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ENGLISH AS A FOREIGN LANGUAGE INSTRUCTORS' PERCEPTIONS TOWARDS THE IMPLEMENTATION OF ARTIFICIAL INTELLIGENCE IN CREATING EFFECTIVE CLASSROOM LESSON PLANS

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Abstract

This study investigates how teachers of English as a Foreign Language (EFL) see using artificial intelligence (AI) in developing successful lesson plans for the classroom. To add to the continuing conversation on the revolutionary potential of AI in language instruction, it explores teachers' attitudes, convictions, and concerns regarding its integration using various research techniques. The study posits that instructors' attitudes may vary depending on their familiarity with AI, teaching experience, readiness for technology, and educational beliefs, with a prediction of more favorable attitudes from those with greater familiarity with AI and an inclination towards constructivist teaching methods.

Structured as an objectivist investigation, the study employs surveys and interviews to gather data from diverse EFL instructors, examining the factors that impact their perceptions. Statistical techniques like theme analysis for qualitative data and inference and descriptive statistics for data that is quantitative data are used in the analysis. Preliminary findings suggest a range of levels of familiarity with AI among instructors, with generally positive views towards utilizing AI for lesson planning, tempered by concerns about job security and potential bias in AI algorithms. Interviews underscore the AI's potential to facilitate customized learning experiences, improve collaboration among educators, and simplify administrative tasks.

Noteworthy factors such as alignment with pedagogical principles, institutional backing, and technological proficiency contribute to shaping instructors' attitudes toward AI. The study's findings offer practical recommendations for the strategic integration of AI in language instruction, emphasizing the importance of aligning AI tools with educational beliefs and offering support for instructors to enhance their technological competencies.

Keywords: pedagogical alignment, institutional support, technological proficiency, constructivist teaching, personalized learning.

Introduction

In today's quickly changing educational scene, the integration of technology and pedagogy has gained prominence, providing creative ways to improve teaching and learning experiences. Among these technical breakthroughs, artificial intelligence (AI) appears as a revolutionary instrument with immense potential to disrupt different aspects of education. (Al-Shawabkah, 2017) describes AI as the abilities given to computers that enable them to perform tasks that get smarter and behave like people. The computer and information technology discipline focuses on designing and developing computer systems that mimic human intelligence, as cited (Mukhallafi, 2020). AI technology is rapidly evolving due to advancements in mobile web, big data, supercomputing, sensor networks, and brain sciences. New features like deep learning, transdisciplinary integration, human-machine cooperation, communal free information, and autonomous manipulation have enormous impacts on economic development, societal advancement, and the global landscape (Liu, Lei, & Zerui, 2022). Within the realm of language instruction, particularly EFL, the integration of AI holds promise for redefining traditional teaching paradigms and optimizing classroom practices. AI systems can save instructors time by automating mundane activities like grading and feedback (Schmidt, 2022)as cited (Hazaymeh, Abdeldjalil, & Abdelghani, 2024). Artificial intelligence applications can improve language learning by making it more engaging and interactive, increasing motivation, and improving decision-making skills (Jeon, 2022) as cited (Hazaymeh, Abdeldjalil, & Abdelghani, 2024). AI may also encourage student independence by utilizing voice recognition technologies. This technology allows students to practice public speaking and receive quick feedback on tone and pronunciation. Using AI technology in EFL teaching can improve student learning and language proficiency in the classroom. EFL teachers must use AI tools that align with their teaching objectives and boost student learning. AI technology may provide teachers with statistical information on learners' learning language progress, strengths, and limits to guide instructional decisions (Ilkka, 2018) (Hazaymeh, Abdeldjalil, & Abdelghani, 2024). One area where the impact of AI is particularly noteworthy is the creation of effective classroom lesson plans. Lesson planning is a cornerstone of instructional practice, serving as a blueprint for educators to organize content, activities, and assessments to facilitate student learning. Using AI technology, instructors might expedite the lesson preparation process, customize education, and modify teaching tactics to match the various requirements of students. In this context, knowing EFL teachers' attitudes regarding incorporating AI in lesson design is critical. Exploring instructors' attitudes, beliefs, and concerns sheds light on the prospects and pitfalls of incorporating AI into language teaching methods. Moreover, assessing how EFL instructors see the role of AI in lesson planning can inform decision-making processes, curriculum development efforts, and professional development initiatives aimed at enhancing teaching effectiveness and student engagement. This study intends to add to the ongoing discussion about the junction of AI and language education by investigating EFL teachers' perspectives on using AI to create successful classroom lesson plans. By explaining educators' attitudes and views, this study aims to fill a gap in the current literature and give a thorough knowledge of the potential problems associated with using artificial intelligence (AI) tools in language training. This study uses a mixed-methods approach, including questionnaires, interviews, and content analysis, to capture the multidimensional character of EFL teachers' thoughts about AI-driven lesson preparation. This endeavor aims to provide detailed insights that might drive policy choices,

curriculum design, and professional development programs focused on leveraging AI's potential to improve teaching and learning outcomes in EFL classrooms. This article investigates EFL teachers' perspectives on using AI in effective classroom lesson plans. This study aims to add to the continuing discussion about AI's revolutionary potential in language teaching by exploring instructors' attitudes, views, and worries, as well as to give practical recommendations for its strategic implementation.

1.1 Hypothesis

H1: EFL instructors' attitudes toward AI in creating effective lesson plans vary based on their familiarity with AI, teaching experience, technological readiness, and pedagogical beliefs. More positive attitudes are expected from those with higher familiarity with AI, a constructivist teaching philosophy, greater teaching experience, and higher technological readiness.

1.2 Aim of the study

The key goal of this study is to investigate EFL instructors' perceptions of the integration of artificial intelligence (AI) in creating effective classroom lesson plans, as well as to investigate the factors influencing EFL instructors' attitudes and beliefs about the use of AI technologies in lesson planning.

1.3 Objectives of this study are as follows: assess the level of familiarity among EFL instructors with AI technologies and their current practices in lesson planning; identify the pedagogical beliefs and teaching philosophies of EFL instructors; examine how these beliefs influence their perceptions towards AI-driven lesson planning; investigate the relationship between EFL instructors' teaching experience and their attitudes towards the integration of AI in lesson planning; explore EFL instructors' technological readiness; and examine its impact on their acceptance of AI technologies in the context of lesson planning.

1.4 Research questions

RQ1: How do EFL instructors perceive the integration of artificial intelligence (AI) in creating effective classroom lesson plans, and what factors contribute to their attitudes and beliefs towards AI-driven lesson planning?

RQ2: What is the level of familiarity among EFL instructors with AI technologies, and how does this familiarity correlate with their current practices in lesson planning?

RQ3: How do EFL instructors' pedagogical beliefs and teaching philosophies influence their perceptions towards AI-driven lesson planning, and what implications does this have for the strategic integration of AI technologies in language instruction?

1.5 The Significance of the Study

The value of this study stems from its ability to enlighten educational stakeholders, legislators, curriculum creators, and technological innovators about the practical issues and ramifications of adding AI into language teaching procedures. This study adds to the continuing discussion about technology and language education convergence by filling a gap in the literature on EFL teachers' impressions of AI-driven lesson preparation.

Literature review

To address the research questions, a systematic literature review was conducted, yielding clearer findings by eliminating distractions from extensive documents on Artificial Intelligence in English as a Foreign Language.

2.1 History of AI's development

John McCarthy, who is widely recognized as the founder of AI, coined the term in 1955 while drafting a proposal for the Dartmouth Summer Research Project on Artificial Intelligence in 1956. (Sumakul, Fuad, & Didi, 2022). It sparked various debates and controversies over whether machines can think, and the distinction between human intelligence and AI was explored. AI is a current computer science that develops programming approaches to mimic human intellect and perform tasks similar to human behavior. The discipline aims to interpret human intelligence, exploring its patterns and dimensions. It investigates the mental capacities of the human mind in real-world conditions, simulating some of its capabilities and processes. It converts brain processes into computer equations, which are used to solve complex problems. Expert Systems is a field of AI that collects and analyzes data on human experiences to replicate and apply this knowledge in specific areas. These systems continually develop mental simulations based on the events and challenges individuals encounter while interacting with AI devices. This improves the teaching process by resulting in accurate judgments (Al-Feqi, 2012) (Mukhallafi, 2020).

2.2 The Role of Artificial Intelligence in English as a Foreign Language (EFL) Contexts

According to (Raphael, 2017), learning English is a crucial educational goal at personal, academic, and vocational levels. Educational programs determine it and approaches that emphasize the development of incentives and good attitudes toward language acquisition, as well as the use of skills in communication, teaching, and learning, as cited in (Mukhallafi, 2020). (Walker, 2007) Emphasized the relevance of employing AI apps to create written texts, improve students' sentence construction abilities, and practice writing and reading skills. (Lotze, 2016) using AI applications can enhance English language skills and communication abilities through interactive dialog boxes, as cited in (Mukhallafi, 2020).

In the field of English as a Foreign Language (EFL), various AI applications that utilize analytical techniques—such as machine learning (ML), natural language processing (NLP), artificial neural networks (ANNs), and affective computing (AC)—have been extensively adopted and are significantly influencing the learning experience(Jiang, 2022). AI has been shown to improve language teaching and learning (Gao, 2021; Pikhart, 2021; Klimova et al., 2022) and online EFL

learning, particularly during the COVID-19 epidemic as cites (Zitouni, 2022) many reviews of AIEd have been published thus far (Chen, 2022)as cites (Jiang, 2022). Consequently, the following six major kinds of AI in the EFL context were characterized by (Jiang, 2022) Automatic Evaluation Systems, Neural Machine Translation Tools, Intelligent Tutoring Systems, AI Chatting Robots, Intelligent Virtual Environments, and Affective Computing in ITS. In general, NMT tools, AI Chatbots, and ITSs are learner-facing AI systems that can facilitate adaptive or customized learning. Simultaneously, AESs, IVE, and AC in ITSs may be viewed as teacher-facing systems capable of supporting instruction and reducing effort by automating administration, assessment, feedback, and data detection (Jiang, 2022). In an actual EFL setting, several AI applications may play complementary roles in enhancing both teaching and learning. For example, AESs, NMT tools, and ITSs can be used as monitoring and tutoring tools in EFL education to improve EFL learning primarily from cognitive and linguistic perspectives (Groves and Mundt, 2015; Abu Ghali et al., 2018; Gao, 2021; Koh, 2022). EFL teachers can also use IVE to create an interactive and collaborative virtual reality learning environment to support EFL instruction (Melchor-Couto, 2017; Lan et al., 2018) (Jiang, 2022). AI technology aims to develop human-like reasoning, comprehension, planning, learning, communication, perception, tool usage, and machine manipulation skills (Bin, 2019) as cited (Liu, Lei, & Zerui, 2022).

Effective lesson preparation is essential for teachers to deliver instruction successfully. However, many teachers assess students' learning environments based on their subjective perceptions and experiences. They often rely on pre-made teaching materials and courseware from online resources, which can create challenges in understanding the overall teaching schedule and objectives. To overcome these limitations., Liu, Lei, and Zerui (2022) provide intelligent lesson preparation u*sing Watson*, which captures real-time data on students' learning conditions. It provides teachers with high-quality materials tailored to chapter topics and offers personalized courseware for students.(Liu, Lei, & Zerui, 2022). The current information-based education approach faces challenges in improving teaching quality and boosting student motivation. Conversely, AI technology has the potential to effectively address these issues.(Liu, Lei, & Zerui, 2022) We can use the *Knewton platform* to create personalized content for different learning styles, simulate teaching scenarios, and enhance student engagement with multi-screen switching, interactions, and in-class quizzes.(Liu, Lei, & Zerui, 2022).

2.2.1 AI Technology and Classroom Applications

AI serves several educational purposes, such as personalized learning, tutoring, and digital assessment. EFL instructors can integrate two AI applications into their classrooms: *Duolingo*, which focuses on vocabulary and grammar practice, https://www.duolingo.com, and *Lingvist*, which provides lessons in grammar, vocabulary, and pronunciation https://apps.apple.com/us/app/lingvist. Awarding points for completing lessons enriches the learning experience (Hazaymeh, Abdeldjalil, & Abdelghani, 2024).

2.3 Is Artificial Intelligence a friend or enemy?

AI enables personalized learning, prompting the question: "Is AI a friend or foe?" To explore this issue, it's essential to consider teachers' perspectives, as they play a significant role in shaping the

quality of student learning outcomes when technology is integrated into education.(Cope, 2002), (Ding, 2019) (Ertmer, 2005), (Ottenbreit-Leftwich, 2018) as cited in (Sumakul, Fuad, & Didi, 2022).

According to research undertaken by reputable experts (Sumakul, Fuad, & Didi, 2022), Artificial Intelligence (AI) might be regarded as a friend as a result of this study, which found that participants have positive impressions of using AI technology in English as a Foreign Language (EFL) classes. Study participants felt that artificial intelligence (AI) can effectively support teachers and improve student learning. When integrating AI into language schools, it's essential to consider both students' motivation and teachers' technological expertise. As a transformative technology, AI is shaping language education and presenting various challenges for instructors and learners alike. To understand this topic better, we need more data from diverse teachers and to consider the perspectives of students and other education stakeholders, particularly in language teaching and learning. (Sumakul, Fuad, & Didi, 2022).

Methodology

This study adopts an objectivist approach, collecting data based on perceptions and experiences. It posits that social entities function as independent physical realities that shape the universe. Using a mixed-methods research design, the study explores EFL instructors' perspectives on the integration of artificial intelligence (AI) in lesson planning. The objective is to identify the factors that influence their attitudes toward AI technology. A combination of qualitative and quantitative methods was employed to provide a comprehensive analysis of the research questions.

3.1 Participants

EFL instructors from various institutions, including language schools, universities, and private tutoring centers, participated in the study. Using a purposive sampling strategy, participants were chosen to represent different demographics, teaching contexts, and technological proficiency levels.

3.2 Sampling Strategy and Justification

This study used a purposive sampling strategy to select participants capable of offering relevant insights into the integration of AI in English as a Foreign Language (EFL) lesson planning, allowing for targeted selection based on their specific knowledge and experiences.

3.2.2 Achieving Saturation

Qualitative saturation is reached when further data collection no longer uncovers new themes. In this study, saturation was evident after interviewing 10 participants, as no new information emerged, indicating that the data were sufficient to address the research questions.

3.2.3 Purposive Selection Criteria

Participants were selected based on their teaching experience, familiarity with AI, and diverse teaching contexts to provide a wide range of insights relevant to AI-driven lesson planning.

3.2.4 Iteration and Analysis

An iterative process of data collection and analysis was used, with continuous interviews and theme refinement until no new information emerged.

3.3 Data Collection

3.3.1 Survey

Quantitative data was collected through structured surveys given to English as a Foreign Language (EFL) instructors. The survey assessed participants' familiarity with AI technologies, lesson planning practices, pedagogical beliefs, teaching experience, and technological readiness using Likert-scale and multiple-choice questions.

3.3.2 Interviews

Qualitative data will be gathered through semi-structured interviews with selected survey respondents. These interviews will explore participants' perceptions of AI-driven lesson planning, focusing on their attitudes, beliefs, concerns, and expectations. Open-ended questions will facilitate in-depth discussions and capture diverse perspectives.

3.4 Data Analysis

3.4.1 Quantitative Analysis

Quantitative survey data was analyzed using descriptive and inferential statistics. Descriptive statistics, including frequencies, percentages, means, and standard deviations, summarized participants' responses. Inferential statistics, such as correlation and regression analyses, examined relationships between variables and identified predictors of EFL instructors' perceptions of AI-driven lesson planning.

3.4.2 Qualitative Analysis

Qualitative data from the interviews were analyzed through thematic analysis. Transcripts were coded to identify recurring themes related to participants' perceptions and beliefs about AI technologies in lesson planning. Emerging themes were refined and organized into a framework that aided in interpreting the findings.

3.5. Ethical Considerations

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Volume 10, No.2 (2025): April

This research follows ethical guidelines for human participants. Informed consent was obtained to ensure voluntary participation and confidentiality. Participants were assured of anonymity, with measures in place to protect their privacy throughout the process.

Findings

One hundred and four esteemed professors specializing in the English language graciously took the time to complete an electronic questionnaire. These distinguished individuals hail from various nations and reputable institutions of higher learning.

The findings from the questionnaire have been meticulously analyzed and are detailed below, explicitly linking the results to the research questions and hypotheses outlined in the introduction. This connection ensures that the findings directly address the study's objectives, providing clear insights into the research questions.

4.1 Questionnaire findings

Familiarity with AI Technologies (RQ1, H1):

Chart 1 illustrates that 43 out of 104 participants are extremely familiar with AI tools in language instruction, while only 4 have limited familiarity. This supports the hypothesis (H1) that familiarity with AI varies among instructors, impacting their perceptions of AI integration.

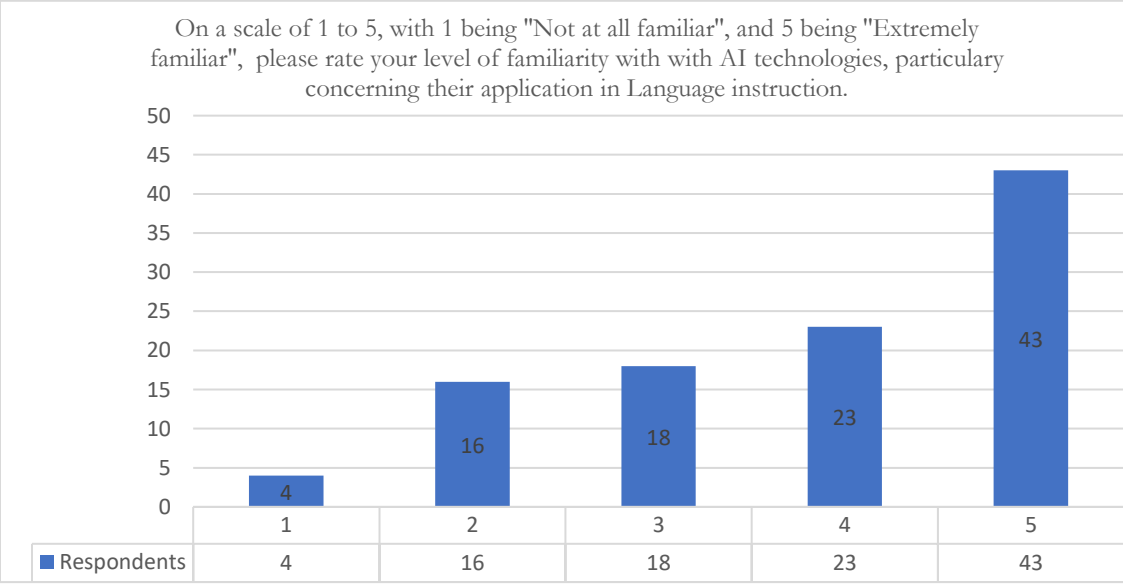

Chart 1: *EFL instructors' familiarity with AI technologies in Language instructions.* ***Source:*** *Author's own Calculation.*

The preliminary findings of the survey are displayed in Chart 1, highlighting the responses of 104 participants. Among the participants, 43 demonstrated a strong understanding of AI tools within

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Volume 10, No.2 (2025): April

the realm of Language Instruction. Conversely, 4 respondents indicated a limited understanding of AI tools as they pertain to Language Instruction.

Factors Influencing Attitudes (RQ2, H1):

Chart 2 shows that 30 participants believe AI integration positively impacts lesson planning. This aligns with the hypothesis that those with higher familiarity with AI (and possibly constructivist teaching philosophies) hold more favorable attitudes.

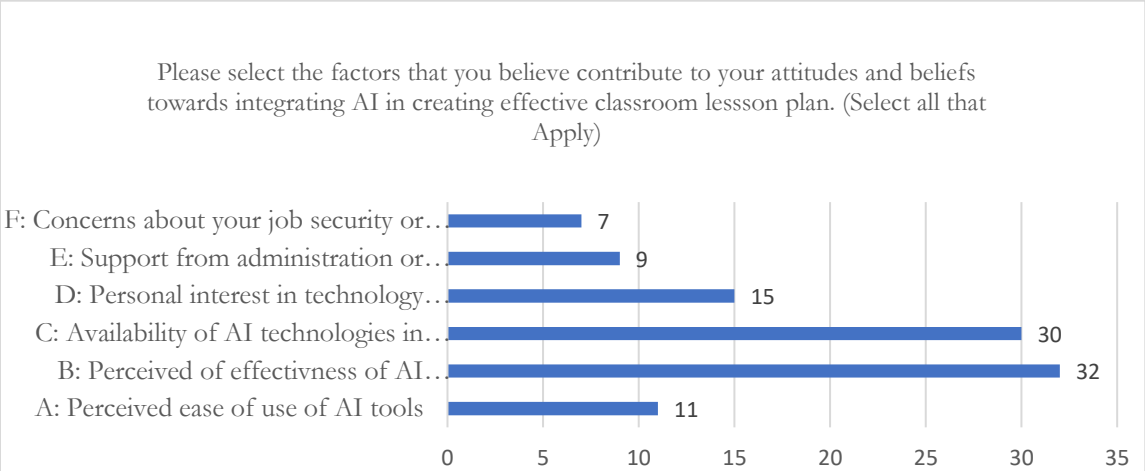

Chart 2: *Factors influencing EFL instructors' attitudes toward integrating AI in lesson plan design.* ***Source:*** *Author's own calculation.*

Based on the analysis of responses to question two in the electronic survey, it was discovered that 30 out of 104 participants hold the belief that the incorporation of AI technologies in educational settings could have a positive impact on their perceptions of AI implementation to develop engaging classroom lesson plans. Additionally, 32 out of the 104 respondents have expressed their approval of AI-driven lesson planning, while 15 respondents have shown interest in integrating technology into their teaching practices. Furthermore, 11 individuals out of the total 104 found AI tools to be user-friendly, whereas 9 respondents required assistance from colleagues or administration. Finally, 7 respondents out of the 104 surveyed have voiced concerns regarding job security and the evolving role of teachers. The detailed findings of the survey have been visually depicted in Chart 2 for further examination and reference.

Frequency of AI Use (RQ3, H1):

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Volume 10, No.2 (2025): April

Chart 3 reveals that 77 out of 104 instructors often use AI in lesson planning. This finding supports the hypothesis that higher technological readiness correlates with more frequent use of AI.

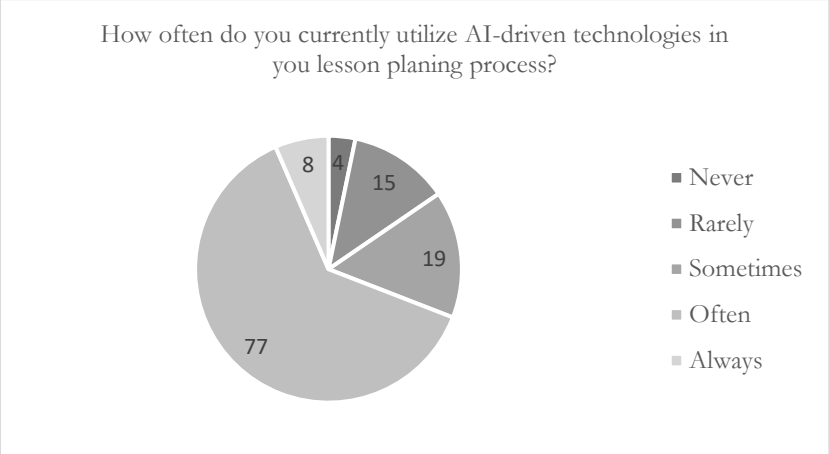

Chart 3: *The frequency of use of AI-driven by EFL instructors.* ***Source:*** *Author's own Calculation.*

The results of the third question in the electronic survey are visually represented in Chart 3. According to the data, 77 out of 104 EFL professors regularly integrate artificial intelligence into their lesson-planning procedures. Additionally, 15 out of 104 professors reported occasional usage, while 8 out of 104 professors indicated constant usage. Only 4 out of 104 professors admitted to never utilizing AI in their lesson planning.

Teaching Philosophies (RQ3, H1):

Chart 4 indicates that 54 instructors believe their teaching philosophies moderately influence their views on AI integration. This finding supports the hypothesis that pedagogical beliefs impact perceptions of AI.

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Volume 10, No.2 (2025): April

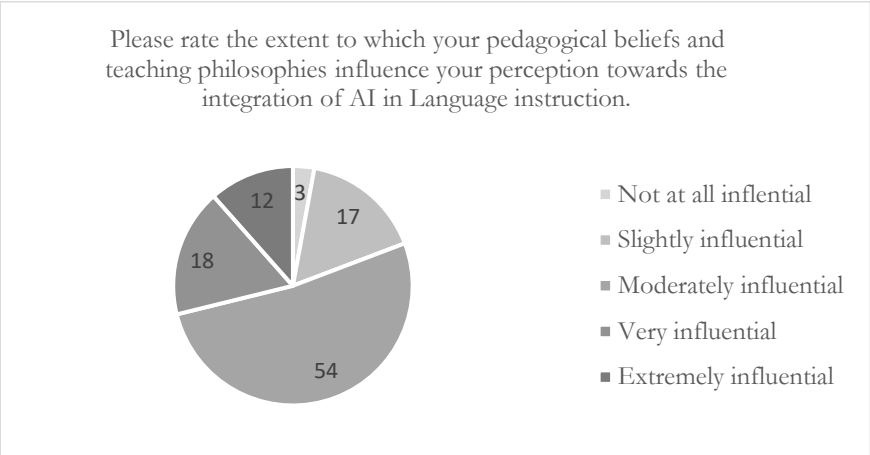
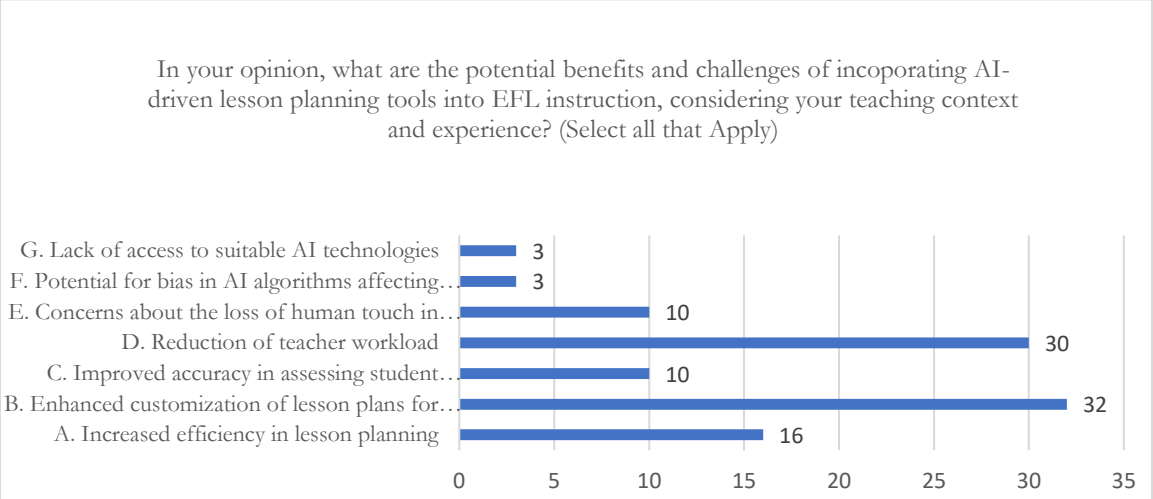


Chart 4: *Influence of teaching philosophies of EFL instructors towards AI integration in Language instruction.* ***Source:*** *Author's own calculation.*

The data from the fourth question in the electronic questionnaire has been visually represented in Chart 4. Among the 104 instructors surveyed, 54 indicated that their pedagogical beliefs and teaching philosophies have a moderate impact on their views regarding the integration of artificial intelligence in language instruction. Additionally, 18 instructors reported a high level of influence, 17 indicated a slight influence, 12 believed the influence to be significant, and 3 stated that it had no impact at all.

Benefits and Challenges (RQ1, RQ2, RQ3):

Chart 5 summarizes perceived benefits such as increased efficiency (30 respondents) and personalized lesson plans (32 respondents), as well as challenges like the loss of human touch (10 respondents). This highlights the practical implications and concerns related to AI integration in EFL instruction.



	A. Increased efficiency in lesson planning	B. Enhanced customization of lesson plans for individual student needs	C. Improved accuracy in assessing student progress	D. Reduction of teacher workload	E. Concerns about the loss of human touch in teaching	F. Potential for bias in AI algorithms affecting instructional content	G. Lack of access to suitable AI technologies
Respondents	16	32	10	30	10	3	3

Chart 5: *Benefits and Challenges of Incorporating AI-Driven in EFL Instruction.* ***Source:*** *Author's own calculation.*

Chart 5 illustrates the findings of the fifth inquiry in the electronic survey. The data indicates that 30 out of 104 participants think that the utilization of AI-driven tools for lesson planning in EFL education has the potential to alleviate the burden on teachers. Furthermore, 32 out of 104 respondents believe that the integration of AI could facilitate more personalized lesson plans tailored to the individual needs of students. Additionally, 16 out of 104 participants express confidence in AI's ability to streamline the process of planning lessons, and 10 out of 104 respondents are convinced that AI can enhance the accuracy of assessing student progress. Conversely, 10 out of 104 respondents harbor concerns about the loss of interpersonal connection in teaching with the introduction of AI. Furthermore, 3 out of 104 participants express apprehension about the possibility of bias in AI algorithms impacting educational content, while another 3 out of 104 respondents feel that they do not have access to appropriate AI technologies.

4.2 Interview findings

In this investigation, a cohort of ten (10) English as a foreign language instructors underwent interviews. These findings furnish qualitative insights to complement the quantitative data obtained through the administration of a questionnaire.

1. How do you perceive the potential of artificial intelligence in assisting you with creating effective lesson plans for English language teaching?

ISSN 2661-2666 (Online) International Scientific Journal Monte (ISJM) DOI: 10.33807/monte.20253319
Volume 10, No.2 (2025): April

Theme	Sub-Themes	Number of respondents
Harnessing Artificial Intelligence for Effective English Language Teaching.	Development of Adaptive Assessment Methods	1
	Enhancing Collaboration among Educators	1
	Interactive Learning Platforms	1
	Instant Feedback and Continuous Improvement	2
	Innovative Teaching Approaches and Materials	1
	AI-assisted Material Generation and Time-saving	2
	Identifying Learning Gaps and Remedial Actions	1
	Streamlining Administrative Tasks	1

Table 1: *EFL Teachers' Opinions on Harnessing Artificial Intelligence for Effective English Language Teaching*. ***Source:*** *Author's own analysis.*

Table 1 showcases the data gathered during the initial inquiry session with the esteemed English language scholars. One survey participant emphasized the importance of developing flexible assessment methods to customize assessments based on individual student needs. Another participant underscored the role of Artificial Intelligence (AI) in promoting collaboration among educators, enabling them to share resources and strategies more efficiently. A third participant noted the significance of interactive learning platforms powered by AI to actively engage students in the learning process. Two participants recognized the value of AI in providing immediate feedback to students, fostering continuous improvement in their English language skills. Another participant highlighted the potential of AI to support innovative teaching approaches and provide access to a variety of teaching materials. Two participants pointed out the advantages of AI in creating teaching materials and saving time for educators, allowing them to concentrate more on instructional activities. One participant acknowledged AI's ability to identify gaps in students' learning and recommend effective remedial actions. Another participant mentioned the role of AI in streamlining administrative tasks related to English language teaching, enabling educators to devote more time to teaching and learning activities.

2. Can you share any experiences or thoughts on how AI technologies could enhance or complement your current practices in lesson planning for EFL instruction?

Theme	Sub-theme	Number of respondents
EFL instructors' experiences and thoughts on the effects of AI in lesson planning.	Personalized Learning	2
	Language Assessment	2
	Automation of Tasks	2
	Student Support and Engagement	2
	Real-time Adaptation and Inclusivity	2

Table 2: *EFL instructors' experiences and thoughts on the effects of AI in lesson planning.* ***Source:*** *Author's own analysis.*

Table number 2 displays the data collected for the second question of the interview with the English Language professors. The qualitative data obtained from the interview has been meticulously categorized into sub-topics based on assigned codes. The numerical value at the end of each sub-topic denotes the number of professors who shared their opinions on that specific sub-topic in their responses. Two respondents shared their experiences and thoughts on how AI affects tailoring learning experiences for individual students. Two respondents discussed the impact of AI on language assessment within lesson planning. Two respondents talked about how AI helps automate various tasks related to lesson planning. Two respondents expressed views on how AI influences student engagement and support in lesson planning. Two respondents provided insights on the role of AI in real-time adaptation and promoting inclusivity in lesson planning.

3. What level of familiarity do you have with AI technologies, and how do you think this familiarity impacts your approach to incorporating AI-driven tools in your teaching?

Theme	Sub-theme	Number of respondents
EFL instructor's familiarity with AI in EFL Education	Understanding and Recognition of AI's Potential	3
	Confidence in Integrating AI Tools	2
	Continuous Learning and Professional Development	3
	Pedagogical Alignment and Evaluation	3

	Proactive Exploration and Innovation	2

Table 3: EFL instructor's familiarity with AI in EFL Education. ***Source:*** *Author's own analysis.*

Table three shows the findings for question three of the interview with the English language professors, which are as follows: Three respondents expressed knowledge of AI's potential in EFL instruction, demonstrating an understanding of its capabilities and consequences. Two respondents showed various degrees of trust in using AI technologies in their teaching methods. Three respondents emphasized the need for continual learning and professional growth in properly incorporating AI into their teaching approaches. Three responders emphasized the alignment of AI technologies with pedagogical concepts, as well as the need to evaluate their success in EFL instruction. Two respondents demonstrated a proactive approach to investigating and developing AI in EFL instruction, suggesting a willingness to experiment and adapt.

4. How do your personal pedagogical beliefs and teaching philosophies influence your views on integrating AI technologies into language instruction?

Theme	Sub-theme	Number of respondents
Integration of AI Technologies in English Language Instruction	Personalized Learning and Differentiation	2
	Enhancing Critical Thinking and Engagement	2
	Constructivist Approach and Authentic Learning	2
	Inclusivity and Accessibility	2
	Fostering Lifelong Learning Skills	2

Table 4: *The Use of AI Technologies in English Language Teaching.* ***Source:*** *Author's own analysis.*

Table 4 summarizes the feedback from English language professors regarding the fourth interview question. The key findings are: Two respondents noted that AI technologies can personalize learning experiences and address individual student needs. Two highlighted AI's role in fostering critical thinking and boosting student engagement. Two emphasized the importance of a constructivist approach in integrating AI into instruction. Two discussed the significance of AI in promoting inclusivity and enhancing accessibility for all students. - Two mentioned that AI can facilitate the development of lifelong learning skills among students.

5. In your opinion, what factors contribute to EFL instructors' attitudes and beliefs towards AI-driven lesson planning, and how might these factors affect the strategic implementation of AI in language teaching?

Theme	Sub-theme	Number of respondents
Factors influencing EFL instructors' attitudes towards AI-driven lesson planning	Perceptions of practicality and usability of AI tools.	1
	Influence of prior experiences with technology in the classroom.	2
	Alignment with pedagogical beliefs and teaching philosophies.	4
	Perception of institutional support and readiness for innovation.	5
	Level of technological proficiency and need for support and training.	3

Table 5: *Factors influencing EFL instructors' attitudes toward AI-driven lesson planning.* ***Source:*** *Author's own analysis.*

The following data was collected from the fifth question of an interview with English language professors and is categorized into sub-themes. The numbers indicate the number of professors who shared their opinions on each topic: One respondent commented on the practicality and usability of AI tools in lesson planning. Two respondents shared how their previous experiences with technology influenced their perspectives on AI-driven lesson planning. - Four respondents emphasized the importance of aligning AI-driven planning with their pedagogical beliefs. - Five respondents provided their views on institutional support and readiness for innovation in adopting AI-driven lesson planning. Three respondents indicated their level of technological proficiency and expressed a need for training to effectively implement AI-driven lesson planning.

Discussions & conclusions

The literature review discusses the historical development of artificial intelligence (AI) and its current applications in English as a Foreign Language (EFL) education. It emphasizes how AI enhances teaching and learning through various tools, including machine learning and intelligent tutoring systems. Additionally, the review discusses AI's potential in revolutionizing lesson preparation and delivery, offering personalized learning experiences through platforms like Watson and Knewton. However, it acknowledges the importance of factors like student motivation and teacher expertise in effectively integrating AI into language education. The review underscores AI's potential to improve EFL education by enhancing teaching practices and personalizing learning experiences. It emphasizes the importance of considering pedagogical factors and suggests that more research with diverse perspectives is essential to fully leverage AI's benefits in language education.

The findings from the electronic questionnaire provide critical insights into AI integration in EFL instruction, offering a nuanced understanding of instructors' perceptions. These results are discussed in the context of existing literature, addressing discrepancies and confirming previous studies. The positive attitudes toward AI integration (Chart 2) align with studies by Gao (2021) and Pikhart (2021), which highlight the potential of AI to enhance language teaching and learning. Concerns about job security (Chart 2) and the loss of human touch (Chart 5) introduce new dimensions to the discourse, as these issues were less emphasized in previous studies (Zitouni, 2022). This highlights the need to explore the socio-emotional impacts of AI in education. The findings suggest that familiarity with AI and constructivist teaching philosophies positively influence attitudes toward AI integration. This emphasizes the importance of technological readiness and pedagogical alignment in adopting AI technologies (Cope, 2002; Ertmer, 2005).
The presence of four respondents with limited understanding highlights the need for targeted educational initiatives. Chart 2 explores the diverse attitudes of EFL instructors toward integrating AI in lesson planning. Although 30 out of 104 respondents believe AI can enhance lesson planning, seven expressed concerns about job security and the changing role of teachers, signaling important issues for discussion regarding AI adoption in education.

Chart 3 offers a detailed view of how often EFL professors integrate AI into their teaching. The data reveals a predominant inclination toward regular utilization of AI-driven tools in lesson planning, with 77 out of 104 professors incorporating such technologies into their pedagogical practices. This trend underscores a growing acceptance and integration of AI within the educational landscape, albeit with variations in adoption rates among instructors. Moreover, Chart 4 clarifies the influence of teaching philosophies on EFL instructors' perspectives regarding AI integration. While a majority of respondents (54 out of 104) acknowledge a moderate impact of pedagogical beliefs on their views, variations in the perceived influence underscore the complex interplay between individual philosophies and technological adoption. This highlights the need for tailored approaches to support educators in navigating the integration of AI within their instructional frameworks. Lastly, Chart 5 delineates the perceived benefits and challenges associated with AI-driven instruction in the EFL context. Many respondents believe AI can reduce teachers' workloads and improve personalized lesson planning. However, concerns about losing interpersonal connections and biases in AI algorithms must be addressed through ethical guidelines and equitable access to technology. The questionnaire results reveal a complex landscape of attitudes toward AI integration in English as a Foreign Language (EFL) instruction. While many instructors are familiar with AI tools and are open to using them, significant concerns about teaching beliefs, job security, and ethical implications persist. To ensure responsible integration of AI in language instruction, promoting AI literacy and addressing bias and equity concerns are essential. By taking a proactive approach, educators and stakeholders can harness AI's potential while maintaining the integrity of language education.

Interviews with English as a Foreign Language (EFL) instructors provide insight into their views on using artificial intelligence (AI) in lesson planning. These findings reveal both opportunities and challenges of AI's integration in teaching practices. Participants noted AI's potential to enhance language instruction, particularly through adaptable assessment methods that cater to individual

student needs and encourage personalized learning experiences. AI has become a key factor in promoting collaboration among educators, improving resource exchange and teaching effectiveness. Its interactive platforms engage students actively, creating a dynamic learning environment, while instant feedback mechanisms support continuous improvement in language skills. AI also innovates teaching methods and materials, providing access to diverse resources and easing administrative burdens, which allows educators to focus more on instruction. The insights from EFL instructors reveal that AI enhances lesson planning through personalized learning, language assessment, task automation, student support, and real-time adaptation. While recognizing AI's potential, participants emphasized the importance of familiarity and confidence in using AI tools. Effective integration necessitates ongoing learning and alignment with pedagogical principles. Proactive exploration and innovation are essential for embracing these technological advancements. Incorporating AI into English language instruction aligns with pedagogical beliefs, fostering personalized learning, critical thinking, and inclusivity. Factors influencing EFL instructors' attitudes toward AI include perceived practicality, past experiences, institutional support, and technological proficiency. Ultimately, adequate training and support are crucial for the successful implementation of AI-driven methods. The findings from interviews with EFL instructors provide valuable insights into the potential of artificial intelligence in enhancing lesson planning for English language teaching. While participants recognized the diverse benefits of AI integration, including personalized learning, collaboration, and efficiency gains, they also acknowledged the importance of familiarity, alignment with pedagogical principles, and institutional support in realizing these benefits. Moving forward, strategic efforts should focus on providing professional development opportunities to enhance instructors' familiarity and confidence in utilizing AI tools effectively. Moreover, initiatives to align AI-driven approaches with pedagogical principles and institutional priorities are essential for ensuring meaningful integration into teaching practices. Additionally, investment in technological infrastructure and support mechanisms is crucial to address instructors' varying levels of technological proficiency and facilitate the seamless integration of AI-driven approaches. Overall, the integration of artificial intelligence holds immense potential to revolutionize English language teaching by fostering personalized, engaging, and inclusive learning experiences. However, its successful implementation requires concerted efforts to address challenges and capitalize on opportunities, ultimately advancing the quality and effectiveness of English language instruction in diverse educational contexts.

Limitations & practical implications

This study provides important insights into AI integration in EFL (English as a Foreign Language) instruction, but has some limitations. The sample size of 104 EFL instructors may not represent the global diversity of language educators, and self-reported data may introduce biases. A purposive sampling strategy was used to mitigate these issues. Future research should aim to expand the sample size and include longitudinal data for better generalizability.

The implications of this study are significant. AI has the potential to personalize learning and reduce teacher workload, potentially transforming EFL instruction. However, it is vital to address

job security and ethical concerns. Professional development programs should enhance instructors' familiarity with AI tools and ensure they align with their teaching beliefs and institutional support.

Recommendations

- Investigate effective teaching approaches aligning with diverse philosophies for integrating AI into EFL instruction.
- Investigate strategies for mitigating research bias and the ethical implications of using AI in language education.
- Evaluate the impact of teacher training programs on EFL instructors' confidence in using AI tools.
- Conduct long-term studies to evaluate the lasting impacts of AI-driven instruction on language learning outcomes.

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Abbreviations

AI- Artificial Intelligence

EFL- English as a Foreign Language

AESs- Automatic Evaluation Systems

NMT- Neural Machine Translation

ITSs- Intelligent Tutoring Systems

ML- Machine Learning

NLP-Natural Language processing

ANNs-Artificial neural networks

AC-Affective computing

IVE- Immersed Virtual Environment

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