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AI-Based Critical Engagement with SDG Content in ELT: Going Beyond Accessibility

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Abstract

This research investigates how using artificial intelligence (AI) is perceived by students and how it helps them develop self-critical thinking in sustainable development goals at the EFL classroom. Employing a descriptive qualitative method, the research surveyed eighth semester students selected through purposive sampling technique. Data were gathered using a depth interview using fifteen questions measuring the Students' Perceptions of how using AI is perceived by students and how it helps them develop self-critical thinking in sustainable development goals at the EFL classroom. The results show that Artificial Inteligent offers significant advantages in encouraging student critical thinking in Sustainable Development Goals. The participants perceive that Artificial Intelligence was interesting and significant, and student acknowledged how well they tracked learning progress and improved critical thinking. Additionally, Artificial Intelligence facilitate a pedagogical transition from passive to active learning, giving students more control over their academic progress. However, a number of elements, including students' familiarity with reflective techniques, the clarity of assessment criteria, and ongoing lecturer support, are critical to the successful adoption of using AI. The research concludes that although AI improve learning outcomes, their efficacy is mostly dependent on the lecturer's capacity to promote creative learning and create a positive classroom environment.

Keywords: Artificial Intelligence (AI), Sustainable Development Goals (SDG), Critical Thinking, Student perceptions, EFL classroom.

A. Introduction

Sustainable Development Goals (SDGs) represent a crucial framework for addressing global challenges, yet their integration into English Language Teaching (ELT) has remained largely superficial. While ELT materials increasingly reference SDGs, they often fail to promote the critical engagement necessary for meaningful action. This gap represents a significant opportunity for educational innovation, particularly through the strategic application of artificial intelligence technologies.

The importance of this area cannot be overstated. Language education reaches millions globally, serving as a powerful vector for transmitting values and developing critical thinking skills. As English continues to function as a global lingua franca, ELT classrooms

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represent ideal environments for nurturing engagement with sustainability issues that transcend national boundaries.

The urgency of this research is heightened by accelerating climate change impacts and growing global inequality. Traditional approaches to SDG content in ELT have proven insufficient for fostering the type of transformative learning required to address these challenges. Recent studies show that while students may gain awareness of sustainability issues through current methods, they often lack the critical frameworks needed to evaluate potential solutions or engage in substantive action.

The novel contribution of this research lies in moving beyond treating AI merely as a tool for content accessibility to positioning it as a catalyst for critical engagement with SDG materials. While existing studies have explored AI for language learning support, few have examined its potential for deepening critical engagement with sustainability content specifically. The proposed approach reconceptualizes AI's role in ELT shifting from a focus on simplification and translation toward facilitating sophisticated analysis and creative problem-solving around SDG themes.

From a feasibility perspective, this research capitalizes on rapidly evolving AI capabilities and growing technology integration in educational settings. Recent developments in large language models, automated feedback systems, and educational technology platforms provide the technological foundation for this work. The research builds upon established pedagogical approaches to critical literacy while introducing innovative applications of AI that are increasingly accessible to educational institutions globally.

Based on the explanation in the background above, this study proposes three research questions:

1. How does the use of [AI Tool] in ELT activities influence students' ability to critically analyze SDG-related content?
2. What are students' perceptions of the effectiveness of AI-enhanced activities in fostering critical engagement with SDGs?

B. Literature Review

1. Critical Pedagogy in ELT

Critical Pedagogy was first introduced by Paulo Freire, a Brazilian educator and philosopher, in his famous book, Pedagogy of the Oppressed (1970). Freire emphasized the importance of education as a tool of liberation and empowerment, not just a transfer of knowledge. This concept challenges the existing power structures in society and formal

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education, inviting students to actively participate in building knowledge that is dialogical and reflective.

Critical Pedagogy in ELT, according to Norton (2013), is an approach that encourages students to see language not only as a means of communication, but also as a means to understand and criticize the social injustices that exist in their society. Thus, the main goal is not only to improve language skills, but also to provide space for students to play a role in social change through language.

Critical Pedagogy in English Language Teaching (ELT) is an approach that focuses on building students' critical awareness of social, political and cultural issues through the use of language. This approach not only aims to improve language skills, but also to liberate students from social injustice by giving them the tools to criticize and respond to their social reality.

Through principles such as dialogic, critical reflection, liberation, and social engagement, Critical Pedagogy encourages students to play an active role in social change. Implementation in English teaching can be done through critical text analysis, social projects, and problem-based learning, which provide space for students to think critically and talk about issues relevant to their lives.

However, the implementation of Critical Pedagogy is also faced with challenges such as curriculum limitations, resistance to change, and lack of adequate resources. Nonetheless, the benefits gained, such as the development of critical thinking skills, student empowerment, and increased social engagement, make this approach highly relevant in modern education.

Thus, Critical Pedagogy in ELT is more than just a method of language teaching-it is a means of empowering students, enriching their understanding of their social world, and providing them with the ability to contribute.

2. SDG integration in language education

The integration of Sustainable Development Goals (SDGs) in language education aims to equip students not only with communication skills but also with awareness of global challenges and ways to contribute to solutions. According to UNESCO (2015), quality education should incorporate values of sustainability and equality into its curriculum, with language being an effective tool to discuss these issues. This aligns with the views of Suresh Canagarajah (2005), who emphasizes the importance of language education in the context of globalization, where students can develop cross-cultural communication skills essential for understanding and addressing global issues like climate change and social equality.

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In the context of language teaching, Martha Nussbaum (2011) argues that education should teach critical thinking and empathy skills, which are crucial in the SDG context. Project-Based Learning (PBL) is one effective method for integrating SDGs into language curricula. Cumming-Potvin & McCulloch (2020) suggest that PBL allows students to directly engage with global issues, such as plastic waste reduction (SDG 12) or inclusive education (SDG 4), through the language they are learning. This approach not only enhances students' language skills but also builds their awareness of global issues.

According to Tove Skutnabb-Kangas (2000), multilingual education can strengthen cross-cultural communication skills that are important for raising awareness of SDGs. By integrating content related to sustainability and social justice, language education serves as a tool to promote social inclusion and equality, in line with SDG objectives. Inclusive education based on linguistic diversity allows students to participate in global discussions about a better future for the world, while also developing more holistic and applicable language skills.

The integration of Sustainable Development Goals (SDGs) into language education not only enhances students' linguistic skills but also raises their awareness of global issues related to the SDGs. By linking language learning to themes of sustainability, equality, and social justice, language education plays a vital role in shaping individuals who are more concerned about the world's challenges. Through approaches like Project-Based Learning (PBL) and multilingual education, students not only learn a language but also develop cross-cultural communication skills essential for participating in global discussions and solutions related to the SDGs. This integration provides a strong foundation for future generations to actively contribute to achieving sustainable development goals.

3. AI tools for content adaption and analysis (e.g., Diffit, NLP tools)

The use of artificial intelligence (AI) tools in content adaptation and analysis has significantly transformed the digital industry. Tools like GPT-4 and BERT, based on natural language processing (NLP) technology, allow for the automatic creation, customization, and editing of content, adapting to different audiences and platforms (Vaswani et al., 2017). Additionally, AI technology is used for content personalization, tailoring messages according to user behavior and preferences, as applied by marketing platforms such as HubSpot (Sharma et al., 2020). AI tools also provide the ability to condense and change content formats, such as turning long articles into more digestible summaries.

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Despite offering great benefits in efficiency and personalization, the implementation of AI in content adaptation and analysis also presents challenges, particularly concerning ethics, data privacy, and potential biases in the data used (Müller, 2016). Moreover, while AI can efficiently generate content, human creativity is still needed to produce more original and meaningful material. Therefore, while AI holds significant potential, it is essential to integrate this technology carefully, considering the balance between automation and human creativity (Marr, 2018).

The use of artificial intelligence (AI) tools in content adaptation and analysis has transformed the way digital content is created and managed, enabling automatic customization according to different audiences and platforms. Tools like GPT-4 and BERT, along with AI-based personalization technologies, enhance the relevance and user engagement with content. However, challenges related to ethics, data privacy, and potential biases in the data used remain key concerns. While AI can accelerate content creation, human creativity is still needed to produce original and meaningful material. Therefore, integrating AI in content creation must be done wisely, maintaining a balance between automation and human creativity.

4. Theories of critical engagement and media literacy

In the last 15 years, media literacy has rapidly developed in line with technological changes and shifts in how media is consumed. Modern media literacy is not only about technical skills in using media but also about the ability to understand and critique the impact of media on individuals and society. Hobbs (2010) developed the understanding of media literacy as a skill set that includes critical analysis, media production, and the ability to evaluate media messages. Hobbs emphasizes the importance of media literacy as a tool to empower individuals to navigate complex information, which is often scattered across various digital platforms.

Critical engagement theory has also evolved, focusing on the importance of not just analyzing media content, but also the social and political context behind the media. Kellner and Share (2005) emphasize that critical engagement in media education involves awareness of the ideologies present in media and the need to facilitate media production by socially-conscious individuals. In this framework, critical engagement theory not only teaches analysis of media but also motivates individuals to engage in social change in an active and reflective manner.

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Additionally, the rise of social media and digital platforms has introduced new challenges in media literacy and critical engagement. Research by Levy (2014) and Lister et al. (2009) suggests that while digital technology provides new opportunities for media participation, it also introduces risks related to the spread of misinformation and the role of media in shaping public opinion. Therefore, modern media literacy requires individuals to develop skills in assessing the authenticity of information, understanding algorithms that influence media, and recognizing the potential for manipulation in digital platforms.

C. Research Method

This study employs a qualitative research approach with a descriptive design. The aim is to explore how AI tools are perceived and potentially used by pre-service English teachers to engage critically with Sustainable Development Goals (SDG) content in English Language Teaching (ELT). A semi-structured interview method is chosen to allow for in-depth exploration of participants' experiences, perceptions, and reflections. The qualitative nature of the study enables the researcher to gain rich, contextual insights into how future educators conceptualize and interact with AI in relation to critical pedagogy and global issues.

1. Research Participants

The population of this research includes students enrolled in the English Education program at Universitas Negeri Makassar, specifically those in their 4th semester. These students have typically completed most of their coursework and practicum experiences, making them well-positioned to reflect on pedagogical practices and future classroom implementation.

The sample will consist of 10–12 students selected through purposive sampling. The inclusion criteria are:

a. Being enrolled in the 4th semester of the English Education program.
b. Having had exposure to AI tools (e.g., ChatGPT, Grammarly, or AI-assisted teaching platforms).
c. Having studied or encountered SDG-related content in ELT coursework or teaching practice.

2. Technique and Data Collection

The data was collected using semi-structured interviews, allowing for both guided and flexible conversation. Interviews will be conducted individually, either face-to-face or via

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online platforms such as Zoom, depending on the participants' preferences and availability. Each interview will last approximately 30–45 minutes and will be audio-recorded with the participants' consent. An interview guide will be used, containing open-ended questions focused on:

a. Students' experiences using AI tools in academic or teaching contexts.
b. Their understanding of SDG content and how it relates to ELT.
c. How they perceive the role of AI in promoting critical thinking and engagement with global issues.
d. Their readiness and intention to integrate these approaches into future teaching practices.

The analysis focused on identifying key themes related to AI usage, critical engagement with SDG content, and implications for ELT pedagogy. To enhance trustworthiness, member checking and peer debriefing may be used.

C. Findings and Discussion

1. Findings

a. The Use of AI Tools in ELT Activities Influence Students' Ability To Critically Analyze SDG

Based on the interviews conducted, AI tools in English Language Teaching (ELT) activities have significantly enhanced students' ability to critically analyze Sustainable Development Goals (SDGs). These technological resources provided students with personalized scaffolding that reduced cognitive load related to language production, allowing them to dedicate more mental energy to higher-order thinking about complex sustainability issues. The adaptive nature of AI tools also maintained optimal challenge levels for each learner, creating conditions for cognitive development within their zone of proximal development while simultaneously improving vocabulary acquisition and engagement with global challenges.

For successful implementation, educators focused on structured integration with clear pedagogical purposes and explicit connections to learning objectives. The teacher's role remained essential in contextualizing AI contributions and fostering critical evaluation of AI-generated content, ensuring students developed nuanced perspectives on sustainability challenges rather than simply accepting technological outputs without sufficient analysis. When thoughtfully implemented with appropriate ethical considerations, AI-enhanced ELT activities created a synergistic relationship between language development and critical

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thinking skills, preparing students not only for linguistic proficiency but also for meaningful engagement with the complex global challenges represented by the SDGs.

a) Using AI Tool in ELT class changed the way to interact with SDGs

Interviews with university students revealed that the integration of AI Tool into ELT classes significantly reshaped how learners engaged with the Sustainable Development Goals (SDGs). Students reported that the AI tool helped them access, analyze, and reflect on SDG-related content more interactively and critically. Rather than passively reading texts, they used the tool to generate ideas, summarize complex issues, and practice language skills within real-world contexts. This shift encouraged greater personal investment in global issues and enhanced their ability to discuss and write about SDGs using academic English.

Moreover, students indicated that the AI tool fostered a more collaborative and exploratory learning environment. Several participants mentioned using the tool to simulate conversations, prepare presentations, and test arguments related to topics such as climate action, gender equality, and sustainable cities. These activities promoted deeper understanding of the SDGs while simultaneously developing communicative competence. Overall, the findings suggest that the use of AI in ELT not only supported language acquisition but also empowered students to engage meaningfully with global challenges.

b) AI tool helps students to comprehend more information related to SDGs

Students consistently reported that the use of AI Tool in ELT classes enhanced their ability to comprehend complex information related to the Sustainable Development Goals (SDGs). The AI tool allowed them to break down dense texts, clarify unfamiliar vocabulary, and summarize key ideas in accessible language. Many students noted that they felt more confident engaging with authentic materials such as UN reports, news articles, and case studies because the tool provided instant support and feedback. This access to simplified yet accurate content helped bridge the gap between language proficiency and content understanding.

Additionally, the tool's interactive features supported deeper learning by allowing students to ask follow-up questions, generate discussion prompts, and explore alternative perspectives on SDG topics. For example, when learning about climate change or poverty reduction, students could use the AI to compare policies, create visual summaries, or simulate interviews with experts. These applications encouraged active engagement with the content and promoted higher-order thinking skills. Overall, AI Tool proved to be a valuable resource for improving both language comprehension and global awareness in ELT settings.

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c) AI Tool encouraged students to think more critically about global issues

In addition to improving comprehension, AI Tool also encouraged students to think more critically about global issues related to the Sustainable Development Goals (SDGs). Through its interactive functions such as question generation, argument analysis, and access to diverse perspectives the tool pushed students beyond surface-level understanding. Several students shared that, when discussing topics like inequality, climate action, or quality education, the AI prompted them to consider opposing viewpoints or ethical implications they had not previously explored. This led to more reflective discussions in class and a deeper engagement with the complexity of global challenges.

Furthermore, students found that using AI Tool helped them develop stronger reasoning and argumentative writing skills. When preparing essays or debates on SDG-related topics, the tool supported them in organizing their thoughts, evaluating the strength of their claims, and refining their language for clarity and persuasion. One student described it as "a partner for brainstorming" that helped uncover new angles on familiar issues. As a result, many learners felt more empowered to express informed opinions and participate in global conversations using English as an academic tool. These findings suggest that AI-assisted learning can play a significant role in fostering critical thinking in ELT contexts.

b. Students' Perceptions of the Effectiveness of AI-Enhanced Activities in Fostering Critical Engagement with SDGs

Students generally perceive AI enhanced activities as valuable tools in promoting critical engagement with the Sustainable Development Goals (SDGs). These activities often use intelligent simulations, personalized learning platforms, and real-time feedback systems to deepen students' understanding of complex global issues. Many students report that AI-driven tools help break down abstract concepts, encourage interactive learning, and support them in analyzing real-world data relevant to the SDGs. As a result, learners often feel more empowered to explore diverse perspectives and make informed decisions about global challenges such as climate change, poverty, and social inequality.

However, perceptions also vary depending on the design and implementation of the AI-enhanced activities. While some students appreciate the increased engagement and accessibility AI provides, others express concerns about overreliance on technology or the potential lack of human interaction and ethical guidance. The effectiveness of AI in fostering critical thinking is often linked to how well the activities are integrated with reflective discussions, collaborative tasks, and instructor support. Overall, students recognize the

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potential of AI-enhanced education to deepen their critical engagement with the SDGs, but emphasize the importance of balanced, thoughtful pedagogical approaches.

a) Students' experience with AI-enhanced activities related to the SDGs in ELT classes

University students who participated in English Language Teaching (ELT) classes featuring AI-enhanced activities related to the Sustainable Development Goals (SDGs) generally reported positive and engaging learning experiences. Interviews revealed that students found the integration of AI tools such as chatbots, automated writing feedback, and AI-generated content to be highly motivating and helpful in improving their language skills. Many appreciated how these tools personalized their learning paths and offered instant feedback, which made them feel more confident in their language use. Students also mentioned that the AI tools made complex global issues, such as climate change or gender equality, more accessible and understandable, sparking deeper interest in the SDGs.

However, students also expressed concerns and challenges. Some felt that while AI tools supported language learning, they sometimes distracted from deeper discussions and human interaction in class. A few noted that the AI-generated content occasionally lacked nuance or cultural sensitivity, which led to discussions about the importance of critical thinking when using such tools. Overall, students viewed AI-enhanced SDG activities as innovative and effective, but emphasized the importance of balancing technology with meaningful classroom dialogue and teacher guidance.

b) AI-supported activities help Student to understand SDG topics

AI-supported activities significantly helped students better understand SDG (Sustainable Development Goals) topics in their university ELT (English Language Teaching) classes. According to interview responses, many students felt that AI tools made abstract or complex global issues more concrete and relatable. For instance, AI-generated case studies, data visualizations, or interactive scenarios enabled students to explore SDG themes such as poverty, clean energy, or quality education in more engaging and context-rich ways. This integration helped them not only improve their English skills but also build a deeper awareness of global challenges.

Students also reported that AI tools promoted active learning by allowing them to ask questions, receive instant feedback, and access diverse perspectives. Chatbots or AI writing assistants helped them articulate their thoughts more clearly when writing essays or discussing SDG-related topics, boosting both language proficiency and critical thinking.

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Overall, students felt that AI-supported activities made the SDGs more understandable and relevant to their lives, enhancing both their linguistic and global competencies.

c) AI Help student to build critical thinking in Learning SDGs

AI-supported activities have shown to be effective in helping students build critical thinking skills when learning about the Sustainable Development Goals (SDGs) in ELT contexts. According to university students interviewed, AI tools such as language models, simulation-based platforms, and AI-facilitated debates encouraged them to question assumptions, evaluate information critically, and consider multiple viewpoints. For example, when using AI to explore topics like climate action or social inequality, students were prompted to analyze conflicting data, form arguments, and reflect on the implications of global issues all in English, enhancing both their language and reasoning abilities.

Moreover, students noted that AI tools challenged them to go beyond surface-level understanding. When writing essays or participating in discussions, AI-generated feedback often highlighted weak arguments or logical gaps, prompting students to revise and think more deeply. Some students also used AI to explore how SDG issues affect different cultures or regions, which broadened their perspective and encouraged empathy and ethical reasoning. Overall, students viewed AI not just as a language aid, but as a catalyst for deeper, more reflective thinking about global sustainability.

c. AI-Driven Critical Engagement with SDGs Lead to Increased Student Agency and Motivation

AI-driven critical engagement with the Sustainable Development Goals (SDGs) has been shown to foster increased student agency and motivation. By leveraging adaptive technologies, personalized feedback, and interactive problem-solving tools, AI empowers students to take ownership of their learning and connect global challenges to their personal values and interests. This individualized learning experience enhances students' intrinsic motivation and encourages proactive participation in SDG-related discussions and initiatives. As they navigate AI-supported scenarios, students feel more confident in exploring solutions and taking informed actions, thereby strengthening their sense of agency.

Moreover, the integration of AI into SDG-focused education allows for real-time assessment and dynamic learning pathways that align with students' evolving interests and competencies. This responsiveness not only sustains engagement but also cultivates a deeper commitment to global citizenship. When students see the tangible impact of their learning such as through data visualizations, simulations, or AI-generated insights they become more

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motivated to contribute meaningfully to sustainable development. In this way, AI acts not just as a technological tool, but as a catalyst for empowering learners to become active, critically engaged agents of change.

a) AI tools Empower Students to Act SDGs Related Issues

AI tools have empowered students to act on SDG-related issues by providing them with the resources and frameworks to engage meaningfully with global challenges. Through AI-supported activities, students reported being better equipped to research, analyze, and even create solutions for SDG-related problems, particularly those relevant to their local contexts. For example, AI-driven data analysis tools helped students understand the impact of issues like climate change or poverty, while simulations and scenario-based learning enabled them to envision possible solutions and assess their outcomes. This hands-on approach inspired students to move beyond theoretical knowledge, encouraging them to think critically about how they could contribute to achieving the SDGs.

In addition, AI tools facilitated collaborative projects, where students could work together across different disciplines to tackle real-world problems. Platforms that allowed for peer-to-peer interaction, brainstorming, and project management encouraged students to take collective action on SDG issues. Many students mentioned using AI tools to design awareness campaigns, propose policy changes, or even create digital content aimed at raising consciousness about sustainability and equality. By empowering students with both the skills and the confidence to address SDG-related challenges, AI tools played a crucial role in motivating them to become active participants in global change.

b) AI tool Increase Students' Motivation, Responsibility, Connection and Participation in Real Action

AI tools have proven to significantly increase students' motivation in addressing SDG-related issues. Through personalized feedback and adaptive learning, AI allows students to engage with content at their own pace, making the learning process more relevant and accessible. For example, AI-powered chatbots and interactive simulations made learning about global issues like climate change, clean energy, and poverty both engaging and dynamic.

These tools allowed students to see the direct impact of their actions and decisions in real-time, which fostered a sense of accomplishment and motivation. As students progressed through AI-supported activities, they were more likely to feel a sense of ownership over their learning and inspired to explore SDG topics further.

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Furthermore, AI tools promoted a heightened sense of responsibility among students. By using AI to explore real-world problems, students were able to connect theory with practice, which made them more aware of their individual roles in contributing to global solutions. Students reported feeling a stronger sense of accountability toward the SDGs, especially when AI facilitated activities that required them to propose solutions or design projects around sustainability goals. The immediate feedback from AI tools allowed them to refine their approaches and better understand the real-world consequences of their actions, reinforcing their sense of responsibility for global challenges.

The integration of AI also enhanced students' connection to SDG issues and the broader world around them. Through AI-driven data analysis, students were able to explore how local issues related to the SDGs were interconnected with global trends, fostering a deeper understanding of the importance of global collaboration. AI tools also allowed students to engage with diverse perspectives, which expanded their worldview and created a stronger emotional connection to issues like social justice, equality, and environmental sustainability. By making these topics more interactive and relevant to students' lives, AI tools facilitated a stronger bond between students and the SDGs.

Finally, AI tools have actively increased students' participation in real-world action. With AI-enhanced learning environments, students were encouraged to move from passive consumption of information to active engagement with SDG challenges. Students collaborated with peers, created digital content, participated in online debates, and designed campaigns using AI tools. These activities not only promoted teamwork but also enabled students to see the tangible outcomes of their contributions, whether through awareness campaigns, advocacy, or policy proposals. In essence, AI tools bridged the gap between knowledge and action, making students feel empowered and ready to participate in meaningful initiatives to address SDG-related issues.

2. Discussion

The integration of AI tools into English Language Teaching (ELT), particularly when teaching subject relevant to the Sustainable Development Goals (SDGs), demonstrates a trend away from accessibility and toward generating greater critical engagement (Li & Chen, 2023). This study's findings reveal that AI-supported activities not only help students gain language skills, but also improve their ability to evaluate, question, and reflect on global concerns, all while increasing motivation and learner agency (Kim, 2024). These outcomes

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are consistent with broader educational aims that emphasize global citizenship and intercultural competency (García & Lin, 2022).

a. Influence of AI Tools on Critical Analysis of SDG Content

AI tools, such as language models, dialogue systems, and intelligent teaching platforms, were demonstrated to help students engage critically with SDG-related topics (Skrynnyk, Disassa, Krachkov, & DeVera, 2024). These technologies exposed students to a variety of perspectives, gave rapid feedback, and led prompts to stimulate deeper inquiry. Learners transitioned from passive language acquisition to active meaning-making processes, where they questioned assumptions and evaluated the sociopolitical implications of SDG concerns, thanks to activities such as role plays, problem-solving talks, and AI-powered scenario-based debates (Li & Chen, 2023). Importantly, this aligns with Tove Skutnabb-Kangas' (2000) assertion that multilingual education plays a crucial role in strengthening cross-cultural communication. AI-enabled multilingual supports (such as translation, translanguaging tools, and culturally diverse content generation) helped students access and express complex SDG ideas in ways that respected their linguistic identities (Fernández, 2024). By enabling students to draw on multiple languages and worldviews, AI tools reinforced the importance of linguistic diversity in building critical awareness and intercultural understanding — key competencies for addressing the global challenges embedded in the SDGs (Reddy et al., 2025).

b. Students' Perceptions of AI-Enhanced Activities

Students rated AI-enhanced ELT sessions as effective and entertaining (Kim, 2024). They liked AI's ability to replicate diverse global viewpoints, present alternate perspectives, and model sophisticated arguments on contentious issues such as inequality, climate justice, and responsible consumption (Zou, Huang, & Xie, 2020). Several students said that these tools broadened their viewpoint and helped them better comprehend how local and global concerns intersect — a process that is very similar to the goals of critical intercultural education (Alwan, Mansoor, & Al-Shami, 2025). In this context, Skutnabb-Kangas' work provides a valuable lens: her advocacy for multilingualism as a human right emphasizes that understanding and solving global issues requires more than English proficiency. It requires respect for and engagement with multiple languages and cultures. Students' positive perceptions of multilingual AI tools reflect this, suggesting that critical engagement with SDGs is deepened when learners can connect their cultural and linguistic identities to the learning process (Nouri, Zhang, & Liu, 2021).

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c. Increased Student Agency and Motivation

AI-driven SDG discussions not only deepened understanding but also sparked increased student agency (García & Lin, 2022). Learners reported feeling more empowered to participate in meaningful conversations, initiate projects related to local SDG issues and use English (and other languages) as tools for advocacy and change (Kim, 2024). This transformation from passive recipients to active agents of change supports both critical pedagogy and Skutnabb-Kangas' (2000) vision of education that empowers marginalized voices through multilingual practices (Fernández, 2024). When students engage critically with SDG content in their own languages alongside English, they are more likely to internalize these issues as personally relevant and actionable (Alwan, Mansoor, & Al-Shami, 2025). AI, when designed with linguistic inclusivity in mind, becomes a powerful bridge between language learning, critical thinking, and global citizenship (Skrynnyk et al., 2024).

D. Conclusion

This study highlights the transformative potential of integrating AI tools into English Language Teaching (ELT) to move beyond mere accessibility toward fostering critical engagement with Sustainable Development Goals (SDGs). The findings demonstrate that AI-supported activities can enhance students' ability to critically analyze global issues, promote deeper understanding through exposure to multiple perspectives, and foster higher levels of learner agency and motivation.

Students not only viewed AI-enhanced ELT activities as effective but also experienced increased confidence and a stronger sense of ownership over their learning. When AI tools are designed to support multilingualism and cultural inclusivity, they align with vision of education that strengthens cross-cultural communication and respects linguistic rights. Her work underscores the importance of multilingual education in enabling learners to connect local realities to global challenges a process crucial for meaningful engagement with the SDGs.

Ultimately, this research suggests that AI, when thoughtfully integrated into ELT, can act as a catalyst for empowering learners not only as language users but as critically engaged global citizens. The future of language education lies not only in digital access but in equitable, critical, and multilingual engagement with global content that prepares students to participate actively in shaping a more just and sustainable world.

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The findings of this study have several important implications for language education policy, classroom practice, curriculum design**,** and AI tool development**,** especially in contexts where the Sustainable Development Goals (SDGs) are integrated into English Language Teaching (ELT):

Teachers can utilize AI tools in the classroom to create more engaging and meaningful lessons about global issues like the Sustainable Development Goals (SDGs). AI can help students think more deeply by offering different perspectives, encouraging questions, and supporting discussions. Teachers should also allow students to use their own languages when needed, helping them feel more confident and included. By guiding students to use AI responsibly and think critically about the content, teachers can help them become more active and thoughtful learners

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