



Research Article

English Language Teachers' Perceptions of Ethical and AI-Responsive Future-Ready Pedagogy: A Mixed-Methods Study

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Abstract

This mixed-methods study examines how English language teachers understand and respond to ethical and AI-responsive future-ready pedagogy. As generative artificial intelligence becomes more common in educational settings, teachers are being asked to make decisions that are not only practical but also ethical. They must consider issues such as student privacy, bias in AI outputs, overreliance on automated tools, fairness of access, and the role of human judgment in language teaching. At the same time, they are expected to prepare learners for communication in digital, global, and rapidly changing environments. The study explores how teachers conceptualize future-ready pedagogy, what ethical concerns they associate with AI use in English language teaching, and how they judge their own readiness to teach in AI-mediated classrooms. Using a mixed-methods design, the study combines survey data with follow-up interviews to capture both broad patterns and more detailed teacher perspectives. The quantitative phase examines teachers' beliefs, AI literacy, ethical awareness, perceived institutional support, and readiness for implementation. The qualitative phase explores how teachers interpret the opportunities and risks of AI in real classroom practice. The study aims to contribute an evidence-based picture of teacher thinking in an area where pedagogical innovation and ethical responsibility must develop together. By focusing on teachers' voices, the paper seeks to inform teacher education, curriculum design, and policy discussions around responsible AI use in English language teaching. It also offers a basis for developing future-ready pedagogy that is not only innovative, but also fair, transparent, and human-centered.

Keywords: AI Ethics; Artificial Intelligence; Digital Pedagogy; English Language Teaching; Future-Ready Pedagogy; Human-Centered AI; Mixed-Methods Study; Responsible AI In Education

1. Introduction

Artificial intelligence Artificial intelligence is becoming part of everyday educational practice (Isaee & Barjesteh, 2026a). In language teaching, generative AI tools can support drafting, brainstorming, feedback, vocabulary work, and classroom preparation (Du & Daniel, 2024). They can also make learning more flexible and more personalized. At the same time, these tools raise important questions. They may produce biased output, blur authorship, collect student data, or encourage students to depend too heavily on automated help. For English language teaching, this means that AI is not only a technical issue. It is also a pedagogical and ethical one (Hwang & Chang, 2024; Liu & Zhao, 2025; Manoocherzadeh et al., 2025).

English teachers now work in environments where learners are expected to communicate across cultures, use digital tools confidently, and adapt to change. For that reason, future-ready pedagogy has become a useful idea in language education (Kaempf, 2022). It refers to teaching that prepares learners for communication in complex, technology-rich, and uncertain contexts. In practice, this includes learner-centered instruction, digital tools, collaboration, reflection, and authentic communication. Yet future readiness should not be understood only in terms of innovation or efficiency. It should also include fairness, privacy, transparency, and respect for human agency (Schlam Salman & Inbar-Lourie, 2023).

This point matters because the classroom use of AI is never neutral. A teacher who uses AI in writing instruction, for example, must think about whether students are learning to write independently or simply accepting machine-generated text. A teacher who uses AI for feedback must ask whether the feedback is accurate, understandable, and appropriate. A school that adopts AI tools must decide how student data will be stored, who can access it, and what kind of monitoring is acceptable. These are practical questions, but they are also ethical ones (Lightbown & Spada, 2021).

Although interest in AI in education is growing quickly, there is still limited research on how English language teachers themselves understand this shift. Many studies focus on tools, applications, or theoretical arguments. Fewer studies look closely at teacher perceptions, especially in relation to ethics and future-ready pedagogy. This gap is important because teachers are the ones who make daily decisions about whether and how AI enters the classroom. Their views shape what AI means in actual teaching practice.

This study addresses that gap by examining English language teachers' perceptions of ethical and AI-responsive future-ready pedagogy. It asks how teachers define this kind of pedagogy, what ethical concerns they associate with AI, and how ready they feel to use AI in

responsible ways. A mixed-methods design is used so that broad survey patterns and deeper interview insights can be brought together in one study. The goal is not only to describe teacher attitudes, but also to understand the conditions that support or limit responsible AI use in English language teaching. This study is guided by the following research questions:

RQ1. How do English language teachers conceptualize ethical and AI-responsive future-ready pedagogy?

RQ2. What ethical concerns do English language teachers associate with the use of generative artificial intelligence in English language teaching?

RQ3. How ready do English language teachers perceive themselves to be to implement ethical and AI-responsive future-ready pedagogy?

RQ4. What factors influence teachers' readiness to implement ethical and AI-responsive future-ready pedagogy?

RQ5. How do teachers describe the opportunities and challenges of integrating generative AI into English language teaching in ethically responsible ways?

This study makes several contributions to the emerging literature on artificial intelligence in language education. First, it extends recent theoretical discussions by examining how English language teachers understand the relationship between future-ready pedagogy, AI integration, and ethical responsibility. Second, it provides empirical evidence on teachers' ethical concerns, perceived readiness, and the contextual factors that shape responsible AI use in English language teaching. Third, by combining survey data with interview findings, the study offers both breadth and depth in understanding teacher perspectives. Finally, the findings are expected to inform teacher education, curriculum design, and institutional policies aimed at supporting ethical and human-centered uses of AI in language education.

This paper is organized as follows. The next section reviews the literature on AI in language education, future-ready pedagogy, and ethical concerns in digital learning. The methodology section then explains the mixed-methods design, participants, instruments, and procedures. The remaining sections present the findings, discuss their implications, and conclude with recommendations for teacher education, curriculum design, and policy. human-led.

2. Literature Review

2.1. Artificial Intelligence in English Language Teaching

AI is becoming an increasingly visible part of language education. Recent advances in generative AI have expanded what teachers and learners can do with digital

tools (Isaee & Barjesteh, 2026b). Systems such as ChatGPT, Google Gemini, and Microsoft Copilot can generate explanations, create examples, provide feedback, and simulate conversations (van den Berg, 2025). In ELT, these tools are being used to support writing, speaking, vocabulary development, and lesson preparation.

One reason AI has attracted attention is its ability to provide immediate and individualized support (Slamet, 2024). Students can ask questions, request clarification, and receive responses that are adapted to their level and goals. This can create more opportunities for practice and may help learners work more independently (Wang, 2024). Teachers can also use AI to generate materials, draft rubrics, and design activities, which may reduce preparation time and allow greater differentiation.

Research suggests that AI can support several aspects of language learning (e.g., Moundridou et al., 2014; Verboom et al., 2025). In writing instruction, generative AI can help learners brainstorm ideas, organize content, and revise drafts. In speaking practice, AI chatbots can simulate interactive exchanges and provide low-pressure opportunities for communication. In vocabulary learning, AI can generate examples, explanations, and contextualized practice (Kiryakova & Angelova, 2023). These applications suggest that AI can function as a flexible learning partner when used with clear pedagogical goals. At the same time, the educational value of AI depends on how it is used. AI-generated responses may contain factual errors, oversimplifications, or culturally limited perspectives. Students may accept outputs without checking their accuracy, and some may become overly dependent on automated assistance (Welding, 2023). In writing tasks, for example, learners may rely on machine-generated text instead of developing their own ideas and language choices. These concerns have led many scholars to argue that AI should be treated as a support tool rather than an authority.

Another recurring theme in the literature is the changing role of the teacher. Rather than serving only as a source of information, teachers increasingly act as designers, facilitators, and evaluators of AI-mediated learning. They guide students in selecting appropriate tools, verifying outputs, and using AI responsibly. This shift places greater emphasis on teacher judgment and professional expertise (Barjesteh et al., 2026). Although studies generally acknowledge the potential of AI in ELT, they also emphasize the need for caution (e.g., Risdianto et al., 2025; van den Berg, 2025; Welding, 2023). Most researchers agree that AI can enrich language learning when it is integrated thoughtfully and critically (Isaee & Barjesteh, 2026). However, successful use requires attention to pedagogical purpose, learner autonomy, and ethical responsibility. These issues connect AI use to the broader concept of future-ready pedagogy, which is discussed in the next section.

2.2. Future-Ready Pedagogy in Language Education

Future-ready pedagogy refers to teaching approaches that prepare learners for a world shaped by rapid technological change, global communication, and uncertain professional demands (Choo et al., 2024; Priya & Shamugapriya, 2025). In language education, this means going beyond grammar and vocabulary to help students develop broader competencies such as digital literacy, critical thinking, collaboration, creativity, adaptability, and lifelong learning. English is increasingly used in online and technology-rich settings, so learners need to know how to communicate effectively while evaluating information and using digital tools responsibly.

In practice, future-ready pedagogy is usually learner-centered and interactive (Priya & Shamugapriya, 2025). Students are encouraged to solve problems, create meaningful products, reflect on their progress, and work with others. Teachers design tasks that connect language use to authentic situations rather than relying solely on decontextualized exercises (Choo et al., 2024). Approaches such as the Flipped Classroom, Project-Based Learning, inquiry-based learning, and blended learning are often associated with this perspective because they promote active participation and independent learning (Zhang, 2024).

Technology is an important component of future-ready pedagogy, but it is not the defining feature. Digital tools are valuable when they support meaningful communication and deeper learning (Kaempf, 2022). The central goal is to help learners become adaptable and reflective individuals who can continue learning as technologies and social conditions change.

Recent discussions have also emphasized that future readiness includes ethical responsibility. Students need to understand how technologies influence knowledge, decision making, and power (Lalithakumari & Vijayarani, 2024). They should be able to question sources, recognize bias, protect their privacy, and make informed choices. In this sense, future-ready pedagogy combines innovation with human values. In English language teaching, this approach is especially relevant because language learning naturally involves communication, intercultural understanding, and interpretation of diverse perspectives. These features make ELT an ideal context for preparing learners to use technology critically and responsibly. The concept of future-ready pedagogy therefore provides an important lens for understanding how AI can be integrated into language education.

2.3. Ethical Issues in Educational AI

The use of artificial intelligence in education raises ethical questions that extend beyond technical performance.

Decisions about how AI tools are selected, used, and monitored affect privacy, fairness, autonomy, and access. These concerns are particularly important in educational settings because students are in a vulnerable position and may not fully understand how AI systems operate (Isaee & Barjesteh, 2026). One major concern is algorithmic bias. AI systems are trained on large datasets that may contain stereotypes and unequal representation. As a result, generated responses can reflect cultural assumptions and favor dominant perspectives. In language education, this may lead to simplified or unbalanced portrayals of people, cultures, and social issues.

Student data privacy is another important issue. Many AI tools collect prompts, uploaded documents, and behavioral information. Without clear safeguards, personal data may be stored, reused, or shared in ways that students do not expect. Related to this issue is educational surveillance, where technology is used to monitor student behavior and performance more closely than necessary. Researchers have also expressed concern about cognitive dependency. Because AI can produce immediate responses, learners may rely on automated outputs rather than engaging in planning, reflection, and critical evaluation (Welding, 2023). This may weaken the development of independent thinking if AI is used without appropriate guidance.

Equity is another recurring theme. Access to reliable internet, suitable devices, and advanced AI tools is uneven across schools and countries (Risdianto et al., 2025). Students with limited access may be excluded from opportunities that others take for granted. In addition, the concentration of AI development within a small number of organizations raises concerns about linguistic dominance and the marginalization of local knowledge (Manoocherzadeh et al., 2025).

These issues have led scholars to call for human-centered and responsible approaches to AI in education. Such approaches emphasize transparency, accountability, fairness, and the preservation of human agency. Ethical considerations are therefore central to understanding how AI should be used in language teaching.

2.4. Teacher Readiness for AI Integration

Teachers play a central role in determining whether AI contributes to meaningful learning (Chen et al., 2022). Even when powerful tools are available, their educational value depends on how teachers interpret and apply them. For this reason, teacher readiness has become an important topic in research on AI in education. Teacher readiness includes several related dimensions. One is AI literacy, or the ability to understand what AI systems can and cannot do. Another is ethical awareness, which involves recognizing issues such as bias, privacy, and overreliance on automated tools. Teachers also need pedagogical

confidence so that they can design activities that use AI in ways that support learning rather than distract from it (Petko et al., 2018).

Institutional support is another important factor. Teachers are more likely to experiment with AI when they have access to professional development, technical resources, and clear policies (barjesteh et al., 2026). In contrast, uncertainty about privacy, academic integrity, or acceptable use may discourage adoption even when teachers are interested in innovation. Existing studies suggest that many educators are curious about AI but feel underprepared to use it confidently (e.g., Moundridou et al., 2014; Verboom et al., 2025). Some report enthusiasm about the possibilities for feedback, personalization, and lesson design, while others express concerns about plagiarism, data security, and reduced student effort (Welding, 2023). These mixed responses indicate that readiness involves more than positive attitudes toward technology. In English language teaching, teacher readiness is particularly important because language instruction often requires nuanced feedback, cultural sensitivity, and careful support of student voice (Isaee & Barjesteh, 2023). Understanding how teachers perceive their own readiness can therefore provide valuable insight into the conditions needed for ethical and effective AI integration.

2.5. Conceptual Framework and Research Gap

The literature reviewed above shows that three areas are developing rapidly: artificial intelligence in English language teaching, future-ready pedagogy, and ethics in educational technology. Studies have documented the potential of AI to support language learning, emphasized the importance of preparing students for changing digital environments, and identified ethical concerns related to privacy, fairness, and human agency. However, these strands of research have often developed separately. Some studies focus primarily on the technical functions of AI tools. Others discuss future-ready pedagogy without examining ethical issues in depth. Research on AI ethics, in turn, frequently addresses broad educational concerns without focusing specifically on English language teaching. As a result, there is still limited empirical evidence on how language teachers bring these dimensions together in their own thinking and practice. Teacher perspectives are especially important because educators make the practical decisions that shape classroom implementation. Their beliefs influence which tools are adopted, how students are guided, and how ethical concerns are addressed. Yet relatively few studies have examined teachers' perceptions of ethical and AI-responsive future-ready pedagogy as an integrated concept. This study addresses that gap by investigating how English language teachers understand this form of

pedagogy, what ethical concerns they identify, and how ready they feel to implement it. The study also explores the factors that influence readiness and the opportunities and challenges teachers experience. By combining survey and interview data, the research provides a more comprehensive understanding of responsible AI integration in language education. The conceptual framework guiding this study draws on the ethical and AI-responsive model developed in the related conceptual paper. It assumes that implementation readiness is shaped by AI literacy, ethical awareness, future-ready pedagogical beliefs, and perceived institutional support. Together, these factors provide a foundation for examining how teachers navigate the intersection of innovation and ethical responsibility in English language teaching.

2.6. Conceptual Model and Hypotheses

Fig. 1 presents the conceptual model that guides this study. The model proposes that teachers' readiness to implement ethical and AI-responsive future-ready pedagogy is influenced by four interrelated factors: AI literacy, ethical awareness, future-ready pedagogical beliefs, and perceived institutional support.

These constructs were selected based on the literature reviewed in the previous sections and on the theoretical framework developed in the companion conceptual paper.

AI literacy refers to teachers' understanding of how artificial intelligence works, what it can do, and what its limitations are. Ethical awareness refers to teachers' sensitivity to issues such as algorithmic bias, privacy,

academic integrity, and human agency. Future-ready pedagogical beliefs reflect the extent to which teachers value learner-centered, technology-enhanced, collaborative, and inquiry-oriented teaching. Perceived institutional support includes access to professional development, technical resources, and clear organizational policies. The model assumes that teachers who understand AI, recognize ethical issues, endorse future-ready teaching principles, and feel supported by their institutions will be more confident and more willing to implement AI responsibly. Readiness, in this study, refers to teachers' self-reported preparedness to integrate AI and digital tools in ways that are pedagogically meaningful and ethically sound. AI literacy, ethical awareness, future-ready pedagogical beliefs, and perceived institutional support are hypothesized to influence teachers' readiness to implement ethical and AI-responsive future-ready pedagogy in English language teaching. Based on this model, the following hypotheses are proposed:

H1. AI literacy positively predicts teachers' readiness to implement ethical and AI-responsive future-ready pedagogy.

H2. Ethical awareness positively predicts teachers' readiness to implement ethical and AI-responsive future-ready pedagogy.

H3. Future-ready pedagogical beliefs positively predict teachers' readiness to implement ethical and AI-responsive future-ready pedagogy.

H4. Perceived institutional support positively predicts teachers' readiness to implement ethical and AI-responsive future-ready pedagogy.

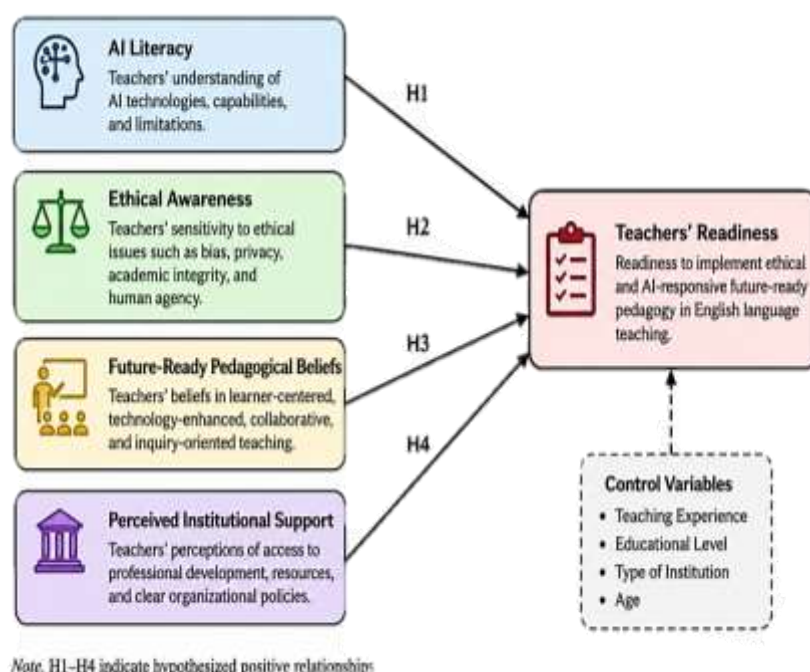


Figure 1. Conceptual Model of Teachers' Readiness for Ethical and AI-Responsive Future-Ready Pedagogy

These hypotheses provide a quantitative structure for examining the relationships among key constructs, while the qualitative phase offers deeper insight into how teachers interpret these issues in practice. The next section describes the mixed-methods design used to investigate these questions.

3. Materials and Methods

This study employed a mixed-methods sequential explanatory design to examine English language teachers' perceptions of ethical and AI-responsive future-ready pedagogy. The design began with a quantitative survey and was followed by qualitative interviews. This sequence was chosen because the study aimed not only to identify general patterns in teachers' views, but also to understand how those views were shaped by experience, context, and professional judgment. The survey provided breadth, while the interviews added depth.

3.1. Research Design

The study employed a sequential explanatory mixed-methods design because the research questions required both statistical measurement and in-depth interpretation. This design was selected to provide a comprehensive understanding of English language teachers' perceptions of ethical and AI-responsive future-ready pedagogy and the factors influencing their readiness to implement it. In the first phase, quantitative data were collected through a structured survey to measure teachers' AI literacy, ethical awareness, future-ready pedagogical beliefs, perceived institutional support, and implementation readiness. The quantitative phase was designed to identify overall trends, differences among groups, and predictive relationships among the study variables.

In the second phase, qualitative data were collected through semi-structured interviews to explain and elaborate on the survey findings. Interview participants were purposefully selected from survey respondents who indicated their willingness to participate in a follow-up interview. Maximum variation sampling was used to ensure representation across different educational levels, institutional contexts, and levels of prior experience with artificial intelligence. Participants were also selected to reflect varying levels of implementation readiness, allowing the researchers to explore both highly positive and more cautious perspectives. This approach helped ensure that the qualitative phase captured a broad range of experiences and interpretations. The quantitative findings directly informed the development of the interview protocol. Specifically, the interview questions were designed to probe issues that emerged as particularly salient in the statistical analyses, including the strong predictive role of AI literacy, the significance of ethical awareness, and the comparatively lower ratings for

perceived institutional support. Participants were invited to discuss how they used AI tools, what ethical concerns they encountered, and what forms of institutional support they considered necessary. Additional questions explored how teachers understood future-ready pedagogy and how they balanced technological innovation with pedagogical and ethical considerations. The two phases were connected through an explanatory integration process. The quantitative results provided a broad picture of the relationships among the major constructs, while the qualitative findings offered contextualized explanations for why these relationships emerged and how teachers experienced them in practice. Integration occurred primarily at the interpretation stage, where statistical findings and thematic insights were examined together to identify areas of convergence, elaboration, and contrast. This process enabled the researchers to move beyond surface-level attitudes and develop a richer and more nuanced understanding of teacher readiness for ethical and AI-responsive future-ready pedagogy. The sequential explanatory design was particularly appropriate because it combined the generalizability of quantitative analysis with the depth and contextual sensitivity of qualitative inquiry. By linking large-scale patterns with participants' lived experiences, the design provided a robust methodological framework for understanding not only whether teachers were prepared to integrate AI, but also how they interpreted its opportunities, challenges, and ethical implications in real educational settings.

3.2. Participants and Recruitment

The participants were English language teachers working in schools, universities, and private language institutes. The study aimed to include teachers from different teaching levels, different institutional settings, and different levels of professional experience. This variation was important because perceptions of AI and ethics are often shaped by context. A teacher working in a well-resourced university may have a different view from a teacher in a school with limited access to technology.

Participants were recruited through a purposive and voluntary process. First, an invitation message was sent through professional email lists, teacher networks, academic groups, and online communities for English language educators. In some cases, the invitation was also shared through social media groups used by teachers. The message briefly explained the purpose of the study, the type of participants sought, the estimated time needed to complete the survey, and the voluntary nature of participation. The invitation was accompanied by an information sheet and a consent form. These documents explained the topic of the study, what participation involved, how the data would be used, and how privacy would be protected. Teachers who wished to take part

clicked a consent option before accessing the survey. They were told clearly that participation was voluntary, that they could stop at any time, and that no personal consequences would follow from declining to participate.

The survey remained open for six weeks. During that period, reminders were sent at reasonable intervals to increase response rates without pressuring participants. A total of 342 teachers completed the questionnaire. At the end of the survey, participants were invited to indicate whether they were willing to take part in a follow-up interview. From those who agreed, 20 teachers were selected purposively to ensure a range of teaching experience, institution type, and reported readiness levels.

3.3. Instrument Development

The questionnaire used in this study was researcher-developed. It was informed by previous literature on artificial intelligence in education, ethical digital pedagogy, teacher readiness, learner autonomy, and future-ready teaching. Because the study focused on a very specific combination of constructs, no single existing questionnaire fully matched the research goals. For that reason, the instrument was built by the researchers and shaped by several strands of prior work. The draft questionnaire was organized into six sections. The first section collected background information, such as age range, gender, years of teaching experience, institution type, and teaching level. The second section measured AI literacy. The third section focused on ethical awareness. The fourth section examined future-ready pedagogical beliefs. The fifth section measured perceived institutional support. The sixth section assessed readiness to implement ethical and AI-responsive future-ready pedagogy. Most items used a five-point Likert scale ranging from strongly disagree to strongly agree. A few open-ended items were also included to allow respondents to add brief comments in their own words. These open responses were useful for capturing issues that may not be fully reflected in fixed-choice items. To improve the quality of the instrument, the draft questionnaire was reviewed by experts in language education and educational technology. Their feedback was used to refine item wording, reduce ambiguity, and improve alignment between the items and the study constructs. The questionnaire was then piloted with a small group of teachers who were not part of the main study. The pilot helped identify unclear phrases and confirm that the survey could be completed smoothly. The questionnaire was reviewed by five experts in language education and educational technology to establish content validity. A pilot study involving 28 English language teachers was conducted to evaluate item clarity and preliminary reliability. Based on pilot feedback, several items were revised for clarity. Internal consistency was assessed using Cronbach's alpha, and the factor structure

of the instrument was examined through exploratory factor analysis.

3.4. The Interview Protocol

The interview guide was also researcher-developed and aligned with the survey themes. The interviews were semi-structured, which allowed the researcher to ask a small set of planned questions while still following up on points raised by the participants. This flexibility was important because teachers' experiences with AI varied widely, and some issues only emerged in conversation. The interview questions focused on five main areas. First, participants were asked how they understood the idea of future-ready pedagogy. Second, they were asked about their experiences with generative AI tools in English language teaching. Third, they were invited to discuss ethical concerns, such as privacy, bias, authorship, and overreliance. Fourth, they were asked about institutional conditions, including training, policies, and access to tools. Fifth, they were asked to reflect on what kind of support would help them use AI more responsibly and confidently.

3.5. Data Collection Procedures

The questionnaire was distributed online using a secure survey platform. At the beginning of the survey, participants saw a brief description of the study and a consent statement. Only those who agreed to participate could continue. The survey took about 15 to 20 minutes to complete. At the end of the survey, respondents were asked whether they were willing to take part in an interview. Those who agreed provided contact details separately from their survey responses so that anonymity could be preserved. From the volunteers, 20 teachers were selected purposively to capture different perspectives and backgrounds. The interviews were conducted online through video conferencing software. Each interview lasted between 35 and 60 minutes. Before each interview began, the participant was reminded of the purpose of the study, the voluntary nature of participation, and the right to stop the interview at any time. With permission, the interviews were audio-recorded and later transcribed verbatim. The transcripts were checked carefully before analysis.

3.6. Data Analysis

Quantitative data were analyzed using statistical software. The first step was to screen the dataset for completeness and accuracy. Descriptive statistics were then calculated to summarize the sample and the main variables. Internal consistency was checked using Cronbach's alpha. After that, factor analysis was used to examine the structure of

the questionnaire. Correlation and regression analyses were conducted to explore relationships among AI literacy, ethical awareness, future-ready pedagogical beliefs, perceived institutional support, and readiness to implement ethical and AI-responsive future-ready pedagogy. The interview data were analyzed thematically. The transcripts were read several times to identify recurring ideas and important statements. Initial codes were then developed and grouped into broader categories. These categories were refined into themes that reflected how teachers described AI, ethics, readiness, and classroom implementation. The qualitative analysis was used to explain and deepen the quantitative findings. The two strands of data were brought together in the discussion stage. Where the survey and interview findings pointed in the same direction, they reinforced one another. Where they differed, the differences were examined carefully to understand why teachers may have responded in mixed or nuanced ways.

3.7. Trustworthiness and Rigor

Several steps were taken to strengthen the quality of the study. First, the questionnaire was reviewed by experts before use, which improved content validity. Second, pilot testing helped refine the wording and structure of the instrument. Third, internal consistency and factor analysis supported the statistical quality of the quantitative data. For the qualitative phase, trustworthiness was strengthened through careful transcription, repeated reading of the interview data, and systematic coding. Some participants were also contacted for brief member checking when clarification was needed. These procedures helped ensure that the analysis reflected the teachers' intended meaning as accurately as possible.

3.8. Ethical Considerations

The study followed basic ethical principles for research with human participants. Participation was voluntary

throughout. Teachers were informed about the purpose of the study, the procedures involved, and their right to withdraw without penalty. Informed consent was obtained before the survey and again before the interviews. To protect privacy, all names and identifying details were removed from the data files. Survey responses and interview transcripts were stored securely and used only for research purposes. When findings were reported, quotations were anonymized so that individual participants could not be identified. Special care was taken to ensure that the study itself reflected the ethical values it examined, including respect, transparency, and responsible use of information.

4. Results

4.1. Quantitative Results

4.1.1. Participant Characteristics

A total of 342 English language teachers completed the questionnaire. Of these, 68 (19.9%) were employed in primary schools, 114 (33.3%) in secondary schools, 102 (29.8%) in universities, and 58 (17.0%) in private language institutes. Participants reported an average of 11.8 years of teaching experience ($SD = 7.4$). Approximately 84 teachers (24.6%) had fewer than five years of experience, 109 (31.9%) had between five and ten years, and 149 (43.5%) had more than ten years of teaching experience. Regarding prior experience with artificial intelligence, 248 teachers (72.5%) reported having used at least one generative AI tool, most commonly ChatGPT, for lesson preparation, writing support, assessment design, and classroom activities. Ninety-four participants (27.5%) indicated that they had not yet used generative AI in their teaching. In addition, 136 participants (39.8%) reported receiving some form of formal training related to artificial intelligence in education.

Table 1. Participant Characteristics (N = 342)

Characteristic	Category	n	%
Teaching context	Primary school	68	19.9
	Secondary school	114	33.3
	University	102	29.8
	Private language institute	58	17.0
Teaching experience	< 5 years	84	24.6
	5–10 years	109	31.9
	> 10 years	149	43.5
Prior AI use	Yes	248	72.5
	No	94	27.5
Formal AI training	Yes	136	39.8
	No	206	60.2

4.1.2. Preliminary Assumption Testing

Before conducting inferential analyses, the data were screened for missing values, outliers, normality, multicollinearity, and independence of errors. Missing data were minimal, accounting for less than 2% of all responses across the dataset. Examination of the response patterns indicated that the missing values were randomly dispersed and showed no systematic concentration within any variable. Because the proportion of missing data was very small, mean substitution was used to replace the missing values. Although more sophisticated procedures such as multiple imputation are often recommended when missingness is larger or systematic, prior methodological research suggests that simple imputation methods have negligible effects when the amount of missing data is minimal. Given the limited extent of missingness, mean substitution was considered a reasonable and methodologically appropriate approach. Examination of skewness and kurtosis values showed that all variables were within acceptable ranges (± 2), indicating approximate normality. Multicollinearity diagnostics showed no concerns. Tolerance values ranged from .47 to .81, and variance inflation factor (VIF) values ranged from

1.24 to 2.11, well below the recommended threshold of 5. The Durbin-Watson statistic for the regression model was 1.94, indicating independence of residuals. Standardized residuals and Mahalanobis distances were also examined, and no influential outliers were identified.

4.1.3. Descriptive Statistics and Reliability

Table 3 presents the descriptive statistics and internal consistency coefficients for the main study variables. Cronbach's alpha values ranged from 0.88 to 0.92, indicating good to excellent reliability. Teachers reported the highest mean score for future-ready pedagogical beliefs ($M = 4.34$, $SD = 0.47$), suggesting strong endorsement of learner-centered, collaborative, and technology-enhanced teaching. Ethical awareness also received a high mean score ($M = 4.28$, $SD = 0.51$), indicating substantial concern regarding privacy, fairness, and academic integrity. Perceived institutional support had the lowest mean ($M = 3.21$, $SD = 0.83$), suggesting that many participants felt only moderately supported by their institutions. Figure 2 presents the mean scores for the principal study variables and provides a visual comparison of teachers' responses across the six constructs.

Table 2. Summary of Assumption Testing

Assumption	Indicator	Result	Interpretation
Missing data	Percentage missing	< 2%	Negligible
Normality	Skewness/Kurtosis	Within ± 2	Assumption met
Multicollinearity	VIF	1.24–2.11	Assumption met
Multicollinearity	Tolerance	0.47–0.81	Assumption met
Independence of errors	Durbin-Watson	1.94	Assumption met
Outliers	Mahalanobis distance	None influential	Assumption met

Table 3. Descriptive Statistics and Reliability Coefficients

Variable	Items	Mean	SD	Cronbach's α
AI Literacy	8	3.87	0.62	0.89
Ethical Awareness	10	4.28	0.51	0.92
Future-Ready Pedagogical Beliefs	9	4.34	0.47	0.90
Perceived Institutional Support	7	3.21	0.83	0.88
Implementation Readiness	8	3.76	0.68	0.91
Ethical Prompt Literacy*	6	3.94	0.59	0.90

*Ethical Prompt Literacy was analyzed descriptively and explored qualitatively; it was not included in the primary regression model.

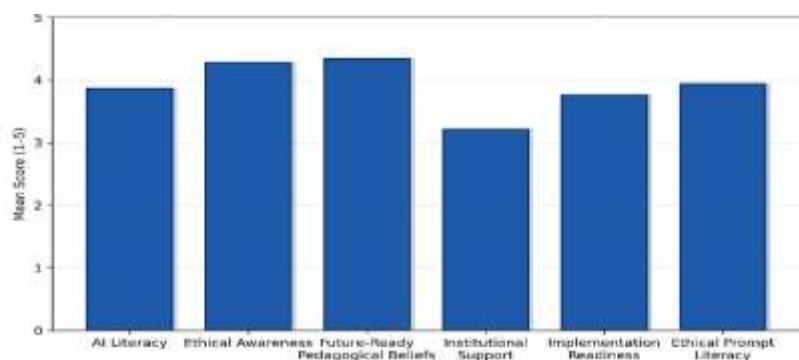


Figure 2. Mean Scores for the Main Study Variables

As shown in Fig. 2, future-ready pedagogical beliefs received the highest mean score, followed closely by ethical awareness. These findings indicate that participants strongly endorsed learner-centered and ethically informed approaches to language teaching. Ethical prompt literacy and AI literacy were also rated positively, suggesting that many teachers felt moderately to highly competent in interacting with generative AI tools.

In contrast, perceived institutional support received the lowest mean score, indicating that many participants believed their institutions had not yet provided sufficient guidance, training, or policy support for responsible AI integration. Implementation readiness was moderately high, suggesting that teachers generally felt prepared to adopt ethical and AI-responsive pedagogical practices.

4.1.4. Exploratory Factor Analysis

An exploratory factor analysis (EFA) using principal axis factoring with oblique rotation (Promax) was conducted to examine the structure of the questionnaire. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was 0.93, indicating excellent suitability for factor analysis. Bartlett's test of sphericity was significant, $\chi^2(946) = 8,742.56$, $p < 0.001$. Five factors with eigenvalues greater than 1 were extracted, corresponding to the intended constructs used in the primary analyses. Together, these factors explained 68.4% of the total variance. All retained

items loaded strongly on their expected factors, with loadings ranging from 0.61 to 0.87. Cross-loadings were minimal and did not exceed 0.30.

4.1.5. Correlation Analysis

Pearson correlation coefficients were computed to examine relationships among the study variables. As shown in Table 5, all correlations were positive and statistically significant ($p < 0.001$). Implementation readiness was most strongly associated with AI literacy ($r = 0.61$), followed by future-ready pedagogical beliefs ($r = 0.58$), ethical awareness ($r = 0.54$), and institutional support ($r = 0.49$).

4.1.6. Multiple Regression Analysis

A simultaneous multiple regression analysis was conducted to identify the extent to which AI literacy, ethical awareness, future-ready pedagogical beliefs, and perceived institutional support predicted implementation readiness. The regression model was statistically significant, $F(4, 337) = 96.84$, $p < 0.001$, and explained 53.5% of the variance in implementation readiness ($R^2 = 0.535$, Adjusted $R^2 = 0.529$). This indicates that the four predictors collectively accounted for more than half of the differences in teachers' perceived readiness to implement ethical and AI-responsive future-ready pedagogy.

Table 4. Summary of Exploratory Factor Analysis

Factor	Eigenvalue	Variance Explained (%)	Loading Range
AI Literacy	11.42	22.6	0.64–0.84
Ethical Awareness	8.17	16.3	0.66–0.87
Future-Ready Pedagogical Beliefs	6.54	13.1	0.61–0.82
Institutional Support	4.72	9.4	0.63–0.85
Implementation Readiness	3.35	7.0	0.65–0.86
Total	—	68.4	—

Table 5. Pearson Correlations Among Main Variables

Variable	1	2	3	4	5
1. AI Literacy	—				
2. Ethical Awareness	0.48***	—			
3. Future-Ready Pedagogical Beliefs	0.42***	0.56***	—		
4. Institutional Support	0.39***	0.31***	0.37***	—	
5. Implementation Readiness	0.61***	0.54***	0.58***	0.49***	—

*** $p < .001$

Table 6. Multiple Regression Predicting Implementation Readiness

Predictor	B	SE	β	t	p	95% CI
AI Literacy	0.34	0.05	0.31	7.46	< 0.001	[0.25, 0.43]
Ethical Awareness	0.21	0.05	0.19	4.58	< 0.001	[0.12, 0.30]
Future-Ready Pedagogical Beliefs	0.39	0.06	0.27	6.42	< 0.001	[0.27, 0.51]
Institutional Support	0.18	0.03	0.22	5.38	< 0.001	[0.11, 0.25]

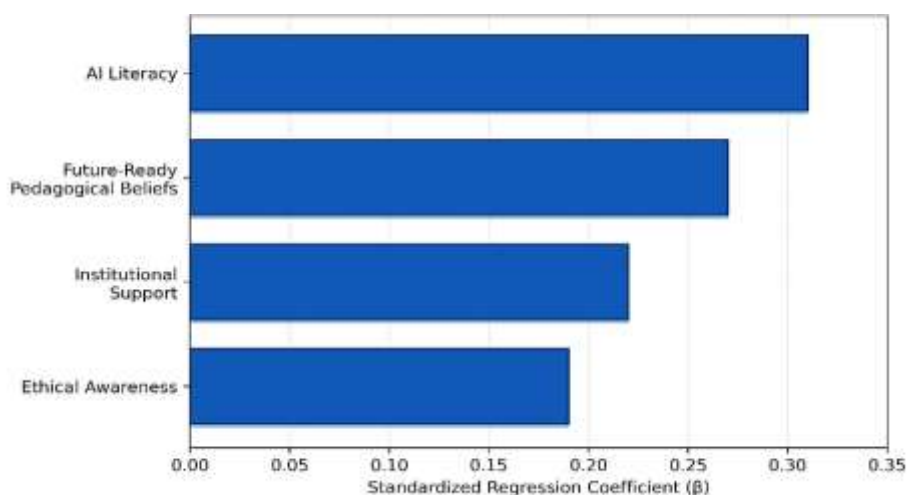


Figure 3. Standardized Regression Coefficients Predicting Implementation Readiness

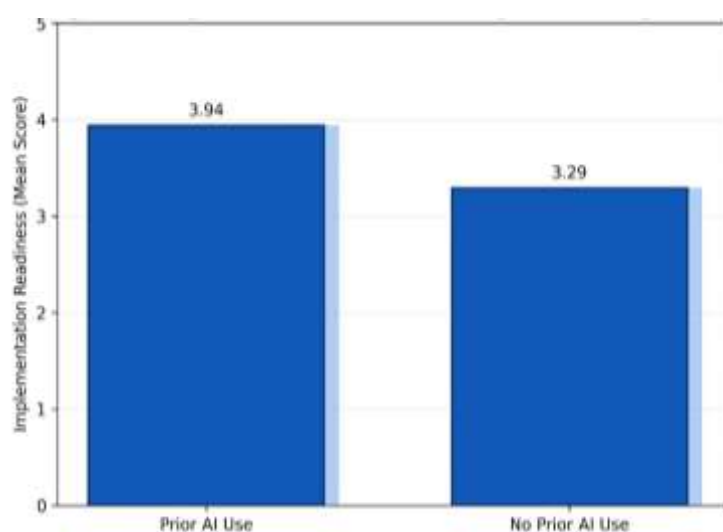


Figure 4. Implementation Readiness by Prior AI Experience

AI Literacy emerged as the strongest predictor of implementation readiness, followed by future-ready pedagogical beliefs, institutional support, and ethical awareness. All predictors made unique and statistically significant contributions to the model. Figure 3 illustrates the standardized regression coefficients and highlights the relative contribution of each predictor to implementation readiness.

As shown in Fig. 3, AI literacy emerged as the strongest predictor of implementation readiness ($\beta = 0.31$), indicating that teachers with greater understanding of artificial intelligence felt more prepared to integrate AI into their teaching. Future-ready pedagogical beliefs also made a substantial contribution ($\beta = 0.27$), suggesting that teachers who strongly endorsed learner-centered and adaptive teaching approaches were more likely to report higher readiness.

Perceived institutional support ($\beta = 0.22$) and ethical awareness ($\beta = 0.19$) also contributed significantly, demonstrating that both organizational conditions and

ethical understanding play important roles in shaping teachers' preparedness for responsible AI integration.

4.1.7. Group Differences

4.1.7.1. Prior AI Use

Independent-samples *t* tests were conducted to compare implementation readiness between teachers who had previously used generative AI and those who had not. Teachers with prior AI experience reported significantly higher readiness ($M = 3.94$, $SD = 0.61$) than those without such experience ($M = 3.29$, $SD = 0.70$), $t(340) = 8.17$, $p < 0.001$, Cohen's $d = 0.99$. This represents a large effect size. Fig. 4 provides a visual comparison of implementation readiness scores for teachers with and without prior experience using generative AI. As illustrated in Figure 4, teachers who had previously used generative AI reported substantially higher implementation readiness ($M = 3.94$) than those who had not used AI ($M = 3.29$). This

difference was statistically significant and represented a large effect size (Cohen's $d = 0.99$). The finding suggests that direct experience with generative AI may increase teachers' confidence and preparedness to adopt ethical and AI-responsive pedagogical practices.

4.1.7.2. Institutional Context

A one-way analysis of variance (ANOVA) revealed significant differences in implementation readiness across teaching contexts, $F(3, 338) = 4.62$, $p = 0.004$, $\eta^2 = 0.04$, indicating a small-to-moderate effect. Post hoc Tukey comparisons showed that university teachers reported significantly higher AI literacy and implementation readiness than teachers working in primary and secondary school settings.

These findings suggest that both prior experience with AI and institutional context are associated with teachers' confidence in implementing ethical and AI-responsive pedagogy.

4.1.8. Summary of Quantitative Findings

The quantitative findings reveal that teachers generally held highly positive future-ready pedagogical beliefs and strong ethical awareness regarding the use of artificial intelligence in language education. However, perceptions of institutional support were comparatively lower, indicating that organizational guidance and professional development remain areas for improvement.

AI literacy, ethical awareness, future-ready pedagogical beliefs, and institutional support were all positively associated with implementation readiness and emerged as significant predictors in the regression model. Among these, AI literacy exerted the strongest influence. Additional analyses showed that teachers with prior experience using generative AI and those working in university settings reported higher levels of readiness.

Overall, the quantitative results provide robust empirical support for the proposed framework and demonstrate that responsible AI integration depends on a combination of individual competencies, pedagogical beliefs, ethical understanding, and institutional conditions.

4.2. Qualitative Results

The qualitative phase was designed to explain and elaborate on the survey findings. Twenty semi-structured interviews were transcribed verbatim and analyzed using NVivo (Version 14). The analysis followed the six-phase thematic analysis procedure proposed by Braun and Clarke (2023).

The analysis began with repeated reading of the transcripts to develop familiarity with the data. During this stage, analytic memos were written to record initial impressions and recurring patterns. In the second phase, meaningful segments of text were assigned descriptive codes. A total of 186 initial codes were generated. Similar codes were then compared and grouped into broader categories. Through several rounds of refinement, overlapping categories were merged and less salient codes were removed. This process resulted in 18 focused categories, which were subsequently organized into six overarching themes.

To enhance trustworthiness, the coding structure was reviewed several times against the original transcripts to ensure that each theme accurately reflected participants' perspectives. Representative quotations were selected to illustrate the core meaning of each theme. Table 7 summarizes the six themes and their associated categories.

The themes were highly interconnected. Teachers viewed AI positively when it supported meaningful learning, but they repeatedly emphasized that responsible use depends on ethical awareness, human oversight, and supportive institutional conditions.

4.2.1. Theme 1: Future-Ready Pedagogy as Preparation for Uncertainty

Participants consistently described future-ready pedagogy as teaching that equips learners to function in unpredictable and technology-rich environments. They emphasized that English instruction should help students become adaptable, digitally competent, collaborative, and capable of learning independently.

Table 7. Themes and Categories Emerging from the Interview Data

No	Theme	Representative Categories
1	Future-ready pedagogy as preparation for uncertainty	Digital competence; adaptability; learner autonomy; authentic communication
2	AI as a helpful but imperfect assistant	Lesson preparation; feedback support; efficiency; accuracy concerns
3	Ethical concerns as everyday teaching dilemmas	Privacy; authorship; plagiarism; algorithmic bias; overreliance
4	Institutional support as a condition for implementation	Training; policy guidance; technical resources; leadership support
5	Human agency must remain central	Teacher judgment; student voice; critical thinking; pedagogical control
6	Ethical prompt literacy as a new educational competency	Prompt design; verification of outputs; responsible questioning

Several teachers explained that language learning should move beyond traditional grammar instruction and prepare students to communicate effectively in global and digital contexts. Future-ready pedagogy was therefore understood as a broad educational orientation rather than a specific teaching method. Representative quotations include:

"Future-ready teaching means helping students adapt to tools and situations that do not even exist yet."

"Students need English for real communication in online and international environments."

"Our job is to teach them how to learn, not only what to memorize."

These comments indicate that teachers viewed future-ready pedagogy as closely aligned with learner autonomy and long-term adaptability.

4.2.2. Theme 2: AI as a Helpful but Imperfect Assistant

Most participants described AI as a useful instructional assistant that could support lesson planning, generate examples, and provide writing feedback. Teachers appreciated its efficiency and flexibility, particularly when preparing classroom materials or brainstorming ideas. At the same time, participants were careful not to treat AI as fully reliable. They noted that AI-generated responses could be inaccurate, superficial, or culturally limited. As a result, they saw verification and teacher oversight as essential. Representative quotations include:

"AI saves me a great deal of time when I prepare examples and activities."

"The answers look convincing, but they are not always correct."

"I use AI as a starting point, never as the final answer."

These responses suggest that teachers were open to innovation, but maintained a critical stance toward AI-generated content.

4.2.3. Theme 3: Ethical Concerns as Everyday Teaching Dilemmas

Ethical concerns were deeply embedded in participants' accounts of classroom practice. Teachers discussed privacy, plagiarism, authorship, bias, and student dependency as practical issues they faced when deciding whether and how to use AI. Many participants worried that students might rely on AI-generated text without understanding it. Others expressed concern about the collection of personal data and the lack of transparency in commercial AI platforms. Representative quotations include:

"My main concern is that students may submit work they did not truly produce."

"We do not know exactly what happens to the information students enter."

"Some responses reflect stereotypes, so students need to question what they read."

These comments show that ethical issues were not peripheral; they were central to teachers' daily decision making.

4.2.4. Theme 4: Institutional Support as a Condition for Implementation

Teachers repeatedly emphasized that their willingness to use AI depended on the support provided by their institutions. Participants described a need for professional development, clear policies, and access to appropriate tools. Many expressed uncertainties about acceptable uses of AI and noted that the absence of institutional guidance created hesitation and inconsistency. Representative quotations include:

"We are encouraged to innovate, but no one has explained what is allowed."

"Training should address ethics, not just technical features."

"Without policy guidance, every teacher is left to decide alone."

These findings suggest that responsible AI integration requires organizational as well as individual readiness.

4.2.5. Theme 5: Human Agency Must Remain Central

A dominant theme across the interviews was the importance of preserving human agency. Participants emphasized that teachers and students should remain the primary decision makers in the learning process. Teachers saw AI as a supportive resource rather than a replacement for judgment, creativity, and responsibility. They stressed that students should continue to develop their own voice and critical thinking. Representative quotations include:

"Technology should support thinking, not replace it."

"Students must remain responsible for their own ideas."

"The teacher's judgment is still essential."

This theme reflects a strong commitment to human-centered approaches to educational AI.

4.2.6. Theme 6: Ethical Prompt Literacy as a New Educational Competency

Participants also highlighted the need to teach students how to interact with AI effectively and responsibly. They described prompting as more than a technical skill; it involved asking precise questions, checking responses, and reflecting on the ethical implications of AI-generated content. Teachers believed that students should learn to

evaluate the fairness, relevance, and credibility of AI outputs. Representative quotations include:

"Students need to know how to ask better questions."

"Prompting is important, but evaluation is even more important."

"They should always ask whether the answer is accurate and appropriate."

These responses suggest that ethical prompt literacy is emerging as an important component of digital and language education.

5. Discussion

This study examined how English language teachers conceptualize ethical and AI-responsive future-ready pedagogy and what factors shape their readiness to implement it. The findings indicate that implementation readiness is influenced by a combination of AI literacy, ethical awareness, future-ready pedagogical beliefs, and perceived institutional support. Taken together, these results suggest that responsible AI integration is not simply a matter of adopting new technologies. Rather, it reflects a broader professional process in which technical knowledge, pedagogical beliefs, ethical understanding, and organizational conditions work together. This overall pattern is in line with previous research emphasizing that meaningful AI integration depends on both teacher competencies and supportive institutional environments (Barjesteh et al., 2026; Chen et al., 2022; Petko et al., 2018).

One of the most important findings was that AI literacy emerged as the strongest predictor of implementation readiness. Teachers who reported a stronger understanding of AI tools felt more confident about integrating them in pedagogically meaningful and ethically responsible ways. This finding reinforces those of Chen et al. (2022), who showed that educators' understanding of AI plays a central role in its educational application. It is also consistent with Isaee and Barjesteh (2026), who found that teachers who were more familiar with AI-supported pedagogical tools reported greater confidence and more positive attitudes toward their classroom use. Similarly, Verboom et al. (2025) reported that educators with greater knowledge of AI tended to adopt a more informed and critical stance. Compared with these studies, the present findings show more specifically that AI literacy directly contributes to teachers' perceived readiness to implement ethical and AI-responsive pedagogy in English language teaching.

The qualitative findings further illuminate this relationship. Teachers described AI literacy as more than technical familiarity. They emphasized the ability to evaluate outputs, recognize limitations, and determine when AI should or should not be used. This interpretation resembles the arguments advanced by

Barjesteh et al. (2026), who contend that teachers' professional development in the age of AI should focus on agency and critical judgment rather than procedural skill alone. It also aligns with Isaee and Barjesteh (2023), who stress that teachers' professional growth depends on developing competencies that support reflective decision making. In contrast to narrower conceptions of technology training, the present findings suggest that AI literacy is fundamentally tied to pedagogical discernment.

Ethical awareness was another significant predictor of readiness. Teachers who expressed greater concern about privacy, plagiarism, bias, authorship, and student dependency reported stronger implementation readiness. This finding is in line with Hwang and Chang (2024), who identified ethical issues as central research concerns in the use of ChatGPT in ESL and EFL education. It also reinforces the conclusions of Risdianto et al. (2025), who emphasized that the benefits of AI in language education must be weighed against concerns related to fairness, data security, and overreliance. Likewise, Manoocherzadeh et al. (2025) noted that responsible AI use requires careful attention to pedagogical and ethical implications. The present study extends these findings by demonstrating that ethical awareness is not a peripheral concern; it is a core factor that strengthens teachers' readiness to use AI responsibly.

The interview findings reveal that teachers experience ethical issues as part of their everyday practice. They were concerned that students might submit AI-generated work as their own, that personal data might be collected without clear safeguards, and that AI outputs might reproduce stereotypes or culturally narrow assumptions. These concerns closely resemble those identified by Welding (2023), who reported widespread uncertainty about whether AI use constitutes academic dishonesty. They also reflect the caution expressed by Kiryakova and Angelova (2023), who noted that educators must carefully evaluate both the pedagogical benefits and ethical risks of generative AI. Compared with the existing literature, the present findings show more vividly how these concerns shape classroom decisions on a daily basis.

Future-ready pedagogical beliefs also made a substantial contribution to implementation readiness. Teachers who strongly endorsed learner-centered, collaborative, adaptive, and technology-enhanced teaching were more likely to feel prepared to integrate AI. This finding is in line with Choo et al. (2024), who describe future-ready learning as the development of adaptability, critical thinking, and global competence. It also reinforces Kaempf's (2022) argument that future-ready teaching should prepare learners to navigate uncertain and changing contexts. Similarly, Schlam Salman and Inbar-Lourie (2023) found that language

teachers associate future readiness with pedagogical practices that foster autonomy and long-term learning capacity. The present study extends this literature by demonstrating that these pedagogical beliefs also shape teachers' willingness to adopt AI in ethically responsible ways.

Participants consistently described future-ready pedagogy as preparation for uncertainty. They believed that language teaching should help students become adaptable, digitally competent, and capable of independent learning. This interpretation resembles the perspectives of Zhang (2024), who argues that future-ready teachers must create optimal learning conditions for an unpredictable world, and Priya and Shamugapriya (2025), who highlight the integration of AI and innovative pedagogy in future-ready education. Compared with these conceptual accounts, the present study offers empirical evidence that English language teachers already view future readiness as a central educational goal.

Perceived institutional support also emerged as a significant predictor of readiness, although it received the lowest mean score among the major variables. This finding suggests that many teachers feel personally motivated to use AI but institutionally under-supported. The result is consistent with Petko et al. (2018), who demonstrated that teacher readiness and school readiness are closely interconnected. It also reinforces the conclusions of Barjesteh et al. (2026), who emphasize that professional agency develops when institutions provide meaningful support. In a similar vein, Isaee and Barjesteh (2023) found that teachers' professional development needs include structured guidance and access to relevant resources. Compared with teachers' strong endorsement of future-ready pedagogy, the lower ratings for institutional support reveal a gap between individual readiness and organizational preparedness.

The qualitative findings add further nuance to this issue. Participants repeatedly stated that they needed clearer policies, practical training, and stronger leadership. Many expressed uncertainties about what forms of AI use were acceptable and how ethical concerns should be addressed. These views are in line with van den Berg (2025), who reported that teachers' successful use of AI depends heavily on institutional strategies and support systems. They also resemble the findings of Verboom et al. (2025), which highlight the importance of organizational guidance in fostering informed and responsible adoption. The present study confirms that teachers' willingness to innovate can be undermined when institutions fail to provide coherent direction.

Another major theme was the perception of AI as a helpful but imperfect assistant. Teachers appreciated AI for lesson planning, material development, feedback

support, and idea generation. This finding is consistent with Du and Daniel (2024), who documented the usefulness of AI-powered chatbots in language learning, and with Moundridou et al. (2024), who described generative AI as an effective assistant for instructional design. Similarly, Wang (2024) demonstrated that AI can enhance oral language learning through personalized support, and Slamet (2024) reported generally positive perceptions among teachers and students. However, the present study contrasts with overly optimistic accounts by showing that teachers remained cautious and emphasized the need for verification and oversight. They valued AI's efficiency, but they did not regard its outputs as automatically trustworthy.

A particularly strong theme across the interviews was the preservation of human agency. Teachers emphasized that AI should support thinking rather than replace it, and that students must remain responsible for their own ideas and language production. This finding is closely aligned with Lightbown and Spada (2021), who stress that meaningful language learning requires active cognitive engagement. It also resonates with Isaee and Barjesteh (2026b), whose work on AI-enhanced classrooms emphasizes the importance of preserving learners' emotional and human development. In contrast to purely technology-driven perspectives, the present findings suggest that teachers are committed to maintaining the human and relational dimensions of language education.

The emergence of ethical prompt literacy represents another important contribution of the study. Teachers argued that students need to learn how to formulate effective prompts, evaluate AI responses, detect bias, and judge appropriateness. This finding is in line with Liu and Zhao (2025), who emphasize the role of digital competence in AI-mediated language learning. It also reinforces the conclusions of Isaee and Barjesteh (2026), who show that successful use of AI tools depends on users' ability to interact with them critically and strategically. Compared with existing research, the present study places greater emphasis on the ethical dimension of prompting, suggesting that prompt literacy should be viewed as both a technical and moral competency.

The group comparisons provide further insight. Teachers with prior AI experience reported significantly higher implementation readiness than those who had not used AI. This finding is consistent with Slamet (2024) and van den Berg (2025), both of whom found that practical experience with AI tends to increase confidence and reduce uncertainty. However, the present study suggests that experience alone is insufficient. Teachers still require ethical understanding and institutional support if they are to use AI responsibly. In this respect, the findings extend prior work by highlighting the importance of reflective and supported

experience rather than exposure alone. Differences across institutional contexts also deserve attention. University teachers reported higher levels of AI literacy and implementation readiness than teachers in primary and secondary schools. This pattern resembles the observations of Kiryakova and Angelova (2023), who found that educators in higher education often engage more actively with generative AI tools. At the same time, it contrasts with the more constrained conditions often faced in school settings, where younger learners, stricter curricular demands, and policy uncertainty may limit experimentation. The present findings suggest that AI readiness is shaped not only by personal competence but also by the specific educational environment in which teachers work.

Overall, the findings reinforce and extend the growing literature on AI in language education. They are in line with studies showing that AI literacy, ethical awareness, pedagogical beliefs, and institutional support are all critical for effective implementation (Chen et al., 2022; Isaee & Barjesteh, 2026; Risdianto et al., 2025). They also support conceptual work on future-ready pedagogy that emphasizes adaptability, autonomy, and digital competence (Choo et al., 2024; Kaempf, 2022; Zhang, 2024). At the same time, the study adds a stronger human-centered and ethical perspective than many technology-focused accounts. Teachers in this study were not primarily concerned with efficiency or innovation for its own sake. Instead, they were concerned with preserving fairness, authorship, critical thinking, and learner autonomy.

In conclusion, ethical and AI-responsive future-ready pedagogy emerges from this study as a balanced and human-centered framework for language education. Teachers are willing to embrace AI when they understand its capabilities, recognize its limitations, and receive meaningful institutional support. Their perspectives suggest that the future of English language teaching will depend not only on the sophistication of AI tools, but also on the ability of educators and institutions to ensure that these technologies serve pedagogical goals and uphold fundamental educational values.

6. Conclusion

This study examined English language teachers' perceptions of ethical and AI-responsive future-ready pedagogy and identified the factors that shape their readiness to implement it. The findings show that teachers generally view artificial intelligence as a useful educational resource, but they do not regard it as a neutral or self-sufficient technology. Their readiness to integrate AI was associated with four interrelated factors: AI literacy, ethical awareness, future-ready pedagogical beliefs, and perceived institutional support. Together,

these factors explained a substantial proportion of the variance in implementation readiness and were reinforced by qualitative accounts of teachers' experiences and concerns.

The study makes several contributions to the growing literature on artificial intelligence in language education. First, it provides empirical support for the conceptual argument that future-ready pedagogy should include ethical responsibility as a core dimension rather than as an optional consideration. Second, it demonstrates that teachers interpret AI integration through a distinctly human-centered lens, emphasizing privacy, fairness, transparency, and the preservation of human agency. Third, it introduces ethical prompt literacy as an emerging competency that combines technical skill with critical and ethical judgment. Taken together, these findings suggest that responsible AI integration depends not only on what technologies can do, but also on the values and conditions that shape how they are used.

The findings have several implications for practice. For teacher education programs, the results suggest that AI-related training should go beyond tool demonstrations and include ethical reasoning, critical evaluation of AI outputs, and strategies for maintaining student autonomy. Pre-service and in-service professional development should help teachers understand both the possibilities and limitations of generative AI in language teaching.

For educational institutions, the findings highlight the importance of providing clear policies, access to appropriate tools, and ongoing professional support. Teachers are more likely to adopt AI responsibly when expectations are transparent and when institutional leadership addresses issues such as privacy, academic integrity, and acceptable use.

For curriculum designers, the study underscores the need to embed AI literacy and ethical prompt literacy into language education. Students should learn how to formulate effective prompts, verify AI-generated content, recognize bias, and use AI in ways that strengthen rather than replace their own thinking and expression.

Several limitations should be considered when interpreting the findings. First, the study relied primarily on self-reported perceptions, which may not fully reflect actual classroom practices. Teachers may overestimate or underestimate their readiness or their frequency of AI use. Second, although the sample included participants from a variety of institutional settings, the findings may not be equally generalizable to all national or educational contexts. Third, the study captured perceptions at a single point in time. Because AI technologies and institutional policies are evolving rapidly, teachers' views may change over time. Finally, the study focused on teachers' perspectives and did not include student experiences or direct classroom observations. Future research can build on this study in several ways. Longitudinal studies could

examine how teachers' readiness and ethical concerns evolve as AI tools become more widely adopted. Experimental and classroom-based studies could investigate how ethical and AI-responsive pedagogy influences student learning outcomes, autonomy, and critical thinking. Comparative studies across countries and educational sectors would help clarify how cultural and institutional contexts shape responsible AI use. Future work may also develop and validate more refined instruments for measuring ethical prompt literacy and other emerging competencies related to human-AI collaboration.

Artificial intelligence is reshaping the landscape of English language teaching, but its educational value depends on the judgments and values of those who use it. The findings of this study suggest that teachers are willing to engage with AI when they understand its capabilities, recognize its ethical implications, and receive meaningful institutional support. Ethical and AI-responsive future-ready pedagogy offers a balanced framework for preparing learners for a digital and uncertain future while preserving the human purposes of education. In this sense, the challenge facing educators is not simply whether to use artificial intelligence, but how to use it in ways that remain pedagogically sound, ethically responsible, and fundamentally human-centered.

Authors' Contribution

All the authors have participated sufficiently in the intellectual content, conception, and design of this work or the analysis and interpretation of the data (when applicable), as well as the writing of the manuscript.

Availability of data and materials

The data that support the findings of this study are available from the corresponding author upon reasonable request.

Conflict of interest

The author states that there is no conflict of interest.

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