Transforming English Language Teaching Through AI: Evaluation of the Strategies and Potential of Artificial Intelligence Applications in EFL

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Abstract

Artificial Intelligence has the capacity to transform multiple sectors, such as English Language Teaching (ELT). In recent years, academics and educators have focused on incorporating artificial Intelligence in English Language Teaching to assess its advantages and effectiveness. This study will investigate the methodologies employed in English Language Teaching (ELT) and the potential use of Artificial Intelligence on students. 30 English teachers participated in this study as responders, utilizing Artificial Intelligence, such as ChatGPT. The research design employed both quantitative and qualitative methods. Quantitative data was collected via surveys and evaluated using descriptive statistics. Qualitative data was collected through in-depth interviews and processed using thematic analysis. The findings of this study demonstrate substantial outcomes in responses collected via questionnaires and interviews. Educators concur that ChatGPT has a beneficial impact on enhancing students' English proficiency. Using ChatGPT necessitates teacher assistance. This is intended to prevent the inappropriate usage of ChatGPT for unrelated topics. Thus, it is necessary to employ suitable strategies when incorporating AI into language instruction. This research exclusively focuses on using ChatGPT with teachers, excluding students' perspectives.

Keywords*: Artificial Intelligence, Strategies, Potential*

Introduction

The continuous evolution of new technologies is significantly influencing the landscape of educational practice (Rodway & Schepmen, 2023). One of them is Artificial Intelligence (AI), which has significantly influenced the educational paradigm in recent years (Malik et al., 2023). As a result, there is a growing trend to incorporate artificial intelligence (AI) applications into teaching and learning (Darayseh, 2023). Advances in Artificial Intelligence offer teachers' new tools and services to improve student learning (Adams et al., 2023). It shows that Artificial Intelligence (AI) has significant prospects for improving the quality of education. Artificial intelligence technology in education presents numerous mediums that teachers and students can utilize to help learning. One such medium that can be utilized is ChatGPT. ChatGPT is a unique chatbot system that can respond to user requests coherently and contextually relevantly (Young & Shishido, 2023). Nevertheless, through the implementation of this technology, educators can enhance their instructional efficacy while simultaneously improving the educational experience of their pupils. Teachers can facilitate discussions, provide individual feedback, and improve language proficiency (Javaid et al., 2023). Multiple studies have demonstrated that incorporating technology into English instruction improves students' command of the language (Ulla et al., 2023).

ChatGPT can help Indonesian students enhance their English language skills. Students can utilize ChatGPT in English to engage in interactive conversations and receive quick feedback on their grammar and vocabulary usage. They can improve their confidence and accuracy in speaking and writing in English. ChatGPT can also assist pupils in expanding their vocabulary. Students can learn new terms and discover how they are used in context by interacting with ChatGPT (Celik et al., 2023). It is crucial to remember that ChatGPT serves as a supplementary resource for English language acquisition rather than the primary tool. It is necessary to conduct comprehensive assessments of students' perspectives about using ChatGPT in language learning, specifically focusing on the potential risks related to the inappropriate use of ChatGPT (Cai et al., 2023). Hence, educators must be able to effectively instruct students in utilizing and comprehending ChatGPT within the language learning framework. The absence of adequate supervision can result in a reliance on ChatGPT technology among student users.

Consequently, scientific literature has begun to examine the impact of ChatGPT-

Silvi Fitria Daulay, Pirman Ginting
Transforming English Language Teaching Through AI: Evaluation of the Strategies and
Potential of Artificial Intelligence Applications in EFL

assisted learning systems in various teaching models at every educational stage and subject because many AI-based tools have emerged to produce text, images, and digital products such as presentations, translations, and videos (Cano et al., 2023). According to (Elbanna & Armstrong, 2023), ChatGPT learning may be effectively integrated into education to automate mundane chores and improve the learning experience for students, thus increasing productivity and efficiency and encouraging adaptive learning. Other studies show that intrinsic motivation and competence to learn with chatbots depend on teacher support, such as using ChatGPT in education recognized in lesson planning (Chiu et al., 2023; Su & Yang, 2023). Language learning is one of them. ChatGPT is an excellent alternative to language learning. Because they can respond to student inquiries and stress relevant material to aid in recognizing and understanding linguistic traits (Schmidt, 1990). Aside from that, ChatGPT is always available at any time and from any location, allowing students to practice their language abilities at any time. Despite the numerous advantages of ChatGPT, it is essential to acknowledge that this technology cannot fully replace a human teacher in the context of language acquisition since it also possesses certain drawbacks. Extensive inquiry is warranted to examine teachers' perspectives on ChatGPT-assisted language learning, as it raises concerns about the potential hazards arising from its misuse (Cai et al., 2023).

This research is required to determine the utility of ChatGPT in English language acquisition in Indonesia, where research is still scarce, particularly in the setting of formal education. Furthermore, there is little research that investigates in-depth successful techniques for using ChatGPT in English language acquisition. Aside from that, it is essential to consider the possible benefits of using ChatGPT in English language learning, such as the flexibility of ChatGPT to specific student needs and the development of more effective and efficient English language abilities. Hence, it is crucial to conduct research that explores the evolution of English language acquisition facilitated by artificial Intelligence (AI). Such research endeavors aim to enhance comprehension of the utilization of AI in English language learning while also assessing its efficacy and potential.

Method

The research aimed to identify the primary issues in strategies and potential in teaching English. Researchers employed a combination of quantitative and qualitative methods. The sample consisted of English teachers in Indonesia. The research considered samples that fulfilled the criteria using purposive sampling

(Dasra et al., 2023). Thirty teachers from Indonesia participated in this study. These 30 teachers fulfilled the requirements by using Artificial Intelligence, such as ChatGPT, to teach and learn English in their classes. The research utilized questionnaires and interviews as its instruments. The questionnaire was distributed online through G-Form, which included 20 question items. Users could enter responses and send surveys and replies via the Internet (Ary et al., 2010). Researchers utilized a Likert Scale questionnaire to disseminate the data. The questionnaire consisted of five attitude scales, as described by Podsen (1997): Strongly Disagree, 2) Disagree, 3) Neutral, 4) Agree, and 5) Strongly Agree. During this time, detailed interviews were carried out with a few participants, mainly teachers, who were asked a series of questions. During the study, researchers conducted detailed interviews to gather thorough information focusing on teachers' perspectives, experiences, emotions, and interpretations regarding their use of ChatGPT and the benefits they gained from using Artificial Intelligence (Rutledge & Hogg, 2020).

Moreover, two data analyses were conducted for this research: descriptive analysis methods and thematic analysis. The descriptive analysis method utilized SPSS version 24.00 to process quantitative data via a few questions. The analysis used descriptive statistics, variance (ANOVA), or sample t-tests (Ismail, 2011). Meanwhile, in qualitative research, thematic analysis was used for data analysis. The thematic analysis involved examining the potential of ChatGPT and determining suitable strategies for its use in English language teaching by identifying themes or patterns using various qualitative analytical methods (Braun & Clarke, 2006). These steps for utilizing thematic analysis include selecting keywords and quotations, coding, theming, interpreting, and developing a conceptual model (Braun & Clare, 2006).

Results

A total of 30 English teachers completed the G-form questionnaire. These educators have successfully completed a survey on the utilization of ChatGPT for English instruction in educational institutions. The questionnaire has 20 inquiries that assess the utilization, strategies, and potential of ChatGPT in the context of English language instruction. The reliability test findings indicate that Cronbach's alpha value exceeds 0.855, as evidenced in Table 1, which presents the questionnaire's reliability. Subsequently, closed-ended questions were examined

utilizing SPSS version 24.0.

Table 1. Reliability of Questionnaire Items

Reliability Statistics

Cronbach's Alpha	N of Items
.855	20

The researcher utilized a Likert scale from Podsen (1997) to assess lecturers' attitudes. Each question had multiple alternatives, including strongly agree (SA), agree (A), neutral (N), disagree (D), or severely disagree (SD). Point values for positive statements: SA = 5, A = 4, N= 3, D = 2, and SD = 1. For negative statements, the scale is graded inversely. There are three questionnaire tables in this study. For table 2 contains questions regarding (Using ChatGPT in teaching English). Table 3 contains questions regarding (Strategies of using ChatGPT in teaching English). Table 4 contains questions regarding (Potentials of using ChatGPT in teaching English) and table 5 contains questions regarding (Challenges of using ChatGPT in teaching English).

Table 2. Using Artificial Intelligence, such as ChatGPT, in teaching English

No	Statements	SD		D		N		A		SA		Total	
		F	%	F	%	F	%	F	%	F	%	F	%
1	I often use ChatGPT for educational purposes.	-	-	1	3.3	4	13.3	19	63.3	6	20	30	100
2	I often use ChatGPT to provide English teaching materials tailored to students' ability levels.	-	-	2	6.7	2	6.7	17	56.7	9	30.0	30	100

3	I often get useful answers from ChatGPT regarding English questions.	-	-	-	-	7	23.3	16	53.3	7	23.3	30	100
4	I often utilize ChatGPT to deliver assignments to students when teaching English.	-	-	1	3.3	4	13.3	20	66.7	5	16.7	30	100
5	I often use ChatGPT to provide students with feedback in English Class.	-	-	1	3.3	2	6.7	20	66.7	7	23.3	30	100

Based on the data above, it demonstrates the highest score regarding the efficacy of utilizing ChatGPT. The data indicates that 63.3% of participants concur with the initial statement. Similarly, 56.7% of participants concurred with the second statement. The third statement achieved the highest score of 53.3%. Similarly, the fourth and fifth statements achieved a maximum score of 66.7%. The examination of these five data statements reveals that teachers frequently employ ChatGPT as an instructional tool.

Table 3. Strategies of Using Artificial Intelligence, such as ChatGPT, in Teaching English

No	Statements	SD		D		N		A		SA		Total	

Silvi Fitria Daulay, Pirman Ginting
Transforming English Language Teaching Through AI: Evaluation of the Strategies and
Potential of Artificial Intelligence Applications in EFL

		F	%	F	%	F	%	F	%	F	%	F	%
1	I use ChatGPT to create learning materials.	-	-	-	-	6	20.0	18	60.0	6	20.0	30	100
2	I advise students to utilize ChatGPT as a tool for language acquisition.	-	-	-	-	3	10.0	19	63.3	8	26.7	30	100
3	I balance ChatGPT learning interaction for students so facilitators do not occur.	-	-	-	-	2	6.7	22	73.3	6	20.0	30	100
4	I advise students to use ChatGPT to get complex answers.	-	-	-	-	6	20.0	21	70.0	3	10.0	30	100
5	I always validated the material and	-	-	1	3.3	3	10.0	19	63.3	7	23.3	30	100

	questions offered by ChatGPT.												

Based on the data presented, educators concur that employing ChatGPT as an instructional aid should be done deliberately and well-planned. This is corroborated by the level of concurrence with the five aforementioned statements. The first question demonstrates an agreement percentage of 60%. The second and fifth statements have a significant score of 63.3%. The third statement achieved the maximum score of 73.3%, while the fourth statement obtained the second-best score of 70.0% for this indication. Each numerical value in the percentage agreement score indicates the extent to which the teacher concurs with the necessity of employing strategies when utilizing ChatGPT for instructional purposes.

Table 4. Potentials Of Using Artificial Intelligence, such as Chatgpt, in Teaching English

No	Statements	SD		D		N		A		SA		Total	
		F	%	F	%	F	%	F	%	F	%	F	%
1	ChatGPT facilitates a user-specified personalized language learning experience.	-	-	-	-	4	13.	23	76.7	3	10.	30	100
2	I believe ChatGPT can boost students' grasp of language-learning topics.	-	-	-	-	2	6.7	11	36.7	17	56.7	30	100
3	I feel ChatGPT answers specific	-	-	-	-	4	13.3	22	73.3	4	13.3	30	100

No	Statement											
	user requirements to their satisfaction.											
4	I believe ChatGPT has the potential to enhance language learning.	-	-	-	-	3	10.0	18	60.0	9	30.0	30	100
5	ChatGPT enhances the efficiency and efficacy of English language instruction.	-	-	-	-	2	6.7	19	63.3	9	30.0	30	100
6	ChatGPT assists learners in comprehending English vocabulary and grammar.	-	-	-	-	2	6.7	23	76.7	5	16.7	30	100
7	ChatGPT helps teachers to develop student's skills (speaking, listening, writing and reading)	-	-	-	-	3	10.0	16	53.3	11	36.7	30	100
8	ChatGPT answers the English lesson practice questions based on the question.	-	-	1	3.3	5	16.7	19	63.3	5	16.7	30	100

Based on the data above, respondents expressed agreement regarding the

considerable potential of using ChatGPT. Based on the data, the first and sixth expressions of agreement had the highest scores, both reaching 76.7%. The second statement received a score of 56.7%, indicating a strong agreement. The third statement ranked second highest, with an agreement rate of 73.3%. The fourth statement demonstrates a satisfactory outcome of 60.0%. The statements that yield statistically significant results are displayed in outcomes fifth and eighth, both showing a 63.3% outcome. The seventh statement yielded a result of 53.3%. Based on the percentage results, teachers universally acknowledge that ChatGPT holds immense potential and offers substantial benefits in the realm of English language instruction.

Table 5. Challenges of Using Artificial Intelligence, such as Chatgpt, in Teaching English

No	Statements	SD		D		N		A		SA		Total	
		F	%	F	%	F	%	F	%	F	%	F	%
1	ChatGPT does not respond to pertinent inquiries.	7	23.3	18	60.0	3	10.0	1	3.3	1	3.3	30	100
2	ChatGPT can reduce interaction between teachers and students learning English.	8	26.7	17	56.7	3	10.0	2	6.7	-	-	30	100

Based on the data presented above, the barriers to using ChatGPT received a high disagreement score with the presentation results. This is evident in statement no. 1, which states that 60.0% of respondents disagree with the claim that ChatGPT

does not provide relevant answers. Similarly, statement no. 2, which states that ChatGPT reduces student-teacher interaction, received a score of 56.7% of respondents who disagreed. It demonstrates that ChatGPT does not provide any challenges when it comes to answering questions and facilitating interaction between teachers and students, as indicated by the maximum score that is in disagreement with these two statements.

Discussion

Thematic analysis is utilized to comprehend an issue being examined. Researchers used semi-structured interviews to examine the potential and strategies for incorporating Artificial Intelligence (ChatGPT) into English language instruction. Three teachers were chosen based on the criteria of this investigation. Informants are designated as P1, P2, and P3. The qualitative data gathered from these interviews offer additional details and tangible proof of the teachers' experiences related to the findings.

The current advancements in the field of Artificial Intelligence (AI) have emerged as a central area of focus in enhancing the efficacy of various technologies and driving the progression of Industry 4.0 (Hajipour et al., 2023). The emergence of Artificial Intelligence (AI) has become a pivotal element in modern society, exerting a profound influence on various domains, such as education (Segbenya et al., 2023). Hence, it is not surprising that the adoption of AI has gained popularity among students and educators. This integration encompasses a diverse array of tools and applications, as evidenced by the scholarly works of (Chen et al., 2020)

Educator P (1) stated that:

"ChatGPT is a popular educational tool utilized by numerous teachers in our school, particularly those teaching English."

Educator P(2) mentioned that:

"We have utilized AI, such as ChatGPT, for English learning. This artificial Intelligence is an innovative tool for learning."

And P(3) also added that:

"I use ChatGPT in my classroom to enhance creative learning and boost student

enthusiasm."

Based on the information provided in the interview, it can be inferred that the utilization of AI, like ChatGPT, is currently widespread. The teachers mentioned that AI-assisted them in the English learning process.

Teachers must possess proficient skills in utilizing ChatGPT to employ innovative strategies to achieve positive outcomes. The research findings indicate that teachers concur with the notion that using strategies in English instruction can provide favorable outcomes. The utility of ChatGPT as a supplementary instrument for enhancing language acquisition is generally acknowledged (Fitria, 2023; Kohnke, 2023). The inquiry into whether instructors should retain specific traditional responsibilities, such as evaluating student work based on lucidity and format, is further complicated when one considers the significant transformations that AI programs like ChatGPT have induced in English language instruction and learning (Emenike & Emenikei, 2023). Given the considerable stakeholder status of educators in AI-based instruction (Seufert et al., 2021), it is imperative to incorporate their perspectives, practical knowledge, and anticipated outcomes to ensure the effective integration of AI in educational institutions Holmes (2019). Therefore, educators must employ artificial Intelligence wisely in teaching, particularly in the context of English instruction, as elucidated by Teachers (P1) and (P2):

Educator P (1) stated that:

> *"I consistently guide my students when utilizing ChatGPT to prevent any potential misuse of this artificial intelligence tool. The guidance I provide pertains to the utilization of ChatGPT to acquire proficiency in the English language. As an educator, I not only offer guidance but also clarify the responses provided by Artificial Intelligence, such as ChatGPT. It is imperative to verify the responses provided by the instructor to bolster the answers for language acquisition, given the known fallibility of ChatGPT."*

Educator P (2) mentioned that:

> *"When incorporating ChatGPT into the classroom, I did not fully utilize*

Silvi Fitria Daulay, Pirman Ginting
Transforming English Language Teaching Through AI: Evaluation of the Strategies and
Potential of Artificial Intelligence Applications in EFL

> *ChatGPT's potential to facilitate pupils' language acquisition. ChatGPT contributes 30% while the teacher contributes 70% to ensure students do not rely solely on technology and instead enhance their critical thinking skills. ChatGPT is utilized selectively, such as reviewing pupils' writing for grammar and vocabulary. I also oversee the utilization of Artificial Intelligence."*

The quote indicates that the teacher arranges strategies by giving guidance on utilizing AI to prevent unwanted outcomes. Teacher P(3) also demonstrates the same result:

> *"I think ChatGPT is an innovative tool for enhancing English learning, requiring educators to provide necessary guidance to their students. The instructor needs to give guidance to the students on the appropriate use of the ChatGPT feature."*

In order to optimize instruction for individual students, instructors must modify AI systems and offer adaptive feedback (Hartono et al., 2023). EFL necessities are varied and intricate. An instance showcasing the personalization capabilities of AI is the development of training exercises that correspond to the learner's interests, objectives, and proficiency level (Baskara & Mukarto, 2023). Some pupils may require additional assistance with their speaking abilities, whereas others may benefit from developing their reading or writing skills. Consequently, educators must prudently employ AI systems, discern every pupil's unique requirements, and deliver adaptive feedback commensurate with those needs. In addition to devising strategies, teachers must also provide remedies for the issues that arise when utilizing Artificial Intelligence. The challenges encompassed in this study are insufficient instructional hours, constrained physical space, restricted resources, and repetitive measurement procedures (Fitria, 2023). In addition, AI may possess erroneous, weak, and unreliable data for being entirely dependable (Hockly et al., 2023). This is due to the fact that Artificial Intelligence still necessitates additional human engagement resources to accurately replicate the complexities of language within various cultural and contextual frameworks.

Additionally, a substantial amount of data is required to train AI systems effectively (Fitria, 2023). According to the two researchers, AI should be seen solely as a companion for teachers and students, as the primary responsibility of the teacher is to offer individualized feedback to each student concerning language acquisition. While AI can provide automated feedback and evaluation, it cannot

substitute for human discernment and comprehension of the intricacies and distinct circumstances involved in the teaching and learning process. AI-based English language instruction can significantly transform educators' methods of teaching and learning languages (Mushthoza et al., 2023). Nevertheless, this necessitates meticulous strategizing and execution to surmount the obstacles accompanying its utilization. English teachers can enhance the learning experience for their students by employing efficient strategies and embracing the integration of AI technology. This approach enables them to deliver a more captivating, individualized, and efficient educational experience. The teacher's approach to incorporating ChatGPT with students is appropriate, as they guide students to utilize the platform effectively by merging ChatGPT responses with their own reflections and by providing them with pertinent learning resources and answers to stimulate their critical thinking in the subsequent discussions. According to the aforementioned research findings, ChatGPT is trending in the direction of expected expansion and progress. The pedagogical potential of ChatGPT as a viable platform for enhancing language proficiency via genuine interaction (Arif et al., 2023). ChatGPT is a software application that emulates conversations that resemble those of humans in response to user input (Fitria,2023). ChatGPT can effectively augment English as a Foreign Language (EFL) learning by virtue of its multifaceted capabilities—including natural language meaning processing, personalized instruction, real-time feedback, and human-like responses—according to additional research findings (Mohamed, 2023). ChatGPT could offer learners genuine interaction experiences by virtue of its capability to simulate conversations that resemble those of humans. Teachers P(1), P(2) and P(3) likewise expressed this assertion.

Educator P (1) mentioned that:

> *"Implementing ChatGPT for English study helps boost student enthusiasm. ChatGPT has demonstrated its ability to respond to students' inquiries and cater to their specific educational requirements. Students' mastery of English grammar and composition improved this semester with the use of ChatGPT."*

Educator P (2) stated that:

Silvi Fitria Daulay, Pirman Ginting
Transforming English Language Teaching Through AI: Evaluation of the Strategies and
Potential of Artificial Intelligence Applications in EFL

> *"After incorporating ChatGPT into all my classes, I determined that it could be a beneficial tool. ChatGPT is a customizable tool. This program assists me in generating suitable study materials and questions based on books. In addition, this application positively influences my students by helping them develop proficiency in four English language skills."*

Educator P (3) additionally noted that:

> *"Artificial intelligence technology like ChatGPT has benefitted both me and my pupils, particularly in acquiring reading skills and expanding vocabulary. My students' English proficiency has been greatly enhanced through using ChatGPT. ChatGPT can adjust to users' requirements, enabling them to learn autonomously."*

The teacher's statements indicate that ChatGPT can enhance students' language skills in a more engaging and thorough manner, as demonstrated by this study. Artificial Intelligence is recognized as a potent tool for improving language acquisition. Several research (Ulla et al., 2023) have shown that integrating technology into English language teaching benefits students' English competence. AI can enhance personalized learning for every student. (Yong, 2020) states that Artificial Intelligence has the capability to choose suitable educational material, establish learning objectives, devise customized learning strategies, address learning challenges, and offer diverse learning approaches. It facilitates the identification of distinct learning styles and talents in students, enabling the creation of personalized learning experiences that specifically address these variations. Furthermore, Artificial Intelligence has the capability to prompt teachers to adapt their teaching methodologies and tailor instruction to student's individual talents during the teaching process (Yong, 2020). Artificial Intelligence, such as ChatGPT, can enhance EFL learners' overall English language proficiency in various domains, including speaking, listening, writing, vocabulary, and reading, according to intriguing findings (Obari et al., 2023). It has been demonstrated that integrating ChatGPT into English language education is promising and dependable.

Conclusion

This study investigates teachers' viewpoints on the strategies and potential applications of artificial Intelligence, such as ChatGPT, in the context of instruction in English. The results of these two research methodologies demonstrate that

ChatGPT is a good tool for English language learning. Artificial Intelligence greatly aids teachers in enhancing the quality of English education by improving students' language proficiency, including expanding vocabulary, refining grammar, and developing all four language skills (Ulla et al., 2023). By utilizing the ChatGPT feature, students can experience replies that mimic real conversation, leading to increased engagement and motivation in the process of learning English. Additionally, ChatGPT can assist teachers in addressing obstacles in teaching English, like time and resource constraints. ChatGPT allows professors to promptly offer support and responses to students' inquiries without the need to search for sources or verify replies manually. Teachers have easy access to materials and questions for classroom instruction. Apart from the benefits of using ChatGPT in the research mentioned, the researcher encountered an issue of spending one hour for every teacher for interviews to gain a cohesive and logical explanation.

Notwithstanding the evident promise of ChatGPT in the realm of English language acquisition, the instructor's active participation continues to be of utmost importance. Teachers must refine their strategies to ensure that ChatGPT effectively supports students by offering advice, detailed explanations, and individualized feedback, making it a consistently beneficial tool. This research solely examines the instructor's perspectives on the strategies and potential of utilizing Artificial Intelligence, such as ChatGPT, in English instruction, without including any student feedback. It is essential to conduct additional studies on students' viewpoints regarding the influence of ChatGPT on the learning of the English language. This supplementary research could investigate students' encounters with ChatGPT in the context of learning the English language. Considering the student viewpoint can provide a deeper insight into the effects of AI tools like ChatGPT on student motivation, engagement, and learning results.

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Silvi Fitria Daulay, Pirman Ginting
Transforming English Language Teaching Through AI: Evaluation of the Strategies and
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