

EXPLORING THE IMPACT OF AI TOOLS ON VIETNAMESE HIGHER EDUCATION: PERSPECTIVES FROM EFL LECTURERS IN DONG NAI PROVINCE

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ABSTRACT

The integration of artificial intelligence (AI) tools in education is transforming teaching and learning processes globally. This study explores the impact of AI tools on Vietnamese higher education, specifically focusing on the experiences and perceptions of English as a Foreign Language (EFL) lecturers. The participants were 50 EFL lecturers across three universities in Dong Nai province, Vietnam. Through a mixed-methods approach, including survey questionnaire and semi-structured interviews; the research examines how AI tools influence teaching practices and classroom dynamics. The findings revealed a complex interplay of benefits and challenges, highlighting the potential impact of AI tools on EFL lecturers in terms of efficient lesson planning, lecturers' professional development, and interactive learning environment. However, the study also uncovers significant barriers, such as high cost of AI tools, insufficient training, risk of over-reliance on technology and concerns over data privacy, which hinder the effective adoption of AI technologies. These insights contribute to a deeper understanding of the role of AI in EFL instructions and offer practical recommendations for optimizing the use of AI tools in Vietnamese higher education.

1. INTRODUCTION

In the context of English as a Foreign Language (EFL) education, AI tools such as language learning apps, automated grading systems, and virtual teaching assistants have shown the potential to enhance instructional methods, personalize learning experiences, and improve student outcomes (Chen et al., 2020; Huang, 2023; Nguyen & Le, 2023). As higher education institutions in Vietnam increasingly

adopt these technological innovations, it is essential to understand how EFL lecturers perceive and utilize AI tools in their teaching practices. Vietnamese higher education is undergoing significant transformation, with a growing emphasis on digitalization and the incorporation of advanced technologies to meet global standards. This shift aligns with the broader national agenda to improve the quality of education and equip students with the skills needed for the 21st century. In this evolving

educational landscape, AI tools present both opportunities and challenges for EFL educators. While these tools can offer valuable support in managing classroom activities, providing instant feedback, and fostering student engagement, their effective implementation depends on teachers' attitudes, competencies, and the institutional support they receive (Thu et al., 2023). Despite the increasing presence of AI tools in Vietnamese higher education, there is limited understanding of how EFL lecturers perceive their impact on teaching practices. Existing studies on AI in education primarily focus on student outcomes and technological efficacy, often overlooking the critical role of teachers as facilitators of these tools (Truong et al., 2023). Without a clear understanding of teachers' perspectives, the potential benefits of AI tools may not be fully realized, and the challenges they face in integrating these technologies could hinder their effective use.

This study aims to address this gap by exploring the perceptions of EFL lecturers in Dong Nai province of Vietnam regarding the impact of AI tools on their teaching practices. By examining the opportunities and challenges these educators encounter, the study seeks to provide insights that can inform policy decisions, teacher training programs, and the development of AI tools that better align with the needs and expectations of EFL lecturers in the Vietnamese higher education context. The study aims to address the two research questions:

- (i) How do Vietnamese EFL lecturers perceive the impact of AI tools on their teaching practices?
- (ii) What are the perceived challenges of integrating AI tools into EFL instruction in the context of higher education?

2. LITERATURE REVIEW

2.1. AI tools in EFL instruction

The use of AI tools in EFL instruction has been explored in various contexts, with studies indicating both positive outcomes and potential drawbacks. AI-powered language learning applications, such as Duolingo have been shown to support vocabulary acquisition and grammar practice, making them valuable resources for EFL students (Zhang & Zou, 2020). Furthermore, AI-based assessment tools can automate grading and provide real-time feedback, allowing teachers to focus more on instructional strategies (Hong, 2023). Tools like ChatGPT can significantly benefit language teachers by offering writing suggestions, proposing alternative sentence structures to enhance their writing, and supporting their overall language instructions (Baskara et al., 2023). These AI-powered tools are recognized for creating interactive learning environments, allowing EFL teachers to easily engage learners in language tasks and boost their language skills (Divekar et al., 2022). Nevertheless, the effectiveness of AI tools in EFL instruction is contingent on several factors, including the teachers' familiarity with the technology and the level of institutional support (Truong et al., 2023). Kim (2019) found that EFL teachers who received adequate training on AI tools were more likely to integrate these tools into their teaching practices successfully. In contrast, teachers who lacked sufficient training or faced time constraints were less inclined to use AI tools, leading to limited impact on their teaching practices (Hong, 2023).

2.2. Perceptions and attitudes of EFL teachers toward AI tools

Teachers' perceptions and attitudes toward AI tools play a crucial role in their adoption and effective use in the classroom. Firstly, EFL teachers tend to have a positive attitude towards AI; Bahroun et al. (2023) indicated that the

participating EFL teachers expressed their excitement to employ AI tools, which reflects a high level of enthusiasm and acceptance of AI among teachers. Similarly, Kumar et al., (2023) suggested that EFL teachers recognize the potential of AI in education and are open to exploring the challenges and opportunities that AI offers in education. In another study, Cojean et al. (2023) examined EFL teachers' views on educational tools that incorporate AI versus those that do not. The study found that EFL teachers had more ethical reservations about AI tools compared to non-AI tools and preferred to use traditional, non-AI technologies over those with AI. Despite this, the overall acceptance of both types of technologies was comparable. However, AI tools were seen as less demanding for teachers compared to traditional tools. A study by Zhang and Zou (2020) on Chinese EFL teachers revealed that while many teachers recognized the potential benefits of AI tools, they also expressed concerns about the time required to learn and implement these tools, as well as the potential for AI to replace traditional teaching methods.

Educational discourse also suggests that motivation is a key factor influencing teachers' willingness to adopt AI tools. Deci and Ryan's (1985) Self-determination theory posit that intrinsic motivation, driven by interest and enjoyment in the activity, and extrinsic motivation, driven by external rewards, both influence behavior. In the context of AI tool adoption, teachers who are intrinsically motivated to explore new technologies and improve their teaching practices are more likely to experiment with AI tools and integrate them into their instruction (Shadiev et. al, 2020). Similarly, Zhang et al. (2023) investigated the factors that influence EFL teachers' acceptance of AI technology. They discovered that the most significant determinants of these teachers'

willingness to use AI technology were its perceived usefulness and perceived ease of use.

2.3. Challenges in integrating AI tools in higher education globally and in Vietnam

Despite the potential benefits, integrating AI tools into higher education, particularly in the EFL context, presents several challenges. Previous studies globally show that the widespread use of AI tools can pose a serious threat to academic integrity in higher education (Chiu et al., 2023; Kumar, 2023; Warschauer et al., 2023; Zhai, 2022). AI-generated responses to academic writing although they were mostly original and relevant to the topics, contained inappropriate references and lacked personal perspectives (Kumar, 2023). As Zhai (2022) concerns that the use of text-to-text generators such as ChatGPT may compromise the validity of assessment and teaching practices. Therefore, teachers must be aware of this challenge when guiding learners in using AI tools effectively (Lin, 2022). Additionally, time constraints, lack of institutional support, and limited training opportunities are frequently cited barriers for EFL teachers to integrate AI tools (Baskara et al., 2023). Moreover, concerns about the privacy and security of student data when using AI tools are prevalent (Tonicic, 2020). Also, Haseski (2019) pointed out that the collection and analysis of large amounts of student data by AI systems raise significant ethical concerns, particularly regarding consent and data protection.

In Vietnamese EFL educational landscape, integration AI tools in teaching practices also has negative effects. Firstly, cultural factors may also influence the adoption of AI tools as traditional teaching methods are highly valued and there may be resistance to the shift towards technology-driven instruction (Truong et al., 2023). Additionally, there is a cautionary comment regarding the potential for AI tools to

over-influence student writing, leading to questions about originality and authenticity (Hua et al., 2024). Additionally, Nguyen and Tran (2023) explored ChatGPT's role in Vietnamese EFL classrooms, showing improvements in student engagement in language tasks; however, challenges such as the digital divide and the need for teacher training in AI utilization have been identified (Nguyen & Tran, 2023). Specifically, Nguyen (2023) concerned about balancing AI-driven instruction and human interaction. While AI tools are supposed provide teaching supports, an overreliance on technology may diminish the interpersonal aspects of education, especially in the EFL context (Nguyen, 2023).

These concerns may contribute to the hesitancy of EFL educators to fully embrace AI tools in their teaching practices. The literature also indicates that while AI tools have the potential to significantly impact EFL instruction in Vietnamese higher education, their successful integration depends on several factors, including teachers' perceptions, motivation, and the support they receive from their institutions. There is a significant research gap to explore the specific challenges AI tools in the Vietnamese EFL context, particularly from the perspectives of EFL lecturers. Understanding these factors is crucial for developing strategies that can enhance the adoption and effective use of AI tools in higher education, ultimately contributing to improved teaching practices.

2.4. Theoretical frameworks

This research was grounded in two theoretical frameworks that offer a robust basis for examining the use of AI tools in EFL teaching context: Technology Acceptance Model (TAM) and Constructivist Learning Theory (CLT). The TAM, introduced by Davis (1985), played a crucial role in this study by

focusing on the factors that influence technology adoption and use. TAM highlights two key elements that determine whether a new technology is accepted: perceived usefulness and perceived ease of use. Perceived usefulness is the extent to which an individual believes that using a technology will improve their job performance, while perceived ease of use refers to the expectation that the technology will be easy to use (Davis, 1985). In this research, TAM was employed to analyze how Vietnamese EFL lecturers view AI tools, particularly in terms of their effectiveness and ease in enhancing teaching practices. This model was instrumental in determining whether these perceptions affect EFL lecturers' willingness to incorporate AI tools into their teaching methods. Additionally, CLT provides an educational framework suggesting that learners actively build knowledge and meaning through their experiences. According to this theory, learning is an active and constructive process where individuals develop understanding by engaging with their environment and combining new information with what they already know (Vygotsky, 1978). In the context of this study, CLT is relevant as it positions AI tools as interactive resources that can potentially enhance constructive learning processes.

By integrating these theoretical frameworks, the study sought to offer a detailed understanding of the factors shaping EFL lecturers' perceptions of AI tools and their educational implications. TAM was used to explore the acceptance and usability of AI tools in educational contexts, while CLT provided a framework for evaluating how AI tools could be incorporated into language learning. These frameworks offered a comprehensive approach to analyzing the complex impact of AI in EFL environments.

3. METHODOLOGY

3.1. Research Design

This study employed a mixed-methods research design, combining quantitative and qualitative approaches to gain a comprehensive understanding of Vietnamese EFL lecturers' perceptions regarding the impact of AI tools on their teaching practices and professional development, as well as the perceived challenges of integrating AI tools into EFL instruction. In the quantitative phase, a survey questionnaire was adapted from the questionnaire by Chen et al. (2023). The quantitative findings were analyzed and then guided the selection of participants for the qualitative phase and shaped the questions asked during interviews (Creswell & Creswell, 2018). The primary goal of this research design was to use qualitative data to provide further explanation and context to the initial quantitative results.

3.2. Participants

The study involves 50 EFL lecturers from various higher education institutions across the south-east of Vietnam. Namely, they are EFL lecturers at Dong Nai Technology university, Lac Hong university and Dong Nai technology. The survey of 50 EFL lecturers revealed a balanced gender distribution, with 56% female and 44% male participants. Most respondents were aged between 30-39 years and held Master's degrees. Their experiences were varied, with 30% having 5-10 years of teaching experience and 24% having less than 5 years. Most of those EFL lecturers used AI tools on a monthly or weekly basis, indicating a growing but uneven integration of AI in teaching practices. For the qualitative phase, there were 5 EFL lecturers joining the interviews to help the authors get more valuable data and triangulate the findings for this study.

3.3. Data collection methods

3.3.1. Survey questionnaire

To collect quantitative data, a structured survey questionnaire was developed, based on the theoretical frameworks and existing related literature. The questionnaire included Likert-scale items as Likert-type scales are considered a proper measurement of attitudes, beliefs, and perceptions; their categories move from most negative to most positive (Creswell, 2014). To fit the requirements of the quantitative research and research objectives, the questionnaire was designed and adapted from the questionnaire by Chen et al. (2023). The questionnaire was divided into two main parts: Part one aimed to collect the participants' biographical information, including their gender, age and years of experience. This part would help the researchers better understand the lecturers' background and ensure the participants were suitable for the research. Part two aimed to explore different aspects of the participants' perspectives, experience and attitude toward AI tools in their teaching practice. Questions 1 was used to find out the frequency and the amount of time the lecturers spent on using AI tools. Question 2 to 6 were used to explore EFL lecturers' views on the impact of AI tools on their teaching practice. Question 7 to 10 were used to examine EFL lecturers' views on the perceived challenges of integrating AI tools in EFL context. To make it convenient for participants to complete the survey, the survey was posted online on the Survey Monkey website and it took three weeks for the researchers to collect quantitative data.

3.3.2. Semi-structured interview

After the collection of quantitative data, the researchers conducted semi-structured interviews with 5 EFL lecturers. These participants were chosen randomly among those participating in the survey. There are five interview questions, with questions 1 and 2

aiming to further explore EFL lecturers' behavioral and emotional engagement in the AI-driven instructions and questions 3 and 4 exploring their perceptions of the advantages and limitations of using AI tools in Vietnamese higher education. The last question was to find out their future intention of using AI for their teaching practice.

3.4. Data analysis

The data about EFL lecturers' participation collected in the first part of the questionnaire was analysed descriptively to summarize their demographic information. Excel and charts were employed to present the results for question 1 to 10 of the survey questionnaire. The answers collected from the interview were first summarized and then coded following the thematic analysis guidelines. The results from the qualitative data were compared with the quantitative data to elaborate and validate the results (Creswell & Plano, 2011).

4. FINDINGS

4.1. Vietnamese EFL lecturers' perceptions on the impact of AI tools on EFL teaching context

One of the most compelling aspects of AI tools in EFL teaching is their potential to enhance instructional practices. The study found that 65% of respondents strongly agreed that AI tools have made lesson planning more efficient, and 41% felt these tools positively impacted their professional development. Additionally, 31% agreed that AI tools have increased student engagement. 20% of EFL lecturers reported that AI tools have enhanced their ability to deliver personalized instruction, while another 20% disagreed that AI tools improved their ability to do so. The figure 1 below shows surveyed lecturers' perceptions on the impact of AI tools on their teaching practice.

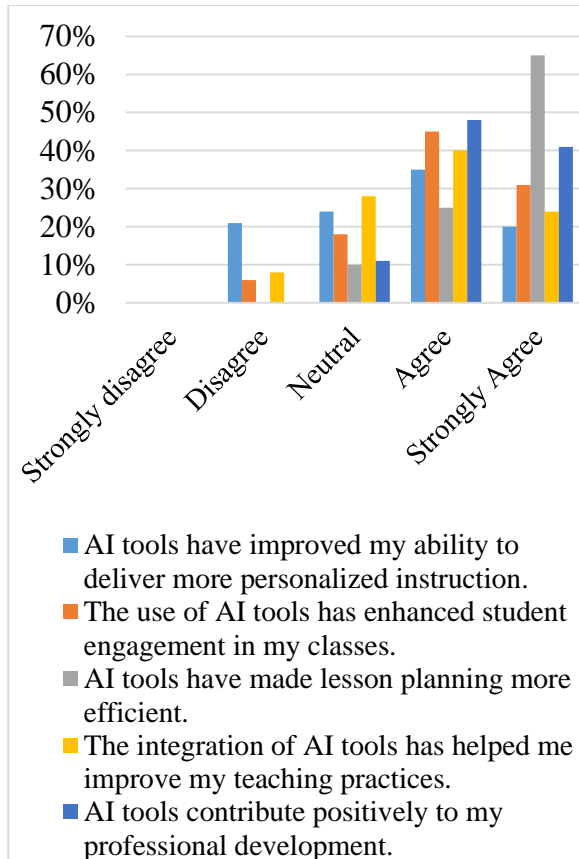


Figure 1. EFL lecturers' perceptions on the impact of AI tools on teaching practices

Furthermore, the interview results revealed that EFL lecturers often appreciate AI tools for their ability to provide immediate feedback and generate diverse learning materials, which can significantly support students' language acquisition. For example, AI tools can assist instructors in correcting grammatical errors, suggesting vocabulary improvements, and providing practice exercises that adapt to students' proficiency levels. This personalized support helps address students' learning challenges and promotes more effective language development. With this respect, an EFL lecturer shared his perceptions of AI tools in higher education, stating *"AI tools can streamline administrative tasks, such as grading and tracking student progress, allowing instructors to dedicate more time to*

interactive and engaging instructional activities. This increased efficiency can contribute to teacher's professional development in EFL setting".

In terms of the role of AI tools in EFL context, it is emphasized that AI tools such as Kahoot, Quizzes foster a more interactive and engaging learning environment. Obviously, 51% of survey lecturers strongly agreed, and 41% agreed that AI tools create a more vivid, interactive environment and enhance student engagement in the classroom.

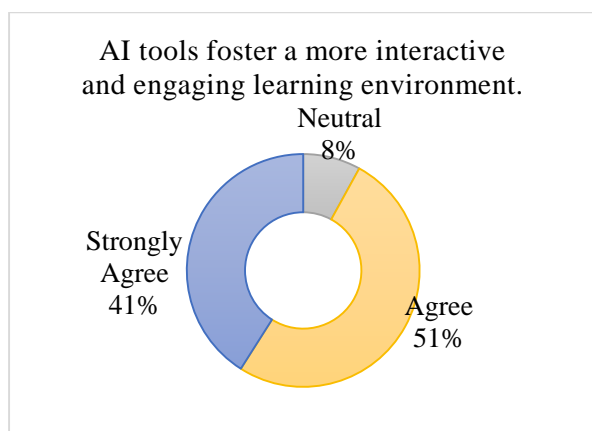


Figure 2. EFL lecturers' perceptions on the impact of AI tools on learning environment

Moreover, according to the study results, the impact of AI tools on EFL teaching practices is multifaceted. All interviewees highlighted that AI tools can facilitate more differentiated instruction by providing customized learning experiences and targeted feedback; however, the reliance on AI tools should not overshadow the importance of pedagogical strategies and human interaction in language teaching. *"Teachers should play a critical role in fostering a supportive learning environment, and AI tools should complement rather than replace traditional teaching methods"* explained by a mid-career EFL lecturer. It can infer that integrating AI tools effectively requires a thoughtful approach that

considers both technological advancements and pedagogical principles.

4.2. Perceived challenges of AI tools in Vietnamese higher education

Despite the potential advantages, EFL lecturers often have concerns regarding the implementation of AI tools.

Table 1. EFL lecturers' perception on challenges of integrating AI tools in universities

<i>Statements</i>	<i>SD (%)</i>	<i>D (%)</i>	<i>N (%)</i>	<i>A (%)</i>	<i>SA (%)</i>
The cost of AI tools is prohibitive for regular use.	0	15	31	40	14
There is a lack of adequate training for teachers on how to effectively use AI tools.	0	7	19	45	29
AI tools may reduce the need for traditional teaching methods, leading to over-reliance on technology.	11	14	7	21	47
There are concerns about the privacy and security of student data when using AI tools.	0	0	18	53	29

It can be seen in the table 1 that 40% of respondents agreed the expense associated with AI tools can be very high, making it difficult for many educational institutions or individual educators to afford them on a regular basis. This financial barrier limits the widespread adoption and consistent use of these technologies in teaching. Additionally, there is a lack of adequate training for teachers on how to effectively use AI tools (45% agreed). EFL lecturers do not receive sufficient training or professional development on how to integrate AI tools into their teaching practices

effectively. Without proper guidance and support, EFL lecturers may struggle to utilize these tools to their full potential, which can hinder their effectiveness and the overall quality of education. Specifically, there was a big perceived challenge of integrating AI tools when 47% participants strongly agreed that AI tools may reduce the need for traditional teaching methods, leading to over-reliance on technology. As AI tools become more prevalent, there is a risk that educators might rely too heavily on these technologies, potentially diminishing the use of traditional teaching methods. This over-reliance on technology could impact the development of critical thinking and interpersonal skills in students, as well as reduce the diversity of teaching approaches. There were also concerns about the privacy and security of student data when using AI tools (53%). In other words, ensuring the privacy and security of this information is crucial, as misuse or breaches of data could compromise students' personal information and undermine trust in educational technology.

Furthermore, interview findings indicated that one significant challenge is the perceived lack of human touch in AI-driven interactions. *"Teachers may worry that AI tools cannot fully replicate the nuanced understanding and empathetic responses that a human educator provides. This concern highlights the importance of balancing AI tools with human interaction to ensure that students receive a holistic learning experience"* explained by a novice EFL lecturer. Another challenge is the ethical and privacy implications associated with AI technologies. An interviewee stated *"Teachers may have reservations about how student data is collected, stored, and used by AI systems"*. Hence, ensuring that AI tools comply with data protection regulations and maintain transparency about data usage is essential for

addressing these concerns. Additionally, there may be a learning curve associated with adopting new technologies. It was emphasized by an EFL lecturer in the interview: *"Teachers need adequate training and support to effectively integrate AI tools into their teaching practices"*. Without proper guidance, the potential benefits of AI tools may not be fully realized, and EFL instructors might experience frustration or resistance towards their use.

5. DISCUSSION

5.1. The perception of Vietnamese EFL lecturers on the impact of AI tools on their teaching practices

The findings regarding the impact of AI tools on teaching practices among EFL lecturers in Vietnamese EFL classrooms makes a substantial contribution to the field, particularly when compared with existing literature. These identified opportunities for innovative pedagogical approaches. The enhancement of efficient lesson planning, as noted by most of EFL teachers (65%), relevant with previous literature focusing on the role of AI technology in increasing student interest in learning activities (Madhavi et al., 2023). However, this study extends the findings by specifically linking this engagement to the use of AI tools in EFL activities in higher education context in Vietnam, a relatively unexplored area. This extension demonstrates how AI tools can motivate EFL lecturers to be creative in lesson planning and to engage students in EFL tasks, which can make the teaching and learning process enjoyable and effective. Moreover, this analysis through the TAM and CLT also suggests a clear understanding of how AI tools meet TAM's criteria of perceived usefulness and aligns with CLT's principle by engaging students in instructional tasks. Lecturer's professional development, an impact highlighted by a mid-career lecturer, also aligns

with existing research on the merits of AI tools in supporting teachers' continuous professional development (Hua et al., 2024; Moore et al., 2023). This emphasizes the unique potential of AI tools such as ChatGPT to tailor teaching and learning experiences thereby enhancing the effectiveness of language instructions. Through the lenses of the TAM and CLT, this finding underscores the significance of AI technology that not only is perceived as useful but also promotes a teaching and learning process that aligns with constructivism of personalized and meaningful EFL context. Additionally, the opportunity for an EFL interactive learning environment, as agreed by EFL lecturers, aligns with general findings on technology-assisted language instructional strategies (Thu et al., 2023). This study, particularly illustrates how AI tools can enhance interactive learning environment in the context of Vietnamese higher education. The study offers insights into how AI tools can assist as tutors or collaborators to track student progress and provide feedback. Utilizing the TAM and CLT offers a thorough insight into how AI tools meet the technical requirements for adoption while also promoting constructivist learning objectives. Furthermore, the perceptions of AI impact are also shaped by broader sociocultural factors. In a context like Vietnam, where traditional methods of teaching are deeply rooted, the shift towards AI-enhanced education may be met with resistance or skepticism (Truong et al., 2023). Lecturers' perceptions are therefore influenced not only by the functionalities of AI tools but also by their own professional identities, teaching philosophies, and the cultural expectations of education.

5.2. The perceived challenges of integrating AI tools into EFL instruction in the context of higher education

The findings of this study on the challenges of integrating AI tools into EFL instruction in higher education contribute unique insights to the field. While some of these findings relevant with existing literature, this paper also uncovered aspects that highlight its contributions. Firstly, similar studies have identified the high cost of AI tools is one of perceived challenges (Thu et al., 2023). This study posits that the cost is also reflected in the time and effort required to integrate AI tools into existing curricula and teaching practices in Vietnamese higher education setting, where EFL lecturers are supposed to complete a lot of paper work. Hence, faculty members need to be trained not only in the technical use of these tools but also in how to adapt their pedagogical approaches to leverage the full potential of AI. Also, the cost of AI tools includes the need for advanced hardware and software systems capable of supporting the sophisticated algorithms and data processing required (Shadiev, 2020). This necessitates investments in new technology infrastructure, which can be costly and complex to implement. For many universities, especially in developing regions, this technical cost is a significant barrier, as they may lack the necessary infrastructure to support these advanced tools. Secondly, the concern about over-reliance on AI, as voiced by 47% EFL lecturers in the study, corresponds with earlier research cautioning against reliance on technology in educational contexts (Moore et al., 2023). Obviously, EFL instruction is inherently interactive and communicative, and there is a fear that AI tools might reduce the emphasis on these critical elements. EFL lecturers in Vietnam, particularly in Dong Nai province may worry that over-reliance on AI could lead to a more mechanical and less personalized approach to teaching, where the subtleties of language learning are overlooked. Furthermore, the findings also showed that the

integration of AI tools raises ethical and privacy concerns, which align with previous studies (Haseski, 2019; Toncic, 2020), so this helps the researchers strongly confirm this barrier to EFL context. Obviously, AI systems often collect and process large amounts of data, which can include sensitive information about students' learning performance, which make lecturers and universities may be concerned about how this data is used, stored, and protected. These issues necessitate clear policies and guidelines to ensure that AI tools are used responsibly and that students' privacy and rights are safeguarded. Finally, there is the challenge of institutional support. For AI tools to be successfully integrated into EFL instruction, there must be strong support from educational institutions in terms of training, resources, and ongoing professional development. However, in many cases, such support is either inadequate or inconsistent, leaving lecturers to navigate the complexities of AI integration on their own. Without sufficient institutional backing, the full potential of AI tools in enhancing EFL instruction may not be realized.

6. CONCLUSION

EFL lecturers' perceptions of AI tools reveal a complex interplay of benefits, challenges, and impacts. While AI tools offer significant potential to enhance language teaching, professional development through personalized support, increased efficiency, as well as to foster a more interactive and engaging learning environment, they also raise challenges about high cost of AI tools, insufficient training, risk of over-reliance on technology and data privacy. Addressing these concerns through proper training, transparent practices, and a balanced approach can help maximize the benefits of AI tools in EFL higher education. Ultimately, the successful integration of AI tools depends on a collaborative effort between EFL lecturers,

technologists, and policymakers to ensure that these AI tools enhance rather than hinder the teaching and learning experience.

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