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Artificial Intelligence and Teaching Tomorrow's Generations: English language Education for Sustainable Development

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Artificial Intelligence and Teaching Tomorrow's Generations: English Language Education for Sustainable Development

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Abstract

In the pursuit of the 2030 Sustainable Development Goals (SDGs), universities play a pivotal role in driving transformative change. This paper focuses on innovative approaches centered around the role of the English language and the integration of artificial intelligence (AI) in English language education. The goal is to empower and prepare tomorrow's generations for awareness, reflection, and active participation in sustainable development initiatives. Through a comprehensive review of existing literature, case studies, and emerging practices, this research aims to explore two main objectives: (1) the effectiveness of English language education in promoting SDGs for future generations, and (2) how AI can be utilized to enhance language proficiency in achieving SDGs. Relevant studies from selected databases were screened, analyzed, and synthesized to identify related themes. The paper not only presents the theoretical framework but also provides an overview of the English language program at the College of Education, Majmaah University. Additionally, it offers some practical insights and recommendations for universities to strategically leverage AI in shaping a new era of English language education aligned with the goals of sustainable development.

Keywords: Artificial intelligence, English language education, Sustainable Development, Majmaah University

Introduction

According to the United Nations (2015), sustainable development is a movement aimed at guaranteeing the long-term well-being of all members of the UN. There are 17 goals for sustainable development in all aspects of life. The fourth goal is concerned with education. It aims to "Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all." The Kingdom of Saudi Arabia seeks to achieve the goals of sustainable development. As for the fourth goal, KSA gives the educational sector special importance, receiving the largest portion of the Kingdom's budget. In addition, several initiatives have been started, such as distance and e-learning, aiming to foster lifelong learning and promote autonomous learning among students at all stages. (National Unified Portal, 2023).

The sub-goal of SDs. No 4.4 is "By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs, and entrepreneurship" (United Nations, 2015, 2020). Majmaah University, KSA, has targeted this goal through its academic programs and scientific research initiatives. Moreover, the university is actively engaged in a project aimed at promoting the principles of the United Nations' Sustainable Development Goals for 2030. This initiative involves collaboration with the CEFAL Center of the United Nations Institute for Training and Research (UNITAR). UNITAR's CEFAL Center offers a range of qualification programs, including professional diplomas, fellowships, and short courses specifically designed to address the objectives outlined in the field of leadership. These programs are strategically designed to contribute to realizing the Sustainable Development Goals for 2030."The vision, mission, and objectives of the Majmaah University College of Education focus on providing A high-quality academic environment to create a competitive future

for its graduates who achieve SDGs (Majmaah University, n.d. a), in addition to equipping learners with the skills and knowledge needed to ensure quality, equality, and inclusion in education.

The English language program taught at the College of Education, Majmaah University, seeks to achieve SDGs since it includes courses such as Communicative Grammar, Sociolinguistics, Psycholinguistics, Semantics and Pragmatics, Ecolinguistics, Language and Diplomacy, Research Methods, and Culture and Society that can enhance learners' critical thinking and socio-cultural and communicative competencies in the English language needed to be aware, reflect, and apply SDGs. Through other courses such as Reading, Listening and Speaking, Translation, Special Topics in Translation and Interpretation, or Collaborative Writing courses, teachers can present topics and extra-curricular activities related to SDG. Online and electronic courses such as CALL and Computer-Aided Translation aim to enhance learners' lifelong learning skills and autonomous learning that achieves the targets of SD (Majmaah University, n.d. b).

English is a global international language, and mastering the English language can foster SD4. Proficiency in English enhances access to quality education, especially for individuals seeking education in universities and institutions where English is the primary language of instruction. Previous studies have highlighted the importance of the English language as a mean to help learners access and exchange information and thus achieve SDGs in ensuring lifelong learning and accessing inclusive and quality education for all. English language education can promote sustainable development by reformulating content, reorienting curriculum, and applying a communicative methodology that focuses on students, content, and tasks. (Asta & Margarita, 2018; Bekteshi & Xhaferi, 2020; Jodoin, 2020; Kwee, 2021; Natarajan, 2018; Rada, 2022; Wang et al., 2021).

Innovative approaches, such as the integration of AI, have the potential to enhance English language education and contribute to the achievement of SDGs. Artificial Intelligence (AI) is the application of robotics, automated algorithms, or automated devices that replicate human cognitive processes to carry out a range of tasks, including problem-solving, identification, analysis, and learning. (Graham et al., 2020). UNESCO conferences discussed Artificial Intelligence and Education through the "International Conference on Artificial Intelligence and Education: 2019" (Ally & Wark, 2020). AI in education can achieve SDGs aligned with the Kingdom's Vision 2030. Employing AI in education is seen as simplifying teaching tasks and tackling challenges in the education sector (AlGhamdi, 2022). In the context of the English language, AI can assist students in learning English as a foreign language (Almutari et. al., 2020)

Significance of the Study

This study is significant in systematically reviewing previous literature and research to identify how the integration of English language education with AI can empower future generations to actively understand and contribute to Sustainable Development Goals (SDGs). The findings may inform educational practices aligned with global sustainability efforts. Ultimately, the research contributes to the broader discourse on integrating technology and language education for sustainable development.

The integration of English language learning, artificial intelligence (AI), and the need to achieve sustainable development goals offers an exciting field for study and investigation. This study aims to explore the role of English education in supporting SDGs and the extent to which artificial intelligence can enhance the effectiveness of English language education in promoting sustainable development goals for future generations.

Research objectives

1. Investigate the efficacy of English language education in fostering awareness and active participation in Sustainable Development Goals (SDGs) among future generations.

2. Explore the potential of utilizing Artificial Intelligence (AI) to improve language proficiency as a means of contributing to the achievement of SDGs.

Review of literature

The role of English language Education in achieving SDGs

English, as a global international language, plays a pivotal role in fostering Sustainable Development Goal 4 (SDG 4) by serving as a medium of instruction in higher education and international academic settings (Rada, 2022). Teachers' self-efficacy is positively influenced by their personal beliefs, achievement of teaching goals, and supportive school management. This, in turn, enhances their motivation to incorporate SDGs into their English teaching practices (Kwee, 2021). Through a global approach to English language teaching, educators can incorporate changes in content, methods, and the social context of education. Teachers should be aware of and actively include SDGs, particularly SDG 4, in language classes, using English language lessons to introduce these goals to foreign language learners. (Natarajan, 2018 & Bekteshi & Xhaferi, 2020). Teachers can utilize English language lessons to develop students' criticality in language, cognition, pedagogy, and philosophy, providing them with a platform to reflect on SDG goals through an exploration of historical and social contexts. (Mambu, 2023). Moreover, educators must revise the content of English textbooks to include environmental and cultural content to promote sustainable development goals and achieve its linked competencies (Tsukamoto, 2014; Jodoin, & Singer, 2020). In other words, learning environments as well as language materials and activities should be tailored to achieve SDGs (Asta & Margarita, 2018; Makarova, 2020).

English language education contributes significantly to students' abilities to access information easily and understand the world. Proficiency in English not only enhances access to quality education in institutions where English is the primary language of instruction but also empowers learners to engage with SDGs (Wang, et. al., 2021 & Mambu, 2023). Besides, it is important to develop students' critical and reflective competencies through language problem-solving, role-playing, and cooperative learning activities aligned with ideas of sustainable development. Profound sociolinguistic and communicative competencies in the English language and the ability to tackle problems pragmatically help learners achieve sustainable development goals in education (Gayatri et. al., 2023; Zygmunt, 2016 ; Neelaveni & Kothagattu , 2020).

Other online technology practices such as flipped classrooms can promote inclusion in personalized and self-directed learning (Galani, 2015; Li & Li, 2022). Learners' engagement in

social learning environments and responses to global issues in English can further fulfill SDGs Xerri (2017) suggested online resources for activities such as UNICEF's YouTube channel and British Council webpage to present topics related to sustainable development and global issues in English. Those activities inspire students to actively contribute in creative ways to achieve Sustainable Development Goal 4 (SDG 4). Online learning and blended learning improve students' performance and engagement and achieve SDGs (Chen, 2022). Furthermore, teaching and learning English language activities that aim to stimulate socio-emotional and behavioral development can ensure a sustainable future for learners (Arslan & Curle, 2021). By incorporating sustainable education strategies into English language reading instruction, teachers can enable learners to develop their awareness, reflection, and application of SDGs (Moghadam et al., 2022).

AI and Sustainable Development Goal 4 (SDG 4)

"Sustainable Development Goal 4 aims to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. It emphasizes equal learning opportunities throughout life". AI technologies are used to ensure equitable and inclusive access to education. Moreover, AI can help improve learning opportunities for students by facilitating the learning process. Besides, AI can enhance collaborative learning by providing students with flexible study options, especially in remote settings. Online asynchronous discussion groups monitored by AI techniques provide teachers with valuable insights into student engagement and learning (Pedro et. al., 2019). AI can personalize learning and offer continuous learning opportunities for learners.

AI can potentially serve as an enabler for many SDG targets and indicators, but because of inequality issues and affordances, it may impede some indicators of SD4 which seeks equality in learning (Vinuesa & Sirmacek 2021). Thus, while AI can provide opportunities to achieve SD4, challenges are still apparent. For example, the accessibility issue is in developing countries where they face difficulties in internet and electricity access. Infrastructure conditions should be suitable to ensure inclusion and equality in education. Additionally, it is crucial to provide training for teachers and learners on how to use AI without violating the ethics and academic integrity of learning, as well as respecting personal rights. Pack & Maloney (2023) presented macro and micro levels of challenges towards integrating AI in language education. For instance, the extent to which AI aligns with the ideology of the society, the learning outcomes, ethics and policy of educational institutions, teachers' skills, learners' linguistic abilities, etc. According to Vinuesa et al. (2020), AI has the potential to facilitate the achievement of certain SDG targets, but it may also impede others. This necessitates regulatory supervision to ensure transparency, safety, and adherence to ethical standards.

Integrating AI into English language Education for Sustainable development

Using AI in English language learning has been recently recognized among educators. AI chatbots can help teachers in the process of teaching and assessing language by providing relevant discussion questions, writing prompts, and suggested questions that align with learning outcomes (Pack & Maloney, 2023). AI technologies facilitate personalized learning through student profiling, resource customization, method optimization, and performance assessment (He, 2021). They can also improve students' learning efficiency and enhance the learning content (Sun & Kumar, 2020). Moreover, teachers can make use of AI Practical ideas to improve teaching and

assessment of languages such as generating writing prompts, exercises, activities, tests, and teaching materials and providing feedback to teachers and students (Bonne & Frazier, 2023). So, artificial intelligence technology has the potential to enhance English teaching by assisting both teachers and students and fostering enthusiasm for the teaching and learning process (Li, 2022). Besides, AI can bring about a revolution in foreign language teaching by facilitating innovative methods such as mobile learning and accelerating the transition to digital education (Li , 2022). AI applications in English language learning and teaching can promote sustainable development goals by improving educational quality, enhancing teacher professional development, and providing individualized learning experiences.

Research questions

To what extent does English language teaching and/ or learning contribute to attaining sustainable development goals?

To what extent can artificial intelligence enhance the effectiveness of English language education in promoting sustainable development goals?

Methodology

Research design

A systematic literature review was conducted to address two research questions related to the contribution of English language teaching and learning to sustainable development goals and the potential enhancement of English language education through artificial intelligence (AI) for promoting SDGS.

Inclusion criteria

A systematic review of databases such as the Web of Science, Scopus, and Science Direct databases through the Saudi Digital Library (SDL) was conducted to find all relevant articles on AI, sustainable development, and English language education. ERIC and Google Scholar databases were also included. The initial search results found 298.

The inclusion criteria comprised peer-reviewed journal articles published between 2014 and 2023, focusing on English language education, sustainable development, and the integration of AI in sustainable development. The search terms included 'Artificial intelligence,' 'English language education,' 'higher education,' and 'sustainable development.' To refine the search, descriptors such as 'higher education,' 'full-text journal articles,' and 'English as a second or foreign language' were used. After excluding duplicates, the final number of results is [25].

A summary of the systematic search results is provided in Table 1."

Table 1
A Summary of the Systematic Search Results

		No. of publications	
Databases		Initial search results	Final search Results
	Web of Science	9	3 (social sciences indexed)
	Eric	140	20
	Google scholar	81	43
	Science Direct-	53	1
	Scopus	15	15
Total		298	82
Duplicates			- 57
Final total number		25	

The final group of studies (n = 25) was categorized into two groups. The first group (n = 16) focused on English language proficiency and methods of teaching and learning to achieve SDGs, as presented in Table 2. The second group consisted of nine studies that explored the role of integrating Al into higher education English language classes to enhance SDGs, as outlined in Table 3.

Limitations

The research investigation and results are limited to the studies presented in the review process. This limitation suggests that the findings and conclusions drawn in the research are based on the existing body of literature that was reviewed. It implies that the research may not have included all relevant studies and new studies or perspectives in the field may not have been considered.

Results

Sixteen studies about English language teaching and/ or learning and attaining sustainable development goals were finally selected and analyzed as presented in Table 2. The criteria for selecting them is that they represent practical pedagogical insights that reflect the role of the English language in presenting and enhancing SDGs.

Table 2 provides an overview of studies focusing on English Language Teaching and/or Learning within the context of attaining Sustainable Development Goals (SDGs). The studies cover various methodologies, including conceptual, case studies, observational studies, experimental designs, and qualitative meta-analysis, offering a diverse perspective on English language education and sustainable development.

Table 2

Studies on English Language Teaching and/or Learning in the Context of Attaining Sustainable Development Goals

	Authors	Year	Study Type
1.	Gayatri et. al.	2023	conceptual
2.	Mambu	2023	Case study
3.	Chen	2022	non-rct observational study
4.	Li & Li	2022	Experimental
5.	Rada	2022	Qualitative Meta-Analysis
6.	Kwee	2021	Case study
7.	Wang et. al.	2021	experimental
8.	Bekteshi & Xhaferi	2020	descriptive survey
9.	Jodoin	2020	Experimental
10.	Jodoin & Singer	2020	non-rct experimental
11.	Makarova	2020	Survey-descriptive study
12.	Neelaveni & Kothagattu	2020	Conceptual
13.	Asta, Margarita	2018	non-rct observational study
14.	Natarajan	2018	Conceptual
15.	Zygmunt	2016	Conceptual
16.	Tsukamoto	2014	Conceptual

The integration of artificial intelligence (AI) into English as a Foreign Language (EFL) education has become a focal point in recent academic research. The studies presented in Table 3 focus on AI and language classes, specifically aiming to enhance Sustainable Development Goals (SDGs) The studies cover a range of research types, including conceptual studies, experimental designs, systematic reviews, and analytical-descriptive approaches, offering insights into the role of AI in supporting language education aligned with sustainable development objectives.

Table 3

Studies on the Integration of AI into EFL Education and Language Classes to Enhance Sustainable Development Goals

	Authors	Year	Study Type
1.	Pack & Maloney	2023	conceptual
2.	Guo	2023	experimental
3.	AlGhamdi	2022	Systematic review
4.	Ally & Perris	2022	systematic review
5.	Yuskovych-Zhukovska et. al.	2022	review

6.	Zang et. al.	2022	experimental
7.	Zhu et. al.	2021	Corpus analysis
8.	Al Mukhallafi	2020	Analytical-descriptive
9.	Sun & Kumar	2020	descriptive

These tables collectively offer a comprehensive overview of recent research studies investigating the context of English language education, AI integration, and the pursuit of Sustainable Development Goals.

Discussion of results

The answer to the first research question, investigating the extent to which English language teaching and/ or learning contribute to attaining SDGs, is gained from the first group of studies. Those studies encompass a diverse range of research types, including literature reviews, case studies, conceptual, meta-analyses, and both randomized control trials (RCTs) and non-RCT observational studies. This diversity reflects the nature of the relationship between English language education and SDGs. The following key themes emerged from the analysis:

Inclusive Strategies and Content Reformulation

The studies consistently emphasize the effectiveness of inclusive strategies and content reformulation in English language teaching (e.g., Neelaveni & Kothagattu, 2020). Two studies by Tsukamoto (2014) and Jodoin and Singer (2020) identified the need for educators to modify the content of English textbooks by integrating environmental and cultural materials. This adaptation aims to advance the promotion of Sustainable Development Goals and the attainment of their associated competencies. Adopting a learner-centered, content-based, and task-based communicative approach is effectively enhancing English language skills as well as promoting SDGs. This aligns with the broader pedagogical shift towards learner-centric approaches that foster critical thinking and socio-cultural awareness. This conclusion is reported by Asta and Margarita (2018), Jodoin (2020), Kwee (2021), Natarajan (2018), Rada (2022), and Wang et al. (2021). Moreover, environmental learning contexts and extra-curricular activities are suggested to improve the quality of education (Makarova, 2020). In studies by Bekteshi and Xhaferi (2020), Graham et al. (2020), Gayatri et al. (2023), and Rada (2022), it is recommended that problem-solving, critical thinking, and cooperation through language instruction and activities can develop students' skills needed to achieve SDGs. The studies by Bekteshi and Xhaferi (2020), Graham et al. (2020), Gayatri et al. (2023), and Rada (2022) recommend that fostering problem-solving, critical thinking, and cooperation through language instruction and activities can develop the skills needed for students to contribute to the achievement of SDGs.

Foreign Language Education's Role in Sustainable Development

A recurring theme across the selected studies is the significant role of foreign language education in fostering sustainable development goals. The ability of language education to contribute to students' awareness, reflection, and application of SDGs highlights the importance of integrating sustainable development principles into language instruction as reported by

Moghadam et al. (2022). Jodoin's (2020) research concluded that instruction in ESD enhances learners' personality and responsibility. Other studies agreed that blended and online language learning such as flipped classes supports lifelong learning skills which is one of the objectives of quality language education (Chen, 2022; Galani, 2015; Li & Li, 2022). The studies conducted by Gayatri et al. (2023), Zygmunt (2016), and Neelaveni & Kothagattu (2020) collectively conclude that acquiring profound sociolinguistic and communicative competencies in the English language, coupled with the ability to approach problems pragmatically, empowers learners to effectively attain sustainable development goals in education. This aligns with the global emphasis on education as a tool for achieving SDGs, as highlighted by the United Nations (2020).

The diversity in study types, ranging from meta-analyses to case studies, adds richness to the understanding of the topic. Meta-analyses, such as the one conducted by Rolstad et al. (2005), offer a comprehensive overview to explore a language-based approach to achieving SDGs. Observational studies, experimental studies, and literature reviews provide detailed insights into specific aspects of the relationship between English language education and SDGs."Conceptual studies, including those by Gayatri et. al. (2023), Neelaveni & Kothagattu (2020), Natarajan (2018), and Tsukamoto (2014), involve reviewing existing literature, analyzing theories, and proposing new frameworks or ideas for integrating SDGs into language education

The answer to the second research question, regarding the extent to which artificial intelligence may enhance the effectiveness of English language education in promoting sustainable development goals for future generations, was derived from the analysis of the second group of studies presented in Table 3. These studies have the shared theme of integrating AI in English language education to fulfill SDGs. From synthesizing and analyzing these studies, the following themes have emerged.

The role of artificial intelligence (AI) in promoting SDG 4

Two systematic review studies investigated the role of artificial intelligence (AI) in promoting sustainable development in the context of teaching and learning English. AlGhamdi (2022) highlighted how AI-powered language learning platforms could provide personalized and adaptive learning experiences, reducing the need for excessive resources and promoting efficient learning. Ally & Perris (2022) identified four themes where AI could support sustainable development: personalized learning, lifelong learning, access to learning, and employing AI learning technologies.

Practical Applications and Integration of AI in Language Education

AI in education is seen as facilitating teaching and learning tasks and addressing issues and obstacles within the education sector. Wu (2022), Yu (2021), Zang et al. (2022), Li (2022), and Guo (2023) provided practical insights into the integration of AI in English education, emphasizing improvements in listening, speaking, reading, writing, personalized learning, critical thinking, and hands-on abilities. The application of 5G and AI technology was recognized as enhancing English education by improving teaching effectiveness and cultivating critical thinking. Another analytic-descriptive study by Al Mukhallafi (2020) examined strategies suitable for the application of

artificial intelligence (AI) in teaching and learning English, focusing on the perspective of college students. The study demonstrates the effectiveness of AI in language teaching.

Researchers have offered valuable insights into the integration of AI in English education. for example, Liu & Kong (2020) emphasized the revolutionary potential of AI in college English education, promoting independent learning, smart classrooms, and ecolinguistics-based teaching methods. Tanveer et al. (2020) supported the idea that AI can improve education by enhancing learning opportunities and supporting sustainable development. Zhu et.al. (2021) pinpointed that AI fosters learning focused on tasks, inquiry, and autonomy, and enhances students' critical thinking and practical abilities. This promotes sustainable development in English teaching. Yuskovych-Zhukovska et al. (2022) highlighted that AI's most advantageous application in education is its support for personalized and individualized learning processes, aligning with the goals of sustainable development. Accordingly, AI technology in English education products improves teaching efficiency and quality, enhancing students' comprehensive ability in listening, speaking, reading, and writing (Yu, 2021). In summary, these studies collectively highlight AI's transformative potential in promoting independent learning, sustainable development, and personalized educational approaches in the context of English education.

Ethical considerations in the application of AI

Some of the reviewed studies recommend that the implementation of AI in education requires careful consideration of ethical implications, data privacy, and ensuring equitable access to technology. However, when deployed thoughtfully, AI has the potential to significantly contribute to the achievement of sustainable development goals in education. Despite its potential benefits, drawbacks associated with AI, such as ethical considerations and inequalities in use and access between poorer and wealthier countries, may impede the realization of certain targets of SDGs. Thus, the ethical use of AI in education, including aspects like data privacy, bias, and accountability, requires careful consideration to avoid unintended negative consequences (Vinuesa et al., 2020).

In conclusion, the synthesis and analysis of the second group of studies point towards the significant potential of incorporating AI in English language education. The use of AI in English language education has a positive impact on teaching methods, educational quality, and achieving sustainable development goals (SDGs). The findings from these studies highlight benefits such as improved teaching and critical thinking, personalized learning, and better infrastructure. However, challenges, such as unequal AI use between rich and poor countries, require attention. Despite the overall positive influence of AI, addressing these challenges is important to ensure that AI contributes effectively to global SDGs."

Conclusions

The findings presented in the selected studies contribute to a profound understanding of the significant relationship between English language education and sustainable development goals. These findings hold implications for pedagogical practices, curriculum development, and policy decisions in the broader context of education for sustainable development. While these studies offer valuable insights, it's essential to acknowledge certain limitations. Future research could explore the long-term impact of inclusive language teaching strategies and the employment of AI in language classes on students' sustained engagement with sustainable development goals.

Additionally, there is room for more experimental studies to further assess the causal relationship between specific language teaching methodologies and the integration of AI and the development of SDGs.

To sum up, the extent to which Al enhances English language education for sustainable development goals depends on how it is implemented, the context in which it is used, and the ethical considerations addressed. A thoughtful integration of AI, combined with a human-centric approach, has the potential to significantly contribute to the language education field and, by extension, the achievement of SDGs for future generations.

Recommendations

By combining technology-driven solutions with a commitment to sustainable development goals, universities can play a pivotal role in shaping the future of English language education—making it inclusive, effective, and aligned with broader societal aspirations. Based on a literature review and analysis of studies, particularly those by AlGhamdi (2022), Al Mukhallafi (2020), Pedro et al. (2019), and Yuskovych-Zhukovska et al. (2022), the following recommendations are proposed for universities to incorporate AI in a new era of English language education aligned with SDG4:

1. Personalized Learning Platforms:
   - Develop AI-driven language platforms for personalized content and instant feedback using Natural Language Processing (NLP) for tailored content and immediate feedback, enhancing individualized learning experiences.

2. Intelligent Tutoring Systems:
   - Implement AI systems adapting to students' styles and addressing common challenges, ensuring a more personalized and effective learning experience**,** proactively addressing common challenges. This fosters a more personalized, adaptive, and effective learning environment.

3. Cross-Cultural Communication:
   - Utilize AI for real-time translation, cultural sensitivity training, and immersive experiences through virtual reality (VR) and augmented reality (AR) simulations.

4. Inclusivity and Accessibility:
   - Design AI applications with inclusivity, providing support for diverse learning styles, needs, and abilities of learners, including those with disabilities.

5. Student Progress Analytics:
   - Implement AI analytics for progress monitoring to identify areas of improvement and targeted interventions.

6. Teacher Training with AI:
- Integrate AI into teacher training programs to provide educators with the latest methodologies and personalized instructional techniques, enhancing their capacity to adapt to diverse student needs.

7. Research on AI:
- encourage interdisciplinary research on AI, language education, and sustainable development conducted by experts in linguistics, education, AI, and sustainability. The research aims to deepen our understanding and inform effective AI integration to achieve SDGs.

8. Ethical AI Use:
-Teach students about the ethical implications of AI in language education to empower them to use technology responsibly and foster a sense of digital ethics.

9. Assessment and evaluation with AI:
- Use AI in the assessment and evaluation process to create a more equitable education by offering personalized assessments that meet individual learning differences and styles.

10. AI and educational justice:
Achieve educational justice while using AI by ensuring that assessments, teaching materials, and practices are fair, accessible, and tailored to individual needs. This commitment aligns with the broader goal of sustainable development, fostering inclusive and quality education for all.

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الملخص العربي

تلعب الجامعات دورًا حيويًا في تحقيق تغيير تحولي من أجل تحقيق أهداف التنمية المستدامة لعام 2030 (SDGs)، يركز هذا البحث على النهج المبتكرة المرتبطة بدور اللغة الإنجليزية ودمج الذكاء الاصطناعي (AI) في تعليم اللغة الإنجليزية. بهدف تمكين وتأهيل الأجيال القادمة للوعي والتأمل والمشاركة الفعّالة في مبادرات التنمية المستدامة. من خلال استعراض شامل للأدبيات الحالية ودراسات الحالة والممارسات الناشئة، يهدف هذا البحث إلى استكشاف هدفين رئيسيين: (1) فعالية تعليم اللغة الإنجليزية في تعزيز أهداف التنمية المستدامة للأجيال القادمة، و (2) كيف يمكن استخدام الذكاء الاصطناعي لتعزيز مهارات اللغة في تحقيق أهداف التنمية المستدامة. تم مراجعة بعض الدراسات من قواعد البيانات المحددة، وتحليلها، لتحديد المواضيع ذات الصلة. الورقة لا تقدم الإطار النظري فحسب، بل تقدم أيضًا نظرة عامة على برنامج اللغة الإنجليزية في كلية التربية في جامعة المجمعة. بالإضافة إلى ذلك، تقدم بعض الرؤى العملية والتوصيات للجامعات للاستفادة استراتيجيًا من الذكاء الاصطناعي في تشكيل عصر جديد من تعليم اللغة الإنجليزية متماشيًا مع أهداف التنمية المستدامة.