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Pre-service elementary and secondary teachers' acceptance of AI-based ELT tools: Predictors of behavioral intention and group differences

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Suh, Bo-Ram and Sun-Young Kim. 2025. Pre-service elementary and secondary teachers' acceptance of AI-based ELT tools: Predictors of behavioral intention and group differences. *Linguistic Research* 42(Special Edition): 59-74. The present study investigated whether pre-service elementary and secondary English teachers differ in their competence in using artificial intelligence(AI)-based English language teaching tools, perceived usefulness, trust, and behavioral intention. It also examined to what extent competence, perceived usefulness, and trust predict behavioral intention and whether these predictive relationships differ across groups. In addition, it explored group differences in expectations and concerns. A survey questionnaire was developed based on the Technology Acceptance Model (Davis 1989), extended with items on competence, expectations, and concerns, and subsequently administered to 126 pre-service teachers in Korea. The results showed that competence was the only factor with a significant group difference, with secondary-level participants reporting higher levels than their elementary counterparts. Perceived usefulness emerged as the only significant predictor of behavioral intention, while competence and trust did not significantly contribute, and these predictive relationships did not differ across groups. Expectations were broadly positive and comparable across groups, while concerns were significantly higher among pre-service secondary teachers. Overall, the findings suggest that adoption mechanisms are largely shared, with perceived usefulness playing a central role. Furthermore, the results imply that teacher education should link practice opportunities to pedagogical usefulness while encouraging critical discussions of ethical and pedagogical concerns related to AI-based English language teaching tools. **(Gwangju National University of Education · Mokpo National University)**

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1. Introduction

In recent years, the integration of artificial intelligence (AI) technologies has expanded rapidly across English language education contexts. Tools such as large language model-based chatbots (e.g., ChatGPT) and automated feedback systems are beginning to reshape how teachers design lessons, support student learning, and interact with students. While these technologies hold considerable potential, they also entail risks of overreliance, raise privacy concerns, and pose questions about pedagogical appropriateness, as frequently noted in recent reviews and teacher surveys. Importantly, effective integration depends not only on technical capabilities but also on teachers' acceptance, perceived usefulness, and trust in AI systems, which underscores teacher education as a critical domain for investigation (e.g., An et al. 2023). This issue is especially pertinent for pre-service teachers, who are in the process of developing their pedagogical and technological orientations. Understanding how they perceive and accept AI-based ELT tools is therefore essential since these early orientations are likely to shape their future instructional practices.

Although a growing number of studies have examined teachers' perceptions and acceptance of AI in English education, often employing the Technology Acceptance Model (TAM; Davis 1989), most have focused on a single teacher group within one study. Given the possibility that differences in school level and curricular emphases may shape attitudes toward AI, such a comparative analysis can yield valuable insights into how future teachers approach AI integration. Addressing these gaps, the present study aims to investigate whether pre-service elementary and secondary English teachers differ in their competence in using AI-based ELT tools, perceived usefulness (PU), trust, behavioral intention (BI), expectations, and concerns, and to examine how PU, trust, and competence predict BI across groups. Examining both the group differences and the predictive relationships is important as it clarifies not only whether the two cohorts differ in their perceptions and competence but also which factors most strongly drive their intention to adopt AI in pedagogical practice.

2. Literature review

2.1 AI integration in ELT and implications for teacher education

A growing body of research has shown that the integration of AI in English language education yields benefits for language learning and teaching, as evidenced by recent systematic reviews in ELT/EFL contexts that report improvements in speaking, writing, reading, and pedagogy (e.g., Alshumaimeri and Alshememry 2024; Crompton et al. 2024). AI tools have been linked to enhanced performance and process outcomes in writing and reading through automated evaluation, intelligent tutoring, and NLP-powered feedback, while in speaking and listening, AI-enabled agents and analytics have supported fluency, accuracy, and self-regulation. At the meta-analytic level, several reviews have provided robust evidence of AI's overall positive impact on second language learning (e.g., Wu 2024; Xu and Wang 2024).

Despite such benefits, the effective use of AI in language classrooms largely depends on teachers' perceptions and practices. While educators acknowledge its potential for individualized support and data-driven insights, they have also expressed concerns about usability, professional identity, and ethical issues such as privacy, bias, and over-reliance (e.g., Yeşilel 2025). Previous research has pointed to the need for teacher education to integrate AI literacy, expand Technological Pedagogical Content Knowledge (TPACK) for AI-mediated task design and feedback interpretation, and provide continuous professional development informed by ethical guidelines (e.g., Chan 2023; Crompton et al. 2024; Mouta et al. 2024). These discussions highlight that teachers' competence, perceived usefulness (PU), and trust are central to the adoption of AI-based English language teaching (ELT) tools.

2.2 Technology Acceptance Model (TAM) and determinants of the adoption of AI-based ELT tools

The Technology Acceptance Model (TAM; Davis 1989) has long served as a foundational framework for explaining how users adopt new technologies. In this model, behavioral intention (BI) is primarily influenced by perceived usefulness (PU) and perceived ease of use (PEOU), which together determine whether individuals ultimately adopt a given technology (Venkatesh and Davis 2000; Teo 2011). While

both PU and PEOU are regarded as key determinants of adoption in TAM, recent studies suggest that PU consistently exerts a stronger effect on BI, whereas PEOU often shows weaker or indirect influence (e.g., Hwang et al. 2025). At the same time, although the model has yielded valuable insights in educational contexts, recent studies suggest that its original variables alone cannot fully account for the complexities of AI-driven systems (e.g., Crompton et al. 2024).

Extended versions of TAM therefore incorporate additional constructs such as trust, risk perception, and competence, showing that willingness to employ AI (BI) depends not only on PU but also on trust in its reliability, fairness, and transparency (e.g., Nazaretsky et al. 2022; Ng 2025). Research with pre-service teachers indicates that AI literacy and AI-TPACK can enhance adoption both directly and indirectly by strengthening PU and PEOU while shaping trust in system reliability (e.g., An et al. 2023; Al-Abdullatif 2024). In ELT-specific contexts, teacher candidates often report strong PU and BI toward tools such as ChatGPT but simultaneously express concerns about reliability and accuracy, suggesting that competence, PU, and trust jointly scaffold acceptance (e.g., An et al. 2023; Crompton et al. 2024; Ng 2025). Furthermore, expectations of pedagogical benefits and concerns about ethical or professional risks frequently co-exist in teachers' views of AI, making them important dimensions to examine alongside TAM variables.

In addition, little is known about whether such relationships vary across pre-service teacher groups. Comparisons between those preparing for elementary and secondary English teaching remain scarce, even though program-specific experiences and curricular emphases are likely to influence competence, PU, trust, and BI, as well as expectations (e.g., personalization, feedback) and concerns (e.g., privacy, bias, reduced interaction) (e.g., Crompton et al. 2024; Yue et al. 2024).

To address these gaps, the present study investigates group differences in these dimensions and examines how competence, PU, and trust predict BI across cohorts, thus contributing to a more comprehensive understanding of the adoption of AI-based ELT tools and refining TAM in this context.

2.3 Research questions

The following research questions guided the present study.

RQ1. Are there differences between pre-service elementary and secondary teachers in (a) competence in using AI-based ELT tools, (b) perceived usefulness (PU), (c) trust, and (d) behavioral intention (BI)?

RQ2-1. To what extent do competence, PU, and trust predict pre-service teachers' BI?

RQ2-2. Do these predictive relationships differ between pre-service elementary and secondary teachers?

RQ3. Are there differences between pre-service elementary and secondary teachers in their expectations regarding AI-based ELT tools?

RQ4. Are there differences between pre-service elementary and secondary teachers in their concerns regarding AI-based ELT tools?

3. Method

3.1 Participants

A total of 126 Korean pre-service English teachers participated in this study, comprising 69 elementary-level teacher candidates from a national university of education and 57 secondary-level teacher candidates from a national university in Korea.

The elementary cohort consisted of 52 females and 17 males, with a mean age of 20.84 years (*SD* = 2.13). The sample included 15 freshmen, 26 sophomores, 24 juniors, and 4 seniors, all majoring in English education. Although elementary school teachers in Korea are generally required to teach multiple subjects after employment, the participants in this study specialized in English education. Their mean self-rated English proficiency score on a 10-point scale was 5.23 (*SD* = 1.62). They also reported diverse teaching practice experiences, including classroom microteaching sessions and school-based teaching practicums.

The secondary cohort consisted of 33 females and 24 males, with a mean age of 23.04 years (*SD* = 5.43). The sample included 15 freshmen, 13 sophomores, 6

juniors, 12 seniors, and 10 graduate students in a master's program. In addition, one participant had already completed a bachelor's degree. All participants majored in English education. Their mean self-rated English proficiency score on a 10-point scale was 6.03 (*SD* = 1.76). Their teaching practice experiences were broadly similar to those of the elementary cohort.

3.2 Instrument

Two versions of the survey form were prepared: one for elementary pre-service teachers and the other for secondary pre-service teachers. Each version shared most of the items, except for a few questions in the background information section.

Both versions consisted of two major sections. The first section covered background information and included 10 items addressing participants' demographic information (e.g., gender, age, year in school, and major), self-rated English proficiency, teaching practice experiences (e.g., classroom microteaching sessions and school-based practicums), prior use of AI-based ELT tools, exposure to AI-related courses, and competence in using AI-based ELT tools. Participants' self-rated English proficiency was assessed on a ten-point scale to allow for greater sensitivity in differentiating proficiency levels. In addition, competence in using AI-based ELT tools was measured by two items (Items 9 and 10) on a five-point Likert scale, assessing participants' perceived ease of learning new AI-based ELT tools and their ability to use them effectively when preparing or conducting English lessons. In the present survey, the term "AI-based ELT tools" was defined as applications employing artificial intelligence to support English learning tasks (e.g., text generation, grammar correction, automated feedback, speech feedback/recognition, translation, and summary/search). Examples included ChatGPT, Grammarly, QuillBot, and ELSA Speak. Importantly, general digital platforms without AI algorithms (e.g., Padlet, Google Classroom) were excluded from this scope.

The second section measured participants' perceptions of AI-based ELT tools and contained 19 items. The items addressed perceived usefulness (PU) (e.g., lesson quality, lesson preparation, and tailored learner feedback), trust in AI output accuracy, system reliability, and error tolerance, and behavioral intention (BI) to use AI tools. In addition, several items captured participants' expectations (e.g., making English lessons

more interesting and lively, facilitating efficient design of level-appropriate materials, reducing teachers' workload in assessment and feedback, supporting struggling learners, and increasing learner motivation) and concerns about potential drawbacks (e.g., learners' overreliance on AI, reduced teacher roles, privacy issues, and diminished critical thinking, creativity, or classroom interaction). The items on perceived usefulness and behavioral intention were developed with reference to the Technology Acceptance Model (Davis 1989).

All survey items in the second section were rated on a five-point Likert scale ranging from 1 ("strongly disagree") to 5 ("strongly agree"). A five-point scale was chosen because it is widely used in second language research and TAM-based studies (e.g., Hwang et al. 2025; Kim 2025), which facilitates comparison with existing work and provides a clear midpoint for neutral responses. The instrument demonstrated clear face validity as the items directly reflected the constructs they were intended to measure and were reviewed for clarity and relevance. Internal consistency reliability (Cronbach's α) for each subscale was examined and is reported in the Results section.

3.3 Procedure

Over a 10-day period, the survey was implemented using an online survey platform (Google Forms), which allowed for efficient distribution and streamlined data management. Pre-service elementary and secondary English teachers were asked to complete the questionnaire voluntarily within the allotted time. The responses were securely stored on the Google Forms server and subsequently exported into Excel format for statistical analysis.

3.4 Data analysis

Data were analyzed using JASP statistical package. Descriptive statistics were first computed to summarize participants' background characteristics and overall responses to the survey items. To examine the internal consistency of each subscale, Cronbach's α coefficients were calculated, with values above .70 considered acceptable, and composite scores were computed as the means of the items within each subscale.

To address RQ1, independent-samples t tests were conducted to compare mean

scores for competence in using AI-based ELT tools, PU, trust, and BI. For RQ2-1, a multiple regression analysis was performed with BI as the dependent variable and competence in using AI-based ELT tools, PU, and trust as predictors. For RQ2-2, regression models including interaction terms (e.g., competence × group, PU × group, trust × group) were conducted to examine whether the predictive effects differed between pre-service elementary and secondary teachers. For RQ3 and RQ4, independent-samples *t* tests were used to investigate group differences in expectations and concerns regarding AI-based ELT tools.

Effect sizes were reported to complement significance testing. For mean comparisons, Cohen's *d* with 95% confidence intervals was calculated. For regression models, standardized coefficients (β) and changes in explained variance (ΔR^2) were presented. Effect sizes were interpreted following the field-specific benchmarks proposed by Plonsky and Oswald (2014), where values of 0.40, 0.80, and 1.00 represent small, medium, and large effects, respectively.

4. Results

Table 1 presents the descriptive statistics and reliability coefficients for the study variables. Secondary pre-service teachers demonstrated higher mean scores for competence in using AI-based ELT tools, perceived usefulness(PU), behavioral intention(BI), and expectations, though concerns about AI tools were also more pronounced in this group. Trust in AI tools showed moderate levels with minimal variation between groups.

Table 1. Descriptive statistics and reliability of study variables

Background (by group)				
Variable	Category	Elementary (n = 69)	Secondary (n = 57)	Total (N = 126)
AI-based ELT tools (any)	Used	59 (85.5%)	55 (96.5%)	114 (90.5%)
	Not used	10 (14.5%)	2 (3.5%)	12 (9.5%)
Experience with AI-related ELT in university courses	Yes	28 (51.9%)	25 (56.8%)	53 (54.6%)
	No	26 (48.1%)	19 (43.2%)	45 (45.4%)

Scales				
Scale	*k*	Elementary *M* (*SD*)	Secondary *M* (*SD*)	Cronbach's α
Competence in using AI-based ELT tools	2	3.86 (0.61)	4.21 (0.52)	.718
Perceived usefulness (PU)	3	4.08 (0.64)	4.29 (0.56)	.769
Trust	3	3.36 (0.67)	3.31 (0.81)	.736
Behavioral intention (BI)	3	4.19 (0.62)	4.37 (0.58)	.717
Expectations	5	3.91 (0.58)	4.18 (0.58)	.816
Concerns	5	3.33 (0.73)	3.91 (0.89)	.852

Note. Responses of "unsure" were excluded from the frequency analyses. Percentages are based on valid responses. Cronbach's α values are reported for the total sample.

The first research question asked whether there were group differences between pre-service elementary and pre-service secondary English teachers in competence in using AI-based ELT tools, PU, trust, and BI. Independent-samples *t* tests indicated that pre-service secondary teachers scored significantly higher competence than their pre-service elementary counterparts, $t(124) = 3.25$, $p = .002$, $d = 0.58$. Pre-service secondary teachers also reported higher PU than pre-service elementary teachers, but this difference was marginally nonsignificant, $t(124) = 1.93$, $p = .056$, $d = 0.35$. Trust did not statistically differ between groups, $t(124) = 0.36$, $p = .719$, $d = 0.06$. Finally, BI was also higher among pre-service secondary teachers than pre-service elementary teachers, but the difference was not statistically significant, $t(124) = 1.67$, $p = .097$, $d = 0.30$. These results suggest that competence in using AI-based ELT tools was the only variable that demonstrated a statistically significant group difference.

Research question 2-1 examined the extent to which competence in using AI-based ELT tools, PU, and trust predicted pre-service teachers' BI. Results of a multiple regression analysis revealed that the overall model was significant, $F(3, 122) = 36.30$, $p < .001$, explaining 47.2% of the variance in BI ($R^2 = .47$). Among the predictors, PU was the only significant positive predictor of BI ($\beta = .55$, $t = 6.78$, $p < .001$), suggesting that pre-service teachers who perceived AI-based ELT tools as more useful tended to express stronger intentions to employ them. In contrast, neither competence in using AI-based ELT tools ($\beta = .08$, $t = 1.47$, $p = .145$) nor trust ($\beta = .11$, $t =$

1.73, p = .086) significantly predicted BI. Overall, these findings indicate that pre-service teachers' behavioral intention to use AI-based ELT tools is shaped mainly by their perceptions of usefulness.

Research Question 2-2 addressed whether the predictive relationships differed between pre-service elementary and secondary teachers. Model 1, which included competence, PU, trust, and group, explained 47.2% of the variance in BI (R^2 = .472). Model 2, which added the interaction terms (Competence × Group, PU × Group, and Trust × Group), accounted for 48.2% of the variance; however, this small increase was not statistically significant (ΔR^2 = .010), F-change(3, 118) = 0.77, p = .516. None of the interaction terms were significant (Competence × Group: t = −0.28, p = .778; PU × Group: t = −0.53, p = .600; Trust × Group: t = 1.46, p = .148), indicating that the effects of competence, PU, and trust on BI did not differ significantly between pre-service elementary and secondary teachers.

The third research question asked whether there were differences between pre-service elementary and secondary teachers in their expectations regarding AI-based ELT tools. Results of an independent t-test showed that pre-service secondary teachers reported descriptively higher expectations than pre-service elementary teachers, but the difference did not reach statistical significance, t(124) = 1.96, p = .052, d = 0.35.

The fourth research question examined whether there were group differences in concerns regarding AI-based ELT tools. Results indicated that pre-service secondary teachers expressed significantly higher levels of concern compared to their elementary counterparts, t(124) = 3.99, p < .001, d = 0.71. This finding suggests that concerns about AI-based ELT tools were more pronounced among pre-service secondary teachers.

5. Discussion

The present study investigated group differences between pre-service elementary and secondary English teachers in their competence in using AI-based ELT tools, perceived usefulness (PU), trust, and behavioral intention (BI). It further examined how competence, PU, and trust predicted BI and whether these relationships differed across groups, as well as group differences in expectations and concerns regarding AI-based ELT tools.

First, a significant group difference emerged in competence, with pre-service secondary teachers reporting higher levels, whereas no statistically significant differences were found for PU, trust, or BI. One plausible explanation is that the pre-service elementary cohort in this study included a majority of freshmen and sophomores (41 out of 69, 59.4%), who likely had fewer opportunities to engage with AI-based ELT tools in coursework or practicum contexts. Given this limited prior exposure, these participants may have assessed their own competence more conservatively.

At the same time, this finding suggests that pre-service teachers across both contexts hold broadly similar orientations toward AI-based ELT tools. One possible reason for the absence of wider group differences is that both cohorts experienced comparable teacher education programs with similar attention to AI pedagogy, which may have reduced contrasts in their perceptions. This finding is in line with previous evidence that teachers' baseline competence with AI tools does not automatically translate into adoption unless it is supported through explicit training (e.g., Nazaretsky et al. 2022). From a teacher education perspective, these results underscore the need for systematic AI-related training across both elementary and secondary programs, rather than assuming differing baseline readiness. In addition, competence development may deserve particular emphasis in elementary teacher education.

Second, the finding that PU was the only significant predictor, explaining a significant proportion of variance in BI, while competence in using AI-based ELT tools and trust did not significantly contribute, is consistent with the Technology Acceptance Model (TAM), which highlights PU as the central determinant of BI. Our finding that PU emerged as the strongest predictor of BI aligns with meta-analytic evidence on teachers' technology adoption in TAM (Scherer et al. 2019) and is consistent with L2/EFL teacher studies showing robust PU→BI paths (e.g., Sun and Mei 2022; Hsu and Lin 2024). The non-significant role of competence in this study suggests that perceived ability to use AI-based ELT tools does not by itself translate into stronger adoption intentions. The implication is that teachers' willingness to adopt such tools depends on whether they can critically evaluate and recognize concrete pedagogical benefits. For teacher education, this highlights the need to provide opportunities for pre-service teachers to examine and experience the instructional value of AI-based tools so that potential advantages, if present, are explicitly connected to classroom practice.

In addition, the result that the impact of PU, trust, and competence on BI was statistically comparable between pre-service elementary and secondary teachers suggests that the mechanisms underlying AI adoption intention are shared across groups. In other words, regardless of teaching level, pre-service teachers' intention to integrate AI-based ELT tools into their future classrooms is primarily driven by perceived pedagogical usefulness. This corresponds with prior TAM-based findings where PU consistently emerged as the dominant predictor across teacher cohorts (e.g., Scherer et al. 2019). For practice, this implies that AI-focused teacher training can be grounded in shared principles and content, while still allowing for adaptations to context-specific needs at different school levels.

Regarding the third research question, pre-service secondary teachers reported slightly higher expectations, but the difference was not statistically significant, with small effect size (d = 0.35). This finding suggests that expectations toward AI-based ELT tools are broadly similar across pre-service elementary and secondary cohorts. From a practical standpoint, these findings reinforce the need to validate such expectations by embedding AI tools meaningfully into pre-service teacher education. In doing so, expectations can be better aligned with realistic classroom practices.

Finally, a clear group difference was observed in concerns over the use of AI-based ELT tools. Despite their positive expectations, pre-service secondary teachers are more apprehensive about issues such as over-reliance on AI, diminished teacher roles, reduced opportunities for learners' critical thinking and creativity, data privacy, and decreased teacher–learner interaction. This mirrors earlier studies highlighting that enthusiasm and concern often coexist in teacher perceptions of AI integration (e.g., Yeşilel 2025). For teacher education, this underscores the need to address these concerns explicitly, for example, by engaging pre-service teachers in critical discussions of ethical and pedagogical issues surrounding AI-based ELT tools. Given that concerns were more pronounced among secondary-level cohorts, future teacher education initiatives should take such differences into account when designing these discussions.

There are certain limitations that should be recognized, which in turn open directions for future research. First, the data were collected from pre-service teachers in a single region of Korea, which may limit the generalizability of the findings; subsequent studies should include more diverse and balanced samples across different institutions and regions, with larger samples. Second, the study relied on self-reported questionnaire data, which assess pre-service teachers' intentions but may not fully

reflect how they would actually use AI-based ELT tools in classroom practice. Third, the cross-sectional design limits our ability to examine how perceptions may change over time. Future research could adopt longitudinal or experimental designs to trace the development of competence, trust, and behavioral intention as pre-service teachers gain more classroom experience. Addressing these limitations would allow future investigations to provide a more robust and comprehensive understanding of how pre-service teachers adopt AI-based ELT tools.

6. Conclusion

This study investigated group differences between pre-service elementary and secondary English teachers in competence, perceived usefulness (PU), trust, behavioral intention (BI), expectations, and concerns, and further examined how competence, PU, and trust predicted BI and whether these relationships differed across groups. The results showed that competence was the only factor showing a significant group difference, while PU emerged as the sole significant predictor of BI. This suggests that adoption intentions in both groups were primarily shaped by perceptions of pedagogical usefulness, which indicates that the underlying mechanisms are similar regardless of teaching level. Although expectations toward AI-based ELT tools were generally positive across both groups, concerns were more strongly expressed by secondary-level participants. These results highlight the importance of supporting pre-service teachers in developing balanced perspectives that critically address both the opportunities and risks of AI-based ELT tools. Teacher education could achieve this by combining authentic practice opportunities with explicit discussions to foster informed approaches to AI integration in language classrooms.

References

Al-Abdullatif, Ahlam M. 2024. Modeling teachers' acceptance of generative artificial intelligence use in higher education: The role of AI literacy, intelligent TPACK, and perceived trust. *Education Sciences* 14(11): 1209. https://doi.org/10.3390/educsci14111209.

Alshumaimeri, Yousif A. and Abdulrahman K. Alshememry. 2024. The extent of AI applications

in EFL learning and teaching. *IEEE Transactions on Learning Technologies* 17: 653–663. https://doi.org/10.1109/TLT.2023.3322128.

An, Xin, Ching Sing Chai, Yushun Li, Ying Zhou, Xi Shen, Chunping Zheng, and Mengyuan Chen. 2023. Modeling English teachers' behavioral intention to use artificial intelligence in middle schools. *Education and Information Technologies* 28: 5187–5208. https://doi.org/10.1007/s10639-022-11286-z.

Cohen, Jacob. 1988. *Statistical power analysis for the behavioral sciences*. Hillsdale, NJ: Erlbaum.

Crompton, Helen, Adam Edmett, Neenaz Ichaporia, and Diane Burke. 2024. AI and English language teaching: Affordances and challenges. *British Journal of Educational Technology* 55(6): 2503–2529. https://doi.org/10.1111/bjet.13460.

Davis, Fred D. 1989. Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly* 13(3): 319–340. https://doi.org/10.2307/249008.

Hsu, Hui-Tzu and Chih-Cheng Lin. 2024. Factors influencing students' listening learning performance in mobile vocabulary-assisted listening learning: An extended technology acceptance model. *Journal of Computer Assisted Learning* 40(4): 1511–1525. https://doi.org/10.1111/jcal.12969.

Hwang, Myunghwan, Eunmi Lee, and Hee-Kyung Lee. 2025. Exploring EFL learners' acceptance of ChatGPT: Application of the extended technology acceptance model. *English Teaching* 80(1): 45–69. https://doi.org/10.15858/engtea.80.1.202503.45.

Kim, Rakhun. 2025. Generational gap in accepting AI integration in Korean EFL classrooms: Comparing pre-service and in-service teachers within technology acceptance model. *Modern English Education* 26: 113–129. https://doi.org/10.18095/meeso.2025.26.1.113.

Mouta, Ana, Eva María Torrecilla-Sánchez, and Ana María Pinto-Llorente. 2024. Design of a future scenarios toolkit for an ethical implementation of artificial intelligence in education. *Education and Information Technologies* 29: 10473–10498. https://doi.org/10.1007/s10639-023-12229-y.

Nazaretsky, Tanya, Moriah Ariely, Mutlu Cukurova, and Giora Alexandron. 2022. Teachers' trust in AI-powered educational technology and a professional development program to improve it. *British Journal of Educational Technology* 53(4): 914–931. https://doi.org/10.1111/bjet.13232.

Ng, Yu-Leung. 2025. A longitudinal model of continued acceptance of conversational artificial intelligence. *Information Technology and People* 38(4): 1871–1889. https://doi.org/10.1108/itp-06-2023-0577.

Plonsky, Luke and Frederick L. Oswald. 2014. How big is "big"? Interpreting effect sizes in L2 research. *Language Learning* 64(4): 878–912. https://doi.org/10.1111/lang.12079.

Scherer, Ronny, Fazilat Siddiq, and Jo Tondeur. 2019. The Technology Acceptance Model (TAM): A meta-analytic structural equation modeling approach to explaining teachers' adoption of digital technology in education. *Computers & Education* 128: 13–35. https://doi.org/10.1016/j.compedu.2018.09.009.

Sun, Peijian P. and Bing Mei. 2020. Modeling preservice Chinese-as-a-second/foreign-language teachers' adoption of educational technology: A technology acceptance perspective. *Computer Assisted Language Learning* 35(4): 816–839. https://doi.org/10.1080/09588221.2020.1750430.

Teo, Timothy. 2011. *Technology acceptance in education: Research and issues.* Rotterdam: Sense Publishers. https://doi.org/10.1007/978-94-6091-487-4_1.

Venkatesh, Viswanath and Fred D. Davis. 2000. A theoretical extension of the technology acceptance model: Four longitudinal field studies. *Management Science* 46(2): 186–204. http://www.jstor.org/stable/2634758.

Wu, Xiu-Yi. 2024. Artificial intelligence in L2 learning: A meta-analysis of contextual, instructional, and social-emotional moderators. *System* 126: 103498. https://doi.org/10.1016/j.system.2024.103498.

Xu, Tianyuan and Huang Wang. 2024. The effectiveness of artificial intelligence on English language learning achievement. *System* 125: 103428. https://doi.org/10.1016/j.system.2024.103428.

Yeşilel, Deren Başak Akman. 2025. English language teachers' perspectives on digital trust in AI-supported education. *British Educational Research Journal* https://doi.org/10.1002/berj.4209.

Yue, Miao, Morris Siu-Yung Jong, and Davy Tsz Kit Ng. 2024. Understanding K–12 teachers' technological pedagogical content knowledge readiness and attitudes toward artificial intelligence education. *Education and Information Technologies* 29: 19505–19536. https://doi.org/10.1007/s10639-024-12621-2.

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