

How Do EFL Teachers Utilize AI Tools in Their Language Teaching?*

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Abstract—Artificial intelligence (AI) is profoundly changing the way education is delivered, and advanced AI tools are gradually being introduced into the field of language teaching. However, research on AI usage in language teaching is still insufficient. To address this gap, this study explored how teachers can effectively use AI tools in language instruction based on the AI-TPACK framework (Yan et al., 2020). Through semi-structured interviews with 24 English as a Foreign Language (EFL) teachers and thematic analysis using MAXQDA software, the study revealed various applications of AI tools in language teaching. The findings suggest that AI tools play important roles in preparing teaching materials, distributing and grading assignments, machine translation, guiding student practice, and facilitating classroom discussions or interactions. However, the teachers also face challenges such as inadequate technical support and training needs when using AI tools. Based on these findings, this study proposes strategies for EFL teachers to effectively use AI tools, which provide practical references for teachers to integrate AI technology and offer insights into the development of relevant educational policies.

Index Terms—EFL teachers, AI tools, language teaching

I. INTRODUCTION

Artificial intelligence (AI) refers to the ability of digital systems to perform tasks that would normally require human intelligence to accomplish, and related technologies include image analysis, voice recognition, machine learning and language understanding (Chiu et al., 2023). The applications of AI have greatly enhanced computer functionality and promoted the development of foreign language education. Therefore, it is important to effectively use AI technology in language teaching to ensure that it has meaningful impacts on educational practice (Chen, 2020). AI can replace menial and labor-intensive duties for teachers, such as scoring papers and tests, and tracking student attendance. This would free up teachers to tailor learning strategies for students (Wang et al., 2021). Besides, AI-powered education platforms can analyze classroom interactions and student engagement to quickly identify students who may be at risk and provide immediate support (Tsai et al., 2020). Hwang et al. (2020) classified the roles of AI in education into four categories: intelligent tutor, intelligent tutee, intelligent learning tool or partner, and policy-making advisor. This reflected the different roles of AI in the educational sector and its importance in improving learning outcomes and supporting policy-making.

There is plenty of evidence that academic interest in applying AI to education has been steadily growing in recent years (Jain & Raghuram, 2023). The rapid development of big data management and natural language processing technologies has greatly enhanced AI's roles in foreign language education (Li, 2020). Moulieswaran et al. (2023) stated that AI usage in the field of language education not only brought clear advantages but also promoted the expansion of curriculum and the optimization of teaching strategies. Current technologies provide intelligent support for collaborative learning and develop realistic virtual environments. These advancements allow students to access the appropriate assistance at the right time, enabling them to address real-life challenges and issues (Luckin et al., 2016).

Numerous studies have explored the relationship between AI and language education. Pokrivcakova (2019) pointed out that foreign language learners and teachers could utilize various AI-powered tools to simplify their learning and teaching processes. The integration of AI in foreign language education provides learners with immediate and personalized support. This lays an important foundation for personalized learning. Zhi et al.'s (2023) study focused on the effects of emotional intelligence (EI) and self-efficacy on EFL teachers' use of technology in the classroom. The findings indicated that both EI and self-efficacy played significant roles in the technology adoption of EFL teachers. A study by Gao et al. (2024) explored the perceptions of EFL teachers at Chinese universities on the incorporation of Large Language Models (LLMs) in language education and the factors that influenced the integration process. The study

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revealed that the teachers were concerned about the disregard for traditional learning materials, concerns regarding academic integrity, and an over-reliance on LLMs. However, limited attention has been paid to how language teachers can apply AI tools in their actual teaching practice. This focus primarily investigates how EFL teachers use AI in their teaching and aims to reveal the applications, challenges, and impacts of AI technology on language instruction. It seeks to provide insights into the current state of AI in foreign language teaching. This initiative provides data support to teachers and decision-makers to optimize teaching strategies and improve educational quality.

II. LITERATURE REVIEW

A. AI-TPACK Framework

Mishra and Koehler (2006) further developed a model of teacher knowledge based on the concept of Pedagogical Content Knowledge (PCK). In the age of technological advancement, they argued that teachers' professional knowledge should include three basic forms: Technological Knowledge (TK), Pedagogical Knowledge (PK), and Content Knowledge (CK). The integration of these three types of knowledge is Technological Pedagogical Content Knowledge (TPACK). The profound impacts of AI on education have prompted a re-evaluation of the relationships among technology, pedagogy, and content (Ning et al., 2024). Based on the convenience of AI-based tools in teaching and technology, Celik (2023) proposed the Intelligent-TPACK framework. Recently, researchers have also introduced the AI-TPACK framework to help teachers integrate AI applications into their teaching practices (Yan et al., 2020). This study focuses on how EFL teachers apply AI tools in language teaching and the effects these tools bring. Therefore, this theory is applicable to the current research. As shown in Figure 1, the AI-TPACK framework proposed by Yan et al. (2020) strongly supports this study.

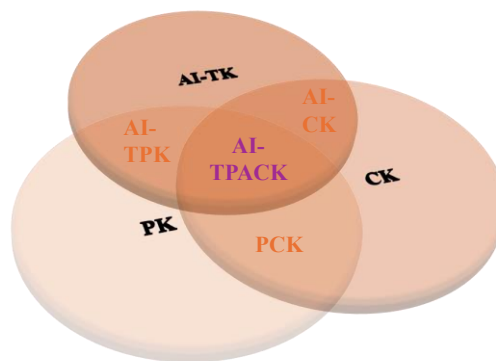


Figure 1. Adopted From Yan et al.'s AI-TPACK Framework (2020)

B. AI Applications in Education

In recent years, research on the impacts of AI in education has been steadily increasing (Jain, 2023). Hwang (2003) described AI in the context of education as a type of intelligent tutoring system. This system systematically arranges knowledge and operational information to boost student performance. AI has greatly facilitated higher education and is gradually playing an important role in teaching and learning (Netragaonkar, 2024). Intelligent tutoring systems use AI technology to simulate human instruction, provide learners with activities that are closely related to the cognitive needs, and give them specific and timely feedback (Luckin et al., 2016). Chin et al.'s (2014) research showed that the educational robot-based learning system could improve students' academic performance and achieve higher scores in motivation factors such as satisfaction and relevance. The study conducted by Kayali et al. (2023) explored the experiences of students using ChatGPT in an online course at a public university in Turkey. The results indicated that ChatGPT had a user-friendly interface, provided quick responses, and positively impacted learning. Köse (2017) described an intelligent mobile application that combined augmented reality (AR) and AI, which was aimed at providing personalized support for computer education. These applications assessed the students' learning parameters and thus provided appropriate course materials that greatly enhanced the learning experience. Tzirides et al.'s (2024) study centered on examining the effects of deploying generative artificial intelligence (GenAI) applications and online collaborative teaching methods on the development of AI literacy among university students.

Due to the introduction of AI, there have been significant changes in the applications of teaching methods (Luckin et al., 2022). Essay auto-grading tools can use item response theory to combine the results of various scoring systems to improve the accuracy of the assessments (Aomi et al., 2021). By using an automated essay grading tool, teachers can reduce the time required for manual grading and free up more time to engage with students (Nguyen, 2023). AI can also

help teachers make more informed decisions in course design by aggregating and analyzing data from various sources (Muljana & Luo, 2021). For example, a study by Wang et al. (2023) explored teachers' readiness to use AI in education. The study found that teachers' cognition, skills, vision, and ethical awareness were closely related to the effective use of AI and positively affected job satisfaction. It also highlighted the need to improve teachers' AI readiness in order to facilitate the success of AI-enhanced education. Hamma et al. (2023) explored the proficiency of Nigerian university lecturers in using AI features in three presentation software tools: MS PowerPoint, Canva, and Gamma. The research emphasized the value of technology proficiency in modern education and aimed to identify skill gaps and make recommendations to improve training. Cai and Lin (2024) conducted an experimental study using ChatGPT-4 for direct essay writing with the aim of evaluating the usefulness of the tool in academic writing. The results of the study showed that ChatGPT-4 was able to rapidly generate a high standard paper in terms of content and language based on the hypothetical data provided. Nevertheless, the study also uncovered several issues, such as potentially outdated cited materials, discrepancies in information accuracy, and a potential lack of consistency between viewpoints and interpretations. In a review, Mikeladze et al. (2024) noted that teachers lacked a clear framework for developing AI capabilities. They analyzed the strengths and weaknesses of different frameworks and called for further research to improve teachers' ability to use AI in teaching. Data-driven collaboration enables teachers to use technology more effectively and thus better achieve educational goals (Kim, 2023). Celik's (2023) research highlighted the importance of effectively integrating AI into education. The study suggested that the combination of technical knowledge (TK) and pedagogical knowledge (PK) formed technological pedagogical knowledge (TPK), which was essential for the effective use of AI tools. It also presented an expanded TPACK framework that included ethical considerations to help teachers better apply AI tools.

Moreover, the challenges and risks posed by AI in education cannot be overlooked. Many researchers have explored the risks associated with AI. The research by Nguyen et al. (2022) focused on the applications of AI in the field of education and its ethical challenges. It aimed to analyze global consensus on ethical AI in Education (AIED). By reviewing international policies, the study proposed a set of ethical principles designed to help educational stakeholders advance and implement AI education, while fostering the advancement of related research. Zhang and Tur (2023) conducted a review evaluating the applications of ChatGPT in K-12 education, analyzing its strengths, weaknesses, and potential opportunities. They emphasized its empowering role for teachers, as well as concerns regarding academic integrity, and provided corresponding teaching recommendations and ethical considerations. Some researchers also pointed out that although AIED incorporated sophisticated computational and data processing methods, it did not automatically ensure superior educational results or enriching learning experiences (Castañeda & Selwyn, 2018; Selwyn, 2016).

C. AI in Language Education

Similarly, AI applications have been widely used in the context of EFL teaching, leading to significant effects (Jiang, 2022). With technological advancements, language learning has become more diverse, and learning environment is continuously evolving (Hedayati et al., 2017). Rapid progress in big data management and language understanding technologies has resulted in notable advancements in the applications of AI in EFL instruction (Li, 2020).

AI is widely used to help students improve their abilities in multiple aspects of language learning. Technologies such as natural language processing, automatic speech recognition, and the creation of learner profiles are critical to advancing educational sector (Huang et al., 2023). The study conducted by Moulieswaran et al. (2023) found that foreign language learners had a positive attitude towards AI tools but faced problems related to the quality of these applications. It suggested further research on how teachers could effectively utilize AI tools to establish best practices. Ji et al. (2022) investigated the applications of conversational AI in language learning, reviewing 24 relevant studies and analyzing the roles of AI and teachers along with the challenges they face. They emphasized the need to integrate conversational AI into education in the future to enhance learning outcomes and reduce teachers' workload, while also providing corresponding recommendations. Wei et al. (2023) examined the impacts of Automated Writing Evaluation (AWE) training on EFL learners' writing skills. The study demonstrated that AWE could be effective in improving writing skills, highlighting the importance of incorporating AWE into teaching practices. Jiang (2022) outlined six major applications of AI. He also highlighted the under-researched applications of affective computing in the EFL field and its pedagogical and ethical implications. Semerikov et al. (2021) reviewed the research on AI in Language Education (AILE). This study analyzed the four research areas of AILE, discussed its strengths and challenges, and emphasized the importance of ethical considerations and data quality. The study by Karataş et al. (2024) examined the use of ChatGPT in L2 education at a Turkish university. The findings indicated that ChatGPT positively impacted writing, grammar, and vocabulary learning while also enhancing students' motivation and engagement. This study provided teachers with strategies and recommendations for effective use of ChatGPT.

D. Related Studies

Previous studies have focused on the use of AI in language learning, such as improving language learning ability, personalizing the learning experience, and automated writing assessment, which have provided a multi-dimensional view of AI usage in second language education and its positive impacts and challenges. This study focuses on the main aspects of language teaching where teachers mainly use AI tools in L2 teaching. It aims to provide practical guidance for language

teachers and foster the sustainable development of educational technology. By doing so, it seeks to add value to the advancement of L2 education. Although there have been some recent studies on AI and EFL teaching, there is a lack of research on the use of AI tools in the teaching of EFL teachers.

For instance, Huang et al.'s (2023) study focused on examining AI usage in language education and its research trends. It was found that research related to AI had gradually increased, particularly with active contributions from the United States and Arizona State University. The study identified ten popular topics, such as automated writing assessment and intelligent tutoring systems, demonstrating the widespread use of AI in helping students to improve their language skills. However, this study did not focus specifically on EFL teachers. Our research complemented this gap. Zhou and Hou (2024) carried out semi-structured interviews to focus on how AI affects the behavioral, cognitive, and emotional engagement of EFL teachers and language learners. However, they did not provide specific details on the practical applications of AI in teaching. Our research serves as a supplement to the applications of AI in foreign language teaching. Ali's (2020) research reviewed the applications of AI in language teaching and learning, using qualitative content analysis to examine literature from databases. This study identified four themes related to AI applications in language education, indicating that AI tools provide convenience for language education. Our research serves as a supplement to the results of database research. Hu et al. (2023) analyzed the impacts of teachers' immediate interactive methods on students' enthusiasm for communication and academic engagement in the context of L2 education. This study primarily focused on the influence of teachers' immediate behavior on students' communication willingness and academic participation, without analyzing from the perspective of AI. Our research mainly analyzed in which aspects teachers applied AI in the teaching process. Wang and Xue (2024) conducted a pioneering study, analyzing the effect of AI-driven chat tools on enhancing the academic engagement of Chinese EFL learners. The study found that these AI chat tools significantly increased the academic involvement of students. Complementing this research, our study focused on the role of EFL teachers, thereby providing a valuable addition to the field of this research. Gao et al.'s (2024) study surveyed Chinese university English teachers' views on the integration of large language models into teaching and found that teachers were concerned about potential issues such as neglecting traditional resources and academic integrity. However, their beliefs were mainly influenced by personal experience and frequency of use, not related to information technology resources. Our study focused on the aspects in which teachers use AI tools. Li's (2024) research explored how ChatGPT could assist the field of foreign language teaching, providing an in-depth analysis of the various applications of ChatGPT in foreign language teaching. These findings coincide with some aspects of our study, but we focus more on exploring how L2 teachers can integrate AI tools into various aspects of language teaching. Based on previous research, our study endeavors to investigate the ways in which EFL instructors integrate AI tools within their pedagogical approaches, in order to offer profound understanding and promote the advancement of pedagogical strategies in EFL instruction. The study was guided by the following research questions:

1. What aspects do EFL teachers use AI tools in their language teaching?
2. What challenges do EFL teachers encounter when using AI tools for teaching?

III. RESEARCH METHODS

A. Informants

TABLE 1
THE INFORMANTS' CHARACTERISTICS

Background information	Number
Gender	
male	12
female	12
Academic qualification	
Bachelor's degree	0
Master's degree	3
Doctoral degree	21

This study initially conducted interviews with 26 university EFL teachers from China. However, the samples of two teachers were excluded due to their failure to use AI tools, resulting in a final sample size of 24. Informants were selected through a purposeful sampling approach to guarantee a range of experiences, roles, and viewpoints among teachers (Fraenkel et al., 1993). These informants came from different universities and had varying educational backgrounds and qualifications. To protect informant privacy, they were assigned pseudonymous codes from T1 to T24, representing Teacher 1 to Teacher 24. All informants' identities were anonymized. The study adhered to ethical guidelines, with each informant signing an informed consent form before the interview, ensuring they voluntarily took part and understood the research objectives.

B. Instruments

We conducted semi-structured interviews to obtain detailed qualitative insights into how EFL teachers integrated AI into their instructional methods. During the interviews, a series of open-ended questions were prepared to encourage the respondents to freely express how AI specifically helped and influenced their language teaching. To facilitate participation,

the interviews were mainly conducted through online protocols in Chinese to ensure that respondents could fully and deeply express their views. The protocol consisted of two parts: background information and interview questions (see the appendix), with each interview lasting approximately 30 minutes. This study used MAXQDA software as a qualitative analysis tool to evaluate the interview results. This software can be used for text analysis, thematic coding and collaborative writing to help researchers gain a deeper understanding of their data and extract valuable insights.

C. Data Collection Procedure

This study used purposive sampling methods to collect qualitative data through online interviews and the data collection period was from March to May 2024.

1. In order to explore the use of AI tools in foreign language teaching, university EFL teachers from different regions were recruited to ensure the universality of the study. All informants signed an informed consent form prior to the interviews to protect their comprehension of the study's objective, their autonomy and privacy.

2. Semi-structured interviews were scheduled at times that worked best for the informants, held online, and conducted in Chinese to make it easier for them to respond in detail and comfortably.

3. After the interviews, the researchers transcribed, coded and thematically analyzed the data using MAXQDA software, working as a team to ensure the accuracy and reliability of the data.

4. In order to protect the rights of the informants, the researchers adhered to a strict code of ethics to ensure that the informants were able to participate in the interviews voluntarily and could withdraw at any time without any negative consequences.

D. Data Analysis

This study analyzed interview data from 24 EFL university teachers using MAXQDA software, focusing on how these teachers integrated AI tools into their teaching practices. Following the thematic analysis framework established by Braun and Clarke (2006), the researchers first imported the data and read it multiple times to gain a comprehensive understanding. They then developed initial codes to identify key information and applied coding. Afterward, they looked for themes, exploring the relationships between codes and reviewing each theme to ensure adequate supporting evidence. The themes were then defined and named, with clear descriptions provided for each one. Finally, the researchers compiled a report that presented the analysis results in a cohesive manner.

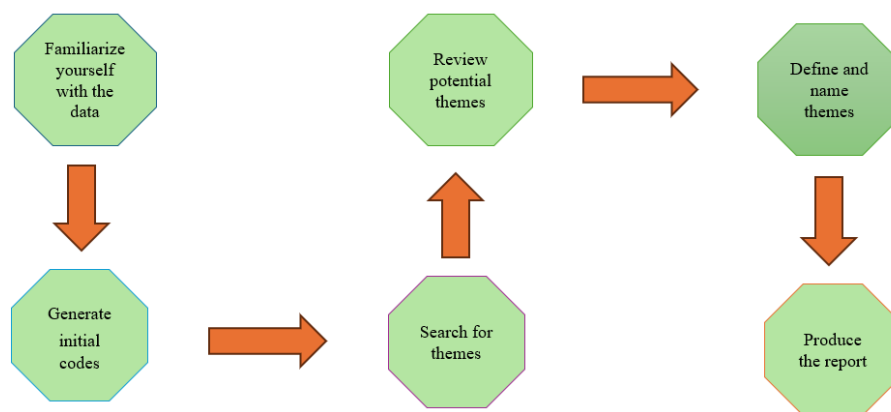


Figure 2. Steps of Thematic Analysis by Braun and Clarke (2006)

To improve the validity of the study, another researcher audited the coding and held regular meetings to discuss coding themes. To enhance the confirmability of the coding, researchers received technical training to ensure they understood the coding rules and processes. After independently coding the same data, the two coders compared and discussed their results to improve coding consistency and reliability. Cohen's Kappa coefficient was also used to assess the agreement, resulting in a satisfactory reliability index ($r=0.95$). Finally, initial findings were provided back to the data providers to ensure that the researchers' understanding align with the informants' experiences.

IV. FINDINGS

Figure 3 shows the AI usage by EFL teachers in language education. This word cloud is an intuitive visualization tool that displays the frequency of vocabulary in the text data through varying sizes, colors, and fonts. Therefore, it is evident that EFL teachers most commonly use AI tools for assignment distribution and grading, preparation of teaching materials,

machine translation, guidance on students' practical exercises, and guidance on student classroom discussions or interactions. Additionally, teachers also apply AI tools in other teaching activities.

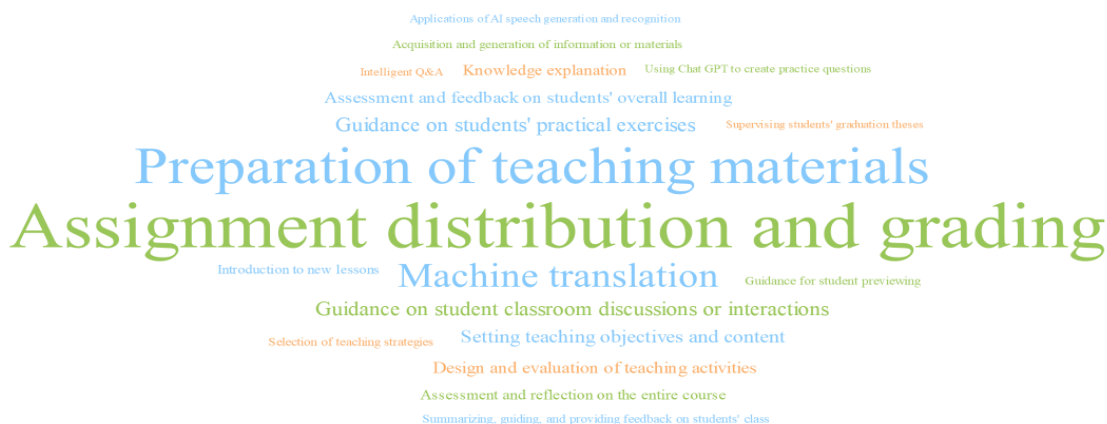


Figure 3. Practical Applications of AI in L2 Education-EFL Teachers

A. Assignment Distribution and Grading

75% (18) of the information providers in L2 teaching use AI tools for assignment distribution and grading. A typical example is, “In the course, I allow students to use AI tools to refine their argumentative essays, but I require them to submit the first draft, revised draft, final draft, and reflection records” (T10). Additionally, “When assigning and grading, the AI system can automatically generate assignments tailored to different types of students and can provide automatic grading upon submission, offering detailed comments and suggestions. I assess the overall learning effectiveness of students through the AI system using intelligent testing and provide personalized feedback and recommendations” (T17). Another one mentioned, “When using ChatGPT to generate a few practice questions, I find the quality of the questions to be acceptable, and it’s suitable for occasional practice in class” (T6). The use of AI tools saves teachers’ time in assignment distribution and grading, allowing students to receive more timely, comprehensive, and objective feedback.

At the same time, the research also found that teachers faced some challenges when using AI tools for assignment distribution and grading. As noted by T5 and T14, “When using the Iwrite platform to grade papers, the AI performs well in assessing grammar and vocabulary, but still relies on the teacher’s knowledge and experience for content and structure.” One teacher also remarked, “When guiding students to use ChatGPT for writing practice, I found that students were prone to plagiarizing essays generated by ChatGPT” (T16).

B. Preparation of Teaching Materials

62.5% (15) of the respondents indicated that they use AI tools to prepare teaching materials. One teacher mentioned, “I usually convert the official PPT for the comprehensive English course into a PDF and then give it to AI (like GPT platforms) to add relevant examples and engaging sentences for young audiences, thus updating the courseware” (T2). Another teacher shared, “Before the ‘Artificial Intelligence in English Language Teaching Research’ course, I had AI list the syllabus and reference books, which worked very well. Additionally, when organizing classic book clubs, I also used AI to generate guiding questions and answers” (T3). A third teacher stated, “When preparing for the ‘American Literature’ course, I compile a list of authors and selected works into questions and ask ChatGPT for input, extracting and filtering answers based on teaching goals to integrate with the textbook content, which has proven effective” (T20).

However, the respondents also noted some shortcomings when using AI tools to prepare teaching materials. For example, the intelligence level of AI tools is still insufficient, which may lead to generated content being less relevant or containing errors. Additionally, when using AI for courseware preparation, some respondents found that ChatGPT requires a high level of clarity in question formulation, sometimes necessitating modifications or additional details to obtain more satisfactory answers.

C. Machine Translation

50% (12) of the respondents indicated that they use AI tools for machine translation in their teaching process. As some respondents noted, “In Chinese-English translation classes, the students compare AI-generated translation with existing ones through case analysis, helping them explore strengths and weaknesses. In interpretation classes, the students compare their translation with AI translation to identify gaps and improve their skills. The introduction of AI stimulates students’ interest in learning, enhances classroom interaction, and improves their ability to use AI tools” (T8).

Moreover, there are some weaknesses with machine translation. “Many times, ChatGPT or other machine translation tools cannot provide satisfactory answers, which requires teachers to possess professional discernment and avoid blind reliance. The teachers should consider rephrasing questions, breaking down problems, or solving them based on ideas provided by AI” (T22). Additionally, “The accuracy of some AI tools is limited and may result in incorrect translation. Some tools are narrow in scope, only capable of translating simple texts, resulting in lower quality for specific fields or complex translation” (T23).

D. Guidance on Students’ Practical Exercises

33% (8) of the respondents indicated that they use AI tools to guide students in practical exercises during the teaching process. Some respondents mentioned that when supervising students’ theses, they employ ChatGPT to assist in creating the framework and structure of the papers. This approach not only enhances the efficiency of guidance but also offers students a clearer writing perspective. Another informant said: “I often utilize ChatGPT and ERNIE Bot to facilitate term recognition of the original text. Through specific case demonstrations, I enable students to experience and compare the quality and efficiency of different tools in term recognition. This approach encourages students to actively explore new methods, thereby enhancing their technical thinking abilities. By incorporating AI into translation teaching, we have observed a significant increase in students’ learning enthusiasm, engagement, and course satisfaction” (T9).

However, challenges also arise when using AI tools to guide practical exercises. Sometimes, AI provides incorrect information, requiring teachers to rely on their own knowledge or online searches to correct it. They also show students these errors to cultivate critical thinking and avoid complete dependence on AI. Additionally, some respondents find AI technology overly complex, leading one informant to note, “As teachers, we need to quickly learn new technologies and products to keep pace with technological advancements” (T9).

E. Guidance on Student Classroom Discussions or Interactions

33% (8) of the respondents indicated that they use AI tools in their teaching to guide students in classroom discussions or interactions. One respondent mentioned, “ChatGPT can generate discussion topics or practice questions based on the course content to stimulate students’ thinking and participation” (T22). Another respondent shared that in the “Master’s English Listening and Speaking” course, the teachers use AI to create a bilingual vocabulary list related to the discussion topic, allowing students to engage in classroom activities like English debates and use AI-generated model essays for reference, which has proven effective” (T4). Additionally, the research found that some teachers were eager to introduce AI knowledge to students and discuss its applications with them. As respondent T2 noted, “In College English courses, some students in Chinese majors are unfamiliar with AI, so I share its practical uses through storytelling, provide basic knowledge, and recommend user-friendly tools to boost their confidence and sense of achievement.” Overall, integrating AI tools into classroom discussions can help students gain a more comprehensive understanding of AI, develop critical thinking skills, and encourage them to raise questions and consider the ethical implications of AI.

In foreign language teaching, the EFL teachers most commonly apply AI tools in the five areas mentioned above. Apart from these, the teachers also apply AI tools in areas such as setting teaching objectives and content, assessment, evaluation, and feedback on students’ overall learning, selection of teaching strategies, and design and evaluation of teaching activities. The study showed that AI usage greatly improved teacher productivity, reduced workload and stress, narrowed the information gap between the teachers and the students, and facilitated resource sharing. Therefore, the teachers were required to elevate their roles by utilizing intelligent tools to manage lower-level tasks, thereby freeing up time for innovation and the creation of more sophisticated teaching activities, ultimately enhancing their professional value. However, it was also important to be aware of the drawbacks of AI tools, including incorrect information and poor translation, while critically assessing their impacts. Moreover, some interviewed teachers noted that, in the face of rapidly advancing technology, the teachers had to keep pace with the times and quickly learn new technologies and products to achieve more powerful functionalities.

V. DISCUSSION

The applications of AI tools in EFL teaching have provided unprecedented efficiency and participation in language teaching. The findings of this study highlighted the significant roles that AI tools played in streamlining routine tasks such as assignment distribution and grading, enhancing the preparation of teaching materials, facilitating machine translation, guiding student practice, and promoting classroom discussions or interactions. With the assistance of AI tools, EFL teachers have changed traditional teaching modes and teaching tools, using more advanced methods for teaching. Using AI tools not only helps teachers acquire new technological knowledge, but also helps them in updating teaching methods and content. Therefore, these applications are in line with the AI-TPACK framework, which emphasize the synergy among technological knowledge, pedagogical methods, and content knowledge within educational settings (Celik, 2023; Yan et al., 2020). It was also discovered that AI tools were a double-edged sword. While they offered great advantages, they also presented challenges that require careful consideration. This section focuses on the themes and challenges that emerged from the data analysis and aims to provide insights into the multifaceted impacts of AI tools in the EFL classroom.

AI tools have greatly improved teaching efficiency in L2 education and reduced teachers' workloads, particularly in tasks such as automating assignment distribution and grading. This is consistent with Li's (2024) research findings, showing that the use of ChatGPT in foreign language teaching can improve teachers' lesson preparation efficiency. The use of AI tools allows teachers to devote more time and energy to innovative teaching and personalized interactions with students. This coincides with Wang et al. (2021), who argue that AI can take on repetitive daily tasks, allowing teachers to focus on more meaningful educational endeavors. However, while enjoying these efficiency gains, we must also be wary of the risks associated with over-reliance on technology. As Gao et al. (2024) warned, teachers' over-reliance on AI could lead to a range of problems. Although AI can be very helpful in content and structure assessment, its inherent limitations mean that we cannot rely on it entirely. Continuous human supervision and intervention are necessary. This point is also supported by Hwang et al. (2020), who emphasize the importance of collaboration between humans and AI in the educational process. Furthermore, when AI is used to aid writing exercises, the emergence of plagiarism highlights the need for strong ethical guidance and educational measures to promote academic integrity. These findings align with many previous studies (Zhang et al., 2023; Li, 2024; Cai & Lin, 2024), which emphasize the importance of academic integrity. AI tools are also widely used in the preparation of teaching materials, demonstrating their utility in updating course content and providing engaging materials. This is in line with Celik's (2023) Intelligent-TPACK framework, which emphasizes the integration of technological knowledge with teaching practices. The limitations of AI capability can lead to the generation of irrelevant or incorrect content, which requires teachers to maintain a critical perspective. This is consistent with the study conducted by Cai and Lin (2024), where they discover that the information in a paper generated directly using ChatGPT is inaccurate and incomplete, which may affect the quality of the text. Therefore, the teachers must be prepared to correct and filter AI-generated materials to ensure their accuracy and relevance. The emergence of AI in the field of machine translation has brought revolutionary changes to EFL teaching, which provides a dynamic tool to enhance the language learning experience. The applications of AI tools in language classrooms have been found to stimulate students' interest and improve their translation skills, which aligns with Moulieswaran et al. (2023) discussing ESL learners' positive attitudes toward AI tools. These tools offer instant translation, facilitate comparative analysis, and deepen the understanding of linguistic nuances. However, the accuracy of AI in providing accurate and contextualized translation has been a concern. The limitations of AI in providing accurate translation and capturing linguistic subtleties highlight the need for teachers to use professional judgement and avoid blind reliance on AI-generated results. This is consistent with Li's (2024) research, who suggests that teachers should judge the authenticity of the content when using ChatGPT's results, and also encourage students to strengthen their knowledge and skills, as only in this way can they judge the quality of machine translation. Hence, the teachers must be prepared to rethink questions, deconstruct complex issues, or validate and address insights provided by AI, as noted by interviewer T22. AI tools also play a vital role in guiding student practice and classroom interaction by creating a more interactive and engaging learning environment. This supports the findings of Ji et al. (2022), who emphasize the role of conversational AI in enhancing learning outcomes. However, the complexity of AI technologies and their potential errors underscore the need for teachers to keep pace with technological advancements and critically assess the contribution of AI to the learning process. This aligns with previous studies (Pokrivcakova, 2019; Hamma et al., 2023; Mikeladze et al., 2024), which highlight the significance of equipping teachers with the necessary training to effectively harness AI technologies in educational settings. Therefore, the policymakers need to establish relevant policies and provide financial support to create opportunities for training and professional growth for teachers. This is in line with the research by Hwang et al. (2020), who advocate for policymakers to develop specialized policy-making advisor applications. These applications facilitate the development and assessment of impactful educational policies.

To address these challenges, we propose several strategies. First and foremost, increased instruction in critical thinking is critical to creating a learning environment that values originality and academic integrity. Teachers should instruct students on the proper use of AI tools in the classroom and emphasize the consequences of plagiarism. Second, the teachers should be encouraged to engage in ongoing professional development to improve their technology skills and critical evaluation capabilities. Financial support could be provided for teachers to participate in technology training. Finally, fostering an ethical culture for the use of AI in educational environments can help students respond responsibly to the complexity of AI-generated content. As a result, despite the numerous advantages that AI offers in the field of EFL teaching, we must proceed with caution when implementing these tools, ensuring adherence to ethical principles, enhancing technical proficiency, and maintaining appropriate human oversight. By adopting this approach, the teachers can harness the power of AI to enhance their teaching experience while ensuring the integrity and quality of education.

VI. CONCLUSION AND LIMITATIONS

Integrating AI tools into EFL teaching is a major trend in the development of educational endeavors. This study thoroughly examined the concrete ways in which teachers used AI tools in language education, along with the challenges these tools present and the potential solutions to address them. This study conducted thematic analysis of qualitative data from semi-structured interviews and found that the teachers most commonly use AI tools for teaching material preparation, homework assignment and grading, machine translation, student practice guidance, and classroom discussion or interactive guidance. AI tools have played important roles in improving teaching efficiency, reducing the burden of daily tasks, and promoting a more interactive and student-centered learning environment. AI have demonstrated its utility in

the development of teaching materials that not only update course content but also engage students with relevant and dynamic learning resources. In terms of assignment and grading, the applications of AI tools allow the teachers to free up more time to invest in innovative teaching strategies and personalized student interactions. In addition, AI tools can stimulate the students' interest in language learning and improve their translation and writing skills through interactive exercises as well as comparative analyses. However, this study also emphasized the challenges and restrictions faced by using AI tools in EFL teaching. These include the risks of over-reliance on AI for content assessment, the potential risk of plagiarism when using AI for writing exercises, and the risk of generating irrelevant or incorrect content when preparing teaching materials. The precision of AI in machine translation, along with its intricacies in directing student practice and classroom interactions, represents significant areas that require the teachers to carefully deliberate and exercise professional judgement. To address these challenges, the researchers have proposed several strategies. For example, the teachers could be encouraged to engage in continuous professional development to improve their technical skills and foster an ethical culture of using AI in educational settings. Meanwhile, the teachers must maintain a critical perspective on AI-generated content and provide human oversight to ensure the accuracy, relevance, and ethical use of AI tools in the classroom. Although AI tools provide substantial benefits in EFL teaching, their implementation must be carefully considered. By focusing on ethical considerations, technical proficiency, and maintaining human supervision, the EFL teachers can harness the power of AI to enrich the learning experience and maintain the integrity and quality of education. Policies must also be developed to train the EFL teachers in AI technologies. Therefore, this study provided valuable insights for teachers, curriculum designers, and policy makers to optimize teaching strategies and improve education quality in the digital age.

However, it is important to acknowledge the limitations of this study. Firstly, the sample size of this study is restricted to the university EFL teachers in China, which may not accurately represent the use of AI by L2 teachers in other countries. Future research should consider the L2 teachers from other countries to enhance the generalizability of research findings. Secondly, the study only used semi-structured interviews for qualitative analysis, lacking quantitative data support. In the future, it is necessary to combine quantitative and qualitative research methods to enhance the comprehensiveness of the research. Last but not least, there is a lack of evaluation on the long-term impacts of using AI tools, especially on the teaching outcomes of teachers. Therefore, long-term research should be conducted in the future to evaluate the impacts of AI tools on EFL teachers' teaching.

APPENDIX

Background Information:

Age:

Gender:

Educational background:

Field of Study:

Teaching courses:

Interview Questions

1. What do you think artificial intelligence roughly refers to? Please provide a definition and give a few specific examples.
2. How often do you use AI-empowered tools in language teaching? Which specific AI tools or platforms do you typically use?
3. In which aspects of language teaching do you think AI will impact or be involved? Do you feel a reduction in teaching pressure when using AI for teaching assistance?
4. In your language teaching, which aspects or phases have you practically applied AI? How did you implement this, and what were the results? Have you encountered any challenges or difficulties, and if so, how did you address them?
5. What is your attitude towards AI's involvement in language teaching? Do you think it affects your enthusiasm for teaching? Has AI's involvement affected the relationship and emotions between you and your students? Is this impact positive or negative?
6. Do you have confidence in the effectiveness of AI's involvement in language teaching? Are you familiar with digital humans? Would you consider using digital humans in your teaching in the future? Additionally, do you have concerns about AI replacing teachers' jobs?

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