

Reliance on AI Tools and Fostering Creativity among Sri Lankan ESL Learners: Special Focus to ChatGPT

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Abstract

Artificial Intelligence (AI) is a rapidly advancing field of technology that has proven to be beneficial in various domains, including healthcare and education. AI tools have the potential to greatly enhance teaching and learning experiences. One noteworthy innovation in this field is ChatGPT, which was made available to the public in November 2022. ChatGPT enables interactive learning experiences for learners, and this study aims to explore its potential for promoting English language learning skills among English as a Second Language (ESL) learners in Sri Lanka. The study focuses on investigating how ChatGPT is utilized in their English learning activities and aims to collect quantitative data to achieve its objectives. In May 2023, data were collected from 93 ESL students using Google Forms, employing a simple random sampling method. The collected data were analyzed using descriptive analysis methods to gain valuable insights into students' experiences with ChatGPT. Interestingly, the results revealed that ChatGPT has gained popularity among ESL learners in Sri Lanka, who utilize it as an effective tool for their English language learning while safeguarding their creativity. Based on these findings, the study concludes that there is great potential for leveraging recent technological advancements to enhance the English proficiency of ESL learners in similar contexts.

Keywords: Artificial Intelligence, ChatGPT, Sri Lankan ESL learners

Introduction

Artificial Intelligence (AI) has created new opportunities for engagement and creativity in teaching and learning with the rapid change in technology. At present, educators can use various AI tools for tasks related to teaching and learning. OpenAI (2022) claims that ChatGPT is an AI chatbot that was released to the public in November 2022. ChatGPT is a relatively new AI tool. The report said an average of about 13 million unique visitors used ChatGPT per day in January, an increase of more than twice the levels of December, making it the fastest-growing consumer application in history. ChatGPT, the popular chatbot from OpenAI, is estimated to have reached 100 million monthly active users in January, just two months after its launch, making it the fastest-growing consumer application in history (Hu, 2023). Furthermore, OpenAI (2022) stated that ChatGPT was developed based on the GPT (Generative Pre-trained Transformer) architecture. It is designed to understand natural language and generate human-like responses to text-based communication. ChatGPT is trained on a massive dataset of text, enabling it to generate coherent and contextually relevant responses to a wide range of prompts and questions. Since Socrates' teachings, asking questions has been used as a method of interactive learning (Rospigliosi, 2023). Users interact with the ChatGPT app by asking questions and receiving responses. ChatGPT is designed to facilitate interactions centered on questions and follow-ups. This type of interaction promotes the use of ChatGPT for learning by asking questions and reflecting on the answers, both of which are essential activities in interactive learning.

Literature Review

AI tools are becoming increasingly popular in higher education, providing innovative ways for both educators and students to improve teaching and learning. Natural language processing (NLP) tools analyze and interpret human language using machine learning algorithms. They can be used to build intelligent chatbots that can answer student questions, offer support, and provide guidance. The opportunities of ChatGPT as a second language learning tool were described by Kim et al., (2023). They stated that ChatGPT responds quickly, allowing for effective learning facilitation in a positive learning environment. According to Zhou et al., (2023), while AI-powered writing tools like ChatGPT are extremely powerful in text writing, they fall far short of human writers when it comes to using advanced inference techniques like deep cohesion. Nghi et al. (2019) tested whether the AI chatbot is effective and useful for enhancing student performance and engagement in learning a specific point of a foreign language. Their

results indicated that the students benefit a lot from a new learning experience with the use of AI chatbots in teaching and that it is an important part of their learning process. The AI chatbot also makes learning exciting and enjoyable for students. Belda-Medina and Calvo-Ferrer (2022) analyzed knowledge, level of satisfaction, and perceptions concerning the integration of conversational AI in language learning. The authors yielded positive results regarding perceptions concerning the integration of conversational agents in language learning, particularly in relation to perceived ease of use and attitudes. Tlili et al. (2023) investigated the concerns about using chatbots in education among early adopters using ChatGPT. The authors' findings revealed that, while ChatGPT is a powerful educational tool, it should be used with greater caution, and more guidelines on how to use it safely in education should be established. Vocabulary is an important part of learning a language and thinking, learning, and communicating about the world. Expanding one's vocabulary provides unrestricted access to new information, especially in a second or foreign language (Qasem et al., 2023). During COVID-19, Qasem et al. (2023) investigated the effect of chatbot use on learning English for Specific Purposes (ESP) vocabulary in online classrooms. This study found that using chatbots helps to improve and learn ESP vocabulary. When students are asked to proofread their academic writing, ChatGPT can assist them in improving it. Caulfield (2023) experimented with sending the same text to ChatGPT and a human editor, asking them to improve the language and style and explain their changes clearly. The results of this experiment revealed that both editors improved the text overall, but the human editor made more extensive and reliable changes, and only the human editor was able to properly explain their changes. However, several disadvantages to using chatbots for educational purposes have been reported. The output of ChatGPT may be inaccurate or biased, for example, by citing invalid article references (Health, 2023). One disadvantage of using ChatGPT is that students may become too reliant on technology to solve problems or answer questions. This may result in a lack of critical thinking and problem-solving abilities (Ray, 2023). It is better not to rely heavily on ChatGPT's results. While students can use ChatGPT to clarify questions during their studies, they should always double-check the answers they receive against other credible sources, as it does not always provide correct information. It is not recommended to use ChatGPT as a source of information. The ChatGPT AI language model is still in the early stages of development and is far from perfect. Incorrect answers, biased answers, a lack of human insight, and excessively long or wordy answers are some of ChatGPT's current drawbacks (George, 2023). ChatGPT, in the end, is not a human. As such, it can only imitate human behavior rather than experience it. ChatGPT is only as good as the data it is trained on. Students may be given incorrect or misleading information if the training data contains bias or inaccuracies.

ChatGPT is a powerful language generation model that can be used to improve teaching and learning in a variety of educational settings. It will assist both English as a Second Language (ESL) and English as a Foreign Language (EFL) learners in learning languages in this context. It can generate conversation practice prompts and even provide accurate grammar correction, spell checking, vocabulary checking, summarization, academic writing, editing, idea generation, multiple choice questions (MCQ), and many more. Accordingly, ChatGPT is a popular AI language model that can respond fluently to a wide range of user prompts.

The objective of this study is to understand Sri Lankan ESL learners' nature of using the AI tool ChatGPT to improve their English proficiency. The following research questions were formed to achieve the above objective:

1. How Sri Lankan ESL learners use ChatGPT in their English learning?
2. What are the perceptions of Sri Lankan ESL learners' about using AI tools for their English learning?

Methodology

The present study applied the quantitative research approach to collect data and analyze it. Data were collected from 95 ESL students in the second week of May 2023 using a questionnaire survey created with Google Forms to investigate their ChatGPT experiences. The questionnaire consisted of 25 closed-ended questions, with the final question being open-ended to allow students to provide comments on utilizing artificial intelligence (AI) in their studies. The collected data were analyzed using descriptive analysis.

Results

Table 1 indicates the participant profile of the study. In accordance with, 21% were males and 79% were females. Added to that, 86% of the participants were between the ages of 20-25 years, and 60% of the participants were diploma level, whereas 40% of the participants were undergraduates.

Table 1: Participant Profile

Gender	Male	21%
	Female	79%
Age	20-25 years	86%
Level of study	Diploma	60%
	Degree	40%

Figure 1 illustrates the respondents' awareness of the ChatGPT. It is interesting to note that the majority of the participants are aware of the ChatGPT AI tool. Particularly, 61% of participants who responded to the survey were aware of the ChatGPT. This result is in parallel with the previous study of Belda-Medina and Calvo-Ferrer (2022), where they found AI tools to be popular tools among young learners.

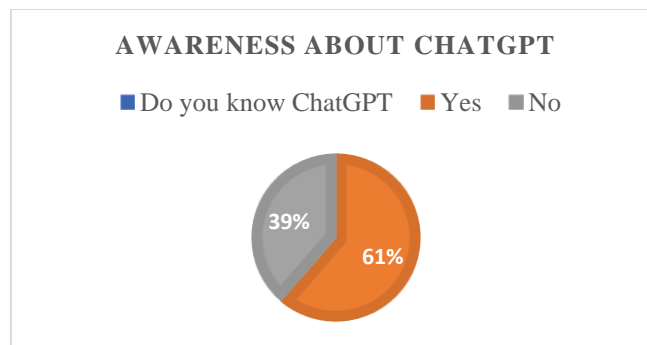


Figure 1: Awareness of the tool

As shown in Table 2, 58% of the respondents utilized ChatGPT for chatting purposes, engaging in discussions on various topics, asking questions, and receiving responses. Further, 39% of participants employed ChatGPT for writing tasks such as essays, reports, or creative writing, including songs, poems, and short stories. When it comes to learning English, 29% of participants relied on ChatGPT to find and learn new words, idioms, and expressions. It is interesting to note that 50% of the participants used ChatGPT to ask for definitions, synonyms, or examples of word usage. Moreover, 47% of the participants stated their use of ChatGPT to seek assistance on specific grammar topics or to seek feedback on their sentence construction. In addition, only 16% of the respondents used the ChatGPT AI tool to discuss pronunciation, intonation, and accent, while 26% of the participants utilized this tool to search for information about English-speaking cultures and customs. The study revealed that 47% of the respondents use ChatGPT as a quick reference tool for English-related queries (ask for explanations of grammar rules, clarification of vocabulary meanings, or recommendations for additional learning resources). Out of 38 students, only 11 student participants used ChatGPT for writing articles, blog posts, social media captions, or creative writing (songs/poems/short stories etc.).

Table 2: Usage of ChatGPT

Way of using ChatGPT	%
Chat	58
Writing	29
Ask definitions/synonyms/examples of words	50
Check grammar	47
Check pronunciation	16
Search about English speaking cultures	26
Quick reference	47
Writing blogs/social media captions/creative writing	25
Getting feedback	29

As a search engine	10
Summarize long texts	15
Homework assistance	45
Write emails/formal letters	25

In response to the question, getting suggestions, brainstorming ideas, overcoming writer's block, or getting feedback on their written work from ChatGPT, 29% responded positively. It is interesting to note that the majority of the participants utilized Chat GPT as a conversational search tool to quickly find information on specific topics, similar to a search engine. The study revealed that the majority of the students did not use ChatGPT to summarize long readings. Further, 45% of the participants used ChatGPT to generate ideas for their homework and assignments. Only a small number of participants used ChatGPT to write emails/formal letters, to summarize lecture notes, to get a catchy title for the project, to write abstracts, to get ready for the exams by obtaining questions or model answers, scheduling study plans (requesting a schedule to learn English within 2 months), or rewording /paraphrasing their writing. Additionally, 34% of the participants utilized other AI tools such as Grammarly, Quillbot for their ESL work. Notably, the majority of the participants (89%) expressed the belief that AI is beneficial for their studies. Table 3 provides information obtained from the qualitative content analysis of the open-ended question.

In accordance with the results, it is apparent that Sri Lankan ESL learners exhibit caution when using ChatGPT for their language learning purposes. They primarily prefer to use ChatGPT for chatting, asking definitions, checking grammar, quick referencing, and as a tool for homework assistance. This suggests their low reliance on AI tools. This observation aligns with the findings reported by Tlili et al. (2023) and Ray (2023), which emphasize the need for the same trend. Table 3 provides further insight into the phenomenon, as Sri Lankan learners have identified potential threats to their creativity and self-learning posed by ChatGPT. The findings indicate that these learners prefer to apply their own creativity to their writing while utilizing ChatGPT for necessary support and assistance.

Table 3: Qualitative content analysis

Codes	Categories	Themes
Easy to use	Attractiveness	Advantage
Very useful tool		
Can interact with the tool in many ways		
Can use to get new English words	Educational Value	
Can use as a supervision tool		
Can quickly get more clarification like a teacher		
Can use to improve English vocabulary		
Useful to develop English skills	Weakness	Disadvantage
Caused us to lose our creativity and self-learning skills		

Furthermore, Sri Lankan ESL learners have recognized ChatGPT as an attractive tool and valuable tool. However, they have also acknowledged that excessive reliance on it can potentially hinder their creativity.

Conclusions

The study aimed to investigate how Sri Lankan ESL learners utilize the AI tool, ChatGPT to enhance their English proficiency. Data was collected from 95 ESL learners to achieve this objective. Interestingly, the findings of the study revealed that Sri Lankan learners are not only highly aware of ChatGPT but also employ it to improve their English language skills while safeguarding their creativity. Anyhow, it is important to note that the findings should

be interpreted with caution due to the limited sample size. Conducting a large scale mixed study would further validate and enhance the reliability of the findings. Future studies have the potential to expand the sample size and provide a more comprehensive understanding of Sri Lankan ESL learners.

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