

From beliefs to practices: University English lecturers' digital technology integration in a regional Vietnamese context

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ABSTRACT

Digital technology integration has become a central feature of English language teaching (ELT) in higher education, yet how lecturers translate positive beliefs into classroom practices remains uneven, especially in underrepresented regional settings. This qualitative study examines how university English lecturers in the Mekong Delta, Vietnam, a socio-economically diverse region where national digital transformation agendas are mediated by local infrastructural and pedagogical constraints, move from beliefs to practices in integrating digital technologies into ELT. Semi-structured interviews were conducted with 14 purposively selected lecturers and analyzed thematically through an inductive-deductive approach. The findings reveal broad endorsement of technology's pedagogical value alongside marked variation in instructional and assessment enactments. Lecturers' adoption patterns are best understood along a continuum from high adopters to emerging and minimal users, shaped by pedagogical orientation, perceived usefulness and ease of use, assessment literacy, and contextual and institutional conditions. The study sharpens teacher cognition research by showing that the belief-practice relationship is non-linear and mediated, and by conceptualizing technology adoption as a continuum rather than a fixed typology in a regional ELT context in higher education. Implications are discussed for professional development, institutional support, and sustainable digital transformation in ELT.



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1. Introduction

The integration of digital technologies has become a defining feature of contemporary ELT in higher education worldwide. The COVID-19 pandemic accelerated this process through what has been described as a period of “forced digital transformation,” during which online platforms, learning management systems, and video-conferencing tools were rapidly adopted to sustain instructional continuity (Bozkurt & Sharma, 2020). Beyond emergency responses, technology-enhanced ELT has been associated with increased instructional flexibility, learner autonomy, and the development of multimodal language practices (Gilakjani, 2017; Rintaningrum, 2023). More recently, the growing presence of artificial intelligence (AI) tools has further reshaped pedagogical possibilities while simultaneously raising concerns regarding ethics, academic integrity, and professional responsibility (Bin-Nashwan et al., 2023; Celik, 2023; Crompton et al., 2024; Neupane et al., 2025).

In Vietnam, digital transformation has been positioned as a national strategic priority, with education identified as a key pillar in the National Digital Transformation Program toward 2025, with a vision to 2030 (Prime Minister, 2020). Recent reports and studies indicate continuing infrastructural expansion and increasing institutional uptake of digital platforms in education (Bui et al., 2025; Nguyen et al., 2025). Within higher education, however, digital transformation extends beyond infrastructure to include lecturers' digital competence and pedagogical readiness to integrate technologies meaningfully into teaching (Nguyen et al., 2024). Vietnamese evidence on digital reading further suggests that digital engagement in higher education depends not only on the availability of digital resources but also on lecturer- and student-related factors that shape actual uptake in practice (Nguyen & Tuamsuk, 2023). While universities in major metropolitan centers have reported substantial advances, institutions in other regions, including the Mekong Delta, continue to face challenges related to infrastructure, access, and professional development (Nguyen et al., 2025; Vo et al., 2025).

Despite growing scholarly interest in educational technology in Vietnam, existing research has more often emphasized digital competence, readiness, or institutional conditions than in-depth qualitative accounts of lecturers' enacted classroom practices (Nguyen et al., 2024; Nguyen et al., 2025; Pham, 2025). This gap is significant, as prior research has consistently shown that teachers' beliefs, attitudes, and pedagogical knowledge strongly influence whether digital technologies are meaningfully integrated or merely adopted at a surface level (Harris et al., 2009; Ertmer, 2005; Tondeur et al., 2017).

The need for lecturer-centered and context-sensitive inquiry is especially evident in regional settings such as the Mekong Delta. Although local institutions have invested in digital infrastructure, regional evidence suggests that contextual factors, including uneven student access to devices, workload pressures, and limited discipline-specific training, continue to shape lecturers' technology adoption in practice (Nguyen et al., 2025; Vo et al., 2025; Nagy & Dringó-Horváth, 2024). National-level statistics may therefore obscure important regional realities, underscoring the value of qualitative research that foregrounds lecturers' lived experiences.

While many lecturers express positive attitudes toward digital technologies, the extent to which these beliefs are enacted varies considerably. Some demonstrate systematic and pedagogically aligned integration, whereas others adopt more limited or instrumental uses shaped by contextual and institutional constraints. To explain this variation, the present qualitative study examines how university English lecturers in the Mekong Delta translate beliefs into practices by bringing a teacher cognition perspective into dialogue with technology-adoption constructs, particularly perceived usefulness, perceived ease of use, and assessment literacy (Ertmer, 2005; Ertmer & Ottenbreit-Leftwich, 2010; Tondeur et al., 2017; Nagy & Dringó-Horváth, 2024; Harris et al., 2009; Lan & Fan, 2019; Afshar & Ranjbar, 2021; Weng & Shen, 2022; Al-Bahlani & Ecke, 2023). Situated in a regional Vietnamese setting shaped by local infrastructural, pedagogical, and institutional constraints, the study offers context-sensitive evidence on how national digital transformation agendas are mediated in classroom practice (Prime Minister, 2020; Nguyen et al., 2025; Vo et al., 2025). This study is guided by the following research questions:

1. How do university English lecturers move from beliefs to practices in integrating digital technologies into English language teaching?
2. What factors account for similarities and differences in lecturers' digital technology adoption?

2. Literature Review

2.1. Digital Technology Integration in English Language Teaching

Digital technologies have become a core component of ELT in higher education, encompassing tools such as learning management systems (LMS), online platforms, digital assessment applications, and, more recently, AI-supported technologies. In ELT contexts, these tools are commonly used to support content delivery, interaction, and learning beyond classroom boundaries (Bozkurt & Sharma, 2020). More specifically, recent studies suggest that technology-enhanced ELT can foster learner autonomy, instructional flexibility, and multimodal language development when digital tools are pedagogically embedded rather than used incidentally (Akram et al., 2022; Aslan & Bekereci-Sahin, 2024; Crompton et al., 2024; Son et al., 2024; Suryanto et al., 2023).

Technology use often refers to the instrumental or occasional application of digital tools, such as uploading materials to an LMS or administering online quizzes, without substantial changes to

pedagogical design. In contrast, technology integration is conceptualized as a systematic and pedagogically aligned process in which technological affordances are coherently connected with learning objectives, instructional strategies, and assessment practices (Harris et al., 2009; Mishra & Koehler, 2006). From this perspective, technology functions not as an add-on but as a mediating resource that reshapes teaching and learning.

Scholars have increasingly argued that teachers' engagement with digital technologies develops across different levels, profiles, and trajectories of competence, preparedness, and pedagogical use, rather than being reducible to a simple binary of use versus non-use (Aslan & Bekereci-Şahin, 2024; Basilotta-Gómez-Pablos et al., 2022; Cheah et al., 2025; Pan & Wang, 2025; Son et al., 2024; Wysocka-Narewska, 2024; Zhang, 2023). Lecturers' positions along this continuum are shaped by pedagogical beliefs, professional knowledge, and contextual conditions (Ertmer, 2005). The increasing adoption of AI-based tools reinforces the need to view integration as a reflective and context-sensitive process, given emerging concerns related to academic integrity and teachers' professional roles (Neupane et al., 2025).

2.2. Lecturers' Beliefs, Cognition, and Digital Pedagogical Practices

Lecturers' beliefs and cognition have been widely recognized as central to instructional decision-making and classroom practice, with teacher beliefs long understood as a complex but influential construct in explaining classroom behavior (Pajares, 1992). In language education, research has shown that teachers interpret and enact pedagogical change through evolving configurations of beliefs, prior experiences, contextual understandings, and professional learning rather than through mechanical implementation alone (Aslan & Bekereci-Şahin, 2024; Son et al., 2024; Suciwati et al., 2025; Tzagari & Armostis, 2025; Wang & Zhang, 2024; Zhang, 2023).

A consistent finding across studies is that positive beliefs about technology do not necessarily lead to corresponding classroom practices. Although lecturers may express favorable attitudes toward digital technologies and recognize their pedagogical value, actual integration often remains partial or uneven (Ertmer, 2005; Tondeur et al., 2017). This belief-practice gap highlights the complex and non-linear relationship between what teachers believe and what they do in practice, particularly in technology-mediated teaching contexts.

Research suggests that the translation of beliefs into practices is mediated by multiple factors, including teaching experience, self-confidence, and organizational context. Lecturers with greater pedagogical and technological experience tend to demonstrate higher levels of self-efficacy, enabling them to experiment with and sustain technology-enhanced practices (Harris et al., 2009; Tondeur et al., 2017). In contrast, limited experience or low confidence may result in cautious or instrumental uses of technology, even when underlying beliefs are positive. Moreover, institutional conditions - such as workload, access to resources, and the quality of professional development - play a critical role in shaping how beliefs are enacted in classroom practice (Ertmer & Ottenbreit-Leftwich, 2010).

2.3. Perceived Usefulness and Ease of Use in Technology Adoption

Perceived usefulness and perceived ease of use are widely recognized as key determinants of teachers' technology adoption decisions. Within educational contexts, perceived usefulness refers to the extent to which lecturers believe that digital tools enhance teaching effectiveness and learning outcomes, while perceived ease of use concerns the degree to which such tools are considered intuitive, manageable, and compatible with existing pedagogical practices. Research consistently shows that technologies perceived as both useful and easy to use are more likely to be adopted and sustained in classroom practice (Ertmer, 2005; Ertmer & Ottenbreit-Leftwich, 2010).

Recent studies further emphasize that simplicity, reliability, and pedagogical controllability strongly shape lecturers' acceptance of digital tools (Nagy & Dringó-Horváth, 2024; Tondeur et al., 2017). In language teaching contexts, familiar platforms such as learning management systems, presentation tools, and interactive applications are often perceived as more useful than complex systems because they support instructional goals without imposing excessive cognitive or technical demands (Harris et al., 2009).

While lecturers may acknowledge their potential pedagogical value, concerns related to accuracy, academic integrity, and loss of instructional control can reduce perceived usefulness and hinder adoption (Crompton & Burke, 2024; Neupane et al., 2025). These findings suggest that lecturers' technology adoption is guided not by technological sophistication alone, but by a pragmatic evaluation of how digital tools align with pedagogical intentions, classroom realities, and professional responsibility.

2.4. Assessment Practices in Technology-Enhanced ELT

Common practices include the use of online quizzes, digital rubrics, and technology-mediated formative feedback, which are frequently promoted for their efficiency, transparency, and ease of management (Bozkurt & Sharma, 2020; Bui et al., 2025). In contexts characterized by large class sizes and increased accountability demands, such tools are often adopted to streamline assessment processes and reduce lecturers' workload.

However, existing literature cautions against equating technological convenience with assessment quality. Although digital and AI-supported tools can streamline scoring, feedback, and instructional support, their educational value depends on pedagogical alignment, ethical assessment knowledge, and teachers' digital competence rather than efficiency alone, especially when the aim is to assess higher-order language abilities rather than surface-level performance (Giannakos et al., 2025; Lan et al., 2025; Lutsenko et al., 2023; Prato et al., 2023; Salehi et al., 2025; Zhang & Zhang, 2024). Similarly, digital rubrics and feedback platforms do not inherently promote formative learning; their pedagogical value depends on how feedback is designed, interpreted, and acted upon by learners (Ajjawi et al., 2024; Carless & Winstone, 2023).

Recent research further highlights persistent tensions between efficiency and pedagogical depth, as well as between convenience and assessment reliability in online environments (Bearman et al., 2023; Lutsenko et al., 2023). High adopters are more likely to appropriate digital assessment tools for formative and learning-oriented purposes, whereas minimal users often restrict technology use to administrative or time-saving functions. Such variation underscores that technology-enhanced assessment is not inherently transformative but is shaped by lecturers' pedagogical beliefs, assessment literacy, and contextual constraints (Ertmer, 2005; Ertmer & Ottenbreit-Leftwich, 2010).

2.5. Contextual and Institutional Influences on Technology Integration

Technology integration in ELT is shaped not only by lecturers' beliefs and competencies but also by a range of contextual and institutional conditions. At the contextual level, infrastructural quality and access to reliable internet remain foundational prerequisites for technology-enhanced teaching. Uneven infrastructure and students' unequal access to appropriate devices can constrain the scope and consistency of digital integration, particularly in non-metropolitan or resource-constrained settings (Bui et al., 2025; Nguyen et al., 2025). Workload pressures further influence lecturers' technology use, as heavy teaching and administrative demands may limit opportunities for experimentation and reflective pedagogical redesign (Ertmer & Ottenbreit-Leftwich, 2010; Nagy & Dringó-Horváth, 2024).

Institutional support plays a mediating role in how these contextual constraints are negotiated. Common forms of support include the provision of LMS and professional development workshops aimed at enhancing lecturers' digital competence (Nguyen et al., 2024). While such initiatives establish a basic foundation for technology adoption, research suggests that generic, one-size-fits-all training often falls short of fostering meaningful pedagogical integration. Without sustained, practice-oriented, and discipline-specific support, training may encourage surface-level compliance rather than transformative use (Ertmer, 2005; Harris et al., 2009).

2.6. Patterns of Technology Adoption among University Lecturers

Research suggests that lecturers' adoption of digital tools tends to follow identifiable yet fluid patterns. Previous studies commonly distinguish high adopters, emerging adopters, and minimal users according to the depth and pedagogical alignment of technology use (Ertmer, 2005; Tondeur et al., 2017; Nagy & Dringó-Horváth, 2024). These positions are better understood as points along a continuum, since lecturers may shift over time as beliefs, competencies, and institutional conditions evolve (Borg, 2003; Ertmer & Ottenbreit-Leftwich, 2010).

2.7. Research Gap and Positioning of the Present Study

Existing studies have largely adopted student-centered or survey-based approaches, with comparatively limited attention to lecturers' perspectives, particularly through qualitative inquiry (Bui et al., 2025; Tondeur et al., 2017). Moreover, much of the empirical evidence is drawn from major urban or metropolitan contexts, leaving regional settings underrepresented (Nguyen et al., 2025). Importantly, few studies have examined how lecturers' beliefs are translated into classroom practices under specific contextual and institutional constraints. Addressing these gaps, the present study adopts a lecturer-centered, qualitative approach situated in a regional Vietnamese context, foregrounding the dynamic

relationship between beliefs, practices, and contextual mediation (Borg, 2003; Ertmer & Ottenbreit-Leftwich, 2010).

3. Method

3.1. Research Design

This study adopts a qualitative design to explore how university English lecturers in the Mekong Delta translate beliefs into practices in integrating digital technologies into ELT. Consistent with teacher cognition research, this design enables context-sensitive examination of the non-linear relationship among beliefs, pedagogical practices, and contextual constraints (Borg, 2003; Ertmer & Ottenbreit-Leftwich, 2010).

3.2. Participants and Research Context

The participants were 14 university English lecturers teaching English-related courses at higher education institutions in the Mekong Delta (Table 1). Using purposive sampling, the study sought variation in teaching experience, instructional contexts, and degrees of technology use, from basic administrative use of learning management systems to more systematic pedagogical integration. All participants had at least five years of university-level teaching experience and an interest in using technology for teaching. Participants are identified by coded labels (e.g., L1, L2) to ensure confidentiality. The Mekong Delta provides a meaningful site for examining how national digitalization agendas are mediated by persistent challenges related to infrastructure, student access to devices, and workload pressures.

Table 1 Demographic Profile of Lecturer Participants (N = 14)

Variable	Category	n
Participant code	L (Lecturer)	14
Gender	Male	5
	Female	9
Teaching experience	5–10 years	5
	More than 10 years	9
Highest qualification	Master's degree	12
	Doctoral degree	2

3.3. Data Collection

Data were collected through semi-structured interviews that invited lecturers to elaborate on beliefs, practices, and experiences relevant to the research questions. The interview protocol covered six areas: technology use in ELT, digital assessment and feedback, beliefs and attitudes, perceptions of usefulness and ease of use, context-specific opportunities and challenges in the Mekong Delta, and institutional support. Interviews were conducted in Vietnamese, audio-recorded with participants' consent, transcribed verbatim, and translated into English for analysis and reporting, with care taken to preserve participants' intended meanings.

3.4. Data Analysis

The interview data were analyzed thematically through an iterative inductive-deductive process. After repeated reading of the transcripts, open codes related to beliefs, practices, perceived usefulness, assessment, contextual factors, and institutional support were generated and grouped into broader themes addressing the research questions. Constant comparison was used to identify converging and divergent patterns across participants. On the basis of cross-theme coding, participants were analytically positioned as high adopters, emerging adopters, or minimal users along a continuum rather than as fixed categories; two cases were treated as hybrid or context-contingent. Coding was conducted manually, and analytical decisions were documented to enhance transparency. Table 2 summarizes the overall group distribution derived from cross-theme coding. These positionings are analytic rather than predetermined and remain flexible in cases where participants displayed hybrid or context-contingent patterns.

Table 2 Analytic Positioning of Participants Along the Technology Adoption Continuum

Group	Participants	Positioning note
High adopters	L1–L5	Relatively stable across teaching, assessment, and beliefs
Emerging adopters	L6–L8	Generally consistent, though some variation appears across themes
Minimal users	L9–L10	Stable low-end positioning across major themes
Hybrid / context-contingent cases	L11 and L14	Selective or theme-dependent adoption rather than uniform positioning
Needs clarification	L12, L13	L12 is only explicitly minimal in institutional support; L13 is not yet clearly positioned in the current draft

3.5. Trustworthiness and Ethical Considerations

Data credibility was supported through careful transcription, systematic coding, and documented analytical decisions. Participation was voluntary, informed consent was obtained, and confidentiality was ensured through coded identifiers. Although a few participants were colleagues of one author, the analysis remained grounded in verbatim transcripts and direct quotations to reduce interpretive bias.

4. Findings and Discussion

4.1. Interview Results

The interview findings are presented thematically to address the study's research questions concerning lecturers' integration of digital technologies in English language teaching. Participant groupings are used here as analytic positionings rather than fixed typologies, and the overall positioning of participants is summarized in [Table 2](#). Although relatively stable patterns of high, emerging, and minimal adoption were identified, some lecturers displayed hybrid or context-contingent practices across themes. The six themes below therefore report both dominant adoption tendencies and cross-theme variation in how lecturers enacted digital technology integration.

4.2. Teaching Strategies and Integration Practices

Analysis of the interview data indicates a strong converging view among lecturers that digital technologies should be used to support pedagogical objectives rather than replace traditional teaching. Despite this shared understanding, clear divergence emerged in the extent and manner of integration, allowing lecturers to be implicitly grouped into high adopters, emerging adopters, and minimal users.

Lecturers identified as high adopters (Lecturers 1, 2, 3, 4, and 5) described systematic and intentional integration, often redesigning courses around blended or task-based models. Technology was embedded across instructional stages to promote interaction, collaboration, and academic skill development. One lecturer explained:

"I design my Academic Writing course as a blended model with a clear pedagogical orientation, where students prepare before class and work collaboratively during class time." (Lecturer 1)

"Technology helps me create a realistic environment, especially for students who have limited opportunities to communicate in English outside the classroom." (Lecturer 2)

In contrast, emerging adopters (Lecturers 6, 7, and 8) reported partial and experimental integration. These lecturers tended to incorporate individual tools, such as videos or quizzes, without fundamentally restructuring their teaching practices. While they noted increased student engagement, they also expressed uncertainty and limited confidence in managing technology-enhanced lessons. At the lower end of adoption, minimal users (Lecturers 9 and 10) described technology use mainly for administrative or compliance purposes, with face-to-face instruction remaining central:

"I mainly use the LMS to upload materials and grades, and I still believe face-to-face teaching is more effective." (Lecturer 9)

In general, while lecturers converged in their belief that technology could support teaching, their instructional practices diverged significantly depending on experience, confidence, and pedagogical orientation. This theme provided the clearest basis for the study's overall analytic positioning of participants, although not all lecturers aligned uniformly across every subsequent theme.

4.3. Assessment Practices

Analysis of the interview data shows a clear converging view among lecturers that digital technologies offer practical advantages for assessment, particularly in terms of efficiency, transparency, and ease of management. Most participants acknowledged that online tools helped streamline grading procedures and clarify assessment criteria for students. However, divergence emerged regarding the extent to which digital assessment contributed to deeper learning outcomes.

Lecturers identified as high adopters (Lecturers 1, 3, and 4) described diversified and formative assessment practices, including the use of digital rubrics, portfolios, and multimodal feedback. These lecturers emphasized continuous monitoring of student progress and alignment between assessment and learning objectives. One participant explained:

“Using digital rubrics helps students clearly understand assessment criteria and follow their learning progress throughout the course.” (Lecturer 4)

“I combine written and audio feedback on the LMS so that students can reflect more effectively on their strengths and weaknesses.” (Lecturer 1)

In contrast, emerging adopters (Lecturers 6 and 8) tended to rely on online quizzes mainly for convenience and time management. While recognizing their usefulness, these lecturers expressed concern about the limited capacity of such tools to assess higher-order skills. Minimal users (Lecturers 9 and 10) were more skeptical, viewing digital assessment largely as a time-saving mechanism rather than a tool for improving learning quality. One participant remarked:

“Online assessments save grading time, but I do not see a clear improvement in students’ learning quality.” (Lecturer 9)

The results highlight that while efficiency and transparency represented shared benefits, lecturers differed in their evaluation of the pedagogical depth and integrity of digital assessment practices. These differences were not merely technical but reflected varying levels of assessment literacy, particularly in lecturers’ capacity to align digital tools with higher-order language learning, formative feedback, and communicative assessment goals.

4.4. Beliefs and Attitudes Toward Technology

A strong converging theme across interviews was the belief that digital technologies have the potential to enhance English language teaching. Most lecturers expressed generally positive attitudes toward technology, acknowledging its relevance in contemporary education. However, their confidence in using technology and the strength of their beliefs varied considerably.

Lecturers classified as high adopters articulated strong pedagogical optimism, viewing technology as a means to enhance learner autonomy and engagement when used purposefully. One lecturer stated:

“I strongly believe that technology, if used properly, can enhance learning quality and support student autonomy.” (Lecturer 1)

“Technology can empower learners, but only when teachers guide students carefully and purposefully.” (Lecturer 5)

By contrast, emerging adopters (Lecturers 6, 7, and 8) expressed cautious optimism, often accompanied by self-doubt regarding their digital pedagogical competence. Minimal users (Lecturers 9 and 10) adopted a more pragmatic stance, prioritizing the teacher’s role over technological tools. This view was clearly articulated by one participant:

“The determining factor in teaching is still the lecturer, not technology.” (Lecturer 9)

These findings indicate that while positive beliefs toward technology were widespread, their classroom enactment was filtered through differing levels of confidence, pedagogical orientation, and contextual readiness.

4.5. Perceived Usefulness and Ease of Use of Digital Tools

Analysis of the interview data reveals a converging perception that ease of use plays a central role in lecturers’ acceptance of digital tools. Most participants reported that tools perceived as intuitive and user-friendly were more readily adopted, whereas complex systems discouraged experimentation.

Lecturers across adoption levels highlighted the advantages of simple and visually engaging tools. One participant commented:

"I find Canva and Kahoot very useful because they are intuitive and make the class more dynamic." (Lecturer 14)

Emerging adopters expressed satisfaction with familiar platforms such as Google Classroom, while high adopters were more willing to experiment with advanced tools, albeit selectively. Diverging views were most evident in relation to AI-based technologies, which generated both interest and concern. One lecturer stated:

"I worry about the accuracy of AI tools and their impact on academic integrity." (Lecturer 7)

The findings indicate that perceived usefulness was closely linked to simplicity, reliability, and lecturers' sense of pedagogical control, rather than to technological sophistication alone. In this sense, usefulness in ELT was evaluated not simply in technical terms but in relation to lecturers' ability to manage instruction, maintain ethical responsibility, and retain control over assessment-sensitive classroom processes.

4.6. Contextual Challenges and Opportunities

A strong converging view among participants was that contextual factors significantly influenced the integration of digital technologies. Many lecturers described students in Can Tho as cooperative and willing to participate in technology-supported activities, which was seen as a favorable condition for integration. One lecturer observed:

"Students in Can Tho are friendly and willing to cooperate in learning activities." (Lecturer 1)

Despite this positive student-related context, infrastructural constraints emerged as a major challenge across interviews. Lecturers from all adoption groups (Lecturers 4, 6, 11, and 12) reported issues related to unstable internet connections and unequal access to devices. One participant remarked:

"Not all students have suitable devices to participate effectively in online activities." (Lecturer 6)

"The technical infrastructure is sometimes unstable, which interrupts teaching." (Lecturer 4)

While these challenges affected all participants, high adopters were more likely to describe adaptive strategies, such as simplifying digital tasks or preparing backup plans, whereas emerging and minimal users viewed contextual constraints as more limiting. These accounts suggest that in the Mekong Delta, adoption was shaped not only by lecturers' beliefs but also by device inequality and infrastructural instability, which conditioned how far pedagogical intentions could be enacted in practice.

4.7. Institutional Support

Analysis of institutional support revealed both converging and diverging perspectives. A shared view among lecturers was that universities had made efforts to support technology integration, mainly through training workshops and LMS implementation. However, opinions differed regarding the effectiveness and relevance of such support.

Lecturers with higher levels of adoption (Lecturers 1, 5, and 6) viewed institutional training as a useful foundation but insufficient for sustained pedagogical change. One lecturer explained:

"The training helps me become more confident, but it is not enough for meaningful pedagogical integration." (Lecturer 1)

In contrast, minimal users (Lecturers 9, 10, and 12) perceived training as mandatory and weakly connected to their classroom realities. This view was reflected in the following comment:

"I attend training because it is required, not because it really changes my teaching." (Lecturer 10)

Notably, Lecturer 14 emphasized the need for more individualized and practice-oriented support:

"One-on-one mentoring from colleagues who are skilled in technology would be more helpful than general training sessions." (Lecturer 14)

Two participants (Lecturers 11 and 14) were better understood as hybrid or context-contingent adopters rather than as stable members of a single category. Their selective use of digital tools across teaching and assessment suggests that adoption was situated, non-linear, and dependent on specific

instructional demands rather than uniformly distributed across all aspects of practice. Collectively, while institutional support was acknowledged, lecturers emphasized the importance of sustained, collaborative, and context-sensitive professional development to facilitate effective technology integration.

5. Discussion

5.1. Shared Positive Beliefs but Divergent Pedagogical Enactments

The findings reveal a clear convergence among lecturers regarding the pedagogical potential of digital technologies, alongside substantial divergence in how such beliefs are enacted in classroom practice. Most participants endorsed the view that technology should support pedagogical objectives rather than replace teaching, echoing prior distinctions between instrumental technology use and meaningful integration (Mishra & Koehler, 2006; Harris et al., 2009). However, only a subset of lecturers demonstrated systematic pedagogical redesign, such as blended course structures or technology-mediated interaction.

This divergence substantiates the belief-practice gap widely discussed in teacher cognition research. As Borg (2003) and Ertmer and Ottenbreit-Leftwich (2010) argue, beliefs do not translate mechanically into practice; instead, they are mediated by experience, confidence, and contextual affordances. In the present study, positive beliefs often functioned as aspirational orientations rather than direct predictors of pedagogical transformation, particularly within a regional context where constraints remain salient.

5.2. Patterns of Technology Adoption as a Continuum

Lecturers' practices clustered into high, emerging, and minimal adoption, but these positions functioned as points along a continuum rather than fixed categories. What differentiated them was less access to tools than pedagogical orientation: high adopters used digital tools as resources for learning design, emerging adopters experimented cautiously, and minimal users treated technology as peripheral or compliance-driven. The hybrid cases further suggest that adoption is fluid and theme-dependent rather than uniformly stable across teaching, assessment, and institutional support (Ertmer, 2005; Tondeur et al., 2017).

5.3. Perceived Usefulness, Ease of Use, and Pedagogical Control

The analysis underscores that perceived usefulness and ease of use are central to lecturers' adoption decisions, but these constructs extend beyond technical simplicity. Lecturers consistently associated usefulness with instructional manageability, reliability, and pedagogical control, rather than technological sophistication per se. Tools perceived as intuitive and controllable were more readily adopted, particularly by emerging adopters.

Ambivalence toward AI-based technologies illustrates this dynamic. Although lecturers recognized AI's pedagogical potential, concerns regarding accuracy, academic integrity, and loss of instructional control reduced perceived usefulness (Neupane et al., 2025). In this ELT context, usefulness extended beyond technical efficiency to include pedagogical control, ethical judgment, and assessment integrity.

5.4. Digital Assessment: Efficiency Versus Learning Quality

Assessment was the domain in which tensions between efficiency and pedagogical depth were most visible. While lecturers valued digital assessment for transparency and workload reduction, only high adopters used rubrics and multimodal feedback in more formative ways; emerging and minimal users relied mainly on quizzes for convenience. This supports research showing that technology-enhanced assessment is not inherently formative: its value depends on assessment literacy and on how tools are aligned with learning objectives, feedback design, and communicative goals (Bearman et al., 2023; Cui et al., 2022; Fitriyah et al., 2022; Mekheimer, 2025; Ngo & Vo, 2024; Carless & Winstone, 2023).

5.5. Contextual and Institutional Mediation of Technology Integration

Contextual factors, particularly infrastructural instability and unequal student access to devices, significantly shaped lecturers' practices. In the Mekong Delta context, these findings suggest that adoption was mediated not only by lecturers' beliefs but also by device inequality, unstable infrastructure, and forms of training that were sometimes experienced more as compliance requirements than as pedagogically transformative support. While all participants acknowledged these constraints, high adopters described adaptive strategies, whereas emerging and minimal users perceived them as limiting.

This supports prior findings that contextual challenges interact with teacher confidence and experience rather than exert uniform effects (Ertmer & Ottenbreit-Leftwich, 2010).

Institutional support, including LMS implementation and training workshops, was widely recognized but critically evaluated. Participants viewed one-size-fits-all training as insufficient for sustained pedagogical change, echoing concerns that generic professional development may encourage surface-level adoption (Ertmer, 2005; Harris et al., 2009). The call for individualized, practice-oriented support highlights the need to reconceptualize institutional support as ongoing capacity building rather than episodic training provision.

Importantly, this suggests that institutional support structures cannot be evaluated solely by their availability but by their capacity to mediate teachers' sense-making and pedagogical agency. By foregrounding assessment literacy and pedagogical control as mediating dimensions of perceived usefulness, this study extends existing technology adoption models in ELT.

5.6. Implications

The findings have theoretical, pedagogical, institutional, and policy implications. They reinforce teacher cognition frameworks by showing that beliefs, practices, and contextual constraints interact dynamically; suggest that professional development should be discipline-specific and practice-oriented; and indicate that universities and policy makers should account for contextual variability rather than assume uniform classroom implementation.

5.7. Limitations and Directions for Future Research

This study is limited by its qualitative scope and regional focus and therefore does not support broad generalization. Future research could adopt comparative, mixed-methods, or longitudinal designs to examine technology adoption across regions, institutions, and changing conditions, including the growing influence of AI and institutional support.

6. Conclusion

This study examined how university English lecturers in the Mekong Delta translate beliefs into practices in integrating digital technologies into English language teaching. The findings show that although lecturers generally hold positive views toward digital technologies, their classroom practices vary considerably. Such variation is shaped not only by beliefs, but also by pedagogical orientation, confidence, assessment literacy, and contextual constraints.

The study contributes to teacher cognition research by showing that technology adoption is better understood as a continuum rather than as fixed categories. It also highlights that meaningful integration depends less on tool availability than on lecturers' ability to align digital affordances with instructional and assessment goals. In this respect, tensions between efficiency and pedagogical depth remain central, particularly in technology-enhanced assessment.

At the institutional level, the findings suggest the need for sustained, practice-oriented, and context-sensitive professional development, especially in regional contexts where infrastructural instability and student-device inequality continue to affect classroom implementation. As AI-mediated transformation expands in higher education, it will likely intensify existing tensions among innovation, pedagogical control, and assessment integrity, making context-sensitive teacher development increasingly necessary.

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Declarations

Author contribution : All authors collaboratively contributed to the research. The collaboration covered all stages of the research, including identifying the research problem, designing the research

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