

AI Readiness in French Language Teacher Education: Evidence from Ghana

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Abstract

This study examines how infrastructural conditions, AI literacy, and ethical readiness influence pre-service teachers' use of AI tools in French language education in Ghanaian Colleges of Education. Using a cross-sectional survey, data were collected from 81 Bachelor of Education students. The questionnaire measured performance expectancy, effort expectancy, social influence, facilitating conditions, AI self-efficacy, ethics and integrity readiness, and behavioural intention. Data were analyzed using descriptive statistics, reliability testing, correlation analysis, and multiple regression. Findings show that students viewed AI as moderately useful and reported moderate intention to use it despite weak supporting conditions. AI self-efficacy and social influence were the strongest predictors of behavioural intention, while performance expectancy, effort expectancy, and ethics readiness were not significant predictors when competence-related factors were considered. These findings suggest that students' confidence and social learning environments may shape AI adoption more strongly than perceived usefulness alone. The study highlights the importance of AI literacy, institutional guidance, lecturer modelling, and assessment redesign to support responsible AI use. It also contributes evidence from a Sub-Saharan African, low-resource teacher education context and extends AI readiness research beyond adoption-focused models.

Keywords: Artificial intelligence, French language education, pre-service teachers, AI literacy, ethical readiness, Ghana, teacher education

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Introduction

Artificial intelligence (AI) applications are increasingly shaping language education through automated feedback, personalised practice, and generative language support. While research on AI in Education (AIEd) has expanded rapidly (Delen et al., 2024), recent studies have examined AI acceptance, perceptions and use among pre- and in-service teachers and university students (Akanzire et al., 2025; Cabero-Almenara et al., 2024; Chan & Hu, 2023; Kwakye et al., 2025; Zhuang et al., 2025). On the other hand, less attention has been paid to pre-service teachers, particularly in cases where infrastructural constraints and policy guidance remain uneven.

A study of five Ghanaian Colleges of Education found that lecturers had strong ICT skills and were ready to use technology, but there were issues with internet quality and a shortage of computers (Amaniampong et al., 2026). These contextual realities raise key questions about how pre-service teachers access, understand, and use AI tools, and whether current patterns of engagement support responsible and pedagogically meaningful integration. Without empirical evidence on pre-service teachers' infrastructural conditions, AI literacy, and ethical readiness, initiatives to promote AI-supported language teaching risk failing to align with local capacities and ethical considerations.

In addressing this gap, the current study adopts a “beyond adoption” perspective to examine infrastructure, AI literacy, and ethical readiness as conditions that shape AI-supported French language learning among Ghanaian pre-service teachers in Colleges of Education. Specifically, the study assesses the infrastructural and institutional conditions that influence the use of AI and levels of AI literacy and ethical readiness. It also analyses the factors that predict pre-service teachers' adoption and intended future use of AI tools for French language teaching and learning. By focusing on pre-service teachers in a resource-constrained teacher education context, this study contributes context-sensitive evidence to emerging discussions on responsible and equitable AI integration in language teacher education.

The following research questions guided the study:

1. How prepared are pre-service French teachers at Ghanaian Colleges of Education to use AI tools?
2. Which AI readiness factors are associated with pre-service teachers' behavioural intention to use AI tools in French language teaching and learning?
3. Which AI readiness factors predict pre-service teachers' behavioural intention to use AI tools?
4. What infrastructural and institutional barriers do pre-service teachers perceive as affecting their use of AI tools?

Literature Review and Theoretical Framework

Artificial Intelligence (AI) is increasingly transforming education worldwide, and language teaching is one area where AI has attracted attention. In Ghana, the Bachelor of French is offered as a Junior High School specialism in eight Colleges of Education. This highlights the need to examine whether pre-service teachers are ready to use AI meaningfully in their classrooms.

Globally, AI supports several functions in higher education. In their systematic review, Zawacki-Richter et al. (2019, p. 11) identified four areas of application: a) adaptive systems and personalisation, b) assessment and evaluation, c) profiling and prediction, and d) intelligent tutoring systems. Some of these applications are also relevant to language learning. For example, intelligent tutoring systems can give students personalised learning support and automated feedback. They can also help identify and correct language errors (Zawacki-Richter et al., 2019; Dodigovic, 2007). However, AI tools are most useful when teachers use them carefully in their teaching. Holmes et al. (2019) argue that AI should support teachers' professional judgement, not replace it.

Recent studies in Ghana show that Generative AI (GenAI) adoption depends on both perceived benefits and enabling conditions. Salifu et al. (2025) found that graduate students were more likely to use GenAI when they believed it would improve their academic performance (performance expectancy), that they would be supported by available resources and infrastructure (facilitating conditions), that it would create useful learning opportunities, or that it would satisfy them when using GenAI. However, according to Essel et al. (2026), students' readiness to use GenAI may be uneven: more than half of the students surveyed had never used AI tools. Nearly one-third also reported low levels of AI literacy. Digital language learning faces similar challenges in Ghana. Tabiri et al. (2022) found that students learning English and French online faced problems with limited access to technology, high connectivity costs, and inadequate teacher preparedness for online teaching. These barriers may also affect the adoption of AI in French language teacher training.

The adoption of AI in education can be understood through the Unified Theory of Acceptance and Use of Technology (UTAUT). It identifies performance expectancy, effort expectancy, social influence, and facilitating conditions as key predictors of technology adoption and use (Venkatesh et al., 2003). In this study, performance expectancy refers to whether pre-service teachers of French believe AI can improve their learning and future teaching practice. Effort expectancy is about how easy they find AI tools to use. Social influence refers to encouragement from colleagues and authorities in their institutions. Facilitating conditions include infrastructure, technical support, training, and guidance provided by the institution.

Recent evidence from Ghana shows the relevance of these factors. Mensah et al. (2024) found that facilitating conditions and social influence influenced students' intentions to use e-learning. Facilitating conditions also influenced their actual use of e-learning. These findings indicate that access to AI tools alone may not be sufficient to lead to adoption. Pre-service teachers of French also need adequate support, training and institutional guidance.

AI readiness, however, involves more than willingness to adopt a tool. It also includes AI literacy, pedagogical competence, ethical awareness, and institutional support. Akanzire et al. (2025) found that Ghanaian teacher educators recognised GenAI's potential to support engagement, communication, and academic performance. However, they also raised concerns about training needs, assessment fairness, ethical concerns, teacher educator-student relationships and the need for clear institutional policies. Although this study focused on teacher educators rather than pre-service teachers, it points out institutional conditions that influence responsible AI use in teacher education. Konti and Varsamidou (2025) similarly found that Greek-speaking teachers of French

as a foreign language used AI tools primarily to reduce the time spent on lesson preparation. However, they also expressed concerns about inadequate training, growing dependence on AI tools, cheating, and a possible decline in learners' critical thinking.

In addition to these factors, self-efficacy and ethics are increasingly recognised as central to AI adoption in education. Language teachers need both technological and teaching skills to use new tools effectively (Kessler, 2018). It is also important to consider ethical concerns, such as plagiarism, data privacy, algorithmic bias, and relying too much on AI-generated content. Luckin et al. (2016) suggest that AI should help improve teaching and learning, not replace human teachers. In French language classes, AI can help with grammar, pronunciation, writing feedback, lesson planning, and practice conversations. Still, it should not replace real communication, cultural learning, or teachers' professional judgement.

To sum up, AI readiness in French teacher education depends on factors such as AI literacy, teaching skills, confidence, ethical understanding, infrastructure, training, and institutional support. Research in Ghana has examined students' use of GenAI, AI literacy, teacher educators' views, and online language learning. Still, there is little research on how prepared pre-service French teachers in Ghanaian Colleges of Education are for AI. This study aims to fill that gap.

Methodology

Research Design. In this study, we used a cross-sectional survey design to understand the factors that shape pre-service teachers' engagement with AI tools for French language learning in Ghanaian Colleges of Education. A cross-sectional survey design emphasises the collection of data from a predefined population at a single point in time (Bourque, 2004). We were interested in more than just whether students "like" AI. We wanted to look at the factors that often make or break technology use in real life, such as access to the internet and devices, the cost of data, power interruptions, confidence in using AI tools effectively, and whether students feel they can use AI responsibly when learning French. A survey design worked well here because it allowed us to capture students' experiences and intentions at a single point in time, across a teacher-education setting. The design is associated with the positivist research paradigm, which emphasises objectivity, empirical measurement, hypothesis testing, and the use of quantitative approaches (Park et al., 2020).

Research Setting and Participants. Data were collected from pre-service teachers enrolled in the French language Bachelor of Education programme at Ghanaian Colleges of Education. These are students preparing to become French teachers, and they represent the group that will eventually decide what AI looks like in real classrooms. After checking the online questionnaire for completeness, we retained 81 valid responses for analysis ($N = 81$). Only responses with complete data for the key construct items used to compute the subscale scores were included.

Instrumentation. The main instrument used for data collection was a structured questionnaire designed around two key ideas. First, we drew on widely used technology adoption constructs, especially those in the UTAUT framework, which capture how people decide whether to use a technology based on usefulness, ease of use, social encouragement, and enabling conditions. Second, because AI raises unique concerns, we extended the questionnaire to include AI self-

efficacy or AI literacy and ethics and integrity readiness, which reflect concerns about responsible use in learning and assessment.

All construct items were rated on a five-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree). Items were grouped into seven subscales:

- Performance Expectancy (PE)
- Effort Expectancy (EE)
- Social Influence (SI)
- Facilitating Conditions (FC)
- Self-Efficacy / AI Literacy (SE)
- Ethics & Integrity Readiness (EI)
- Behavioural Intention (BI)

The student questionnaire covered six areas: consent and demographic details, access and infrastructure, AI use, readiness and adoption drivers, barriers and support, and open-ended questions. The full questionnaire for students and pre-service teachers is available in the Appendix.

We examined infrastructural conditions using the facilitating conditions subscale and practical questions about device availability, internet reliability, data costs, power interruptions, technical support, and institutional guidance. In this study, infrastructural conditions refer to the material, technical, and institutional resources that help or limit students' actual use of AI tools. These factors are especially important in Ghanaian teacher education because they directly affect what students can do, even if they are motivated to use AI.

The questionnaire also asked about practical issues such as access to devices, internet reliability, data costs, and power outages. These questions were included because problems with the internet and other resources are common in Ghana and have a real impact on student usage regardless of their motivation to use AI.

Data Collection Procedure and Ethics. Participation was voluntary, and students gave their consent before completing the questionnaire. The survey was conducted online using Google Forms. We did not collect names or any identifying information, so all responses were anonymous and confidential. Students were informed they could stop at any time without penalty.

Limitations. There are two main limitations to mention. First, the study relies on self-reported data, so answers may reflect what students think is expected or what they remember at the time. Second, the AI self-efficacy and ethics readiness subscales had lower reliability, likely because these topics are complex. Future research could address this by adding more questions and using interviews or classroom observations for deeper insight.

Data Analysis. We analysed the data using Google Colab and Python libraries such as Pandas and NumPy. The process involved four main steps. First, we checked and cleaned the data by identifying missing values and ensuring Likert responses were coded correctly. Only valid responses were used to calculate subscale scores. Second, we calculated descriptive statistics, mainly the mean and standard deviation for each subscale, to understand where students stood on key topics. Subscale scores were averaged within each group, so the results remained on the

original 1-5 scale. Third, we checked internal consistency using Cronbach's alpha. Finally, to determine what predicts students' intention to use AI tools, we ran a multiple regression with behavioural intention as the outcome variable.

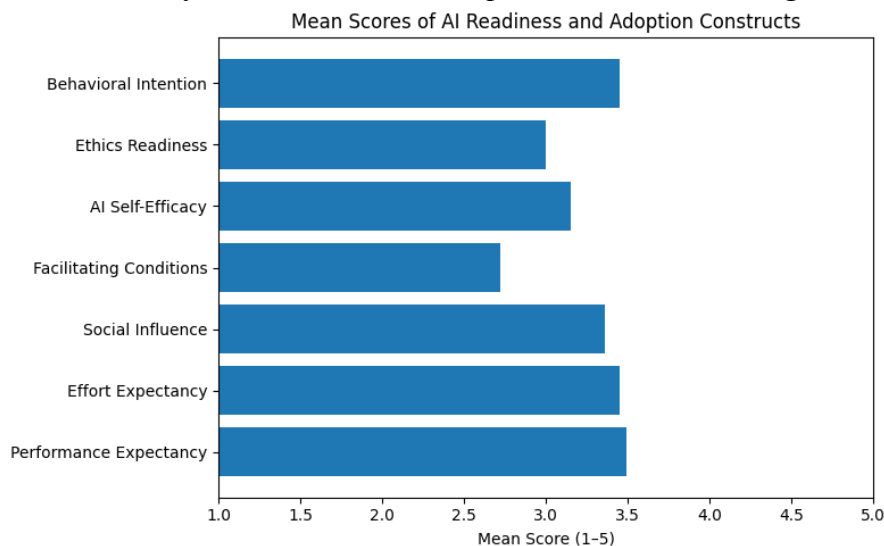
Results

Descriptive Results (Subscale Means; N = 81). The descriptive results show a clear trend. Most students reported moderate readiness to use AI tools for learning French. Performance expectancy was fairly high ($M = 3.49$, $SD = 1.30$), indicating that many students believe AI tools can help them learn French more effectively. Effort expectancy was also high ($M = 3.45$, $SD = 1.16$), so students generally did not find AI tools too difficult to use. Social influence ($M = 3.36$, $SD = 1.14$) was moderate, suggesting that peers and lecturers may affect how normal and acceptable AI use seems.

The most notable result is the low score for facilitating conditions ($M = 2.72$, $SD = 1.10$), indicating that support for using AI remains weak. Students may want to use AI tools, but their ability to do so is often limited by unreliable internet, a lack of devices, high data costs, power outages, insufficient technical support, or unclear guidance from their institutions. Since facilitating conditions scored the lowest, the results suggest that AI readiness here depends not only on motivation or attitudes but also on the infrastructure that allows students to use AI on a regular basis. Figure 1 shows these patterns.

Figure 1

Mean Scores of AI Readiness and Adoption Constructs Among Pre-Service Teachers (N = 81)

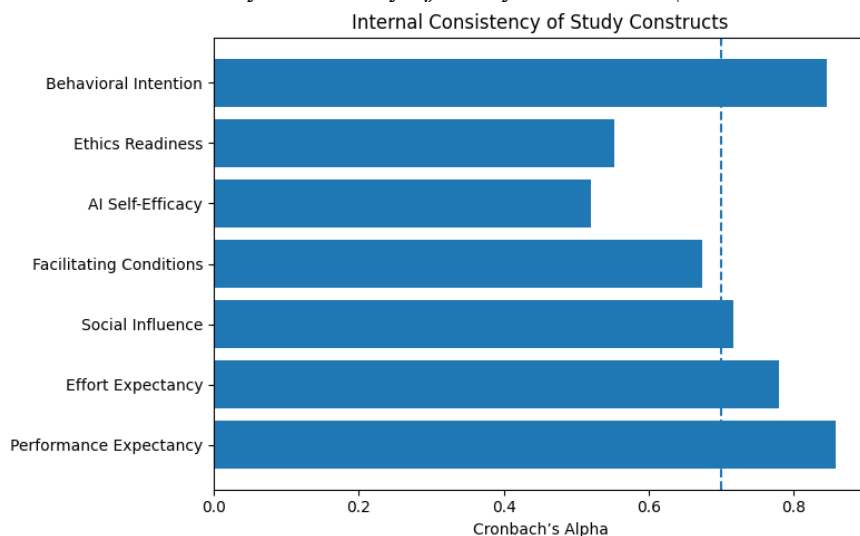


Reliability Results (Cronbach's Alpha). Most constructs had acceptable or good internal consistency. Performance expectancy ($\alpha = 0.858$), effort expectancy ($\alpha = 0.780$), social influence ($\alpha = 0.717$), and behavioural intention ($\alpha = 0.846$) were sufficiently reliable for interpretation. Facilitating conditions were just below the typical threshold ($\alpha = 0.673$), possibly because students have different experiences with institutional support. The lower reliability for self-efficacy ($\alpha = 0.520$) and ethics readiness ($\alpha = 0.552$) suggests that these scales may not function well as single

measures in this context, and that students may interpret those items differently. Figure 2 shows the reliability profile for all constructs.

Figure 2

Internal Consistency Reliability of Study Constructs (Cronbach's Alpha)



Perceived Infrastructural and Institutional Barriers to AI Use Among Pre-Service French Teachers (N = 81). To address the fourth research question, item-level responses on infrastructure and institutional support were examined. Twenty-one participants (25.9%) indicated that their internet reliability was fair or poor. However, 56 participants (69.1%) saw internet access as a barrier to using AI. Data cost was the most reported barrier. Seventy-one participants (87.7%) selected it as a challenge when using AI. When asked how strongly data cost limited their AI use, 43 participants (53.1%; $M = 3.67$, $SD = 1.25$) said it limited their AI use considerably or very much.

Power outages made it difficult for participants to use AI. Thirty-one participants (38.3%; $M = 3.14$, $SD = 1.34$) said that power cuts disrupted their AI use considerably or very much. Forty-seven participants (58.0%) also named power outages as a barrier. Training was another challenge. Fifty-four participants (66.7%) had not attended any AI orientation or training, and 56 participants (69.1%) said lack of training was a barrier.

Institutions provided limited support. Fifty-five participants (67.9%) disagreed or strongly disagreed that their institutions had clear policies on AI use ($M = 2.05$, $SD = 1.31$). Thirty participants (37.0%) said they could not easily access the devices and internet needed for AI. Thirty-one participants (38.3%) also did not know where to get help when they had trouble using AI.

Other barriers included low awareness of AI tools (63.0%), subscription costs (60.5%), worries about over-reliance on AI (59.3%), unclear rules for using AI (43.2%), and the perception that AI tools mainly work well in English (38.3%). This is summarised in Table 1 below.

Table 1

Perceived Infrastructural and Institutional Barriers to AI Use Among Pre-Service French Teachers (N = 81)

Panel A. Item-level infrastructure and institutional conditions			
Indicator	n (%)	M	SD
Fair or poor internet reliability	21 (25.9%)	-	-
Data cost considerably or very substantially limits AI use	43 (53.1%)	3.67	1.25
Power outages considerably or very substantially disrupt AI use	31 (38.3%)	3.14	1.34
No prior AI orientation or training	54 (66.7%)	-	-
Disagree or strongly disagree that the institution provides AI policies	55 (67.9%)	2.05	1.31
Disagree or strongly disagree that devices/internet are accessible for AI use	30 (37.0%)	3.07	1.49
Disagree or strongly disagree that they know where to obtain AI help	31 (38.3%)	3.04	1.44
Panel B. Barriers selected by participants			
Reported barrier	n (%)		
Data cost	71 (87.7%)		
Internet access	56 (69.1%)		
Lack of AI training	56 (69.1%)		
Lack of awareness of available tools	51 (63.0%)		
Subscription costs	49 (60.5%)		
Over-reliance	48 (59.3%)		
Power outages	47 (58.0%)		
Unclear rules on AI use	35 (43.2%)		
English-centric tools	31 (38.3%)		

Note. For data cost and power outages, percentages represent ratings of 4-5 on the five-point scale. For institutional policies, device/internet access, and AI help, percentages represent disagreement or strong disagreement. In Panel B, participants could select more than one barrier; therefore, the percentages do not sum to 100%.

Associations Among AI Readiness Constructs. We used correlation analysis to examine how readiness and adoption-related constructs are connected. Figure 3 shows the correlation matrix, highlighting the links among expectancy beliefs, facilitating conditions, AI literacy, ethics readiness, and behavioural intention.

Overall, behavioural intention was positively related to several readiness constructs. Students who found AI useful and easy to use and felt supported by others were more likely to want to continue using AI tools. The correlations also show an important link between behavioural intention and ethics readiness. This means that adoption intentions depend not only on usefulness and ease of use, but also on students' confidence in using AI responsibly.

Figure 3*Correlation Matrix of AI Readiness and Adoption Constructs*

Predictors of Behavioural Intention to Use AI Tools. We ran a multiple linear regression analysis to see how adoption-related beliefs, infrastructure, AI self-efficacy, and ethics readiness predict behavioural intention to use AI tools among pre-service teachers. The regression model was statistically significant, $F(6, 74) = 19.53$, $p < .001$, and explained 61.3% of the variance in behavioural intention ($R^2 = .613$; adjusted $R^2 = .582$). This means the model fits well and the predictors together explain much of the outcome.

Figure 4 shows that AI self-efficacy was the strongest positive predictor of behavioural intention ($\beta = 0.53$, $t = 3.42$, $p = .001$). Students who felt more confident using and evaluating AI tools were much more likely to want to keep using AI for learning French and for their future teaching.

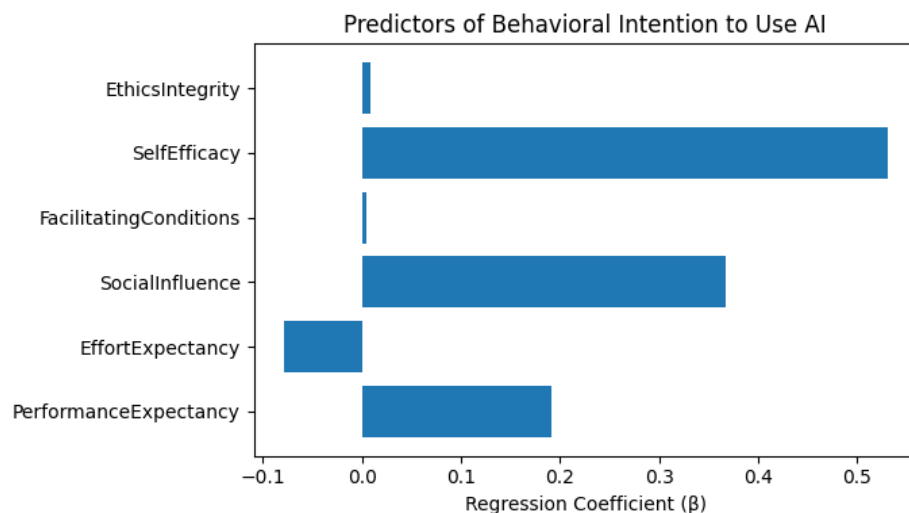
Social influence was also a significant predictor of behavioural intention ($\beta = 0.37$, $t = 2.88$, $p = .005$). Support from peers and lecturers is important in encouraging students to use AI tools. In contrast, performance expectancy was not statistically significant ($\beta = 0.19$, $p = .116$), and effort expectancy had no significant effect ($\beta = -0.08$, $p = .566$). Facilitating conditions ($\beta = 0.01$, $p = .969$) and ethics and integrity readiness ($\beta = 0.01$, $p = .955$) also did not significantly predict behavioural intention when the other variables were included.

Overall, the results show that while perceived usefulness and ease of use are positive, confidence in using AI and the social context are the main factors that influence intention when all variables are considered together. This suggests that behavioural intention is shaped more strongly by AI

self-efficacy and social influence than by the other readiness constructs in this model. Ethics and integrity readiness do not add a strong independent effect in this model.

Figure 4

Regression Coefficients Predicting Behavioural Intention to Use AI Tools



Discussion

This study looked at how ready French language teacher trainees are to use AI. It explored their beliefs about adopting AI, the resources they have, their confidence and skills, their understanding of ethical issues, and how others influence them. The discussion below covers each main research question

AI Readiness Among Pre-Service French Language Teachers. The first research question asked how ready are pre-service French language teachers in Ghana to use AI. The results show they are somewhat prepared. Most students found AI useful and easy to use, and their intention to keep using it was moderate. This suggests they are open to using AI for learning French, especially for vocabulary, grammar, pronunciation, translation, writing feedback, and lesson planning. These results are similar to those of Balkır and Topkaya (2025), who also found that students mainly use AI for vocabulary, grammar, and writing support.

But the results also show that not all students are equally prepared. Many only felt somewhat confident using AI and understanding ethical issues, and support and resources were the weakest areas. This means that being ready to use AI is not just about liking technology. It also depends on students' confidence, on what their institutions expect, and on the resources they have.

Associations Between Readiness Constructs and Intention to Use AI. The second research question explored how factors like usefulness, ease of use, social support, resources, confidence, and ethics relate to students' intention to use AI. The results show that students who find AI useful and easy to use, feel supported, and trust their own skills are more likely to keep using AI tools.

This finding supports the idea that we should look beyond just adopting AI. Students' intention to use AI is not only about whether the tools seem useful or easy to use. It also depends on whether they feel able to judge AI-generated outputs, use AI responsibly, and get encouragement from lecturers, peers, and the institution.

Predictors of Behavioural Intention to Use AI. The third research question asked which factors best predict students' intention to use AI. The analysis showed that confidence in using AI was the strongest predictor, followed by social influence. This means that being confident in using, evaluating, and adapting AI tools matters more than just believing AI is useful for learning and teaching French.

This finding is important for teacher education. If Colleges of Education want to use AI to improve French teaching, they should treat AI literacy as a key teaching skill, not just an extra digital ability. Pre-service teachers need opportunities to use AI for real teaching tasks, such as planning activities, checking AI translations, designing vocabulary exercises, helping with pronunciation, and spotting mistakes in AI output.

Social influence also plays a key role. In teacher education, students learn what is expected from teachers, classmates, mentors, and the institution. If AI use is not clearly explained or is only seen as a risk to academic honesty, students might use it in unstructured or unsupervised ways, which can cause problems. However, if teachers show how to use AI properly and institutions set clear rules, students are more likely to use AI responsibly and in ways that support their learning.

Perceived Infrastructural and Institutional Conditions Affecting AI Use. The fourth research question examined which infrastructural and institutional conditions pre-service French teachers perceived as affecting their use of AI tools. These facilitating conditions include reliable internet access, access to suitable devices, affordable data, stable electricity, technical support, and clear institutional guidance on AI use.

Facilitating conditions had the lowest mean score among all factors studied ($M = 2.72$, $SD = 1.10$). This suggests that many students felt they lacked sufficient support or resources to use AI. However, these conditions did not significantly predict students' future intentions to use AI ($\beta = 0.01$, $p = .969$). In other words, when the other factors were considered, access to support and resources did not strongly explain students' intention to use AI. Instead, students' confidence in using AI and encouragement from lecturers or classmates were closely linked to their intention to use it.

This does not mean that infrastructural and institutional conditions are not important. Students may be interested in using AI but still find it difficult to use these tools regularly when internet access is unreliable, data is expensive, suitable devices are unavailable, or institutions do not provide training and technical support.

In Ghanaian Colleges of Education, this raises fairness issues. Students with reliable internet access, reliable access to suitable devices, and stronger support may have more opportunities to practice using AI for learning French and to learn how to use it responsibly, while those with limited access may have fewer opportunities.

In French-language teacher training, access to reliable digital resources is especially important because AI-supported tools can help with pronunciation, conversation practice, vocabulary, and grammar. They can also give pre-service teachers access to real-world language resources beyond those available at their institutions. However, these potential benefits depend on pre-service teachers having the basics needed to use AI and the support to use it effectively and responsibly (Du & Daniel, 2024; Kohnke et al., 2023).

Ethics and Integrity Readiness. Ethics and integrity readiness did not directly predict whether students plan to use AI ($\beta = 0.01, p = .955$). This means that, after the other factors were considered, ethical and integrity readiness did not add a significant explanation for students' intentions to continue using AI.

This result does not mean that ethical readiness is unimportant. There is the need for clear policies, new ways to assess learning, and direct teaching on responsible AI use to protect academic honesty, data privacy, and real communication skills in French language learning at Ghana's Colleges of Education.

Conclusion

This study finds that pre-service teachers in Ghanaian Colleges of Education show moderate readiness to use AI tools to support French teaching and learning. Most students see AI as helpful and easy to use, and many want to keep using it. However, support systems are still lacking. Students are more likely to use these tools when they feel confident with AI and get encouragement from others.

The results show three main priorities for French teacher education. First, Colleges of Education should build infrastructure and support so that everyone enjoys equal access to AI. Second, teacher training should include AI literacy, such as how to check AI outputs, revise teaching tools, and use AI to support language learning while maintaining human judgement. Third, clear, ethical guidelines and new ways to assess students are needed so AI can support learning while protecting honesty, privacy, and real communication skills.

In summary, this study contributes to research on teacher education in Sub-Saharan Africa and shows that responsible AI use is about more than just adopting new tools. It requires a balanced approach with strong support systems, professional skills, ethical awareness, and a supportive institutional culture.

Declaration of Generative AI and AI-assisted Technologies in the Writing Process:

Grammarly was used for language editing and to enhance the clarity of the manuscript.

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Appendix

Student/Pre-Service Teacher Questionnaire

The full student questionnaire used for the analysis reported in this article is provided below.

For Section D, the response scale ranged from 1 (Strongly Disagree) to 5 (Strongly Agree). Items 10 and 11 used a scale from 1 (Not at all) to 5 (Very much).

Section	Question/Item	Response format or options
Consent	1. Consent statement	I have read and understood the study information above. I understand that my participation is voluntary and confidential. I agree to take part in this study. Response options: Yes, I consent No, I do not consent
Section A: Demographic Information	2. Gender	Male Female
	3. Age	Under 20 20-24 25-29 30+
	4. Level	100 200 300 400
	5. Institution type	Public College of Education Private College of Education
	6. Name of institution	Mount Mary College Education, Somanya; Enchi College of Education, Enchi; Wesley College of Education, Kumasi; Bagabaga College of Education, Tamale; E.P. College of Education,

Section	Question/Item	Response format or options
		Amedzofe; Gbewaa College of Education, Pusiga; St. Vincent College of Education, Yendi; St. John Bosco's College of Education, Navrongo
	7. Proficiency level in French (self-assessment)	Beginner Intermediate Advanced
Section B: Access and Infrastructure	8. Devices you use	Smartphone Laptop Tablet Desktop None Other
	9. Internet reliability	Excellent Good Fair Poor
	10. To what extent does internet data cost limit your use of AI tools?	1 = Not at all to 5 = Very much
	11. To what extent do power outages disrupt your ability to use AI tools for learning?	1 = Not at all to 5 = Very much
	12. Attended orientation/training on AI	Yes No
Section C: AI Use	13. AI tools used	ChatGPT Pronunciation apps Duolingo Grammarly Translation aids Google Translate Other
	14. Frequency	Never Rarely Monthly Weekly Several times/week Daily
	15. Purposes	Vocabulary Grammar Pronunciation Writing feedback Conversation Assignments Exam prep

Section	Question/Item	Response format or options
Section D: Readiness and Adoption Drivers	16. AI helps me learn French more effectively.	1 = Strongly Disagree to 5 = Strongly Agree
	17. AI provides useful feedback.	1 = Strongly Disagree to 5 = Strongly Agree
	18. AI adapts to my level.	1 = Strongly Disagree to 5 = Strongly Agree
	19. AI tools are easy to learn.	1 = Strongly Disagree to 5 = Strongly Agree
	20. AI fits into my study routine.	1 = Strongly Disagree to 5 = Strongly Agree
	21. I can solve simple AI issues.	1 = Strongly Disagree to 5 = Strongly Agree
	22. Lecturers encourage AI use.	1 = Strongly Disagree to 5 = Strongly Agree
	23. Classmates support AI use.	1 = Strongly Disagree to 5 = Strongly Agree
	24. I feel positive pressure to use AI.	1 = Strongly Disagree to 5 = Strongly Agree
	25. My institution provides policies on AI.	1 = Strongly Disagree to 5 = Strongly Agree
	26. I can access devices/internet for AI.	1 = Strongly Disagree to 5 = Strongly Agree
	27. I know where to get help for AI.	1 = Strongly Disagree to 5 = Strongly Agree
	28. I can judge AI output accuracy.	1 = Strongly Disagree to 5 = Strongly Agree
	29. I avoid over-reliance on AI.	1 = Strongly Disagree to 5 = Strongly Agree
	30. I can use AI for effective study planning.	1 = Strongly Disagree to 5 = Strongly Agree
	31. I understand the rules about AI in coursework.	1 = Strongly Disagree to 5 = Strongly Agree
	32. I can use AI without academic dishonesty.	1 = Strongly Disagree to 5 = Strongly Agree
	33. I am aware of data/privacy risks.	1 = Strongly Disagree to 5 = Strongly Agree
	34. I will continue using AI next semester.	1 = Strongly Disagree to 5 = Strongly Agree
	35. I recommend AI to peers.	1 = Strongly Disagree to 5 = Strongly Agree
	36. I would attend training to improve AI use.	1 = Strongly Disagree to 5 = Strongly Agree
	37. Barriers	Data cost Internet Power outages

Section	Question/Item	Response format or options
		Lack of training Subscription costs Unclear rules English-centric tools Over-reliance Lack of awareness of available tools Other
	38. Supports needed	Affordable data bundles Campus Wi-Fi Skills workshops Clear policies on AI use Computer labs/devices Other
	39. Give an example of how AI helped you.	Open-ended
	40. Problems faced using AI (technical, cost, ethical)?	Open-ended
	41. What training/resources would help you most?	Open-ended
	42. In your view, what should be the role of AI in French language education in Ghana?	Open-ended