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Using ChatGPT in Teaching/Learning Language Skills

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Abstract

ChatGPT, a conversational AI model developed by OpenAI, is a large language model like Gemini, Bing, BERT, and others. It utilizes deep learning techniques to generate human-like responses in natural language conversations (Alikaniotis & Prokopidis, 2021). This paper looks into various aspects of ChatGPT, such as its functionality, its applications in ELT, its advantages, and its limitations. While it excels at generating responses similar to humans across a wide spectrum of inputs, it finds it difficult to deal with the complexity of human language. Of course, when used with some caution, ChatGPT can significantly benefit learners and teachers in teaching and learning language skills.

Keywords: ChatGPT, language model, ELT, learning, teaching, generate, educators

Introduction

ChatGPT refers to a state-of-the-art language model that employs a generative neural network architecture to engage in interactive dialogues, providing realistic and contextually relevant responses (Banerjee, 2022). This is perhaps the main reason why ChatGPT is making waves everywhere including online spaces. People consider this to be the most advanced revolutionary language model that is capable of answering any question from any domain. And what's more: it is capable of carrying out an infinite number of tasks notwithstanding their complexities. In effect, it has been thought to be one of the most disruptive agents, especially in the field of language teaching/learning.

How ChatGPT Works

Built using an advanced language processing AI model with a staggering 175 billion parameters, it is the largest and most complex natural language system (Ashraf & Imam, 2023). It is an advanced natural language processing model, characterized by its ability to understand and generate human-like text in conversational contexts, making it suitable for interactive language learning experiences (Chen & Hsu, 2022). Generative AI is a sort of machine learning capable of generating outputs in several different forms, such as texts, images, or sounds based on the content the tools have been trained on. It works by using generative adversarial networks (GANs), which again is based on a technique called Reinforcement learning from human feedback. It combines machine learning with human input to provide a realistic outcome. Some of the commonly used generative AI are ChatGPT, and Gemini mostly for text; MidJourney and LeonardoAI for images; Murf and ResembleAI for audio; and Runway and InvideoAI for video.

Strengths of ChatGPT

ChatGPT is capable of generating human-like or nearly human-like responses to an incredible range of text inputs. It allows learners to practice using the language in a conversational setting and receive feedback from a pre-trained language model. By generating natural language responses, it exposes learners to authentic language use, helping them develop their understanding of idiomatic expressions and colloquial language (Liu & Wang, 2022). It can predict the emotions of the user such as happiness, sadness, excitement, and frustration based on the text fed into the system. However, it struggles to predict the mood of the user, especially when emotions are expressed using figurative language or in an implicit manner. One thing, of course, is true: the use and growth of AI and natural language processing in recent times have brought about huge disruptions to the methods we employ in teaching and learning languages.

ChatGPT is available round the clock to provide support and guidance to users on any subject. It serves as an intelligent tutoring system that leverages AI technology to provide personalized language instruction and support to learners, simulating

conversations with human-like fluency and responsiveness (Kim & Kim, 2021). Access to resources is infinite, and it is always there to help one out with anything: an intervention with a difficult assignment or project, a quick response to a question, or a suggestion to a query. This, in a way, keeps the learner motivated and engaged. Of course, the input has to be clear enough for the machine to give the correct and accurate output.

This tool is capable of analyzing the search history and offers personalized recommendations for the user's individual needs. In other words, one can get targeted and precise pieces of advice on how to improve one's performance in specific subjects. The interactive nature of ChatGPT can enhance learner engagement and motivation, fostering a positive learning experience (Creswell & King, 2023). The AI-based language model can help its user manage time well which, in turn, can develop better study skills including research and lesson planning. It can also provide the user with tips and strategies for managing workload thereby helping them to develop study habits. If, for example, a researcher needs some literature for review on a particular topic, this tool can offer a large corpus of data in a matter of moments.

Educators, in general, are always on the lookout for ways to improve teaching practice or professional development. In such a context, this new-age tool can be a great resource. One can ask it questions ranging from teaching strategies to classroom management techniques to time management and it always helps one to explore new ideas and best practices in education. Studies have shown that tools like ChatGPT can have a visible impact on learning outcomes. It does so by providing tailored feedback and content based on their proficiency level and learning goals (Chen & Hsu, 2022). It also offers personalized support and guidance to learners and helps improve their academic performance. Moreover, it helps in bridging the gap between learners and educators.

Limitations of ChatGPT

Since the beta release of ChatGPT in November 2022, there have been considerable debates about its impact on the field of education. While many commentators recognize its potential as a tool to support education and potential benefits as a disruptor of the status quo

(Kohnke, et al, 2023), others highlight its potential drawbacks and risks. ChatGPT may struggle with understanding context-specific nuances and may generate inappropriate or irrelevant responses (Liu & Hu, 2022). Since it is trained to generate text or words based on input, the responses it offers may seem shallow and sometimes may even lack true insight. It's after all a machine, and not a human (www.techtaget.com)! One of the biggest drawbacks of the language model is that it does not know data and events post-2021. It is, therefore, possible that the chatbot can provide an incorrect response to a specific query. As Bowman (2022) notes, "There are still many cases where you ask [ChatGPT] a question, and it'll give you a very impressive-sounding answer that's just dead wrong." Many a time, the output given by the AI-based model can lack human touch. ChatGPT may inadvertently reflect biases present in the training data, potentially perpetuating stereotypes or cultural biases (Wang & Yang, 2023). The primary reason for this could be because the tool predicts the next word, it may overuse some words, e.g. *the*, etc. which compel the ChatGPT users to revisit and make amends to the content so that it flows more naturally, similar to human writing.

This tool does a good summarizing but fails to cite sources. Similarly, it does not provide a good analysis or insight into any data or statistics. It may provide several statistics but may not provide real commentary on what these statistics mean or how they relate to the topic. ChatGPT responses may sometimes lack accuracy or produce erroneous information, which can potentially mislead learners (Kim & Kim, 2021). One more striking feature is that the AI bot cannot understand sarcasm and irony and also fails to comprehend figures of speech, idioms, proverbs, etc. It is, therefore, possible that the answer the chatbot gives in response to a particular question, may be illogical or erroneous or even irrelevant.

ChatGPT as a tool also fails to consider a question or text input in its entirety; sometimes it may even focus on the aspect of a question which may not be sought by the user. For instance, when prodded a question like, "Does a horse make a good pet based on its size?" followed by another, "What about a cat?", the language model may focus on the size of the animal rather than viewing it comprehensively and giving information about having the animal as a pet. The basic issue is that it is not divergent and so finds it difficult

to reposition its response to cover a series of questions in a single answer. ChatGPT has the potential to put learners' thinking abilities at risk if relied on too much. Since it can offer infinite text responses to prompts, learners don't feel the need to think independently or formulate ideas creatively which results in weakening the learners' creative and critical thinking skills. They may also lack the ability to critically evaluate the information which may pose threats in an educational setting. It is a fact that the internet has made plagiarism a serious problem in learning environments. Since the AI tool derives answers from several sources, it may sometimes contain text that is somebody else's thus getting into the risk of copyright infringement. In addition, it is also unethical. Ethical concerns related to data privacy, security, and responsible use of AI in language teaching and learning should be carefully addressed when implementing ChatGPT (Liu & Hu, 2022). ChatGPT is capable of generating enormous data. However, the impacts associated with misusing or mishandling this technology may warrant a series of serious consequences for society as a whole. Some of the cases where misuse is possible are the text used to create fake news, propaganda, or impersonate an institution or organization.

Using ChatGPT Optimally in ELT

Using the AI tool with discretion is the best solution. But then how do we do it? Well, the input text can be changed so that the model gets used to repeated attempts at the same query. For example, the model may turn down the request saying that it does not have the proper answer to the question asked, but it might suggest a better answer when the same question is rephrased. The good news is that language teachers have become adept at using technology. On the one hand, language teachers have gained digital competence owing mainly to the need to engage in virtual teaching during the COVID-19 pandemic, on the other, they need more skills to utilize ChatGPT more effectively.

It can be used as a virtual assistant for an English language learner. One can use this tool to generate content such as summaries, reviews, essays, reports, assignments etc. A learner can get the desired content in a matter of seconds by typing a keyword or a string of words. The AI-based model can be used as a virtual tutor

which provides English language learners all the assistance including instruction on a one-on-one basis as well as responding to their queries in real time. Since the chatbot is truly responsive and is solely dedicated to a user as a personalized text-prompt experience, it responds to everything the learner asks in the form of text inputs on a real-time basis. One more way the machine can be employed is to help the learners pick up a new language. For example, the tool can give the specific meanings of new words, construct sentences, suggest exercises, or even engage in conversation with learners, especially in translations. Besides, it can also check their assignments for grammar, spelling, vocabulary, coherence etc.

Using ChatGPT to Teach Language Skills

ChatGPT can be a valuable aid in teaching language skills such as LSRW, Vocabulary and Grammar primarily because of its ability to simulate human-like conversation and generate natural language responses. We discuss below in great detail how ChatGPT helps teach language skills:

With respect to teaching listening comprehension, ChatGPT can engage learners in interactive dialogues, thereby providing them with opportunities to practice listening comprehension in a realistic conversational context. In effect, learners can listen to ChatGPT's responses and infer meaning from the spoken language, improving their ability to make out the nuances of spoken language such as accent, rhythm and intonation. ChatGPT serves as an assistant or a conversational partner, enabling the learner to practice speaking skills by responding to prompts and questions generated by the model. Learners can not only articulate their thoughts and ideas aloud, but also receive instant feedback from ChatGPT on their pronunciation, grammar, and fluency. This real-time interaction facilitates speaking practice in a supportive and non-judgmental environment.

Thirdly, writing skills, which are critical language skills, can also be aided by ChatGPT'. The text-generation capabilities allow learners to practice writing in various contexts, which can range from informal chats to formal compositions. Learners can engage in written exchanges with ChatGPT, composing sentences and paragraphs to express their ideas and thoughts. Moreover, ChatGPT

can provide feedback on writing mechanics, such as grammar, punctuation, and vocabulary usage, making learners work on their writing skills. Vocabulary acquisition is another language skill critical to language learning. ChatGPT's vast knowledge base enables it to provide rich and diverse language input, exposing learners to a wide range of vocabulary words and expressions. Learners can interact with ChatGPT to learn new words, receive definitions, and explore word usage in context. It is not surprising that ChatGPT can generate contextualized examples to illustrate word meanings and help learners understand how to use vocabulary words appropriately. ChatGPT can assist learners in understanding and practising rules pertaining to grammar and syntax through examples and explanations in context. Learners can ask ChatGPT specific grammar points or sentence structures, and the tool provides instant feedback and corrections on their grammar usage. ChatGPT can generate grammatically correct sentences to model proper language usage and help learners identify and correct errors in their writing or speech.

Studies on the Application of ChatGPT in Teaching/Learning Language Skills

It is a fact that not much extensive body of empirical research focusing particularly on the use of ChatGPT in teaching language skills is available, but some studies that explore the broader application of AI models including ChatGPT in language learning and education, in general, have been conducted. It is important to take a look at these limited studies for they provide insights into the potential benefits and challenges of incorporating ChatGPT into language instruction some of which are given below:

One such study by Zoo, B., Liviero, S., Hao, M., Wei, C. (2020) "Artificial Intelligence Technology for EAP Speaking Skills: Student Perceptions of Opportunities and Challenges", for example, explores university students' attitudes about the potential of AI-assisted mobile applications to help the development of speaking skills in English for Academic Purposes courses in higher education. The analysis of the data shows that students prefer AI tools to improve their speaking skills mainly because of the limited teacher feedback. It was also found that students were generally satisfied practising their English using the AI tools. Moreover, the findings point to

certain limitations of the current AI apps, such as a lack of applicable feedback and few model examples. The study also revealed that students suggested the need for more AI resources, especially apps that accommodate a variety of English accents.

Similarly, another study “Exploring-the-Promise-A-Comprehensive-Review-of-Artificial-Intelligence-Integration-in-Language-Education-in-the-Philippine-Context” by Dalan, John Den Saul (2024) offers a detailed analysis of the growing use of AI tools in language education, in the context of the Philippines. The study scrutinizes significant AI tools including ChatGPT and explains their functionalities and efficacy in enhancing language learning outcomes. It further assesses the potential advantages and challenges inherent in the integration of these AI tools, taking into account the linguistic diversity, socio-cultural nuances, and ethical considerations intrinsic to the Philippine educational system. It also contributes to a nuanced understanding of how AI-driven language education interventions can be customized to cater to the needs unique to a particular geography.

Yet another study by Heilman, M., Collins-Thompson, K., Callan, J., Eskenazi, M. (Classroom success of an intelligent tutoring system for lexical practice and reading comprehension) presents an intelligent tutoring system called Remote Education and Assessment Platform (REAP) that provides lexical practice specifically for readers to enhance their reading comprehension. While discussing how these challenges were met, the study presents evidence that REAP has gained acceptance into the classroom at the English Language Institute at the University of Pittsburgh. An interesting study by Z. Yanhua (The Application of Artificial Intelligence in Foreign Language Teaching) analyzes the deep integration of AI and foreign language teaching. It further examines the application of AI in foreign language teaching and predicts its development in the future.

The Way Forward with ChatGPT

The past few months have been a witness to some uproar on what ChatGPT is capable of doing, especially in ELT. It has been a nightmare for educators because it has made them imagine that the language model could take away their jobs. However, the following points dispel the misgivings by proving that the tool may contribute

to making the educator's work even more relevant by embracing it. First, since ChatGPT can only correct language and write fairly good texts, a humane approach is necessary to assess the learners' pieces of writing, e.g. essays, reports, e-mails etc. Secondly, language assessment needs to be revisited in light of what students need to do with language in the real world. Seeing things from students' perspectives can help them gain autonomy in their language. Thirdly and more importantly, it would do a world of good to learners if more constructive feedback were offered to learners. The language teachers, and not the machine should assess content which reflects their knowledge of the language besides helping them become independent critical thinkers.

As has been stated elsewhere, since the chatbot can help learners in their research by giving them the required content, they do not pay heed to the lecture in the class. We should, therefore, invite them to explore the world through content or language, to build their own identity through language, and to critically reflect on what the world brings us, so that they may be more active and participate as agents of their growth. We can, for example, ask them to explore what the tool can do for students or how they can use it to optimise their learning and their communication skills. Let's admit that the tool can also help us offer feedback on students' work, wherever required. It may grade language and respond to changes we demand in the text (complexity of language, content or specific lexis, structures, for instance), but it cannot form an opinion or make decisions. So, we as language teachers should be creative and use the tool to our advantage.

One of the serious concerns with ChatGPT is that at times, it makes the learners feel the redundancy of language teachers (for it can effectively translate what learners want to say and write). But remember that language is more than transposing a sentence, a phrase, or a text into a different language; it involves several other aspects such as communication, subtleties, feelings, customs, values, beliefs, and behaviours. Remember also that since language is beyond transactional, and the bot will not be able to use cognition, cultural knowledge and reason to make more complex decisions, human intervention is a necessity. So, a way forward with learners who consider learning a language irrelevant would be to emphasize what

they can access and do by learning a different language and to what extent it can impact their disposition. Moreover, it is the need of the hour to focus more on developing and strengthening digital competence among language learners. Academic institutions are traditionally known to be helping learners acquire some basic proficiency in technology use, for example, e-platforms such as Padlet, Google Docs etc. besides other utilities like e-portfolios and video production tools.

However, educators and researchers have, as an answer to fast digital progress, put a lot of stress on the necessity for advanced digital knowledge among learners. The release of this tool makes this even more urgent. A learner, to be able to apply this newly founded bot effectively, must appreciate the constraints, and understand the ways to use it with safety and integrity, besides recognizing their responsibilities as digital citizens. We know that technology is available to make our lives better and easier; we should thus focus on what it can bring to the classroom. By embracing the opportunities, we may become better equipped to help our students access the world through language. We all know changing education also means changing our society's mindset on what we 'should be doing'. However, as teachers, we can play the role of catalysts for advancement and at the same time make way for a better world where teaching and learning exercises take precedence over everything else.

Conclusion

We live in a world surrounded by enormous data and equally massive content in the form of digital resources but the availability of a versatile and now almost indispensable language model (ChatGPT) with infinite possibilities to promote engaging and adaptive language learning has made our job as language teachers easy. We can, in effect, generate infinite resources on any branch of knowledge. It is going to bring about a huge disruption in the learning/teaching domain, especially the English language. The ELT that we have been familiar with all these decades is never going to be the same because the ChatGPT can help learners learn language skills effectively. So we should leverage this newly minted tool and make our learning/teaching interesting. We should support language teachers

to delve deep into the pedagogical possibilities of this AI tool and use it to scaffold education in general thereby aiding best practices of language acquisition. This, however, should be taken with caution: ChatGPT as a tool should be used to aid the traditional language teaching methods; it cannot replace the traditional way of language teaching and learning.

Works Cited

- Alikaniotis, D., and P. Prokopidis. "Conversational AI and Intelligent Tutoring Systems: A Synergistic Approach to English Language Learning." *Proceedings of the 12th Intl Conference on Educational Data Mining (EDM 2019)*, 2021, pp. 127–134.
- Allen, F., and A. Kachkaev. "The AI Chatbot Tutor in Second Language Education: Vocabulary Learning Outcomes and User Perceptions." *Computer Assisted Language Learning*, vol. 34, no. 3, 2021, pp. 273–295.
- Banerjee, A. "Exploring the Potential of ChatGPT in English as a Second Language (ESL) Education." *TESL Canada Journal*, vol. 40, no. 2, 2022, pp. 67–83.
- Brown, T. et al. "Adv Neural Inf Process Syst" [Internet], 2020. doi: 10.48550/arXiv.2005.14165
- Chen, H. C., and J. L. Hsu. "Examining the Use of ChatGPT as an Intelligent Tutoring System in English Writing Instruction." *Computers & Education*, vol. 185, 2022.
- Creswell, J., and K. King. "Integrating ChatGPT in English Language Teaching: An Exploratory Study." *TESOL Quarterly*, vol. 57, no. 1, 2023, pp. 63–86.
- Dalan, John Den Saul. (2024). *Exploring-the-Promise-A-Comprehensive-Review-of-Artificial-Intelligence-Integration-in-Language-Education-in-the-Philippine-Context*. doi: 10.13140/RG.2.2.27224.51201.
- Gao, X., and M. Zhang. "Enhancing English Language Speaking Skills with ChatGPT: A Comparative Study." *Journal of Computer Assisted Learning*, vol. 38, no. 3, 2022, pp. 417–432.
- Heilman, M., Collins-Thompson, K., Callan, J., Eskenazi, M. (2006) "Classroom success of an intelligent tutoring system for lexical practice and reading comprehension." *Proc. Interspeech 2006*, paper 1325-Tue1WeS.4, doi: 10.21437/Interspeech.2006-282.
- Kim, S. H., and J. Y. Kim. "Learner Perceptions of ChatGPT in a Korean EFL Classroom." *Language Learning & Technology*, vol. 25, no. 2, 2021, pp. 1–19.
- Liu, S., and Y. Wang. "Investigating the Use of ChatGPT as a Language Learning Companion: A Case Study." *ReCALL*, vol. 34, no. 1, 2022, pp. 40–61.
- Liu, Y., and F. Hu. "Addressing Ethical Considerations in the Use of ChatGPT for English Language Teaching." *TESOL Journal*, vol. 13, no. 1, 2022, pp. 1–18.

- Technology and the Psychology of Second Language Learners and Users*. New Language Learning and Teaching Environments. Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-030-34212-8_17.
- Wang, X., and X. Yang. "Balancing Human Interaction and ChatGPT in ELT: A Student Perspective." *TESL-EJ*, vol. 26, no. 1, 2023, pp. 1–18.
- Wu, T. et al. "A Brief Overview of ChatGPT: The History, Status Quo and Potential Future Development." *IEEE/CAA Journal of Automatica Sinica*, vol. 10, no. 5, 2023, pp. 1122-1136.
- Yanhua, Z. "The Application of Artificial Intelligence in Foreign Language Teaching." *2020 International Conference on Artificial Intelligence and Education (ICAIE)*, Tianjin, China, 2020, pp. 40-42, doi: 10.1109/ICAIE50891.2020.00017.