
| RESEARCH ARTICLE

ChatGPT Application in ELT: the International Context, the Moroccan Context, and Future Prospects

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| ABSTRACT

The use of artificial intelligence (AI) in educational contexts has gained momentum in the recent few years. Large language models produced by generative AI have permeated language teaching and learning practices. Substantial scholarly research has investigated and documented the various pedagogical benefits as well as the different challenges posed by ChatGPT when integrated into English Language Teaching (ELT). However, there is a scarcity of research in this area as far as Morocco is concerned. Following, the aim of this research paper is threefold: first, to examine the incorporation of ChatGPT into ELT within the international context; second, to explore current ChatGPT-based ELT practice in the Moroccan context; and third, to juxtapose Moroccan studies with international literature to provide a comprehensive understanding of the unique challenges and opportunities within the Moroccan context. Additionally, this study outlines the challenges, delineates ethical concerns, and advances future prospects for the use of ChatGPT in ELT in general. The researchers hope that this study will benefit ELT practitioners and stakeholders alike.

| KEYWORDS

ChatGPT, ELT, Morocco.

| ARTICLE INFORMATION

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1. Introduction

Artificial intelligence has penetrated various fields and different aspects of life and innovation all around the world. The field of education is no exception. Instead, the field of education, being the backbone of societies' development and flourishing, must be restructured to absorb and fit the ever-changing innovations in the domain of AI. This research examines the integration of ChatGPT into ELT practice in general, with a focus on the Moroccan context. By systematically reviewing published research, this study explores the diverse applications, adoption measures, and trends of ChatGPT use within ELT. Additionally, this study outlines current limitations and discusses future prospects and research directions in ChatGPT-based ELT practices, with the purpose of improving the teaching and learning of the English language in the age of AI. The paper proceeds as follows. A quick review of ChatGPT-based practice in education in general is presented first. The second section provides an overview of the use of AI in English language teaching and learning. The third section entitled "ChatGPT in ELT" provides a comprehensive review of the research published on ChatGPT utilization in ELT within the international context and the Moroccan context. The final section discusses the findings and draws conclusions.

2. ChatGPT in Education

Since its release on 30th November, 2022 by OpenAI, ChatGPT, an artificial intelligence chat bot, has proven itself to be a shifting power in various domains. According to OpenAI (2024), the last version of ChatGPT "GPT-4 can solve difficult problems with greater accuracy, thanks to its broader general knowledge and problem solving abilities". ChatGPT has been extensively employed across

different disciplines: in medicine (Busch et al., 2024; Kleebayoon & Wiwanitkit, 2024; Liu et al., 2024; Nguyen et al., 2024; Paran et al., 2024; Ramadan et al., 2024; Zaboli et al., 2024), in tourism (Kirilenko & Stepchenkova, 2024; Tan et al., 2024; Tuomi et al., 2024), in communication studies (Gessinger et al., 2024; Kumar et al., 2024; Piller, 2024; Xiao & Yu, 2024), in media studies (Khan et al., 2024), in computer science (Mišić & Dodović, 2024; Rodriguez-Sarmiento et al., 2024; Zhao et al., 2024), in nursing (Bohn & Anselmann, 2024; Kleib et al., 2024), and in energy studies (Han et al., 2024; Song & Yoon, 2024). This vast, multifaceted application of ChatGPT underscores its versatile functionalities across diverse domains.

Medicine and education stand out as primary fields of research in which ChatGPT has been considerably applied. In the domain of education, ChatGPT has been the focus of a substantial amount of scholarly work. ChatGPT has been tested for its ability to generate and engage in human-like conversation on a variety of topics, highlighting its significant impact on teaching methodologies and its potential to revolutionize interactive educational practices (Lozano & Fontao, 2023; Van Slyke et al., 2023).

ChatGPT facilitates learning and teaching through its capacity to generate summaries and quizzes and translate complex terminology (Da Silva et al., 2024). Besides, ChatGPT fosters students' engagement, enhances communication in educational contexts, personalizes educational content, and provides learners with support (Choudhary et al., 2023; Klayklung et al., 2023; Yan et al., 2023). Additionally, ChatGPT creates levelled content, facilitates automated assessment, enhances virtual tutoring; assists e-learning and self-directed learning, and addresses complex academic tasks, while catering to individual learning styles (Farrokhnia et al., 2023; H. Jiang & Cheong, 2023; Houston & Corrado, 2023; Sok & Heng, 2023). However, a number of concerns have been raised against the use of ChatGPT, including its potential to undermine academic integrity, foster overreliance on technology, and diminish critical thinking and creativity skills (Karabacak et al., 2023; Nune et al., 2023; Strzelecki, 2023).

In a noteworthy article, Ali et al. (2024) conducted a systematic review of 122 articles that took as their subject the investigation of ChatGPT's application in teaching and learning. The authors identified a number of associated advantages and disadvantages. The documented benefits are numerous, including: making learning more accessible and engaging students; providing enormous opportunities for practicing communication and conversational skills in different languages through natural language processing; generating text, ideas, responses, outlines, lesson plans, materials, and codes; and appropriating, adapting, summarizing, evaluating and, assessing educational content in various subjects.

Conversely, real concerns have been reported in the literature about ChatGPT and AI in general. The main downsides include, but are not limited to, concerns about the quality of responses and bias in AI; issues of plagiarism and authenticity; susceptibility to errors; warnings about AI dependency; and concerns about privacy and data security.

Beyond Ali et al. (2024), several recent studies have proven the success of the employment of ChatGPT across educational contexts. Some studies have examined ChatGPT's impact on learners' critical thinking. Suriano et al. (2024) investigated the correlation between students' interaction with ChatGPT and their critical thinking skills. The authors concluded that "interaction with AI-based chatbots can be a valuable resource for the development of students' critical thinking skills". Youssef et al. (2024) examined the effect of ChatGPT usage among university-level students in the United Arab Emirates on student engagement, critical thinking abilities, and academic achievement. Results of the study documented a positive significant effect of ChatGPT on these constructs. The authors maintained that the study indicates "a robust, positive, and constructive role of AI technology, particularly ChatGPT, in the education and learning journey of university students".

In other contexts, Cain and Rajan (2024) evaluated the feasibility and perceived value of a developed ChatGPT-based virtual tutor on pharmacy management for doctoral students in pharmacy. The study reports the virtual tutor's significance in increasing students' confidence for exams and enhancing their understanding of the course materials. The authors stated that "the virtual tutor proved to be a feasible educational tool, with considerable student uptake and satisfaction". Ba et al. (2024) explored the effectiveness of ChatGPT-assisted instruction compared to traditional teaching methods on pediatric trainees' clinical skills performance. The authors concluded that ChatGPT-assisted instruction enhanced practical clinical skills among pediatric trainees, compared to traditional teaching. Tong et al. (2023) investigated ChatGPT-4's performance in solving physics problems and its potential implications for physics education. The research results recorded that ChatGPT-4 notably outperformed the majority of middle school and high school students in solving physics problems. Accordingly, ChatGPT-4 provides significant opportunities but poses real challenges for physics education.

However, there are contexts in which ChatGPT has failed to meet certain standards. Teckwani et al. (2024) examined the accuracy of large language models (GPT-3.5, GPT-4o, and Gemini) in the assessment of an assignment from a course on sports physiology, compared to human graders. The assessment rubrics were based on cognitive domains, specifically Bloom's taxonomy and "Scientific Inquiry Competency." The researchers reported that the tested AI models are not sophisticated enough yet to meet the assessment standards of human graders. The concordance and correlation between these models and humans were mostly moderate to poor according to the study.

In terms of academic acceptance and perceptions, ChatGPT has been the focus of the investigation of a substantial number of studies (Alharbi et al., 2024; Baek et al., 2024; Jiang et al., 2024; Krecar et al., 2024; Stöhr et al., 2024; Sukirman et al., 2024). A recent study, conducted by Kamoun et al. (2024), has explored the knowledge, attitude, and perception of university students and faculty regarding ChatGPT in academic contexts. The study involved 145 faculty members and 855 undergraduate and graduate students at an engineering school and a business school. Findings demonstrated that faculty members possessed a higher level of knowledge about ChatGPT than students do. Furthermore, less than half of the surveyed faculty and students

expressed some trust in the reliability of ChatGPT's responses. Notably, faculty exhibited a more negative perception of and greater scepticism about ChatGPT's usefulness and effectiveness in educational academic settings. Additionally, faculty reported their lack of the requisite training and resources to integrate ChatGPT into their pedagogical practices.

3. Artificial Intelligence in ELT

How is AI being employed in English language teaching and learning contexts? This research question was posed and explored by a British Council report entitled "Artificial intelligence and English language teaching: Preparing for the future", published in July 2024. To address this question, Edmett et al. (2024) conducted a systematic review of 43 peer-reviewed articles published over a decade – from 2014 to 2024- that took as their study subject the use of AI in ELT. Upon a thorough review of select articles, the authors identified five key areas in which AI has been incorporated to ELT practice: "for the development of speaking, of writing and of reading skills, to support pedagogy and for self-regulation" (Edmett et al., 2024). Notably, listening did not emerge as an area of focus.

For the speaking skill, AI tools were used for various purposes, including the development of pronunciation, speech recognition, and speech analysis. Additionally, AI tools were used as conversational partners, as speaking coaches, and as voice assistants. Most importantly, AI was used to generate multimodal speaking-materials.

For the writing skill, AI tools were employed mainly for vocabulary finding and learning, for grammar checking and correcting, and for editing and proofreading. Reported as well is the use of AI tools to translate words and chunks from L1 to L2 for writing purposes.

AI for reading was not a significant area of focus in the literature as there were only very few articles in this regard. Some studies tackled the use of AI to define vocabulary. Others applied game-based AI tools to develop reading fluency.

Concerning pedagogy, which refers to techniques, methods, and strategies used by educational practitioners to facilitate teaching and learning, the report mentioned that traditional pedagogy still pervades English Language classes. Only two innovative AI-powered approaches appeared in the literature.

For self-regulation, there were instances where AI-powered tools were utilized to support goal setting, social presence, and self-inquiry. Notably, independent learning was greatly facilitated by AI-powered applications and chatbots. Reported in the literature as well is the use of AI tools inside English language classes to promote anxiety-free learning.

In addition to the 43 reviewed articles about AI application in ELT, Edmett et al. (2024) surveyed a number of 1348 ELT teachers, teaching all age groups, across 118 countries and territories. AI-powered tools reported to be employed by surveyed teachers include language learning apps, language generation AI, chatbots, automated grading tools, speech recognition software, and text-to-speech tools. Other reported less-utilized tools encompass data and learning analytics software, virtual reality, and augmented reality. The purposes for which ELT practitioners make use of these tools are varied. They range from creating materials, helping learners practice using English, creating lesson plans, and correcting learners' English, to grading or assessing learners, and administering tasks.

The integration of AI-powered tools into ELT and educational practice in general does not proceed without challenges. The report identifies several key issues, notably, the need for AI literacy among English language learners, teachers and stakeholders alike. Other reported issues have to do with technological breakdowns such as malfunctions, incorrect answers, and limited capabilities like the generation of unnatural interactions. Ethically, concerns were raised about bias and privacy issues as personal data registration and use. Additionally, some studies drew attention to the potential risk of standardizing one particular form of English, leading to the marginalization of other varieties.

What we notice from this report, however, is that, given the limited number of published peer-reviewed articles (43) over a complete decade, the use of AI in ELT, although burgeoning, remains limited and cautious. Nevertheless, with recent advancements and innovations within the field of AI in general, it is reasonable to assert that AI-powered practices in ELT are likely to witness significant growth in the coming years.

4. Research Approach

The purpose of this study is to investigate the integration of ChatGPT into English Language teaching and learning within the international and Moroccan contexts. The researchers adopted a qualitative research design, employing a systematic review framework to synthesize findings from published studies on ChatGPT's applications in ELT. This approach allows for an in-depth understanding of the applications, challenges, and limitations of ChatGPT in ELT contexts. The findings from the Moroccan studies were juxtaposed with international literature to provide a comprehensive understanding of the unique challenges and opportunities within the Moroccan context.

To systematically investigate the use of ChatGPT in ELT contexts in Morocco, a comprehensive search was conducted on December 5th, 2024, across multiple research databases and platforms, including Scopus, Web of Science, ScienceDirect, and Google Scholar. The researchers used four specific key phrases to locate relevant articles published from November 2022 onward: "ChatGPT in Morocco," "ChatGPT in Moroccan Education," "ChatGPT in ESL/EFL contexts in Morocco," and "ChatGPT and English Language Teaching in Morocco". The search yielded 21 studies that discussed the use of ChatGPT in Moroccan educational contexts in general:

- Four book chapters
- Three conference papers
- 13 published articles
- One article under review

Upon screening of these studies, only two were found to be addressing ChatGPT's applications in ELT: one published article and one unpublished conference paper. Data from the two identified studies were systematically reviewed and analysed to extract key findings.

To explore the employment of ChatGPT in ELT within the international context, the researchers relied on two recently published Scopus-and-Web-of-Science indexed comprehensive-review studies: "The Impact of ChatGPT on English Language Teaching, Learning, and Assessment: A Rapid Review of Literature" by Meniado (2023), and "Exploring the application of ChatGPT in ESL/EFL education and related research issues: a systematic review of empirical studies" Lo et al. (2024). The authors of these two studies provided a systematic review of nearly all published peer-reviewed articles on ChatGPT's application in ELT contexts from the release of the chat-bot in November 2022 up to June, 2024. The researchers analysed meticulously these two studies to assess the current state of knowledge, and highlight gaps related to the application of ChatGPT in ELT settings internationally.

5. ChatGPT in ELT

ChatGPT has already been established as a transformative tool, with much efficiency in several educational contexts. It has been tested for its effectiveness as a virtual assistant, as a learning partner, as an educational interactor and integrator, and as a successful materials-generator across various topics and domains. The two following sections provide a systematic review of the use of ChatGPT in the domain of ELT. The first section focuses on the international context. The second section focuses on the Moroccan context.

5.1. The International Context

In a pioneering study entitled "The Impact of ChatGPT on English Language Teaching, Learning, and Assessment: A Rapid Review of Literature", Meniado (2023) conducted a review of 15 articles about the utilization of ChatGPT in English language teaching, learning, and assessment. The study yielded significant insights. The author demonstrated that ChatGPT has been applied in ways that foster meaningful and productive L2 learning, aligned with meaning-focused input; meaning focused output; language-focused learning; and fluency development.

The reviewed literature revealed that ChatGPT has been employed to derive meaning-focused input in several ways. ChatGPT has been utilized to create meaningful genre-varied texts; to adjust text complexity and identify word meaning in context; to annotate text, translate, and give sentence types and examples; and to summarize reading materials, generate topics, questions, and short texts based on pre-defined vocabulary. Additionally, ChatGPT has been employed to provide levelled materials tailored to meet specific needs and interests; and to generate interactive materials, simulating real-world language use experiences.

For meaning-focused output, ChatGPT has functioned as a virtual learning partner and as an assistant with multiple output tasks. It has also been used to prepare outlines, organize and revise content, proofread scripts, create presentations, and provide scaffolding. In terms of language-focused learning, ChatGPT has been utilized to notice, explain, and correct errors and mistakes; to provide feedback and customized recommendations regarding word choice and sentence structure; and improve learners' metalinguistic knowledge in writing about a specific topic.

In the area of fluency development, ChatGPT has acted as an interlocutor or conversational partner, providing students with numerous opportunities for personalized interactive language exposure and practice across the four language skills. Besides, ChatGPT has been used to boost students' motivation, engagement, and willingness to communicate by providing innovative and exciting ways to learn English.

Meniado (2023) identified several key ways in which ChatGPT has served to facilitate teaching and assessment. In the realm of teaching, ELT practitioners have employed ChatGPT to develop lesson ideas and lesson plans that meet specific needs, and to provide personalized learning support. ChatGPT has acted as well as a developer and customizer of instructional materials. Concerning assessment, ChatGPT has been utilized for a variety of purposes, including evaluation and automated grading; development of well-suited quizzes, tests, and exams across different language skills and structures; and providing contextual feedback.

In another systematic review conducted by Lo et al. (2024), 70 empirical studies addressing the application of ChatGPT in ELT contexts were analysed. These studies were published from the release of ChatGPT in November, 2022 to June, 2024. The studies were sourced from seven electronic databases: Scopus, Web of Science, Academic Search Ultimate, ERIC, ACM Digital Library, IEEE Xplore, and Education Source Ultimate. The authors employed the technology based learning model to review the selected articles, which advocates analysing articles to identify application domains, research methods, and research issues.

The researchers classified the articles into four categories: studies in which researchers interacted with ChatGPT and evaluated its performance; studies in which researchers evaluated the ability of AI detectors to detect ChatGPT-generated text; articles in which researchers explored participants' perspectives without any attempt to influence their views or expose them to experimental conditions; and articles in which searchers conducted an intervention and measured its impact on participants.

Through a meticulous analysis of the identified articles, Lo et al. (2024) arrived at several key findings. In terms of geographical location, the majority of studies on ChatGPT use in ESL/EFL contexts were conducted in East Asia and the Middle East. In terms of educational context most studies were conducted in higher education contexts, with very few in K-12 settings. Regarding application domains, writing received greater focus, followed by speaking, reading, and vocabulary; with on studies addressing listening. Concerning research methods, quantitative methods were predominantly employed, with surveys and interviews being the prevalent.

Lo et al. (2024) reported notable findings with regard to research issues associated with ChatGPT in ESL/EFL education. In the context of writing, ChatGPT was employed to assist students with different writing tasks. The findings showed that ChatGPT improved students' performance greatly and boosted their motivation. ChatGPT supported teacher assessments. Besides, ChatGPT was employed to generate model writing samples and outlines, to simplify syntactic complexity, and to paraphrase and summarize written productions.

Concerning speaking, ChatGPT was utilized to generate engaging dialogues in different communicative situations. With regard to other issues, Lo et al. (2024) stated that "ChatGPT showed comparable effectiveness to traditional resources in reading comprehension and vocabulary exercises, and significantly improved student performance in grammar instruction". Students' and teachers' perspectives on the use of ChatGPT in ELT were mostly positive, emphasizing the software's potential to expand learning opportunities, enhance motivation, and personalize language learning.

However, there were several documented concerns associated with the application of ChatGPT in language teaching, learning, and assessment (Lo et al., 2024; Meniado, 2023). ChatGPT may potentially provide inaccurate responses and/or simplistic responses. ChatGPT may generate biased or inappropriate content. Additionally, its latest version is not freely accessible, which could exacerbate inequalities in educational settings. Also it may lead to deterioration of innovation, critical thinking and creativity among students and teachers alike. Besides, ChatGPT may fail to generate human-like emotional interactions and intercultural interactions. For instance, Wang (2024) examined the ability of ChatGPT to generate interactions specific to the Chinese culture in a culture-focused curriculum, aiming to develop learners' intercultural competence. Wang (2024) found that, ChatGPT, in many situations, failed to generate Chinese scripts containing communicative strategies typical of Chinese-speaking contexts. Other ethical concerns were expressed regarding academic dishonesty, plagiarism, and privacy breach.

5.2. The Moroccan Context

In exploring the use of ChatGPT in ELT contexts in Morocco, it is noteworthy that the literature review conducted in the preceding section revealed the absence of any studies specifically addressing this topic within the Moroccan context. To further investigate this gap, the researchers conducted a search on December 5th, 2024, across three research databases: Scopus, Web of Science, and ScienceDirect. The researchers used four key phrases as follows: "ChatGPT in Morocco," "ChatGPT in Moroccan Education," "ChatGPT in ESL/EFL contexts in Morocco," and "ChatGPT and English Language Teaching in Morocco." The search yielded only four articles (Al-Zubaidi et al., 2024; Benfatah et al., 2024; Boubker, 2023; Bouzar et al., 2024) and one book chapter (Benali & Mak, 2024) that examined the use of ChatGPT in educational contexts in Morocco. However, none of these studies specifically addressed its application within ELT contexts.

Given the limited results from the initial search, the researchers performed an additional search using Google Scholar. The same key phrases were employed. The search yielded three book chapters (Ibrahimi & Benchekroun, 2024; Remch, A. 2024; Zahrou et al., 2024), three conference papers (Achour et al., 2024; Aherrahrou, 2024; Elhajoui et al., 2024), nine published articles (Bekou et al., 2024; Belgas et al., 2023; Bouber et al., 2024; Bouzar et al., 2024a; Bouzar et al., 2024c; Ed-dali, 2024; Fakhar et al., 2024; Ibrahimi & Benchekroun, 2024b; Nfaoui & Elfaik, 2024), and one article that is still under review (Akraoui et al., 2024). With these publications screened and examined thoroughly, only one article (Bekou et al., 2024) and one conference paper (Aherrahrou, 2024) were found to specifically address the use of ChatGPT in English language teaching and learning contexts. These studies are discussed in the following paragraphs.

Bekou et al. (2024) explored Moroccan English language teachers' perspectives and perceived significance of ChatGPT use in ELT. The researchers distributed a questionnaire to a total of 62 EFL teachers, the majority of whom were middle and high school teachers, along with 10 university professors. To corroborate data, the authors conducted interviews with 12 teachers from the sample. The questions revolved primarily around teachers' familiarity with ChatGPT, its employment in their teaching practice, and its limitations. The findings indicated that the majority of participants recognized the potential usefulness of ChatGPT in ELT contexts. Some participants reported to having already utilized ChatGPT to prepare instructional materials. However, very few of them incorporated it into classroom activities. Predominantly, EFL Moroccan teachers are open to the integration of ChatGPT in their teaching practices as indicated by the findings. Nonetheless, participants reported some perceived concerns regarding issues of inaccuracy, and excessive reliance on technology.

Aherrahrou, (2024) investigated English department university professors' ability to detect ChatGPT generated essays. She provided 25 professors with 1200 essays: 400 were generated by GPT-4, 400 were generated by both GPT-4 and checked by Grammarly, and 400 were written by English department students in a Moroccan university. Results showed that the GPT-4 generated essays got higher scores, followed by those generated by GPT-4 and cross-checked by Grammarly. Students written

essays got average to low scores. Findings indicated that professors were to a large extent successful in identifying GPT-4 generated content. However, in certain cases, the raters find it challenging to detect and identify originality in students' essays.

Examination of the literature produced on ChatGPT in the Moroccan educational context revealed several key points. First, ChatGPT, as a pioneering AI tool with great educational potential, is still under-researched, taking into consideration that only 21 publications were identified in this respect. The majority of these studies were conducted in the higher education contexts. Of the 19 studies, only two (Aherrahrou, 2024; Bekou et al., 2024) addressed the use of ChatGPT in the context of English language teaching and learning in Morocco. Of these two as well, the first one is a published article and the second one is an unpublished conference paper. This led us to conclude that the use of ChatGPT in ELT contexts in Morocco remains an unexplored area of research.

6. Discussion

Based on the studies reviewed in the section entitled "The International Context", what conclusions can be drawn regarding the application of ChatGPT in ELT within the international context? Firstly, ChatGPT enhances language teaching and learning processes through tailored input generation and output assessment. Secondly, ChatGPT has been applied diversely in ELT, indicating its versatility and efficiency. Thirdly, ChatGPT has a positive impact on student engagement and motivation, encouraging them to practice English with confidence.

However, the literature review highlighted significant gaps and identified areas requiring further research. In terms of research methodology, there was a predominant use of quantitative designs, indicating the need for qualitative studies to explore nuanced ChatGPT-related experiences in ELT contexts. Regarding educational context, the majority of studies were conducted in higher education settings, suggesting the necessity for more ChatGPT-based exploration in K-12 contexts. Geographically, research on ChatGPT application in ELT was mostly centralized in East Asia and the Middle East, with few studies conducted in Europe and North America, and almost no studies in North Africa. This call for more research in underrepresented areas to gain further contextual insights. Concerning research areas, there was a predominant focus on writing, with little attention given to reading and speaking, and a complete absence of studies targeting the listening skill. This underscores the necessity for more studies on listening, speaking, reading, and other language areas.

Despite ChatGPT's benefits, several limitations and ethical considerations have been raised in the literature. Concerning limitations, ChatGPT may potentially generate inaccurate responses and materials, culturally inappropriate content, and biases. Ethically, concerns were expressed regarding personal data privacy and academic integrity.

Exploration of the application of ChatGPT in ELT practices within the Moroccan context_ compared to the internationally context_ discloses significant gaps. Despite the growing interest in the integration of AI tools into education globally, research in this area within the Moroccan context is still at its infancy. The systematic search conducted across multiple search platforms and databases resulted only in very few studies relevant to the topic of ChatGPT in Moroccan education; thus, underscoring the nascent stage of research in this area of study.

Although there is a wide recognition and acceptance of the potential benefits of ChatGPT in the realm of ELT in Morocco, as the study by Bekou et al. (2024) indicates, actual integration of ChatGPT into classroom practices remains low or even absent. This might be attributed to barriers such as lack of training, and institutions' limited technological infrastructure. Furthermore, real concerns are expressed regarding overreliance on technology. This suggests as well that Moroccan educational stakeholders and policymakers should take into consideration the role of AI-powered tools such as ChatGPT in teacher training programs and curricula development.

Lack of training on how to integrate AI tools into teaching and learning effectively might lead to a 'let-technology-do-the-job' state. Thus, instead of leveraging AI to enhance education, we might end up employing it to undermine learning and kill creativity. The study by Aherrahrou (2024) points out the existence of real challenges in discerning originality in students' works. This raises important questions regarding assessment practices in the context of AI and highlights the need for educators to adapt their evaluation methods.

Regarding research areas, the literature review revealed that, with the exception of Aherrahrou's study (2024), there are no empirical or intervention studies on the application of ChatGPT into ELT within the Moroccan context so far. This highlights significant research gaps in this area. As it has been proven that ChatGPT improves greatly the learning and teaching of languages within the international context, there is a dire need for empirical studies on the integration of ChatGPT into the teaching and learning of the four language skills within the Moroccan context.

7. Conclusion

With the unprecedented breakthroughs in the field of AI, leveraging AI-powered tools for language teaching, learning, and assessment becomes essential. This study has examined the application of ChatGPT in ELT practices within the Moroccan context as compared to the international arena. The rapidly evolving landscape of AI has profoundly affected educational practices worldwide, making available substantial learning opportunities with great ease, while simultaneously enhancing teaching methodologies and learner engagement. In the area of ELT, a considerable amount of international literature has already been established, testifying to the numerous significant pedagogical benefits of ChatGPT and highlighting its versatile applications;

including improving language skills, personalizing learning experiences, fostering motivation, efficiently, generating tailored materials, and facilitating assessment.

Despite the growing international interest and research on leveraging ChatGPT for teaching and learning English, its adoption in Moroccan ELT contexts remains limited due to a lack of research in this specific area. Up to 5th December, 2024, and based on a search in multiple academic databases, only two studies were identified to directly address this topic. This state underscores the existence of a critical gap in understanding how a chat bot such as ChatGPT can be leveraged effectively to enhance English language teaching and learning. It is crucial that Moroccan education stakeholders and policymakers consider incorporating AI tools into training programs and curricula development.

A comparison of the application of ChatGPT in ELT within the international and Moroccan contexts yields the following key points:

- Internationally, ChatGPT has already been established as a pioneering AI tool with great educational potential.
- Internationally, up to November 30th, 2024, there are more than 84 published articles that addressed the use of ChatGPT in ELT contexts.
- Internationally, ChatGPT has been tested for its ability to enhance the teaching of the three language skills.
- Internationally, ChatGPT has been used to teach vocabulary, grammar, enhance pedagogy, and promote self-regulation.
- Internationally, ChatGPT has been used to plan, appropriate, adapt, translate, summarize, evaluate, and assess educational content.
- Within the Moroccan context, up to 5th December, 2024, only 1 article and 1 conference paper addressed ChatGPT in ELT contexts, the article explored perceptions and the conference paper investigated the evaluation of ChatGPT generated essays.
- Within the Moroccan context, no single study was published on the integration/ implementation of ChatGPT into EFL practice.
- Within the Moroccan context, no article was published on the application of ChatGPT to teach the four skills, vocabulary, or grammar.
- Within the Moroccan context, no single study was conducted exclusively in K-12 settings.
- Internationally and within the Moroccan context, using AI to teach listening is not yet an addressed area in research.

Despite the documented benefits of ChatGPT, several concerns have been raised about its use. These concerns are manifested mainly in the bot's potential to generate inaccurate responses, foster dependency on technology, and undermine learner creativity and critical thinking skills. Ethical issues have also been discussed in the literature, including academic dishonesty and personal data breaches.

The significance of this study lies in providing a state-of-the-art account of the application of ChatGPT in ELT contexts in Morocco as compared to the international landscape, thus evaluating the situation and detecting significant areas for further research in this respect. Further, the study contributes to the burgeoning discussion on the role of AI-powered tools in education. However, there are limitations to this study. One of these limitations is the exclusive reliance on published works to evaluate the Moroccan context, leaving unpublished experiences and applications unaccounted for. Future research may draw on the conclusions of this study to advance research on the application of ChatGPT and other AI tools in ELT practice in Morocco.

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