weather, and disaster. Surprisingly, students perceived greenhouse effects as the last influential aspect of climate change. Furthermore, figure 9 shows students’ perception about the influential aspect to mitigate climate change. Students believed it is necessary to implement the way to prevent climate change and to increase knowledge and understanding toward climate change.

![Figure 9. Students’ perception about the influential aspect to mitigate climate change](image)

2. Teacher and Stakeholder’ Perceived Needs

The interview with the 7th-grade English teacher and the vice principal of academic affairs has provided insights into the perception of climate change education at the Islamic Junior High School. ten major themes of the conversation including climate change education’s importance, teaching climate literacy across English proficiency levels, the status of climate education in the English curriculum, incorporation of climate topics and skills, technology integration in EFL teaching, and climate change topics.

Regarding climate change understanding and importance, the teacher emphasized the significance of climate literacy for students, noting the unpredictability of climate patterns and contrasting them with traditional indicators. The importance of students learning about climate literacy was highlighted to address the changing climate, a departure from historical patterns.
In teaching climate literacy across diverse English proficiency levels, the teacher discussed the flexibility provided by the Merdeka Curriculum, allowing various sources to be integrated, especially in English. The teacher emphasized implementing Project 5 (P5) related to climate change, where students engage in hands-on projects to enhance their understanding of climate issues.

The status of climate education in the English curriculum, particularly in the context of Curriculum Merdeka, was discussed. The teacher acknowledged the connection between the topic of climate change and Curriculum Merdeka, allowing students to express their thoughts and ideas. However, the need for additional student resources was noted to enhance the understanding of climate change concepts.

Incorporation of climate topics and skills into English education was addressed, with discussions on the selection of texts, resources used for climate change education, and the emphasis on hands-on projects. The teacher highlighted the importance of introducing diverse climates, including global perspectives, to broaden students’ understanding of climate challenges beyond their immediate surroundings.

Technology integration in EFL teaching was explored, with the teacher expressing the importance of audiovisual media, especially for learning English and climate literacy. The use of technology, including YouTube videos, was emphasized to engage students in exploring climate conditions worldwide.

School facilitation in terms of facilities for English and climate change education was discussed, acknowledging the importance of audiovisual support for language classes. The teacher highlighted the effectiveness of using audiovisuals, especially for studying climate literacy, to encourage students to imitate native speakers’ pronunciation.

Finally, the teacher provided insights into climate change topics and the goals of learning climate literacy with audiovisual media. Activities such as poster writing and drawing pictures related to the environment were suggested to facilitate integration into EFL teaching. The overarching goal was to raise awareness, encourage environmental responsibility, and improve English proficiency through discussions on climate change topics.

The interviews have revealed several important key findings related to the needs and feasibility of integrating climate change education in English language
teaching (ELT) at the junior high school level. In regard to knowledge, teacher compared herself with science teachers who were supposed to know more about climate change issues. She said,

“I have only common knowledge about climate change.” (T, Personal Communication, 2023).

From the data of the interview, it could be seen that the teacher view regarding the climate change is limited. The teacher associated climate change This is unfortunate since education is essential to addressing these issues and dealing with climate change (UNESCO, 2021). Therefore, the needs of designing media to facilitate the climate literacy is appropriate. However, the pervasive absence of essential specialization in addressing environmental issues within the field of teacher education is a conspicuous and noteworthy phenomenon, signifying a deficiency in the requisite focus and expertise necessary to provide educators with the required knowledge and skills for effectively integrating environmental considerations into their pedagogical practices and fostering environmental awareness among students. The teacher addressed:

“It is related to junior high school students. But it is more suitable for senior high school. But it’s okay, it’s okay. At least we can, and as English teachers, especially in the school, we can tell that the students know a little about this information, especially climate change”.

Based on the interview with the Vice Principal for Academic and Curriculum Affairs and the English teacher of MTs Negeri 2 Palembang, the they stated that the English learning objectives have already followed the current curriculum, Merdeka Curriculum. This curriculum provides the flexibility for teachers to incorporate texts in various topics, including climate change. They believed that as long as the material or theme aligned with the goals of Curriculum Merdeka, teaching could be connected effectively. In this curriculum, students were encouraged to express their thoughts and ideas. The teacher saw a connection between the topic of climate change and Curriculum Merdeka. The teacher said: “I think we can connect it as long as the material or the theme, it can make the student, because in Curriculum Merdeka, in CP, Capaian Pembelajaran, the students are able to say about, to express their thinking or their idea or anything. So, when we bring the topic of the climate change, it is still connected to the Curriculum Merdeka.
The interviews also shed light on the needs to incorporate audiovisual materials in climate change education. Stakeholders believed facilitating the teaching and learning process is vital in the classroom. The school committee supported all classes with teaching and learning equipment. Specifically, for English and other language classes, audiovisual tools like sound systems were available. However, it is important to note that not all classes currently enjoyed these facilities; they were limited to foreign language classes at the time. The extent of these facilitations might have changed since then. Stakeholders also emphasized that learning materials on climate change should be designed with technology in mind. Multimodal texts, such as audiovisual media, will be more interactive and of high interest for students who are engaged with digital technology on the daily basis.

Discussion

In light of the urgency posed by climate change and the increasing frequency of climate change-induced disasters, there is a pressing need for English language teachers to actively engage in interdisciplinary efforts aimed at incorporating climate change education into their curriculum. Notably, existing efforts have predominantly taken place within higher education, where prospective English language teachers have been involved in discussions on climate change and have been encouraged to write about the topic (Liu & Li, 2019; Pratiwi & Silvhiany, 2023; Silvhiany, 2022). Consequently, it is imperative to extend these efforts to include climate change education as an integral component of English language teaching at the secondary level.

Furthermore, integrating climate change education into English language teaching aligns with global initiatives promoting sustainable development and environmental stewardship. As educators play a pivotal role in shaping future generations, they have a responsibility to equip students with the knowledge and skills needed to address the complex challenges posed by climate change. By embracing this responsibility and embracing interdisciplinary collaboration, English language teachers can contribute significantly to fostering a more environmentally conscious and resilient society with the help of learning media.

The availability of audiovisual-based climate change related materials will support the integration of climate literacy in English language teaching. As a survey study conducted by (Silvhiany, Rahmadhani, et al., 2023) has shown, English
teachers’ knowledge, belief, and attitude towards climate change is significantly correlated with their preparedness in incorporating climate change education at the primary, junior, and senior high school English as a foreign language class. Providing teachers with digital technology-based resources in exploring climate change issues will enhance teachers’ preparedness to introduce climate literacy to their students. Furthermore, deliberate incorporation of climate change issues in the design of curriculum and learning activities have shown to be the contributing factor in students’ awareness of climate change issues (Castek & Dwyer, 2018; DeWaters et al., 2014; Jarrett & Takacs, 2020; Trott, 2020).

Our needs analysis with students and stakeholders at one of the Islamic middle schools has shown that climate change has not been part of the English language teaching. Even though the school has implemented Merdeka curriculum which requires the school to include P5 project, one of which is about sustainable lifestyle, the school has only done it as separate activities. The integration of this project in the curriculum of English language teaching (ELT) has not been materialized. This situation can be improved by providing teachers with access to the materials to engage students with climate change discussion in English class. In line with the previous literature on the use of books as media to engage students with climate change education (Auld et al., 2023; Muthukrishnan, 2019; op de Beeck, 2018; White et al., 2021), this research highlights the needs of complementing books with interactive audiovisual media for learning about climate change. The inclusion of digital media also keeps up with the demand of the 21st century learning which focuses on engaging students with multimodal texts, particularly digital texts (Beach & Smith, 2020; Smith et al., 2021).

**Conclusion and Suggestion**

The study found that students strongly need audiovisual media to facilitate climate literacy in EFL teaching. The students expressed a desire to learn more about climate change and how they can take action to protect the environment. They also felt that audiovisual media would be an engaging and effective way to learn about climate change in English.

The study’s findings point to the necessity of developing audiovisual media resources designed to teach climate literacy to junior high school students in EFL contexts. These resources should be relevant to the students’ interests and
experiences and should be designed to help students develop a deep understanding of climate change, its causes, and its impacts. In addition to developing new audiovisual resources, training teachers on using these resources effectively in the classroom is essential. Teachers need to be able to encourage students to think critically and include them in meaningful discussions about climate change. By providing students with access to high-quality audiovisual resources and by training teachers on how to use these resources effectively, we can help to ensure that all students have the opportunity to learn about climate change and acquire the information and abilities needed to take action to safeguard the planet.

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