



Digital Competence among EFL Teachers: A Review of Challenges and Developmental Needs

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Abstract

This literature review examines digital competence among English as a Foreign Language teachers (EFL), focusing on its conceptual foundations, challenges, developmental needs, improvement strategies, and changing teacher roles in digital education. The review highlights that digital competence extends beyond basic technical skills to include the ability to select, evaluate, create, and integrate digital technologies effectively, critically, ethically, and pedagogically. The literature identifies several factors that may hinder EFL teachers' digital competence, including limited technological knowledge, insufficient professional training, low confidence, inadequate infrastructure, time constraints, difficulties in integrating technology with language pedagogy, and the rapid development of emerging technologies. The increasing use of artificial intelligence has further expanded teachers' professional responsibilities and created new needs related to AI literacy, ethical awareness, data privacy, and academic integrity. The review also emphasizes that EFL teachers increasingly function as learning facilitators, designers of digital learning experiences, managers of online environments, digital assessors, and guides for responsible technology use. To address existing challenges, the study recommends continuous professional development, EFL-specific digital training, practical experience, collaborative learning, reflective practice, AI literacy, and strong institutional support. Overall, digital competence should be viewed as a continuous process of professional growth that enables EFL teachers to adapt to technological change and enhance language teaching and learning in contemporary educational contexts across diverse educational settings.

Keywords: Digital competence; EFL teachers; Digital education; Professional development; Artificial intelligence.

1. Introduction

The rapid development of digital technologies has significantly transformed contemporary education, influencing the ways in which teachers deliver instruction, interact with learners, design learning materials, and assess academic performance. The expansion of online learning, learning management systems, mobile applications, multimedia resources, virtual communication platforms, and artificial intelligence has made technology an increasingly important component of educational practice. In English as a Foreign Language (EFL) education, digital technologies provide teachers with diverse opportunities to create interactive and flexible learning environments and to support the development of learners' listening, speaking, reading, and writing skills. However, the effective use of these technologies depends not only on their availability but also on teachers' ability to select, evaluate, adapt, and integrate them appropriately into their pedagogical practices.

Digital competence has therefore become an essential requirement for teachers in contemporary educational environments. It extends beyond basic technical skills and includes the ability to use digital technologies effectively, critically, creatively, safely, and responsibly. For EFL teachers, digital competence involves a combination of technological, pedagogical, and subject-specific knowledge. Teachers are expected to identify appropriate digital resources, design technology-enhanced learning activities, facilitate online interaction, provide digital feedback, conduct technology-supported assessment, and address ethical issues associated with the use of digital tools. Consequently, possessing access to technological resources does not necessarily guarantee effective technology integration, as teachers also need the knowledge and confidence required to connect technology with meaningful language learning objectives.

The rapid emergence of new technologies has further expanded the professional demands placed on EFL teachers. Online and blended learning environments require teachers to manage digital classrooms, maintain learner engagement, facilitate communication, and provide effective feedback through technology. At the same time, emerging technologies, particularly artificial intelligence and generative AI, have introduced new opportunities and challenges for English language education. Teachers are increasingly expected to understand the educational potential and limitations of AI-based tools while also addressing issues related to digital ethics, data privacy, copyright, academic integrity, and responsible technology use. These developments suggest that

digital competence should be viewed as a dynamic and continuously developing set of knowledge and skills rather than a fixed collection of technical abilities.

Professional development plays a central role in supporting EFL teachers in responding to these changing technological demands. However, the literature suggests that effective professional development should extend beyond short-term or general technology workshops. Teachers require continuous, practical, and context-specific training that enables them to integrate digital technologies into their particular teaching environments. For EFL teachers, this includes professional development related to digital language learning resources, online communication, multimedia instruction, digital assessment, technology-supported feedback, mobile-assisted language learning, and emerging AI applications. Collaborative learning, peer support, mentoring, and communities of practice may also contribute to the continuous development of teachers' digital competence.

Therefore, this literature review aims to examine the concept and importance of digital competence among EFL teachers, with particular attention to the challenges that affect its development and implementation. The review also explores the professional and developmental needs identified in the literature and discusses strategies that may support the effective integration of digital technologies into English language teaching. By synthesizing existing research, the study seeks to contribute to a broader understanding of how EFL teachers can be better prepared to respond to the opportunities and demands of digital education.

2. Conceptualizing Digital Competence

Digital competence has become an increasingly important concept in contemporary education because of the rapid integration of digital technologies into teaching, learning, assessment, communication, and professional practice. Although the terms *digital competence*, *digital literacy*, *ICT competence*, and *technological competence* are sometimes used interchangeably, digital competence generally represents a broader concept. It involves not only the technical ability to operate digital devices and software but also the capacity to use digital technologies effectively, critically, creatively, safely, ethically, and responsibly in different contexts (Falloon, 2020). Thus, digital competence should be understood as a combination of knowledge, skills, attitudes, and professional practices that enable individuals to participate effectively in digitally mediated environments.

Within education, teachers' digital competence extends beyond basic technological knowledge. Effective teachers must be able to select appropriate digital resources, evaluate their educational value, design technology-enhanced learning activities, facilitate digital communication and collaboration, and use technology to support assessment and feedback. UNESCO (2018) emphasized that teachers' competencies in information and communication technologies are closely connected to educational objectives, curriculum, pedagogy, professional development, and the effective use of digital technologies in teaching and learning. Therefore, digital competence is not simply concerned with whether teachers can operate a particular technological tool; it also concerns whether they can integrate that tool meaningfully into their professional practice (Karrar et al., 2026).

A useful perspective for understanding teachers' digital competence is provided by the Technological Pedagogical Content Knowledge (TPACK) framework. Mishra and Koehler (2006) argued that effective technology integration requires an interaction among three major forms of teacher knowledge: technological knowledge, pedagogical knowledge, and content knowledge. Technological knowledge refers to an understanding of digital tools and their functions, pedagogical knowledge concerns the principles and strategies used to support learning, and content knowledge relates to teachers' understanding of the subject they teach. The intersection of these forms of knowledge enables teachers to make informed decisions about how technology can be used to support specific learning objectives.

Digital competence also involves critical and ethical dimensions. Teachers increasingly work in digital environments that require awareness of issues such as data privacy, cybersecurity, copyright, responsible communication, and the evaluation of online information. Falloon (2020) argued for a broader understanding of teacher digital competence that moves beyond narrow conceptions focused primarily on technical and information skills (Ibrahim et al., 2026). This broader perspective recognizes the need for teachers to function ethically, safely, and productively in complex digital environments. Such competencies have become particularly significant with the increasing use of social media, online learning platforms, cloud-based technologies, and artificial intelligence in education.

Furthermore, digital competence is influenced by contextual factors. Teachers' ability to develop and apply digital competence may depend on access to technological resources, institutional

support, professional development opportunities, previous experience, confidence, and the specific demands of their teaching contexts. UNESCO's ICT Competency Framework for Teachers recognizes the importance of developing teachers' competencies through systematic training and capacity-building initiatives that can be adapted to national and institutional contexts (UNESCO, 2018). Therefore, the development of digital competence should not be considered solely an individual responsibility; educational institutions also play an essential role by providing appropriate infrastructure, training, resources, and professional support.

3. Digital Competence in EFL Teaching

Digital competence plays a central role in contemporary EFL teaching because digital technologies have expanded the ways in which language is taught, practiced, assessed, and experienced. In EFL contexts, digital competence involves more than the ability to operate computers, mobile devices, or online platforms (Hmouma, 2024). It includes teachers' capacity to select appropriate technologies, integrate them into pedagogical practices, create and adapt digital learning materials, facilitate interaction, assess learners, and use technology critically and responsibly.

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development of language skills. DigCompEdu consequently shifts attention away from technology as an end in itself and emphasizes its pedagogically meaningful use in educational practice.

Digital technologies provide EFL teachers with a wide range of resources for supporting the development of the four language skills as well as vocabulary and grammar. Multimedia materials, online videos, podcasts, interactive exercises, mobile applications, digital games, and web-based resources can expose learners to authentic and diverse forms of language use. The use of digital resources also requires teachers to move beyond simple access and consumption. Educators should be able to select, create, modify, manage, protect, and share digital resources in ways that support teaching and learning (Redecker, 2017). In EFL classrooms, this may involve adapting authentic materials, developing multimedia activities, creating interactive exercises, and organizing digital resources to support vocabulary development, reading comprehension, writing, listening, and speaking. Such practices require teachers to combine technological knowledge with an understanding of language pedagogy and learners' needs.

From a TPACK perspective, teachers must consider the relationship among technology, pedagogy, and content when selecting digital tools for EFL instruction (Mishra & Koehler, 2006). A particular technology may be technically effective but pedagogically inappropriate if it does not support the intended language-learning outcome (Benarose & Hmouma, 2026). Therefore, EFL teachers need to make informed decisions about which technologies are suitable for particular language skills, learning objectives, and student characteristics. Recent research on online and blended language teaching similarly emphasizes the importance of integrating technological, pedagogical, and content knowledge when designing digital learning experiences for EFL students (Arriyani et al., 2025).

UNESCO (2018) emphasized that teachers' ICT competencies are connected to multiple aspects of professional practice, including curriculum, pedagogy, assessment, organization, and continuous professional development. The framework also recognizes that teacher competence must evolve in response to emerging technologies and changing educational environments. However, effective digital assessment requires more than transferring traditional assessment activities to an online platform. Teachers need to understand how digital technologies can be used to collect evidence of learning, analyze student performance, provide timely feedback, and support learner progress (Alsaeh et al., 2026). Assessment is consequently identified as a major area of

educator digital competence within DigCompEdu (Redecker, 2017). For EFL teachers, this competence can contribute to more flexible and interactive approaches to assessing language development.

UNESCO's ICT Competency Framework for Teachers recognizes the growing importance of emerging technologies, including artificial intelligence and mobile technologies, in educational environments (UNESCO, 2018). Therefore, contemporary EFL teachers require a dynamic form of digital competence that enables them to adapt to technological change, evaluate new tools, and determine whether and how these tools can contribute to meaningful language learning. Nevertheless, the successful use of these technologies depends on teachers' ability to design purposeful activities and guide learners effectively (Redecker, 2017). Digital competence, therefore, includes pedagogical decision-making regarding when technology should be used, how learners should interact with it, and how digital activities can contribute to specific language-learning outcomes.

4. Challenges Affecting Digital Competence among EFL Teachers

Despite the increasing importance of digital technologies in education, the development and effective application of digital competence remain challenging for many EFL teachers. The integration of technology into language teaching requires more than access to computers, mobile devices, or online platforms. Teachers need a combination of technological knowledge, pedagogical understanding, subject-specific expertise, confidence, and institutional support. Consequently, the development of digital competence may be influenced by individual, pedagogical, technological, and contextual factors.

Digital competence involves a broad range of abilities, including information management, communication, collaboration, digital content creation, safety, and problem-solving. Teachers who have limited experience in these areas may find it difficult to integrate technology effectively into their instructional practices (Redecker, 2017). Similarly, Falloon (2020) argued that teacher digital competence should not be reduced to basic technical literacy because effective participation in digital educational environments requires broader professional knowledge and critical understanding. Therefore, limited technological knowledge can restrict teachers' ability to select, evaluate, adapt, and use digital resources for meaningful language learning (Klella & Mrghem, 2024). The technological Pedagogical Content Knowledge (TPACK) framework emphasizes that

effective technology integration requires the interaction of technological, pedagogical, and content knowledge (Mishra & Koehler, 2006). In EFL education, teachers must determine how specific digital tools can support the development of vocabulary, grammar, reading, writing, listening, and speaking. They must also consider learners' proficiency levels, learning needs, and the objectives of particular lessons. When teachers lack the ability to connect technology with language pedagogy, digital tools may be used primarily for presentation or communication rather than for meaningful learning.

Research on teacher professional development suggests that effective development is more likely when learning opportunities are sustained, collaborative, practical, and connected to teachers' classroom practices (Darling-Hammond et al., 2017). For EFL teachers, professional development should therefore address not only how digital tools operate but also how they can support language learning, communication, assessment, feedback, and learner engagement. Without continuous and context-specific training, teachers may struggle to keep pace with rapidly changing technologies. Teacher self-efficacy is particularly important because teachers who believe that they can use technology successfully may be more willing to integrate it into their teaching. Conversely, limited confidence may contribute to the avoidance of digital tools, even when those tools are available. Ertmer and Ottenbreit-Leftwich (2010) emphasized that teachers' beliefs and self-efficacy play an important role in determining whether technology is meaningfully integrated into classroom practice. Therefore, developing digital competence requires attention to both teachers' practical skills and their confidence in using technology.

Ertmer (1999) distinguished between external barriers, such as limited resources, time, training, and technical support, and internal barriers, including teachers' beliefs and attitudes. Although access to technology has improved in many educational institutions, infrastructure-related challenges remain important, particularly in contexts where internet connectivity, technical support, and digital resources are limited. These external conditions can significantly affect EFL teachers' opportunities to develop and practice digital competence. Time constraints can also discourage teachers from adopting new technologies, particularly when they perceive the learning process as demanding or when the educational benefits are uncertain. Ertmer (1999) identified time as one of the external barriers that can affect teachers' efforts to integrate technology. Consequently, the development of digital competence requires institutional recognition of the

additional workload associated with technology integration and the provision of sufficient time and support for teachers.

Falloon (2020) argued that teachers' digital competence must be understood as an evolving set of capabilities that enables them to respond to changing technological environments. For EFL teachers, this means that competence cannot be achieved through one-time training alone. Instead, teachers require continuous learning opportunities that allow them to evaluate emerging technologies and determine how they can be used appropriately to support language teaching and learning. Teachers may encounter difficulties related to evaluating the accuracy of AI-generated information, identifying bias, protecting student data, addressing academic integrity concerns, and determining appropriate levels of AI use in educational activities. UNESCO (2023) highlighted the importance of developing human-centered approaches to the use of generative AI in education and emphasizes the need for teacher capacity building, ethical awareness, and appropriate institutional guidance.

The DigCompEdu framework identifies digital resources and learner empowerment as important dimensions of educators' digital competence, emphasizing the need for teachers to use digital technologies responsibly and safely (Redecker, 2017). However, teachers may lack sufficient training in these areas, particularly when professional development focuses mainly on technical skills. This creates a gap between the increasing use of digital technologies and teachers' preparedness to address their ethical and social implications. Ertmer and Ottenbreit-Leftwich (2010) argued that meaningful technology integration requires support beyond individual teachers' knowledge and motivation. Institutional culture, leadership, professional learning opportunities, and access to appropriate resources all influence teachers' ability to use technology effectively. Therefore, improving digital competence among EFL teachers requires a comprehensive approach that addresses both individual developmental needs and the institutional conditions in which teachers work.

5. Developmental and Professional Needs of EFL Teachers

The increasing integration of digital technologies into education has created new professional demands for EFL teachers. As technology continues to influence teaching methods, learning environments, assessment practices, and teacher–student communication, EFL teachers require

continuous opportunities to develop their digital knowledge and professional skills. Digital competence cannot be regarded as a fixed set of abilities acquired through initial teacher education alone. Instead, it should be understood as a dynamic professional capacity that requires continuous development in response to changing technologies and educational practices (Falloon, 2020). Therefore, identifying the developmental and professional needs of EFL teachers is essential for supporting meaningful and sustainable technology integration.

Effective professional development is generally characterized by being content-focused, collaborative, practical, sustained over time, and connected to teachers' professional contexts (Darling-Hammond et al., 2017). In the context of EFL teaching, professional development should therefore provide teachers with opportunities to explore how digital technologies can support specific aspects of language learning. Continuous training can help teachers move beyond basic technological skills toward the confident and pedagogically appropriate use of digital tools. The TPACK framework emphasizes that effective technology integration requires teachers to understand the relationships among technology, pedagogy, and content (Mishra & Koehler, 2006). Accordingly, EFL teachers need training that demonstrates how particular technologies can be connected to specific language-learning objectives.

The DigCompEdu framework emphasizes that educators require competence in areas such as digital resources, teaching and learning, assessment, learner empowerment, and facilitating learners' digital competence (Redecker, 2017). For EFL teachers, these areas can be adapted to language-specific practices, including the use of multimedia materials, online communication platforms, collaborative writing tools, digital feedback systems, and technology-supported language assessment. Consequently, EFL teachers require professional development that is relevant to the realities of language teaching rather than general training that focuses exclusively on basic computer skills. Redecker (2017) identified assessment as a major dimension of educators' digital competence. Teachers need to develop the ability to use digital technologies to collect evidence of learning, monitor student progress, provide timely feedback, and encourage learner self-assessment. In EFL education, professional development should therefore address digital approaches to assessing writing, speaking, listening, reading, vocabulary, and grammar. Teachers also need to understand the limitations of automated assessment and the importance of combining technological tools with professional judgment. UNESCO (2023) emphasized the importance of

developing human-centered approaches to generative AI and strengthening the capacity of teachers and educational institutions to use AI responsibly. Therefore, EFL teachers increasingly need AI literacy that enables them to understand the capabilities and limitations of AI systems, evaluate AI-generated content critically, and guide students in using these technologies ethically. Professional development should also help teachers determine appropriate ways of incorporating AI into language learning while maintaining human judgment, learner autonomy, and academic integrity.

Wenger (1998) explained that learning can occur through participation in communities in which individuals share common interests and engage in collective practices. In educational contexts, collaborative professional learning can help teachers experiment with new approaches, reflect on their experiences, and develop practical solutions to common challenges. For EFL teachers, peer mentoring, collaborative lesson planning, and professional learning communities may therefore support the continuous development of digital competence. Schön (1983) emphasized the importance of reflective practice in professional learning, arguing that professionals develop knowledge through reflection on their actions and experiences.

Ertmer and Ottenbreit-Leftwich (2010) argued that meaningful technology integration is influenced by teachers' knowledge and beliefs as well as by institutional factors such as resources, support, leadership, and professional learning opportunities. Therefore, institutions should establish supportive environments that allow teachers sufficient time to learn, experiment, and integrate digital technologies into their teaching practices. Institutional support is particularly important in contexts where teachers face limitations related to infrastructure, internet access, or technological resources. The DigCompEdu framework recognizes the importance of using and managing digital resources responsibly and supporting learners in developing their own digital competence (Redecker, 2017). Consequently, professional development should prepare EFL teachers to address ethical issues associated with digital technologies and to guide students toward responsible online behavior. This need has become increasingly important as AI tools and online platforms become more common in language education.

6. Strategies for Developing Digital Competence among EFL Teachers

The development of digital competence among English as a Foreign Language (EFL) teachers requires a systematic and continuous approach that goes beyond the acquisition of basic technological skills. As digital technologies become increasingly integrated into language teaching, teachers need opportunities to develop the knowledge, skills, confidence, and pedagogical understanding necessary to use technology effectively (Falloon, 2020; Mishra & Koehler, 2006). The literature suggests that successful digital competence development depends on continuous professional development, practical experience, collaboration, reflection, institutional support, and training that connects technology with specific teaching objectives.

Effective professional development is more likely to produce meaningful changes when it is sustained, collaborative, content-focused, and connected to teachers' classroom practices (Darling-Hammond et al., 2017). For EFL teachers, continuous professional development should include practical activities that demonstrate how digital technologies can support language teaching and the development of listening, speaking, reading, and writing skills. Regular training can also help teachers remain informed about emerging technologies and changing approaches to digital education.

The TPACK framework provides an important foundation for this approach. According to Mishra and Koehler (2006), effective technology integration requires an understanding of the relationship among technological knowledge, pedagogical knowledge, and content knowledge. In the context of EFL teaching, teachers should therefore be trained to consider how technology can support particular language skills and learning outcomes (Klella & Al Garaghoolee, 2026). For example, professional development may help teachers explore how digital platforms can facilitate speaking interaction, how collaborative tools can support writing, or how multimedia resources can improve listening comprehension.

The DigCompEdu framework identifies several areas of educator digital competence, including digital resources, teaching and learning, assessment, learner empowerment, and the development of learners' digital competence (Redecker, 2017). These areas can be adapted to the specific requirements of EFL education. Training programs can therefore focus on the use of digital resources for language learning, online communication tools, collaborative writing platforms, multimedia instruction, digital assessment, and technology-supported feedback.

Context-specific training is particularly important because teachers are more likely to apply new knowledge when professional development is directly related to their teaching responsibilities and classroom realities (Darling-Hammond et al., 2017). The concept of communities of practice emphasizes the importance of social interaction and shared experience in professional learning (Wenger, 1998). In EFL education, communities of practice may include teacher discussion groups, peer mentoring, collaborative lesson planning, and online professional networks. These collaborative environments can allow teachers to learn from colleagues who have different levels of digital experience and expertise.

Falloon (2020) emphasized that teacher digital competence involves a broad range of practical and professional capabilities rather than simple technical literacy. Therefore, opportunities for experimentation, problem-solving, and reflection are essential components of digital competence development. Schön (1983) highlighted the importance of reflection in professional practice, emphasizing that professionals develop their knowledge through reflection on actions and experiences. In EFL teaching, reflective digital practice may involve considering whether a digital activity increased learner engagement, supported communication, improved a particular language skill, or created unexpected difficulties. Assessment is identified as a central component of educator digital competence in the DigCompEdu framework (Redecker, 2017). EFL teachers can develop this competence through training in online quizzes, digital portfolios, collaborative assessment, electronic feedback, and other technology-supported assessment methods.

UNESCO (2023) emphasized the importance of developing human-centered and ethical approaches to the use of generative AI in education. Consequently, professional development should help EFL teachers understand how AI systems work, recognize their limitations, evaluate AI-generated content critically, and guide students toward responsible use. Ertmer and Ottenbreit-Leftwich (2010) argue that meaningful technology integration is influenced by a combination of teacher knowledge, beliefs, confidence, resources, and institutional culture. Educational institutions can therefore support EFL teachers by providing reliable technological infrastructure, access to appropriate digital tools, technical assistance, and continuous professional learning opportunities. The TPACK framework provides a useful foundation for integrating technology into teacher education because it emphasizes the relationship among technology, pedagogy, and subject content (Mishra & Koehler, 2006). Pre-service programs should therefore avoid treating

digital competence as a separate technical subject and instead integrate technology throughout language teaching methodology and classroom practice.

A culture of lifelong digital learning can be supported through regular professional development, self-directed learning, peer collaboration, online professional communities, and institutional encouragement. Falloon (2020) similarly emphasizes that digital competence represents a broad and evolving professional capacity that must respond to changing technological environments. For EFL teachers, lifelong learning is particularly important because language education is continuously influenced by new forms of digital communication, online learning, mobile technologies, and artificial intelligence. Teachers who develop habits of continuous learning and critical reflection may therefore be better prepared to respond to future technological changes.

7. The Changing Role of EFL Teachers in Digital Education

The rapid development and widespread adoption of digital technologies have significantly transformed the role of English as a Foreign Language (EFL) teachers. Traditionally, teachers have been viewed primarily as providers of knowledge and classroom instructors responsible for presenting language content, explaining grammatical structures, and evaluating students' performance. However, the growth of digital learning environments has expanded these responsibilities and requires teachers to perform a wider range of professional roles (Falloon, 2020; Redecker, 2017). In contemporary education, EFL teachers are increasingly expected to act as facilitators of learning, designers of digital materials, managers of online learning environments, providers of digital feedback, guides for responsible technology use, and mediators between learners and emerging technologies.

The integration of technology into teaching requires teachers to make informed pedagogical decisions rather than simply introduce digital tools into the classroom. The TPACK framework emphasizes that effective technology integration depends on the interaction among technological knowledge, pedagogical knowledge, and content knowledge (Mishra & Koehler, 2006). Therefore, EFL teachers must consider how particular technologies can support specific language-learning objectives and learners' individual needs. Their role as facilitators involves designing learning experiences in which students actively interact with language, digital resources, and one another.

The DigCompEdu framework identifies the selection, creation, modification, management, protection, and sharing of digital resources as important components of educators' digital competence (Redecker, 2017). For EFL teachers, this requires the ability to evaluate whether digital resources are appropriate for particular language skills, proficiency levels, and learning contexts. Teachers must also ensure that technological resources are pedagogically meaningful rather than using technology simply because it is available. As a result, the teacher's role increasingly includes instructional design and the thoughtful organization of technology-enhanced learning experiences.

The UNESCO ICT Competency Framework for Teachers emphasizes that digital technologies influence multiple areas of teachers' professional practice, including pedagogy, assessment, curriculum, organization, and professional development (UNESCO, 2018). In EFL contexts, teachers need to understand how language learning can be supported through synchronous and asynchronous communication, online collaboration, and digital interaction. They must also develop strategies for maintaining learner engagement and providing appropriate support in environments where direct face-to-face interaction may be limited. Redecker (2017) identified assessment as one of the central areas of educators' digital competence. Teachers need to understand how technology can support formative and summative assessment while maintaining fairness, validity, and reliability.

Digital competence frameworks emphasize that educators have an important role in supporting learners' responsible and critical use of technology (Redecker, 2017). In EFL education, this responsibility is particularly relevant because students may encounter large amounts of English-language information online. Teachers can help learners develop the critical skills necessary to distinguish reliable information from misinformation and to use digital resources effectively for language learning. UNESCO (2023) emphasized the importance of developing human-centered approaches to generative AI and strengthening teachers' capacity to understand and use AI responsibly. Consequently, EFL teachers are increasingly required to act as AI literacy guides who help students understand both the potential and limitations of AI technologies. This includes teaching students to evaluate AI-generated content critically, verify information, acknowledge appropriate AI use, and maintain responsibility for their own learning and academic work.

Falloon (2020) argued that teacher digital competence should include broader professional capabilities rather than being limited to technical skills. Teachers must be able to make critical decisions about technology use, recognize potential limitations, and consider ethical and social implications. In EFL education, this may involve evaluating the quality of digital language-learning materials, the accuracy of automated feedback, the reliability of AI-generated content, and the suitability of particular technologies for learners' linguistic and cultural contexts.

Teachers continue to play a central role in understanding learners' individual needs, creating supportive learning environments, motivating students, interpreting learning difficulties, and making context-sensitive pedagogical decisions (UNESCO, 2023). The growing use of artificial intelligence may therefore transform rather than eliminate the role of EFL teachers. As routine activities become increasingly supported by technology, teachers may have greater opportunities to focus on higher-level pedagogical responsibilities, including mentoring, critical thinking, creativity, communication, and learner development.

8. Recommendations

Based on the literature reviewed, several recommendations can be proposed to support the development of digital competence among EFL teachers and promote the effective integration of digital technologies into English language teaching.

Educational institutions should provide continuous and sustained professional development programs rather than relying exclusively on short-term workshops (Mishra & Koehler, 2006). Training should enable EFL teachers to update their knowledge and skills in response to rapidly changing digital technologies. Continuous professional development should include opportunities for practical application, experimentation, reflection, and follow-up support (Darling-Hammond et al., 2017; Falloon, 2020). Professional development should move beyond teaching basic technical skills. EFL teachers need support in understanding how digital technologies can be integrated with pedagogy and language content. Training programs should therefore help teachers apply digital tools to specific language-learning objectives, including the development of listening, speaking, reading, writing, vocabulary, and grammar skills.

Teacher training should be designed according to the specific needs of EFL education. General technology training may not adequately address the communicative and pedagogical requirements

of language teaching. Professional development programs should include digital language-learning resources, multimedia materials, online communication, collaborative learning, digital feedback, and technology-supported language assessment (Redecker, 2017). EFL teachers should receive training in the effective use of digital assessment and feedback tools. Professional development should address online assessment, electronic portfolios, formative assessment, automated feedback, and digital methods for monitoring learners' progress (Redecker, 2017). Teachers should also develop the ability to evaluate the validity, reliability, and educational value of technology-supported assessment practices.

As artificial intelligence becomes increasingly influential in education, EFL teachers should develop AI literacy. Training should help teachers understand the capabilities and limitations of AI tools, evaluate AI-generated content critically, and address issues related to bias, misinformation, privacy, academic integrity, and responsible use. Teachers should also be prepared to guide students in using generative AI as a learning support rather than as a substitute for independent learning (UNESCO, 2023). Educational institutions should promote collaboration among EFL teachers through peer mentoring, professional learning communities, workshops, and collaborative lesson planning (Wenger, 1998). These activities can provide opportunities for teachers to share experiences, exchange digital resources, discuss challenges, and learn from successful practices. Communities of practice can contribute to continuous professional growth and the collective development of digital competence.

EFL teachers should be encouraged to reflect regularly on their use of digital technologies. Reflective practice can help teachers evaluate whether technology contributes to learner engagement and language development and identify areas requiring improvement. Teachers can use reflective journals, peer feedback, student feedback, and self-evaluation to develop more critical and purposeful approaches to technology integration (Schön, 1983). Educational institutions should provide reliable internet access, appropriate digital devices, educational software, learning platforms, and technical assistance. Limited infrastructure can significantly restrict teachers' ability to develop and apply digital competence (Ertmer & Ottenbreit-Leftwich, 2010). Institutional investment in technological resources should therefore be accompanied by ongoing technical and pedagogical support.

Digital competence should be incorporated into EFL teacher education programs. Pre-service teachers should be provided with opportunities to design technology-enhanced lessons, evaluate digital resources, conduct online learning activities, and use digital assessment tools. Technology should be integrated throughout teacher education curricula rather than being treated as an isolated technical subject (Mishra & Koehler, 2006). Schools and universities should establish clear policies concerning the use of digital technologies and artificial intelligence in teaching and learning. These policies should provide guidance on issues such as data privacy, cybersecurity, copyright, academic integrity, and responsible AI use (UNESCO, 2023).. Clear institutional guidelines can help teachers make informed decisions and create consistent practices across educational settings.

Institutions should recognize that developing digital competence requires time. EFL teachers need opportunities to participate in training, explore new technologies, design digital learning materials, and reflect on their experiences. Reducing unnecessary workload or allocating dedicated professional development time may support teachers' engagement with continuous digital learning (Ertmer, 1999). Finally, digital competence should be viewed as a continuous process of professional growth. Because technologies continue to evolve, EFL teachers should be encouraged to engage in self-directed learning, professional networking, experimentation, and continuous reflection (Falloon, 2020). Educational institutions can support this culture by recognizing digital professional development as an essential component of teachers' long-term professional growth.

9. Conclusion

Digital competence has become an essential requirement for EFL teachers in contemporary educational environments. The increasing use of online learning platforms, multimedia resources, digital assessment tools, mobile applications, and artificial intelligence has significantly transformed the nature of English language teaching. Digital competence, therefore, extends beyond the ability to operate technological devices and includes the effective, critical, ethical, and pedagogical use of technology to support language learning.

The literature reviewed in this study indicates that EFL teachers face several challenges in developing and applying digital competence. These include limited technological knowledge and skills, difficulties in integrating technology with language pedagogy, insufficient professional training, lack of confidence, inadequate technological infrastructure, time constraints, and limited

institutional support. The rapid development of emerging technologies, particularly artificial intelligence, has also created new professional demands and increased the need for teachers to develop critical awareness and responsible approaches to technology use. The changing digital environment has also expanded the role of EFL teachers. In addition to their traditional role as language instructors, they are increasingly expected to act as facilitators of learning, designers of digital learning materials, managers of online and blended learning environments, providers of digital assessment and feedback, and guides for responsible technology use. These changing responsibilities require teachers to continuously update their technological, pedagogical, and professional knowledge. The review further demonstrates that the development of digital competence requires a comprehensive and continuous approach. Effective strategies include sustained professional development, practical and pedagogically oriented training, EFL-specific digital education, collaborative learning, reflective practice, digital assessment training, AI literacy, and institutional support. Professional development should focus not only on teaching teachers how to use technology but also on helping them integrate digital tools meaningfully into language teaching and learning.

Overall, digital competence should be regarded as a continuous process of professional growth rather than a fixed set of skills. Supporting EFL teachers in developing this competence is essential for enabling them to respond effectively to technological change and to create engaging, inclusive, and meaningful language-learning experiences. Educational institutions should therefore provide the necessary training, infrastructure, resources, and professional support to help EFL teachers use digital technologies confidently, critically, ethically, and effectively.

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