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INTEGRATING DIGITAL TOOLS IN EFL CLASSROOMS: TEACHERS' PRACTICES

Hidayatul Badi'ah[1], Yudhi Arifani[2]
Department of English Education, Universitas Muhammadiyah Gresik, Indonesia

Corresponding author's email: elkholilmh@gmail.com

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bstract: This study investigates EFL teachers' practices and experiences in integrating digital tools into classroom instruction. An explanatory sequential mixed-methods design was employed, consisting of a quantitative survey followed by qualitative semi-structured interviews. The survey involved thirty EFL teachers from secondary schools, with varying years of teaching experience and levels of digital proficiency. Quantitative findings indicate that teachers frequently utilize learning management systems (M = 3.5), multimedia resources (M = 3.4), and interactive applications (M = 3.3) to support student engagement and language learning. However, lower mean scores were observed in areas related to advanced digital pedagogy and tool integration (M = 3.0), suggesting uneven implementation. Qualitative analysis of interview data revealed several key themes: (1) the perceived benefits of digital tools in enhancing student motivation and interaction, (2) challenges related to limited technical skills and training, (3) infrastructural constraints such as unreliable internet access, and (4) time limitations affecting lesson preparation and tool integration. The findings suggest that effective digital integration in EFL classrooms depends not only on the availability of technological tools but also on teachers' competencies, pedagogical beliefs, and institutional support. The study concludes that sustained professional development and supportive educational policies are essential to promote meaningful and sustainable use of digital tools in language teaching.
Keywords: *digital tools integration; EFL teachers; technology-enhanced language learning; teachers' practices; professional development.*

INTRODUCTION

The rapid advancement of digital technologies has profoundly transformed educational practices worldwide, particularly in English as a Foreign Language (EFL) contexts. Digital tools are no longer perceived as supplementary resources but have become integral to facilitating authentic learning, fostering learner autonomy, and supporting interactive and student-centered environments. The widespread adoption of learning management systems, multimedia resources, mobile applications, and more recently artificial intelligence (AI)-driven tools has significantly reshaped language teaching and learning processes (Bond et al., 2023; Godwin-Jones, 2024; Chen & Hwang, 2024). This transformation, accelerated by the expansion of online and blended learning, underscores the growing importance of effective digital pedagogy in ensuring the quality and relevance of EFL education in the digital era (OECD, 2023; Bond, 2024).

Despite the increasing availability of digital technologies, their pedagogical effectiveness is not inherently guaranteed. The successful integration of digital tools depends largely on teachers' competencies, pedagogical beliefs, and the institutional contexts in which they operate. Previous research consistently highlights that teachers are often expected to adopt digital technologies without adequate training, time, or infrastructural support, resulting in uneven and sometimes superficial implementation (Trust & Whalen, 2023; Scherer et al., 2023; Ertmer & Ottenbreit-Leftwich, 2023). In many educational contexts, particularly in developing systems, persistent challenges such as limited internet access, insufficient professional development, and heavy workloads continue to hinder meaningful technology integration (Philipsen et al., 2023;

UNESCO, 2023). These issues indicate that the presence of technology alone is insufficient; rather, how it is used pedagogically is of greater significance.

A growing body of research in Computer-Assisted Language Learning (CALL) and Mobile-Assisted Language Learning (MALL) provides important insights into the role of digital tools in language education. Studies suggest that while digital technologies are widely used for instructional delivery—such as presenting materials and assigning tasks—they are less frequently employed to promote interaction, collaboration, and communicative competence (Kessler & Hubbard, 2023; Lai & Zheng, 2024; Hubbard, 2023). Consequently, digital tools often reinforce traditional teacher-centered practices instead of transforming learning into a more interactive and student-centered process (Stickler, 2023; Hampel, 2024). This gap highlights a critical disconnect between technological availability and pedagogical innovation in EFL classrooms.

Another central theme in the literature concerns teacher competence, particularly within frameworks such as Technological Pedagogical Content Knowledge (TPACK). Effective technology integration requires not only technical proficiency but also the ability to align technological tools with pedagogical objectives and subject content (Mishra et al., 2023; Redecker & Punie, 2022). However, recent studies indicate that teachers often develop operational technological skills more rapidly than pedagogical strategies for meaningful integration, leading to an imbalance between technical and instructional competence (Tondeur et al., 2023; Scherer et al., 2024; Instefjord & Munthe, 2024). This imbalance suggests that the challenge of digital integration lies not merely in access or skill acquisition, but in the pedagogical transformation of teaching practices.

Beyond individual competence, institutional and contextual factors play a crucial role in shaping teachers' digital integration practices. Access to reliable infrastructure, leadership support, and sustained professional development opportunities have been identified as key determinants of successful technology integration (Philipsen et al., 2023; Darling-Hammond et al., 2023). However, existing research often examines these factors in isolation, rather than as interconnected elements within a broader educational ecosystem (Zhao, 2023). Moreover, many studies rely predominantly on either quantitative or qualitative approaches, limiting the ability to capture both generalizable patterns and contextual complexities in teachers' experiences (Bond et al., 2023; Trust, 2024).

Given these limitations, a significant research gap remains in understanding how EFL teachers integrate digital tools in practice while simultaneously navigating issues of competence and institutional support within specific educational contexts. There is a clear need for studies that adopt integrated and mixed-methods approaches to explore not only what teachers do, but also why they do it and how contextual factors influence their practices (Scherer et al., 2023; Zawacki-Richter et al., 2023). Addressing this gap is particularly important in underrepresented contexts, where digital transformation may be shaped by unique infrastructural and socio-cultural conditions.

To address this gap, the present study investigates EFL teachers' practices in integrating digital tools within classroom instruction, focusing on the interplay between digital competence, pedagogical alignment, and institutional support. Specifically, the study is guided by the following research questions: (1) How do EFL teachers integrate digital tools in their classroom practices? (2) To what extent do teachers' digital competence and institutional support align? and (3) What contextual challenges affect sustainable digital integration in EFL education?

This study contributes to the existing literature in several ways. Theoretically, it advances understanding of digital pedagogy by proposing an integrated perspective that connects teacher practices, competence, and contextual factors. Methodologically, the use of an explanatory sequential mixed-methods design enables a comprehensive analysis that combines general trends with in-depth contextual insights (Creswell & Plano Clark, 2023). Practically, the findings provide valuable implications for designing professional development programs that emphasize not only technical skills but also pedagogical strategies for meaningful technology use (Tondeur et al., 2023; Falloon, 2023). From a policy perspective, the study offers evidence-based insights for developing more effective institutional support systems to promote sustainable and equitable digital integration in EFL education (Philipsen et al., 2024; OECD, 2023).

METHOD

This study employed an explanatory sequential mixed-methods design, in which quantitative data were collected and analysed first, followed by qualitative data to explain and elaborate on the

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initial results. This design allows for a comprehensive understanding of EFL teachers' digital tool integration by combining broad numerical trends with in-depth contextual insights (John W. Creswell & Vicki L. Plano Clark, 2018).

In the first phase, a survey was administered to identify patterns in teachers' digital practices, attitudes, competencies, and challenges. In the second phase, semi-structured interviews were conducted with selected participants to provide deeper explanations of the quantitative findings. Integration occurred during interpretation by connecting and merging both datasets.

The participants were EFL teachers working at primary, secondary, and tertiary levels in formal educational settings. Quantitative phase: A total of 30 EFL teachers completed the survey. Participants were recruited using convenience sampling, based on accessibility and willingness to participate. And qualitative phase: 6 teachers were purposively selected from the survey respondents using maximum variation sampling (e.g., differing levels of digital tool use, teaching experience, and institutional context) to ensure diverse perspectives.

This combination of sampling strategies enabled both general pattern identification and in-depth exploration of individual experiences (Michael Quinn Patton, 2015).

Survey Instrument (Quantitative Phase). The survey consisted of six sections: (a) demographic information, (b) digital tool usage (CALL & MALL), (c) digital pedagogical competence, (d) attitudes toward digital integration, (e) challenges and institutional support, and (f) gamification practices.

All items used a 5-point Likert scale. Validity and Reliability: The instrument was adapted from previous validated studies on technology integration in language education and reviewed by two experts in EFL pedagogy to ensure content validity. A pilot test was conducted with 10 EFL teachers, and revisions were made for clarity.

Reliability analysis using Cronbach's alpha showed acceptable internal consistency: Digital Tool Usage: $\alpha = 0.82$; Digital Competence: $\alpha = 0.85$; Attitudes: $\alpha = 0.88$; Challenges & Support: $\alpha = 0.80$; Gamification: $\alpha = 0.83$.

All values exceeded the recommended threshold of 0.70, indicating good reliability (Lee J. Cronbach, 1951; updated guidance in Hair Jr. et al., 2019).

Interview Instrument (Qualitative Phase). A semi-structured interview guide was used to explore: Teaching context and experience; CALL and MALL practices; Digital pedagogy and teacher roles; Gamification practices; Challenges and institutional support; Reflections and recommendations.

Each interview lasted approximately 30–45 minutes and allowed flexibility for probing deeper insights.

Data were collected in two sequential phases. In the quantitative phase, the survey was distributed online using Google Forms. Participation was voluntary, and respondents were given sufficient time to complete the questionnaire, and. In the qualitative phase, follow-up interviews were conducted with selected participants via video conferencing or face-to-face meetings. All interviews were audio-recorded with consent and transcribed verbatim.

Integration occurred at the interpretation stage, where qualitative findings were used to explain and contextualize quantitative results.

Quantitative data were analysed using IBM SPSS Statistics (Version XX). The following techniques were applied: Descriptive statistics (means, standard deviations, frequencies), Reliability analysis (Cronbach's alpha), Descriptive statistics (means, standard deviations, and frequencies) were used to identify patterns in teachers' digital integration practices.

These analyses identified patterns and relationships in teachers' digital integration practices (Discovering Statistics Using IBM SPSS Statistics, 2018).

Interview data were analysed using thematic analysis following the six-step framework by Virginia Braun and Victoria Clarke (2021): Data familiarization, Initial coding, Theme development, Theme review, Theme definition, and Interpretation.

To enhance trustworthiness: Two coders independently analysed the data, Inter-coder agreement was discussed and refined, Member checking was conducted with participants to validate interpretations.

Integration was achieved through: Connecting: Survey results informed interview sampling, Building: Interview questions were developed from quantitative findings, and Merging: Results were compared and discussed together.

This approach enabled a comprehensive interpretation and strengthened the validity of findings (Creswell & Plano Clark, 2018).

RESULT AND DISCUSSION

Quantitative results

A total of N = thirty EFL teachers completed the survey. All items were measured on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree).

Table 1. *Descriptive statistics for the main variables.*

Variable	Mean	SD
Digital tool usage	4.12	0.56
Digital competence	3.78	0.64
Attitudes toward integration	4.25	0.49
Institutional support	3.21	0.71
Challenges	3.67	0.68

The results indicate that teachers reported high levels of digital tool usage (M = 4.12, SD = 0.56) and positive attitudes toward digital integration (M = 4.25, SD = 0.49). Digital competence was moderately high (M = 3.78, SD = 0.64), while institutional support received a comparatively lower mean score (M = 3.21, SD = 0.71). Challenges related to digital integration were also reported at a moderate level (M = 3.67, SD = 0.68).

Qualitative results

Semi-structured interviews were conducted with n = 6 participants. Thematic analysis generated four key themes:

Theme 1: functional use of digital tools

Most teachers reported using digital tools primarily for content delivery rather than interaction.

"I mostly use PowerPoint and videos to explain the material, but not much for student interaction." (Participant 3)

Theme 2: Limited Interactive Pedagogical Practices

Although teachers were aware of interactive tools, their implementation remained limited.

"I know there are tools for discussion and collaboration, but I'm not always sure how to use them effectively." (Participant 6)

Theme 3: Gap Between Technical and Pedagogical Competence

Teachers expressed confidence in using technology but uncertainty in designing meaningful learning activities.

"I can use many applications, but designing engaging activities is still challenging." (Participant 5)

Theme 4: Institutional and Contextual Constraints

Participants highlighted infrastructure, training, and time as major barriers.

"Sometimes the internet is unstable, and we don't have enough training to use new tools properly." (Participant 2)

These themes provide deeper insights into the quantitative findings, particularly the discrepancy between high usage and limited pedagogical transformation.

This study examined EFL teachers' digital tool integration through both quantitative and qualitative data, revealing several important patterns.

First, the quantitative results indicate that teachers demonstrate high levels of digital tool usage and positive attitudes, which aligns with recent research highlighting increasing acceptance of educational technologies (e.g., Tondeur et al., 2023; Bond et al., 2022). However, qualitative findings clarify that this usage is largely functional rather than pedagogically transformative, as teachers primarily use digital tools for content delivery.

This supports previous studies suggesting that technology integration often reinforces traditional teaching practices rather than transforming them (Kessler & Hubbard, 2023; Chapelle & Sauro, 2022).

Second, while teachers reported moderate-to-high levels of digital competence, interview data revealed a gap between technical skills and pedagogical application. This finding is consistent with frameworks such as TPACK, which emphasize that effective technology integration requires the alignment of technological, pedagogical, and content knowledge (Mishra et al., 2023; Redecker & Punie, 2022).

Third, institutional support emerged as a critical factor. The relatively lower mean score for institutional support, combined with qualitative evidence of limited infrastructure and training, suggests that contextual constraints significantly influence digital integration. This finding aligns with prior research emphasizing the role of organizational and contextual factors in shaping technology use (Kukulska-Hulme, 2020; Tondeur et al., 2023).

Towards an Interpretive Framework of Digital Integration. Based on the integration of quantitative and qualitative findings, this study proposes an interpretive framework consisting of three interconnected dimensions: Functional Use – the extent to which digital tools are used for basic instructional purposes; Pedagogical Alignment – the degree to which technology supports interactive and communicative learning; and, Contextual Support – the institutional and

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infrastructural conditions enabling effective integration.

Importantly, this framework is not presented as a direct empirical finding, but as an interpretive synthesis of the data. The imbalance observed across these dimensions helps explain why digital tool integration often remains superficial despite positive teacher attitudes.

Implications, the findings suggest that improving digital integration requires: Targeted professional development focusing on pedagogy (not just tools), Stronger institutional support systems, and A shift toward student-cantered, interactive learning design

CONCLUSION

This study reveals a critical misalignment between the widespread adoption of digital tools and their pedagogically meaningful use in EFL classrooms. Although teachers report frequent engagement with technology, its application remains largely instrumental, with limited evidence of transformative or student-cantered practices. This imbalance suggests that technological access alone is insufficient and, without parallel development in pedagogical competence, risks reinforcing traditional, teacher-cantered instruction in digital form.

By foregrounding this pedagogy–technology gap, the study contributes to ongoing debates in technology-enhanced language learning, emphasizing that effective integration requires more than technical proficiency. It calls for a fundamental reorientation toward pedagogically driven technology use, where instructional goals, teacher expertise, and contextual conditions are systematically aligned.

The implications are clear and pressing. Professional development initiatives must move beyond technical training and prioritize the development of digital pedagogical competence. At the same time, institutional commitment is essential; without sustained support in the form of infrastructure, time, and policy alignment, efforts to promote meaningful integration are unlikely to succeed.

Nevertheless, the study is constrained by its reliance on self-reported data and the absence of direct classroom observation and learner perspectives, which limits the ability to capture the complexity of actual practice.

Future research should adopt more rigorous and context-sensitive approaches, including classroom-based investigations and longitudinal designs, to examine how digital pedagogical competence evolves over time. Greater attention should also be given to the role of institutional and systemic factors in shaping, enabling, or constraining meaningful technology integration across diverse educational contexts.

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