

Teachers' Perception of Generative AI Tools for English Language Instruction

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Abstract

Artificial intelligence (AI) technology has become a major force in various fields, including language education. The introduction of generative AI tools into the English language teaching process opens up new opportunities and challenges. Therefore, this study aims to explore the perceptions of novice and senior English teachers regarding the integration of generative artificial intelligence (AI) tools in English language teaching. A qualitative case study approach was used involving 13 teachers, consisting of 6 novice and seven senior teachers in high school. Data were collected through questionnaires and semi-structured interviews and then analyzed using thematic analysis. The research findings indicate that novice teachers are more familiar with and tend to perceive generative AI tools as more useful compared to senior teachers. However, both novice and senior teachers acknowledge the potential benefits of AI tools in enhancing lesson planning, providing personalized feedback, and creating engaging learning experiences. Nevertheless, they also anticipate challenges such as insufficient training, technical issues, concerns about student engagement, as well as ethical and privacy issues. This study highlights the need for comprehensive training, adequate technological support, and further research to optimize the integration of AI tools in language teaching effectively and ethically.

Keywords: *Generative AI tool, English language instruction, novice English teacher, senior English teacher*

INTRODUCTION

Digital developments in the advancement of artificial intelligence (AI) technology have had a major impact on various fields, especially in education. The integration of Artificial Intelligence (AI) is in the spotlight as a potential tool used in teaching and learning practices. Generative AI refers to systems that can generate text, images, or content based on commands or data input (Xu et al., 2022). In language education, artificial intelligence (AI) has a big impact in helping the learning system. The ease of accessing generative AI in English language teaching has triggered various offers that make it easier for students to learn the language. However, all the advantages and convenience offered by the integration of artificial intelligence (AI) in learning can include threats to the quality of learning that result in inaccurate content and misinformation (Xu et al., 2022). In addition, students' ability to use Generative AI, which is easy to access, allows students to become addicted and dependent in doing their work; its communication raises concerns among English teachers regarding

effectiveness, ethics, and student learning outcomes (Chiu & Churchill, 2022). The integration of Generative AI tools that are widely used by students as well as transmitters can pose a threat to the security of privacy, data, and intellectual rights (Floridi & Chiriatti, 2020). Students' use of various AI tools must be controlled to maintain student privacy and security. Therefore, the use of digital tools in the form of artificial intelligence (AI) in education, especially for students, requires supervision from teachers to ensure they use these tools effectively and efficiently.

In AI-based teaching, teachers are an important foundation for student success. Their views, experiences, and strategies need to be considered for the successful implementation of AI in schools (Holmes et al., 2019). Teachers must understand the benefits and challenges they have to face in digital-based teaching, which students widely use. The evolution of educational change means that the presence of teachers will remain the same in the future (Dillenbourg, 2016). The level of effective teaching depends on the teacher's ability to teach English language teaching in the digital era. According to Seufert et al. (2020), teachers must be empowered to implement this integration by equipping them with the necessary knowledge, skills, and attitudes. That means teachers must have broad insight into using digital media to face several challenges that may arise.

This difference in perspective is apparent when comparing novice and senior English teachers, as their experiences, teaching philosophies, and comfort levels with technology may differ significantly (Tondeur et al., 2017). English novice teachers may find it easier to face the application of generative AI in the classroom. Their skills in using technology facilitate the integration of these tools into their teaching practices (Prensky, 2001). However, they may also face some challenges in aligning it effectively with their teaching methodology in the classroom (Farjon et al., 2019). On the other hand, senior English teachers may be more aware of the integration of artificial intelligence (AI), which is widely used in education to make work easier. The teaching principles and experiences they have developed while teaching the impact of AI influence their attitudes and desires to use technology as part of their responsibilities and roles as teachers (Ertmer et al., 2012). Therefore, this is a consideration for senior English teachers to adapt to the digital era more deeply to face challenges that may occur.

LITERATURE REVIEW

Generative AI Tools for Language Instruction

Generative artificial intelligence tools are increasingly popular in various fields, especially in English language teaching; natural language processing (NLP) and artificial intelligence (AI) utilize machine learning teaching algorithms to generate text. One prominent application of AI tools in language learning is the Generative Pre-trained Transformer (GPT). This tool has the potential to aid language acquisition, provide instant feedback, and create an interactive and personalized learning experience for students (Hou, 2020; Tan et al., 2023; Ulla et al., 2023). Moreover, AI-powered writing is one of the prominent AI tools in writing practice that provides real-time feedback and suggestions. AI-powered writing assistants analyze and identify grammatical errors, suggest improvements in style and structure, and offer good word choices (Jiang et al., 2021). Apart from that, AI tools can also be used for virtual speaking or conversations. These AI-powered chatbots can engage in natural language dialogue in real life and

provide opportunities to practice speaking and listening skills (Liu et al., 2020). Therefore, this AI tool produces contextually relevant responses and adapts to the learner's level of proficiency to develop fluency and confidence in using the language.

Generative AI Tools in Academic Settings

In an academic context, artificial intelligence (AI) has a major impact on learning systems based on students' learning styles, performance, and learning experiences. The use of AI tools such as ChatGPT, which students commonly use, helps students with their assignments. These tools can produce customized content, provide real-time feedback, and adjust speed and difficulty based on individual learner needs (Duffy and Azevedo, 2022). Additionally, automated grading systems can evaluate student work consistently, saving educators valuable time and effort (Guo et al., 2021). Apart from helping students, AI also helps educators assess assignments, provide feedback, and produce learning materials. Therefore, artificial intelligence (AI) tools in education are becoming commonly used by students or teaching staff following increasingly rapid technological developments, even though there is the potential for AI tool-based learning to change educational practices. In line with this, Cukurova (2023) explains that the adoption of AI tools in schools is still slower than expected, which raises questions about the factors influencing this adoption and how much these factors influence teachers' engagement with technology. However, the use of artificial intelligence (AI) cannot be eliminated in education so that it can be used effectively.

The Potential Impact of Generative AI on Language Learning

The increasingly widespread development of generative AI tools has the potential to revolutionize language learning adaptively and engagingly. Paradigm shifts in teaching and learning have been associated with the application of artificial intelligence (AI) in education and offer unparalleled opportunities and complex challenges (Alasadi & Baiz, 2023). This tool produces content tailored to students' needs, requests, and proficiency levels, thereby increasing students' learning motivation (Chowdhury, 2022). One of the advantages of using generative AI is that it speeds up time and makes working on projects easier. Relmasira et al. (2023) encourage educators to take advantage of this opportunity to prepare students to utilize GenAI in significant ways and conduct creative experiments with its use in education.

Additionally, despite its promising potential, the integration of generative AI in language learning also presents several challenges. One of the main concerns is the ethical implications of using AI-generated content, such as plagiarism and intellectual property rights (Waller & Anderson, 2022). There is a risk that students may try to pass off AI-generated work as their own, raising academic integrity issues. Another challenge is ensuring the accuracy and suitability of the content produced for language learning purposes. AI can sometimes be inconsistent or inappropriate, which can reinforce incorrect language patterns or cultural stereotypes (Zhang et al., 2021). Thus, strong quality control mechanisms and human oversight are required to mitigate these risks.

METHOD

This research was conducted using a qualitative case study approach to conduct an in-depth investigation of a contemporary phenomenon in a real-life context (Yin, 2018). The selection of participants was through convenience sampling based on the

availability and accessibility of teachers involving 13 English teachers consisting of 6 English novice teachers (less than three years of teaching experience) and seven senior English teachers (more than five years of teaching experience) who taught in high schools from 5 different schools in North Sumatra. This research collects data through questionnaires and semi-structured interviews. The interview guide consists of open-ended questions. The questionnaire data was developed via Google Form, which includes open and closed questions to obtain participants' perceptions, experiences, and attitudes towards generative AI tools in English language teaching. Next, the data was analyzed using an analytical approach, and several themes were determined previously based on research questions and existing literature.

FINDINGS

The questionnaire data collected by researchers from participants provides insight into the perceptions of novice English teachers and senior English teachers towards generative AI tools for teaching English. The findings are presented in the following table:

Table 1
Familiarity with Generative AI Tools

Familiarity Level	Novice Teachers (n=6)	Senior Teachers (n=7)
Very Familiar	4 (66,7%)	2 (24,6%)
Somewhat Familiar	2 (33,3 %)	3 (56,2%)
Not familiar	0 (0%)	2 (20,2)

The table shows that more novice teachers are very familiar with the in-depth use of AI tools in the world of education, and some novice teachers are familiar with mastering generative AI tools. This is possible because novice English teachers follow the digital era, which is increasingly developing in their environment. Apart from that, it is known that only two senior English teachers are very familiar with mastering AI tools. In contrast, other senior teachers need to understand generative AI tools in technology because they tend to use books or their experience.

Table 2
Perceived benefits of Generative AI Tools

Usefulness Rating	Novice Teachers (n=6)	Senior Teachers (n=7)
Very Useful	4 (47.3%)	2 (40.3%)
Somewhat Useful	3 (32,4%)	3 (44.9%)
Not Useful	1 (31.3%)	1 (14.3%)

The use of artificial intelligence (AI) tools for English teachers is very useful for their work, especially in education, to help simplify the learning or teaching system. However, some senior English teachers do not rely on using AI tools because they need to understand how to use them and prioritize the experience and understanding that they have.

Table 3
Anticipated Challenges in Using Generative AI Tools

Challenges	Novice Teachers (n=6)	Senior Teachers (n=7)
Lack of Training	4 (66.7%)	6 (85.7%)
Technical Issues	3 (50%)	5 (71.4%)
Student Engagement Concerns	2 (33.3%)	4 (57.1%)
Ethical/Privacy Concerns	2 (33.3%)	4 (57.1%)

The questionnaire shows that teachers face several challenges in using artificial intelligence (AI), one of which is that English novice teachers understand more about the use of digital tools. However, there is a risk of involving students who use artificial intelligence continuously and can cause other problems related to the use of private data existing on students' digital devices. Something that senior English teachers feel is almost the same, namely students' addiction, which is difficult to stop in obtaining the results of their work, making it difficult for senior English teachers to identify the results of students' work or the results of the work of generative AI tools. So, lagging behind digital technology in senior English teachers is one of the challenges in the digital era, which is widely used in education.

Based on questionnaire data collected by researchers to provide valuable insight into teachers' perceptions, benefits, and anticipated challenges regarding the use of generative AI tools in English language teaching. These findings were analyzed further and triangulated with interview data to gain a comprehensive understanding of the research topic of English novice teachers and senior English teachers regarding perceptions of generative artificial intelligence (AI) in English language learning.

a. Potential benefits of generative AI tools

Respondents who were beginner and senior English teachers answered that they were helped by the existence of digital tools for classroom learning, which helped them with their work.

Novice teacher 3: *"This AI tool can save me much time in creating personalized materials for my students, compared to just relying on textbooks or general resources."*

Senior teacher 5: *"With AI tools, students can get individualized feedback on their writing assignments, which is something I find difficult to provide given the large class size."*

Novice teacher 2: *"I think these tools can make language learning more fun and interactive for students, especially if they incorporate elements of gamification or virtual assistants."*

Senior teacher 7: *AI tools are the best way to improve the learning process more effectively. Technology must play a role in the learning process so that students are more familiar with today's increasingly advanced digital era.*

Novice teacher 1: *"I usually use the quizzes or Duolingo application with students in class to make it simpler and more practical."*

Novice teacher 5: *"The use of AI really helps my work run smoothly. Moreover, it made me appear more confident teaching in class."*

Based on these interviews, it can be concluded that English novice teachers and senior teachers are helped in their work using AI tools such as improving lesson planning and creating materials that can be adapted to students' needs and proficiency levels, providing personalized input and support to students, especially in areas such as writing and grammar correction. Apart from that, teachers also realize that AI can help make the language learning experience more interesting, interactive, and fun for students through language game features, virtual assistants, and adaptive learning.

b. Concerns and Challenges

Despite being aware of the potential benefits, both novice and senior teachers expressed several concerns and challenges regarding the use of generative AI tools in English language teaching:

Senior teacher 4: *"I am not against the use of these tools, but I need proper training and guidance on how to use them effectively for language teaching."*

Novice teacher 3: *"I understand the use of AI tools, but at school, I cannot use several applications or tools that can help the learning process because of the lack of technological facilities at the school where I teach."*

Novice teacher 1: *"At school, we often face connectivity problems and have limited access to modern devices. This can be a major barrier to implementing AI tools in our classrooms."*

Senior teacher 6: *"I am concerned about the privacy of student data and the potential for AI tools to perpetuate bias or stereotypes. We must be careful and implement appropriate safeguards."*

Novice teacher 5: *"While these tools can be helpful, I do not want them to replace the human element in language learning. Teacher guidance and human interaction are essential for effective language acquisition."*

Novice teacher 6: *"I am worried about being addicted to using AI because it will weaken my brain and mind in learning, especially for students who are still in the learning process."*

Senior teacher 5: *"I have never used AI in my learning process from school to college, so I am less adapted and have to learn to use it in the current digital era of education."*

Based on these interviews, there are still many teachers, especially senior teachers, who feel they need more training for professional development in integrating AI tools effectively in their classes. In line with this, technical limitations and inadequate infrastructure in schools are also part of the need for more support for using digital tools in schools, such as internet access and the latest technological devices. Some teachers also expressed concerns about the ethical implications of using AI tools, particularly regarding data privacy, bias, and interactions with teachers or students in the classroom.

DISCUSSION

The results of the questionnaire above show that more novice English teachers are more familiar with Generative AI tools than senior teachers. This finding is consistent with previous research, which suggests that younger teachers tend to be more comfortable and receptive to the integration of new technology in education (Francom,

2020; Scherer et al., 2019). The familiarity of beginner English teachers is, of course, supported by the development of the digital era, which is in line with the development of their journey in college education or their more modern environment. This is different from the times when senior English teachers had yet to develop digital tools, forcing them to adapt to the digital era.

Despite the differences between beginning English teachers and senior beginning English teachers, they generally find AI tools useful for English language teaching. This is in line with teachers' growing awareness of the potential benefits of AI-enabled tools in improving language learning and teaching (Godwin-Jones, 2020; Khambari et al., 2021). However, basically, a higher percentage of senior teachers rated this Generative AI tool as "useless," which may be due to their long-standing teaching practice, so they have a lot of teaching experience without including technology in their classes (Ertmer et al., 2012). Therefore, both novice and senior teachers should anticipate challenges in using generative AI tools, as lack of training and technical problems are the most frequently expressed concerns. These findings are consistent with previous research highlighting the importance of professional development and technology support for effective technology integration in education (Francom, 2020; Tondeur et al., 2017). Additionally, there are concerns regarding the ethical impact of AI in education and the potential risks of over-reliance on technology, which can hinder human interaction and student engagement (Khambari et al., 2021; Luckin et al., 2016). This is a big challenge that must be faced when using AI in education so that it is used as efficiently as possible.

Meanwhile, the results of interviews with English novice teachers and senior English teachers regarding the benefits and challenges they face in using generative artificial intelligence (AI) tools in learning can conclude that both English novice teachers and senior teachers are helped in their work using AI tools, such as: improving planning lessons and creating materials that can be adapted to students' needs and proficiency levels, providing personalized feedback and support to students, especially in the areas of writing and grammar correction. In addition, teachers also realize that AI can help improve the language learning experience to be more interesting, interactive, and fun for students through language game features, virtual assistants, and adaptive learning. This is in line with previous research showing the potential benefits of AI tools in improving language learning and teaching (Godwin-Jones, 2020; Khambari et al., 2021).

However, there are challenges in using AI for teachers, especially senior teachers who feel they need more training for professional development in effectively integrating AI tools in their classrooms. In line with this, technical limitations and inadequate infrastructure in schools are also some of the causes of the lack of support in using digital tools in schools, such as internet access and the latest technological devices. Some teachers also expressed concerns about the ethical implications of using AI tools, particularly regarding data privacy, bias, and interactions with teachers or students in the classroom. These findings are consistent with previous research highlighting the importance of professional development and technology support for effective technology integration in education (Francom, 2020; Tondeur et al., 2017). This means that the use of AI technology in learning is less familiar to senior teachers who are not familiar with its use, so some of them still use old techniques according to their experience while teaching.

Based on this, it can be concluded that the importance of this research is to provide an in-depth understanding of the readiness and awareness of English teachers in schools in developing AI tools that students or educators commonly use. The findings of this research identify the training and support needs required between these two groups of teachers in developing more effective strategies to overcome barriers and encourage optimal adoption of Generative AI tools.

CONCLUSION

Based on the results of the analysis and discussion, novice and senior English teachers' perceptions of the integration of generative artificial intelligence (AI) tools in English language teaching tend to be more useful. However, despite the potential benefits of AI tools, such as helping with lesson planning, providing personalized feedback to students, and improving the learning experience. Beginning and senior teachers also anticipate challenges such as lack of training, technical issues, concerns about student engagement, and ethical and privacy issues. Teachers also worry about the possibility of AI tools replacing the role of teachers and reducing human interaction in the classroom. These findings highlight the need for comprehensive training, adequate technological support, and further research to optimize the integration of AI tools in language teaching effectively and ethically.

Therefore, to improve the learning process using digital tools, teachers are the main foundation who must have in-depth knowledge of implementing Generative AI tools in the learning process. Thus, teachers must be provided with training and professional development to integrate AI tools into teaching effectively. Additionally, technology infrastructure and technical support in schools must be improved to facilitate the use of AI tools.

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