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EFL LECTURERS' READINESS FOR DIGITAL TRANSFORMATION IN ASSESSMENT: A CASE STUDY IN A NORTHERN VIETNAMESE UNIVERSITY

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Abstract: As digital transformation reshapes higher education, integrating technology into assessment has become a strategic priority. Yet the readiness of English as a Foreign Language (EFL) lecturers to adopt digital assessment remains a key concern, particularly in institutions undergoing policy-driven reform. This study investigates the readiness of 27 EFL lecturers at a public university in northern Vietnam, where institutional support for digital transformation was perceived as moderate but lacked practical guidelines. Grounded in the Digital Competence Framework for Educators (DigCompEdu) and the Unified Theory of Acceptance and Use of Technology (UTAUT), the research examines four dimensions: knowledge, confidence, experience, and belief in effectiveness. Using a mixed-methods design, the study found that lecturers recognized the pedagogical value of digital assessment and demonstrated strong conceptual knowledge but had low confidence and limited practical experience. Institutional barriers such as unclear policies and insufficient training constrained adoption, while peer mentoring emerged as a key enabler. The findings highlight the need for sustained professional development and clearer local guidelines and ongoing support effective digital transformation.

Keywords: EFL lecturers' digital readiness, digital assessment, higher education digital transformation, teacher professional development

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MỨC ĐỘ SẴN SÀNG CỦA GIẢNG VIÊN TIẾNG ANH ĐỐI VỚI CHUYỂN ĐỔI SỐ TRONG HOẠT ĐỘNG KIỂM TRA, ĐÁNH GIÁ: NGHIÊN CỨU TRƯỜNG HỢP TẠI MỘT TRƯỜNG ĐẠI HỌC MIỀN BẮC VIỆT NAM

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Tóm tắt: Khi chuyển đổi số đang định hình lại giáo dục đại học, việc tích hợp công nghệ vào hoạt động kiểm tra, đánh giá trở thành định hướng chiến lược quan trọng. Tuy nhiên, mức độ sẵn sàng của giảng viên tiếng Anh (EFL) trong việc áp dụng đánh giá số vẫn là vấn đề đáng quan tâm, đặc biệt trong bối cảnh các trường đang triển khai chính sách đổi mới. Nghiên cứu này° khảo sát 27 giảng viên tiếng Anh tại một trường đại học công lập ở miền Bắc Việt Nam, nơi mức độ hỗ trợ thể chế được đánh giá là trung bình nhưng thiếu cơ chế thực hiện cụ thể. Dựa trên Khung năng lực số dành cho nhà giáo (DigCompEdu) và Lý thuyết hợp nhất về việc chấp nhận và sử dụng công nghệ (UTAUT), nghiên cứu xem xét bốn khía cạnh: kiến thức, sự tự tin, kinh nghiệm và niềm tin vào hiệu quả của đánh giá số. Kết quả cho thấy giảng viên nhận thức rõ giá trị sư phạm của đánh giá số và có hiểu biết khái niệm tương đối tốt, song còn hạn chế về tự tin và kinh nghiệm thực hành. Các rào cản chủ yếu gồm chính sách chưa rõ ràng, thiếu đào tạo thực hành và hạ tầng chưa ổn định, trong khi hỗ trợ đồng nghiệp được xem là yếu tố thúc đẩy quan trọng. Nghiên cứu nhấn mạnh nhu cầu phát triển chuyên môn liên tục và chính sách đồng bộ nhằm thúc đẩy việc tích hợp đánh giá số hiệu quả và bền vững.

Từ khóa: mức độ sẵn sàng về công nghệ của giảng viên tiếng Anh, đánh giá số, chuyển đổi số trong giáo dục đại học, phát triển chuyên môn cho giảng viên

1. Introduction

The rapid advancement of digital technologies has transformed higher education worldwide, offering new possibilities for enhancing teaching, learning, and assessment. Among these innovations, digital assessment, defined as the integration of information and communication technologies (ICT) into evaluative practices, has become a vital component of educational modernization, particularly in English as a Foreign Language (EFL) instruction. By enabling timely feedback, automated grading, and diverse assessment formats, digital assessment supports learner-centered approaches aligned with 21st-century competencies (Redecker, 2017). However, the effectiveness of digital assessment is not determined solely by the availability of technology. A critical factor lies in educators' readiness to adopt and apply digital tools in pedagogically meaningful ways (Ertmer & Ottenbreit-Leftwich, 2010).

In this study, readiness for organisational change is conceptualised, following Armenakis et al. (1993), as an individual's cognitive state that precedes support for or resistance

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to change, shaped by five cognitions: discrepancy, appropriateness, efficacy, principal support, and personal valence. These dimensions position readiness as both the motivation to embrace change and the confidence to enact it. In higher education, lecturers' readiness to diffuse blended learning is shaped chiefly by technology infrastructure, resource support, and management strategies (Chen et al., 2022), indicating that readiness strengthens when staff value the change, feel capable, and perceive organisational support.

To explain how such readiness translates into technology-enhanced teaching practice, this study integrates two complementary frameworks. The Unified Theory of Acceptance and Use of Technology (UTAUT) (Venkatesh et al., 2003) clarifies behavioural mechanisms underpinning adoption, whereby performance expectancy and personal valence relate to perceived benefits, effort expectancy and efficacy reflect feasibility, social influence aligns with principal support, and facilitating conditions represent organisational enablers. Meanwhile, the Digital Competence Framework for Educators (DigCompEdu) (Redecker, 2017) outlines the pedagogical and technological competences required to operationalise readiness in practice. Together, these frameworks link cognitive readiness, behavioural intention, and digital competence, offering a coherent basis for examining lecturers' readiness for digital assessment.

In Vietnam, national education policies have strongly promoted digital transformation in higher education, emphasizing the integration of digital tools in teaching and assessment (Tran, 2023). However, how such policies translate into practice remains underexplored. Public universities, especially those in less developed regions, continue to face infrastructural limitations, inconsistent institutional support, and insufficient professional training (Pitt et al., 2022). While previous studies have addressed teachers' general digital competence (Hung, 2016; Redecker, 2017), few have examined how EFL lecturers understand, experience, and apply digital assessment in their actual teaching contexts. This gap is critical because readiness is shaped not only by access to technology but also by pedagogical beliefs, prior experience, and the institutional environment that either facilitates or constrains digital integration (Nguyen, 2022; Ertmer & Ottenbreit-Leftwich, 2010).

Although readiness concerns lecturers' cognitive, affective, and competence-based capacity to adopt digital assessment, it does not develop in isolation. Institutional and contextual conditions influence how lecturers build the knowledge, confidence, experience, and beliefs required to embrace such change. Examining these conditions is therefore essential to understanding not only individual readiness levels but also the extent to which the organisational context supports or restricts the development of readiness.

In this context, this study explores EFL lecturers' readiness for digital assessment at a public university in northern Vietnam through UTAUT and DigCompEdu. Specifically, the study addresses the following research questions:

1. To what extent are EFL lecturers at a public university in northern Vietnam ready for digital assessment across the dimensions of knowledge, confidence, experience, and belief in its effectiveness?

2. How do lecturers' knowledge, confidence, prior experiences, and beliefs about the effectiveness of digital assessment manifest in their perceived readiness to adopt it?

3. What institutional and contextual factors support or hinder the development of lecturers' readiness for digital assessment?

By adopting a mixed-methods approach, the study contributes empirical evidence to the limited body of research on digital assessment in Vietnam. The findings aim to inform more

practical institutional support and professional learning for EFL lecturers.

2. Literature Review

2.1. Digital Transformation in Language Assessment

Digital transformation in language assessment refers to the meaningful integration of digital technologies into the design, implementation, and evaluation of assessment practices. Rather than merely converting paper-based tests into online formats, digital transformation entails a fundamental rethinking of assessment aligned with 21st-century learning principles, emphasizing personalization, formative feedback, and learner autonomy (Redecker & Johannessen, 2013). It promotes multimodal assessment through tools such as learning management systems (LMS), e-portfolios, automated scoring systems, and learning analytics (Heitink et al., 2016). These tools enable dynamic data collection and real-time feedback, fostering more student-centered and process-oriented approaches.

However, technology alone does not guarantee better assessment. Effective digital assessment requires educators to develop digital assessment literacy, encompassing understanding of validity, reliability, fairness, and feedback in tech-mediated contexts (Schildkamp et al., 2020). The COVID-19 pandemic accelerated digital assessment globally but also exposed inequities and implementation gaps, including limited teacher preparedness, infrastructural challenges, and ethical concerns around integrity and data privacy (Bond et al., 2021; Eaton, 2020). Emerging research has also highlighted the growing influence of AI in assessment design and feedback delivery, yet teacher involvement in shaping these tools remains limited (Zawacki-Richter et al., 2019).

Overall, digital transformation in assessment requires systemic alignment across policy, pedagogy, and professional development. Without adequate institutional support and sustained training, technology-enhanced assessment risks reinforcing traditional summative practices rather than fostering authentic and equitable learning.

2.2. Digital Assessment in the Vietnamese Higher Education Context

Vietnam has actively pursued digital transformation in higher education through national strategies led by the Ministry of Education and Training (MOET), which emphasize the integration of information and communication technologies (ICT) across teaching, learning, and assessment (Tran, 2023). These initiatives aim to enhance educators' digital competence, expand access to online learning platforms, and foster innovation in assessment practices. However, while national policies strongly advocate digital transformation, implementation at the institutional level remains uneven. Public universities, particularly those in less urbanized regions, continue to face infrastructural constraints, unstable internet connectivity, limited funding, and fragmented professional development opportunities (Pitt et al., 2022).

Existing studies indicate that EFL lecturers generally hold positive attitudes toward digital assessment but lack the confidence and pedagogical guidance needed to use such tools effectively (Nguyen, 2022). Their readiness is influenced by multiple factors: access to digital tools, digital self-efficacy, pedagogical orientation, and the institutional climate that either supports or constrains innovation (Nguyen et al., 2024). Yet empirical evidence on how these factors interact remains scarce. Most studies in Vietnam focus on technology-enhanced learning broadly rather than on the specific challenges of assessment, leading to limited understanding of how lecturers design, implement, and reflect on digital assessment practices in higher education.

This gap highlights the need for localized, discipline-specific studies that examine

teachers' readiness not only as a technical issue but also as a pedagogical and contextual phenomenon. Such research can help align institutional practices with national digital transformation agendas and inform more effective professional development models tailored to the realities of Vietnamese higher education.

2.3. Teachers' Readiness for Digital Transformation

Teachers' readiness for digital transformation is a multifaceted construct encompassing digital literacy, pedagogical beliefs, self-efficacy, and openness to innovation. It reflects the interaction between internal dispositions, such as attitudes, motivation, and confidence, and external conditions, including infrastructure, access to technology, and professional training (Ertmer & Ottenbreit-Leftwich, 2010). In English as a Foreign Language (EFL) education, readiness extends beyond technical proficiency to include pedagogical competence in designing and evaluating technology-enhanced assessments that ensure validity, reliability, and learner engagement (Brookhart, 2024).

Although many teachers express positive attitudes toward technology, research consistently reveals a gap between intention and practice, particularly in developing contexts (Howard et al., 2021; Pozas et al., 2022). In Vietnam, this gap is often amplified by limited infrastructure, fragmented institutional support, and short-term training programs that do not foster sustained pedagogical development (Nguyen, 2022). Even when EFL lecturers show interest in digital assessment, their readiness remains constrained by contextual barriers and a lack of ongoing, practice-oriented professional learning (Nguyen et al., 2024).

Teachers' pedagogical beliefs are a major determinant of how technology is used. Those with constructivist orientations tend to integrate digital tools for formative, interactive, and student-centered purposes, while traditional beliefs often result in superficial or compliance-driven adoption (Tondeur et al., 2017). Hence, readiness should be viewed not as a static individual trait but as a dynamic and context-sensitive process shaped by institutional culture and collaborative practices.

Research on assessment for learning (Heitink et al., 2016) also highlights that experiential and collaborative learning environments foster pedagogical and digital competence. Peer collaboration and mentoring further enhance teachers' confidence and practical skills in implementing technology-based assessment (Fang et al., 2021). Without such systemic and sustained support, readiness may remain fragmented, limiting meaningful and innovative uses of digital assessment in higher education.

Overall, while digital transformation has advanced globally, teachers' readiness remains uneven and context-dependent. In Vietnam, infrastructural constraints, inconsistent institutional strategies, and insufficient professional development continue to hinder deeper integration. Few studies have combined behavioral models of technology adoption with competence-based frameworks to analyze this complexity. Addressing this gap, the present study integrates the UTAUT to explain behavioral and contextual factors, and the DigCompEdu to evaluate pedagogical and technical competences. Together, these frameworks provide a comprehensive lens for examining EFL lecturers' readiness for digital assessment within Vietnam's higher education context.

3. Methodology

3.1. Research Design

This study adopted a convergent mixed-methods design (Creswell & Plano Clark, 2018)

to explore EFL lecturers' readiness for digital assessment from both quantitative and qualitative perspectives. Quantitative and qualitative data were collected in parallel, analyzed independently, and then merged during interpretation to achieve triangulation and complementarity. The mixed-methods approach was selected not to achieve statistical generalization but to capture the complexity of readiness as a multidimensional and context-sensitive construct, combining measurable patterns with in-depth insights into lecturers' perceptions and experiences.

3.2. Participants and Sampling

Participants included 27 in-service English language lecturers from a public university in northern Vietnam. They represented diverse ages (26–54), teaching experience (2–30 years), and qualifications (22 MAs, 5 PhDs). The sample was selected using convenience sampling, appropriate for exploratory studies in specific institutional contexts (Etikan et al., 2015). This approach enabled access to participants directly involved in EFL assessment under shared institutional policies and infrastructure. While the sample size limits generalizability, it provides valuable insight into context-specific patterns of readiness and barriers to digital assessment adoption. For a summary of participants' demographic characteristics, see Table 1.

Table 1

Participants' Demographic Information

Participant	Gender	Age	Years of experience	Highest degree earned	Formal digital assessment training
P1	F	52	28	PhD	No
P2	F	34	11	MA	No
P3	F	54	30	MA	No
P4	F	51	27	PhD	No
P5	F	35	13	MA	No
P6	F	35	12	MA	No
P7	F	27	5	MA	Yes
P8	F	35	12	MA	No
P9	F	30	7	MA	No
P10	F	38	16	PhD	No
P11	F	29	6	MA	Yes
P12	F	28	5	MA	No
P13	F	30	7	MA	No
P14	F	40	18	PhD	No
P15	M	34	10	MA	No
P16	F	34	10	MA	Yes
P17	M	36	13	MA	No
P18	F	30	6	MA	No
P19	M	30	7	MA	Yes

P20	F	24	2	BA	No
P21	F	26	4	MA	No
P22	F	33	8	MA	No
P23	F	39	17	PhD	No
P24	F	32	8	MA	No
P25	F	31	8	MA	Yes
P26	M	27	2	MA	No
P27	F	49	26	MA	No

3.3. Data Collection

3.3.1. Digital Assessment Readiness Scale (DAR Scale)

The Digital Assessment Readiness (DAR) Scale was developed with reference to the DigCompEdu framework (Redecker, 2017) and the UTAUT (Venkatesh et al., 2003). It included 20 items across four dimensions:

Knowledge – familiarity with digital tools and principles of validity, reliability, and fairness;

Confidence – perceived ability to design, manage, and troubleshoot digital assessments;

Experience – prior training, use, and experimentation with digital assessment;

Belief in effectiveness views on its pedagogical value, efficiency, and level of institutional support.

All items were rated on a five-point Likert scale (1 = *Strongly Disagree*, 5 = *Strongly Agree*).

Three specialists in educational technology and assessment reviewed the scale for content relevance and clarity. A brief cognitive check with three lecturers was then conducted to ensure item wording and contextual fit. These lecturers did not take part in the main study. A few minor wording changes were made before data collection. Internal consistency was examined using Cronbach's alpha and mean inter-item correlations (MIIC), which is suitable for small samples (N = 27). Subscale alphas ranged from .78 to .85, and MIIC values were within the recommended .15–.50 range (Briggs & Cheek, 1986), suggesting that the items held together reasonably well for an exploratory study.

3.3.2. Semi-structured Interviews

To complement the survey and better understand how lecturers interpreted and applied digital assessment, semi-structured interviews were carried out with five volunteers. The interview guide drew on the same four DAR dimensions and on recent literature about digital pedagogy in higher education. Interviews were conducted individually by a member of the research team, either in person or via Zoom, between January and February 2024. Each interview lasted 30–45 minutes. With participants' permission, the conversations were audio-recorded and transcribed verbatim. The semi-structured format allowed space for lecturers to describe their experiences and the contextual factors that shaped their readiness.

3.4. Data Analysis

A mixed-methods analytical approach was adopted. Quantitative data were analyzed using SPSS version 26 to calculate means, standard deviations, and Pearson correlation coefficients across the four readiness dimensions. Given the small sample (N = 27), the

correlations are reported as exploratory patterns rather than for statistical generalisation. Interview transcripts were analysed thematically, following Braun and Clarke's (2006) approach. After repeated readings of the transcripts, initial codes were generated and then grouped into broader themes linked to the four readiness dimensions. Themes were refined through comparison across cases to identify common patterns and noteworthy exceptions. Coding was carried out manually by the researcher, which allowed close engagement with the data. The two data sets were compared during interpretation to identify where survey patterns aligned with or diverged from interview insights. This helped explain not only the level of readiness reported in the survey, but also how lecturers understood and experienced digital assessment in practice.

4. Findings

4.1. Overall Readiness of EFL Lecturers (RQ1)

Descriptive results showed variation in lecturers' readiness across the four measured dimensions (see Table 2). Participants reported the strongest agreement regarding their belief in the effectiveness of digital assessment (M = 4.23, SD = 0.63) and demonstrated relatively high levels of knowledge of digital assessment principles and tools (M = 3.93, SD = 0.66). In contrast, confidence in implementing digital assessment (M = 3.03, SD = 0.87) and their prior experience with applying digital assessment in practice (M = 2.62, SD = 0.96) were considerably lower. This indicates that although lecturers possess conceptual awareness and recognise the pedagogical value of digital assessment, their previous hands-on engagement with digital assessment and their confidence to implement it remain limited.

Table 2

Descriptive Statistics for Digital Assessment Readiness Dimensions

Dimension	Mean (M)	Standard deviation (SD)
Knowledge of digital assessment	3.93	0.66
Confidence in performing digital assessment	3.03	0.87
Experience with digital assessment	2.62	0.96
Belief in the effectiveness of digital assessment	4.23	0.63

Note. N = 27. Higher scores indicate higher levels of readiness.

Taken together, these results portray a readiness profile in which cognitive and attitudinal readiness is relatively strong, but experiential readiness is limited. In other words, most lecturers seem open to and aware of the value of digital assessment, yet many have not had enough hands-on practice to feel confident or to apply it consistently. The following sections examine each dimension in more detail to show how knowledge, confidence, experience, and beliefs shape lecturers' readiness for digital assessment.

4.2. Manifestation of Readiness Dimensions (RQ2)

To address RQ2, survey and interview data were triangulated to examine how lecturers' knowledge, confidence, prior experiences, and beliefs about the effectiveness of digital assessment reflect their readiness to adopt it. A thematic analysis of interview transcripts, supported by quantitative patterns from the survey, generated four themes aligned with the dimensions of the DAR scale. The subthemes were derived through inductive coding of interview data, where initial codes were clustered into meaningful patterns within each

dimension to illustrate how readiness was manifested in lecturers' perceptions and practices (see Table 3).

Table 3

Themes and Subthemes of EFL Lecturers' Perceptions of Digital Assessment

Theme	Subthemes	Illustrative Focus Areas
Knowledge	Surface-level vs. Conceptual knowledge	Tool familiarity, understanding of validity and fairness
Confidence	Tool-specific confidence; Peer learning	Using LMS, troubleshooting, learning through colleagues
Experience	Formal vs. informal exposure	Institutional reform, lack of systematic training
Belief in effectiveness	Pedagogical value; Limitations	Timely feedback, student engagement, challenges in assessing creativity

4.2.1. Perceived Knowledge of Digital Assessment

Survey data indicated relatively strong knowledge of digital assessment (M = 3.93, SD = 0.66), with high awareness of validity, reliability, and fairness (M = 4.10, SD = 0.68) and familiarity with platforms such as Moodle and Google Forms (M = 3.85, SD = 0.72). However, interviews revealed that lecturers' understanding often remained surface-level. While all five interviewees were able to describe basic tool functions, only a few demonstrated conceptual understanding of digital assessment principles. One participant noted, "*I can create a quiz on Google Forms, but I'm not sure if it really assesses higher-order thinking skills*" (T1). Another reflected, "*I know the idea of formative assessment, but applying it digitally is still confusing to me*" (T2). In contrast, two lecturers who had some prior exposure to assessment-related workshops expressed deeper awareness: "*Digital assessment is not just about tools; it's about aligning them with learning objectives and validity principles*" (T3). This pattern suggests that while tool familiarity is widespread, pedagogical integration remains uneven.

4.2.2. Confidence in Using Digital Tools

Confidence was moderate (M = 3.03, SD = 0.87). Most lecturers expressed comfort with basic LMS operations but were less confident in managing technical or procedural issues during online testing. "*I can post assignments easily, but when it comes to creating online quizzes, I'm afraid something will go wrong*" (T2). Another shared, "*Sometimes I avoid digital tests because the system or internet might fail*" (T4). A common pattern among participants was that confidence developed informally, often through peer support rather than formal training. "*I learned by watching my colleague set up an online quiz and then tried to do the same*" (T3). This reflects the role of peer mentoring as a substitute for institutionalized training, where lecturers relied on observation and imitation to build practical confidence.

4.2.3. Experience with Digital Assessment

Experience was the lowest-rated dimension (M = 2.62, SD = 0.96). None of the five interviewees had received formal, in-depth training in digital assessment design. Most described their experience as emerging in response to the university's recent push for digital transformation. "*We were encouraged to use digital tools for assessment, but there was little hands-on guidance*," said one (T5). Another shared, "*I started experimenting with online quizzes because our faculty was asked to modernize our assessment methods*" (T1).

Such experiences were self-initiated and context-driven, reflecting individual

adaptation rather than structured institutional planning. Lecturers often learned by trial and error, relying on colleagues for support. As a result, their digital assessment practices remained fragmented and exploratory, rather than systematic or research-informed.

4.2.4. Belief in Effectiveness of Digital Assessment

Despite limited experience and confidence, lecturers maintained a strong belief in the pedagogical potential of digital assessment (M = 4.23, SD = 0.63). They appreciated its efficiency, flexibility, and capacity to increase student engagement. "*Digital assessment helps me give feedback faster, and students enjoy seeing their scores immediately*," said one lecturer (T2). Another observed, "*Students seem more motivated when we use online quizzes or multimedia tasks*" (T4).

Nonetheless, participants expressed concerns about its suitability for evaluating complex or creative skills, such as writing or speaking. "*Digital platforms are convenient for quizzes, but they can't fully capture creativity or language production,*" explained one (T3). Others raised issues of academic integrity and technical reliability, which sometimes limited their willingness to rely heavily on digital methods.

Overall, the findings suggest that while lecturers' belief in the value of digital assessment is consistently high, this attitudinal readiness does not automatically translate into confident implementation. Positive beliefs appear to provide motivation and openness to adoption, yet their impact remains conditional on factors such as digital competence, hands-on experience, and institutional support. In this sense, belief serves as an enabling but not sufficient dimension of readiness. The interactions between belief and other readiness components are explored further in the subsequent section.

4.2.5. Interrelationships Between Readiness Dimensions

To further understand how the four dimensions collectively shaped lecturers' readiness for digital assessment, Pearson correlation coefficients were computed (Table 4). All correlations were positive and statistically significant, indicating that the dimensions were interdependent rather than functioning as discrete elements of readiness.

Table 4

Correlations Among Digital Assessment Readiness Dimensions (N = 27)

Dimension	1	2	3	4
1. Knowledge	—	.52**	.38*	.41*
2. Confidence	.52**	—	.49**	.46**
3. Experience	.38*	.49**	—	.33*
4. Belief in effectiveness	.41*	.46**	.33*	—

*Note. *p < .05; *p < .01.*

Dimensions: 1 = Knowledge; 2 = Confidence; 3 = Experience; 4 = Belief in the effectiveness of digital assessment.

In this sample, confidence showed the strongest associations with the other dimensions, suggesting that feeling capable of using digital assessment may play a key role in translating knowledge, prior exposure, and positive beliefs into perceived readiness. This aligns with the survey and interview results, where several lecturers noted that understanding digital tools did not necessarily mean they felt confident enough to use them in class.

Although experience was positively correlated with all dimensions, these relationships

were comparatively weaker (r = .33 to .49). Together with the descriptive results showing experience as the lowest-rated dimension (M = 2.62), this points to limited hands-on practice as a key factor preventing knowledge and belief from developing into confidence and actual implementation. Interview data reinforced this point, with lecturers frequently describing trial-and-error approaches and limited structured opportunities to practise (Section 4.2.3), which constrained confidence building.

The moderate association between knowledge and belief ($r = .41$, $p < .05$) suggests that lecturers with a sound understanding of digital assessment are also more likely to recognise and value its pedagogical benefits. However, the stronger correlations with confidence than with experience indicate that cognitive and attitudinal readiness alone are insufficient for behavioural readiness to emerge without meaningful opportunities for practice and capability development.

Overall, the pattern of relationships suggests that readiness evolves through a progressive and reinforcing process: valuing the benefits of digital assessment motivates lecturers to acquire knowledge; knowledge provides a foundation for experimentation; and practical experience enhances confidence, which supports sustained implementation. This is broadly aligned with Armenakis et al.'s (1993) conceptualisation of readiness as a multidimensional state comprising efficacy, valence, and perceived support.

4.3. Institutional and Contextual Factors Shaping Readiness (RQ3)

The third research question examined the institutional and contextual conditions that support or hinder the development of lecturers' readiness for digital assessment. Thematic analysis of interview data, triangulated with relevant survey findings, identified four categories of external factors that influence how lecturers build the knowledge, confidence, experience, and beliefs necessary for readiness (Table 5).

Table 5

Institutional and Contextual Factors Influencing Lecturers' Readiness for Digital Assessment

Category	Subcategory
Institutional support	Lack of guidelines; Unclear policies
Infrastructure/access	Unstable internet; Lack of devices/software
Professional development	One-off training; Limited pedagogical focus
Peer learning culture	Informal mentoring; Learning by observation

4.3.1. Institutional Support and Policy Clarity

Survey data indicated moderate institutional support (M = 3.44, SD = 0.84). However, interviews revealed that this support lacked concrete guidelines, leading to fragmented implementation. For example, one lecturer noted: "*We are encouraged to use digital assessment, but there are no written guidelines or standards*." (T3). This policy ambiguity weakened institutional consistency and left lecturers reliant on individual interpretation.

4.3.2. Infrastructure and Access

Technological challenges were consistently reported as barriers. Unstable internet connections and inadequate access to institutional devices constrained adoption. As T4 explained: "*My classroom doesn't have a stable internet connection, so online tests are out of the question."* Reliance on personal devices or 4G subscriptions created inequities and further reduced lecturers' confidence in applying digital assessment.

4.3.3. Professional Development

Training opportunities were available but often described as sporadic, tool-focused, and lacking pedagogical depth. This limited professional development was consistent with low scores in the "experience" dimension (M = 2.62, SD = 0.96). One lecturer summarized this gap: "*The training was helpful in theory, but I still don't know how to apply it to my assessments*." (T2). These findings highlight the need for structured, practice-based, and ongoing professional development.

4.3.4. Peer Learning and Informal Collaboration

Despite limited formal training, peer learning emerged as an important facilitator. Informal mentoring and observation enhanced confidence and practical readiness. As T5 reflected: "*Watching my colleague set up an online test gave me the confidence to try it myself*." Such grassroots collaboration filled institutional gaps and provided lecturers with situated, tool-specific support.

Taken together, these themes illustrate how institutional and individual-level conditions interact to shape lecturers' readiness. Findings from RQ3 reveal a dual landscape of constraints and opportunities. Institutional barriers, such as vague guidelines, inadequate infrastructure, and insufficient training, significantly constrain lecturers' readiness for digital assessment. Conversely, peer-driven learning and self-initiated experimentation emerged as important enablers, enhancing confidence and tool-specific competence. These results underscore the need for institutional investment not only in systemic support (clearer policies, sustainable infrastructure, structured training) but also in fostering grassroots, collaborative capacity building. The following section discusses these results in light of existing literature and considers their implications for policy and practice.

5. Discussion

This study examined the readiness of EFL lecturers at a Vietnamese university to implement digital assessment, drawing on the UTAUT (Venkatesh et al., 2003) and the DigCompEdu (Redecker, 2017). The findings reveal a nuanced readiness landscape: lecturers expressed strong conceptual support for digital assessment but demonstrated lower confidence and limited hands-on experience, indicating a gap between pedagogical intention and practice.

Quantitative results showed an uneven readiness profile. Lecturers reported strong belief in the effectiveness of digital assessment (M = 4.23) and relatively high knowledge of tools and principles (M = 3.93), but lower confidence (M = 3.03) and experience (M = 2.62). This pattern suggests that while performance expectancy was high, a key construct in UTAUT, other factors such as effort expectancy and facilitating conditions were less developed. In practical terms, lecturers understood the benefits of digital assessment but lacked confidence and institutional support to implement it effectively.

Qualitative findings help explain this imbalance. Lecturers frequently used tools like Google Forms and Moodle but often at a basic level, with limited attention to core assessment principles such as validity, reliability, and fairness. This supports earlier findings that technical familiarity alone does not translate into pedagogically sound digital practice (Schildkamp et al., 2020). Confidence was also tied more closely to peer collaboration and self-directed learning than to formal institutional training. This reflects Ertmer and Ottenbreit-Leftwich's (2010) argument that meaningful technology adoption depends on both individual dispositions and contextual enablers.

Correlation analysis revealed significant associations among knowledge, confidence, and experience, underscoring that readiness dimensions are interdependent. Providing structured opportunities for experimentation and reflection could therefore yield synergistic gains across these domains. Within the DigCompEdu framework, lecturers in this study demonstrated competence in foundational areas, such as using digital resources, but were less confident in advanced domains like assessment design, learner empowerment, and professional engagement.

Institutional and infrastructural challenges remained key barriers. Despite strong national-level policies promoting digital transformation (Pitt et al., 2022), local implementation suffered from unclear operational guidelines, unstable internet connectivity, limited devices, and fragmented professional development. These correspond to weak facilitating conditions in UTAUT, constraining lecturers' ability to act on their positive beliefs. Nonetheless, peer mentoring and grassroots experimentation emerged as critical enablers, helping lecturers build confidence through experiential and collaborative learning, an approach shown to foster both pedagogical and digital competence (Heitink et al., 2016; Fang et al., 2021).

Overall, the findings affirm that digital assessment readiness is not simply about access to technology or positive attitudes. It represents an interdependent construct encompassing knowledge, confidence, experience, and contextual support. Conceptual alignment with UTAUT and DigCompEdu underscores the need for multidimensional strategies that build competence, strengthen confidence, and ensure supportive institutional ecosystems. Practically, universities should invest not only in digital infrastructure but also in sustained, context-sensitive professional development, clear assessment policies, and peer-learning communities. Ultimately, digital assessment represents not just a technological innovation but a transformation of pedagogical and institutional practice.

6. Conclusion

This study explored EFL lecturers' readiness to implement digital assessment in a Vietnamese higher education context, revealing a persistent gap between perceived value and practical capability. While lecturers recognized the pedagogical benefits of digital tools, their confidence and hands-on experience were constrained by infrastructural limitations, unclear institutional guidance, and insufficient professional development. These findings reaffirm that readiness is a multidimensional construct that extends beyond technical familiarity, requiring robust institutional support, sustained training, and a sound pedagogical foundation. Guided by UTAUT and DigCompEdu, the study emphasizes that effective adoption arises from the interplay of individual motivation, organizational conditions, and perceived ease of use. To foster readiness, institutions should establish clear and consistent policies, ensure reliable access to infrastructure, and provide ongoing, practice-oriented professional development. Peer mentoring and collaborative learning can further strengthen lecturers' confidence and support the meaningful integration of digital assessment. Ethical dimensions such as fairness and inclusivity must also be central in both policy and pedagogy. The study is limited by its small sample size and single-institution scope, which restrict generalizability. Future research should expand to larger and more diverse contexts, adopt longitudinal designs, and include multiple stakeholders to capture a more holistic view of digital assessment readiness. Overall, enhancing lecturers' readiness requires systemic investment not only in technology but also in people, practices, and cultures of collaboration, ensuring that digital assessment becomes a sustainable and equitable part of higher education.

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