



# **Technology-Enhanced Language Teaching: A Review of Digital Pedagogical Strategies in ELT: A Systematic Review**

**Wulan Sari**

Department of English Education, Universitas Riau Kepulauan, Indonesia

[wulansariio212@gmail.com](mailto:wulansariio212@gmail.com)

**Sariyanti Nursyam**

Department of English Education, Universitas Riau Kepulauan, Indonesia

[sariyantinyam01@smk.belajar.id](mailto:sariyantinyam01@smk.belajar.id)

**SULASTRI**

**MANURUNG**

## **ABSTRACT**

Technology integration is becoming unavoidable due to the progress of teaching and learning. Digital-based learning practices have changed to meet the rapidly changing learning needs of pupils since the previous COVID-19 pandemic. The thorough literature review's primary focus is the incorporation of this technology. Because the pandemic expedited the digital transformation of education, schools and instructors had to adjust to online learning and digital technology as the main means of remote learning. This highlights how crucial it is for the current educational system to be technologically integrated and prepared. For high school English courses, the Preferred Reporting Items for Systematic Review and Meta-Analyses (PRISMA) technique is reviewed. This review considers 30 papers that were released between 2016 and 2025. They are taken from the Scopus and Google Scholar databases. Technology-based learning is employed for a variety of purposes, including social media, digital platforms and applications, and video conferencing technologies, the research states. Utilizing interactive programs,

educational videos, online learning platforms, and game-based approaches to increase student engagement are examples of digital teaching strategies in English. There is a chance that learning will become more adaptable and interesting. Low levels of digital literacy, a lack of technology resources, and insufficient teacher preparation are among the difficulties. Teachers, students, and schools will find this page useful when thinking about incorporating technology into English classrooms.

**Keywords:** Digital pedagogical strategies, language teaching, Digital Tools in ELT, Technology-enhanced, Language learning

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## Introduction

Since digital technology is developing so quickly, it will inevitably be incorporated into teaching and learning methods. Specifically, the COVID-19 pandemic has acted as a worldwide stimulant, speeding up the use of digital platforms and changing conventional teaching methods. (Kohnke & Fount, 2023). Schools and educators in Indonesia were forced to quickly adjust to online learning environments due to the abrupt shift to remote education, which demonstrated the advantages and disadvantages of digital infrastructure in the local context. (Reuben Dlamini & Fatima Makda, 2024; Rulyansah et al., 2023). The need for digital transformation has brought to light the disparities in technology preparation across institutions and educators throughout the archipelago.

The use of technology is especially important in the field of language instruction. Learning management systems (LMS), gamified apps, and AI-powered writing assistants are examples of digital tools that have been used more and more to support English Language Teaching (ELT), making instruction more accessible, personalized, and engaging. (Jumanazarova, 2025). In addition to improving student engagement, apps like Kahoot!, Quizlet, and Duolingo provide real-time feedback and situation-specific adaptive learning opportunities. (Wijaya, 2024). AI-powered tools like Grammarly and ChatGPT have also been shown to boost writing and revision autonomy, especially for intermediate to advanced students. (Bhardwaj, 2025).

As a result of attempts to localize digital learning in Indonesia, resources like GraphoGame SI, a technology-enhanced literacy platform created to help early Standard Indonesian reading acquisition, have been developed. Research indicates that GraphoGame exposure greatly enhances first-grade students' phonological awareness and decoding fluency. (Borleffs et al., 2018). According to these results, learners with weak phonological foundations can benefit greatly from the use of digital tools that are culturally and linguistically sensitive.

Digital pedagogies are still not evenly incorporated into classroom instruction, nevertheless. There are still issues, including instructors' lack of digital literacy, rural communities' restricted access to internet infrastructure, and the disconnect between curriculum goals and technology tools. (Bhardwaj, 2025). Technology is also never neutral, as highlighted, as it is influenced by and integrated into political and sociocultural contexts. This is especially important in Indonesia, as differences in implementation and access reveal more profound socioeconomic and educational inequities. (Soesanto et al., 2023).

With a focus on the use of technology in English language instruction in Indonesian secondary schools, this study offers a thorough, systematic literature analysis that is informed by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) framework in order to address these issues. We chose thirty peer-reviewed articles from sources such as Publish or Perish, Scopus, and Google Scholar that were published between 2016 and 2025. The review explores various technology-based pedagogical approaches, including gamification, mobile learning, video conferencing, and adaptive learning platforms, and assesses how well they correspond with the cognitive, affective, and psychomotor learning domains (Bhardwaj, 2025).

This study attempts to give a comprehensive overview of how digital technologies are currently used in Indonesian ELT classrooms, as well as the potential and issues that need to be addressed, by combining data from both domestic and international research. The knowledge acquired is anticipated to be helpful to educators, curriculum developers, legislators, and educational establishments looking to maximize digital integration in language acquisition in a way that is both pedagogically and contextually relevant.

Three main questions serve as a guide for the review: (1) What digital pedagogical techniques have been implemented in English Language Teaching (ELT) in the classroom, and how are these techniques applied in learning practices? (2) What are the opportunities and challenges that arise from the integration of digital pedagogical techniques in the context of English language learning at the school level?, What impact does digital innovation have on student learning outcomes and the efficacy of instruction?. By answering these questions, this study advances our understanding of technology-enhanced language instruction and guides educators, policymakers, and education leaders on how to develop digital pedagogy in the Indonesian ELT setting.

It was discovered that several different technology-based teaching strategies have been used extensively. The flipped classroom model, which gives students access to materials before in-person sessions, is collaborative Task-Based Language Teaching (TBLT) facilitated by digital tools like Google Docs, Padlet, and Kahoot. (Mulyadi et al., 2021; Muralei et al., 2025), and gamification strategies, which incorporate game elements to improve motivation and learning engagement (Jumanazarova, 2025; Ketabi, 2017). Adaptive assessment tools, ChatGPT, Grammarly, Elsa Speak, and other AI-based methods are also being used more and more to give automatic feedback, speed up task corrections, and customize materials to meet the needs of specific students. (Novawan et al., 2024; Sherov et al., 2025).

In response to your second query, there are several strategic opportunities that come with integrating digital technology into ELT. According to (Hassan Taj et al., 2017; Nicolaou et al., 2019) Giving students access to more interactive and real-world resources increases their enthusiasm to learn. Additionally, technology facilitates autonomous and adaptable learning, enabling students to learn at any time and from any location, especially through blended and mobile learning. (Ironsi, 2020). According to (Avdiel et al., 2018) and (Umar & Pujiastuti (2024) The digital method can help with active engagement and cooperation through online project-based learning, communication simulations, and synchronous and asynchronous discussions.

Regarding the third question, research from a number of studies shows that teaching innovations based on technology improve student learning results, especially in the areas of motivation, engagement, speaking proficiency, and vocabulary mastery. The use of technology can enhance cross-skill learning experiences (listening, speaking, reading, and writing) in an integrated way.(Jumanazarova, 2025; Zou et al., 2018), reinforce contextual and autonomous learning(Sherov et al., 2025)And support real-time formative assessments. (Luthfiyyah et al., 2021).

## 2 Research Method

For this systematic review, the authors employed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines. Identification, screening, eligibility, and inclusion are the four stages of the flow diagram that this study followed when examining and evaluating publications.

During the review process, these stages were carried out sequentially. Using the Scopus, Semantic Scholar, and Google Scholar databases, the evaluation process focuses on the use of technology in senior high school Indonesian language classes.

### Phase 1: Phase identification

The selected item needs to meet the pre-established requirements. First, Google Scholar and Scopus were the databases employed for this methodical literature review. These three platforms are easily accessible databases of scientific literature covering several disciplines, including conceptual studies and research findings. The publications that were extracted from these databases were released from 2016 to 2025. Search engines used English-language keywords to find the articles. The keywords correspond to the areas of emphasis displayed in Table 1.

Table 1. Search Keywords from English

|                                                                                                                                                                                                                                                    |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>English: "Digital pedagogical strategies" AND "language teaching", "Technology-enhanced" AND "language teaching", "Digital tools" AND "pedagogy", "Digital tools in ELT" AND "Language learning"</li> </ul> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Table 1 lists the search terms used to locate pertinent articles about integrating technology into senior high school English classes. The goal of using technology becomes the utilization of technological instruments and learning domains. Next, as shown in Table 2, the article was also selected using the inclusion and exclusion criteria to make sure the selected papers support the goal of this systematic literature review.

Table 2. The inclusion and exclusion criteria

| Inclusion criteria                        | Exclusion criteria                                                |
|-------------------------------------------|-------------------------------------------------------------------|
| Journal article                           | Book chapters, book, proceedings, review, and meta-analysis paper |
| Articles published between 2016 and 2025. | Articles that were not published between 2016 and 2025            |

|                                                            |                                                                                                                                 |
|------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| The integration of technology in an English language class | Articles that are not published in Indonesian                                                                                   |
| In the English language learning                           | not in the English language learning                                                                                            |
| A sample of respondents from senior high school students   | those who are not included in the sample are elementary school, middle school, kindergarten, preschool, and university students |

Table 2 demonstrates that the inclusion and exclusion criteria for this study were met by the identification method. Consequently, all articles aside from the limited ones were downloaded in their entirety.

#### Phase 2: Phase screening

Duplicate articles were eliminated from the downloaded articles when they were identified in the Scopus and Google Scholar databases. The titles and abstracts were then used to filter the articles. Based on inclusion and exclusion criteria, the abstract filtering result was read, scanned, and chosen once again. Read the abstract with an emphasis on the review to ascertain the article's relevancy.

#### Phase 3: Including the phase

Unselected articles from the screening phase were removed after the eligibility phase's article sorting. Book chapters, book proceedings, reviews, and meta-analysis studies that were not published in English or Indonesian are among the removed articles. Additionally, articles that weren't released between 2016 and 2025 were eliminated. As the last stage in the article search process, this is an important procedure. As seen in Figure 1, the authors specifically employed a PRISMA flow diagram for their search and selection process.

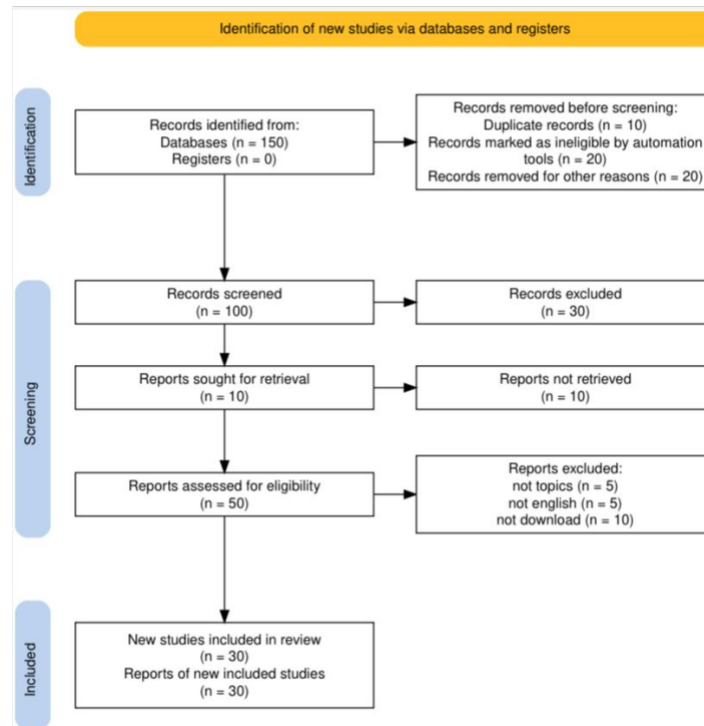


Fig. 1. Flow of the systematic review process

Thirty articles that address the use of technology in high school English lessons were chosen. The publications displayed research analysis and were categorized according to the strategic end of technology-enhanced language instruction. In general, the majority of the chosen research made use of the results.

Table 3. Number of studies based on research findings

| Research finding                                    | Quantity |
|-----------------------------------------------------|----------|
| Research findings on digital pedagogical strategies | 30       |

### 3 Results and Discussion

In total, 150 articles were identified from two databases from 2018 to 2022, namely Scopus (n=50) and Google Scholar (n=100). Keywords help select and gather articles relevant to the integration of Technology-enhanced language teaching in English language classrooms. There are Duplicate records (n = 10), duplicate articles that were removed, marked as ineligible by automation tools (n = 20), and Records removed for other reasons (n = 20) that were deleted, resulting in 100 remaining articles. The remaining articles were filtered, and 50 articles were removed after passing the

selection. Records excluded (n = 30), Reports sought for retrieval (n = 10), Reports not retrieved (n = 10). Then, 50 remaining articles were removed due to access Reports excluded: not topics (n = 5), not English (n = 5), not downloadable (n = 10). In the end, there were 30 articles selected based on the predetermined inclusion and exclusion criteria for this systematic review.

Based on the review, the learning tools used in English classes vary, and there are 15 similarities in digital pedagogical strategies. Four articles focus on Task-Based Language Teaching (TBLT). Two articles discuss the Flipped Classroom. Six articles present Gamification / Game-Based Learning digital pedagogical strategies. Three articles discuss digital pedagogical strategies, Personalized Learning / Adaptive Learning. Four articles discuss digital pedagogical strategies, Collaborative / Peer Learning. Three articles discuss digital pedagogical strategies, TPACK-Based Instruction. Three articles discuss digital pedagogical strategies, Digital Literacy Integration. Five articles discuss digital pedagogical strategies, Blended Learning / Hybrid Models. Three articles discuss digital pedagogical strategies, including AI-based feedback and AI-enhanced instruction. Four articles discuss digital pedagogical strategies, Socio-Cultural / Contextual Pedagogy. Two articles discuss digital pedagogical strategies, Emotional Pedagogy / Learner Empathy. Three articles discuss digital pedagogical strategies, Formative Assessment & Reflective Feedback. Six articles discuss digital pedagogical strategies, the Use of LMS / Online Management Tools. Four articles discuss digital pedagogical strategies, Multimodal Input / Media-Rich Learning. Four articles discuss digital pedagogical strategies, Constructivist Digital Pedagogy. All the similarities in the articles amount to 30 articles reviewed from the research, as shown in Table 4.

Table 4. Types of digital pedagogical strategies

| digital pedagogical strategies            | Result                                                                                                                                        |
|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| Task-Based Language Teaching (TBLT)       | (Muralei et al., 2025); (Mulyadi et al., 2021)(Kohnke & Fount, 2023);(Sherov et al., 2025)                                                    |
| Flipped Classroom                         | (Al-Ataby, 2020)(Khurramovich, 2025)                                                                                                          |
| Gamification / Game-Based Learning        | (Jumanazarova, 2025);(Mulyadi et al., 2021); (Situmorang et al., 2020);(Nicolaou et al., 2019); (Sherov et al., 2025); (Muralei et al., 2025) |
| Personalized Learning / Adaptive Learning | (Novawan et al., 2024); (Sherov et al., 2025); (Bhardwaj, 2025)                                                                               |
| Collaborative / Peer Learning             | (Avdiel et al., 2018);(Kohnke & Fount, 2023); (Muralei et al., 2025);(Jumanazarova, 2025)                                                     |
| TPACK-Based Instruction                   | (Adipat, 2021); (Kohnke & Fount, 2023) ; (Papanikolaou et al., 2017); (Khurramovich, 2025)                                                    |

|                                             |                                                                                                                                                          |
|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Digital Literacy Integration                | (Kusuma, 2022); (Mulyadi et al., 2021); (Bhardwaj, 2025)                                                                                                 |
| Blended Learning / Hybrid Models            | (Kohnke & Fount, 2023); (Regmi, 2024); (Irons, 2020); (Novawan et al., 2024); (Khurramovich, 2025)                                                       |
| AI-Based Feedback / AI-Enhanced Instruction | (Novawan et al., 2024); (Bhardwaj, 2025); (Sherov et al., 2025)                                                                                          |
| Socio-Cultural / Contextual Pedagogy        | (Kusuma, 2022); (Avdiel et al., 2018); (Soesanto et al., 2023); (Khurramovich, 2025)                                                                     |
| Emotional Pedagogy / Learner Empathy        | (Soesanto et al., 2023); (Umar & Pujiastuti, 2024)                                                                                                       |
| Formative Assessment & Reflective Feedback  | (Luthfiyyah et al., 2021); (Sherov et al., 2025) Sherov (2025); (Kohnke & Fount, 2023)                                                                   |
| Multimodal Input / Media-Rich Learning      | (Nicolaou et al., 2019); (Kohnke & Fount, 2023); (Jumanazarova, 2025); (Khurramovich, 2025)                                                              |
| Constructivist Digital Pedagogy             | (Regmi, 2024); (Khurramovich, 2025); (Papanikolaou et al., 2017); (Adipat, 2021)                                                                         |
| Use of LMS / Online Management Tools        | (Umar & Pujiastuti, 2024); (Jumanazarova, 2025); (Adipat, 2021); (Irons, 2020); (Kohnke & Fount, 2023); (Sherov et al., 2025); (Umar & Pujiastuti, 2024) |

In detail, the review's findings are described in Table 5, concerning the characteristics and themes of the research, as follows.

| No. Author(s)             | digital pedagogical strategies                                                                                                                                                                                     | Learning Tool(s)                                                                  |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| 1. (Haidari et al., 2019) | In self-directed learning (SDL), students choose their learning objectives and methods.<br>Put your attention on using technology to learn outside of the classroom.<br>The primary objective is learner autonomy. | YouTube, Language learning apps (Duolingo, Memrise), Online dictionaries, E-books |
| 2. (Deren Başak, 2016)    | Multimodal input: online text, audio, and video for a                                                                                                                                                              | PowerPoint, Internet (authentic texts, online                                     |

|                              |                                                                                                                                                                                                                                                                              |                                                                                                                     |
|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
|                              | range of skills (writing, listening, and reading). Students use digital tools to produce projects as part of project-based learning. Digital media-based contextualized grammar training.                                                                                    | quizzes), tablets, interactive whiteboards.                                                                         |
| 3.(Zou et al., 2018)         | In a flipped classroom, students study on their own at home and participate in class discussions. Gamification to increase student engagement and motivation. Sociocultural learning is education grounded in real-world situations. AI and big data-based adaptive learning | Social Media (Facebook, WeChat), Mobile Apps, Cloud Computing, Wearable Devices, VR/AR, Deep Neural Networks (DNNs) |
| 4. (Hassan Taj et al., 2017) | Combining computer-assisted language learning (CALL) and mobile-assisted language learning (MALL) is known as blended learning. Multimodal glossing: using both visual and aural cues to enhance vocabulary. WhatsApp-based contextual learning based on brief texts.        | WhatsApp, PC-based vocabulary software, and Multimedia cards                                                        |
| 5. (Novawan et al., 2024)    | A hybrid model strikes a balance between AI and human communication. AI-assisted adaptive learning: modifying resources according on student information. Put an emphasis on individualized learning and automated assessment.                                               | AI Chatbots, AI assessments, Learning analytics platforms, Natural Language Processing (NLP) tools                  |

|                              |                                                                                                                                                                                                                                                        |                                                                                      |
|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| 6. (Mulyadi et al., 2021)    | <p>Task-Based Language Teaching (TBLT) emphasizes the completion of authentic tasks. Authentic engagement is at the heart of Communicative Language Teaching (CLT).</p> <p>Realistic simulations, including online presentations and role-playing.</p> | Zoom and Google Meet, Online TOEFL listening practice, Video feedback tools          |
| 7. (Situmorang et al., 2020) | <p>During the COVID-19 epidemic, emergency remote teaching (ERT) was used. Digital transition from offline to online techniques. Gamification is a technique used to keep students motivated.</p>                                                      | Google Classroom, Zoom, Kahoot, Quizizz, Mentimeter                                  |
| 8. (Hassan Taj et al., 2017) | <p>Computer-assisted reading: practice tools and interactive text. Providing mobile support for vocabulary pre-teaching. The process of connecting reading to existing knowledge is known as schema activation.</p>                                    | Hot Potatoes (reading comprehension exercises) WhatsApp interactive reading software |
| 9. (Muralei et al., 2025)    | <p>Digitally based task-based language teaching (TBLT) Using gamification, digital collaboration, and online simulations under TBLT principles Using the framework for digital literacy to assist in task design</p>                                   | Simulasi daring, Gamified platforms, Google Docs, forum diskusi, video conferencing  |

|                            |                                                                                                                                                                                                         |                                                                                                                     |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| 10. (Ironsi, 2020)         | Perception and reflection of student experiences inform learning.<br>Put learner-centered digital instruction front and center.<br>Blended learning after the pandemic                                  | Learning Management Systems (LMS)<br>Zoom/Google Meet                                                               |
| 11.(Ketabi, 2017)          | Teacher training through the use of mobile social networking sites (MSNSs)<br>Put an emphasis on group projects and instructor introspection.<br>Social media integration as a professional growth tool | Blogging, podcasting, messaging apps, and video conferencing, Facebook, WhatsApp, Telegram                          |
| 12. (Al-Ataby, 2020)       | Flipped classrooms will replace in-person meetings.<br>Interactive integration combined with hybrid delivery<br>Set an example for asynchronous learning that prioritizes interaction.                  | Virtual Learning Environments (VLE),<br>Video lectures, discussion boards, quizzes, Zoom, MS Teams, Moodle          |
| 13.(Nicolaou et al., 2019) | Including audiovisual materials in teaching strategies<br>Multimodal communication and interactive visual learning<br><br>Multimedia education focused on the student.                                  | Videos, documentaries, and podcasts, Social media & streaming tools (YouTube, Vimeo)                                |
| 14.(Adipat, 2021)          | Combining Technology-based Content and Language Integrated Learning (T-CLIL)<br>TPACK development for pre-service teachers<br>Emphasize transdisciplinary learning and contextual awareness.            | Blended learning platforms, online modules, interactive quizzes, LMS yang mendukung CLIL (Moodle, Google Classroom) |

|                                 |                                                                                                                                                                                                                |                                                                                                               |
|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| 15.(Luthfiyyah et al., 2021)    | Technology-assisted formative assessment pedagogy<br>Increasing learner independence with automated feedback<br>Reflective practice based on data evaluation                                                   | Google Forms, Quizizz, Edmodo, Moodle, Feedback<br>Automated feedback systems                                 |
| 16. (Barksdale et al., 2021)    | Low-tech, mobile-based teacher-centered professional development<br>Applying a sociocultural perspective and the TPACK framework<br>PD with little technology and a focus on local needs                       | Mobile devices, basic internet tools, WhatsApp, offline modules, and projector-based visuals                  |
| 17. (Avdiel et al., 2018)       | Pay attention to students' social and emotional reflections. Student-voice-based pedagogical design for synchronous and asynchronous collaborative learning                                                    | Online forums, reflective learning journals, Collaborative tools (Padlet, Google Docs, learning diaries)      |
| 18. (Papanikolaou et al., 2017) | Learning design-based training, TPACK-CoI integration, and design-based learning                                                                                                                               | Asynchronous collaboration platforms<br>TPACK-guided design tools, like digital mind maps, evaluative rubrics |
| 19.(La Fleur & Dlamini, 2022)   | Integrating technology, pedagogy, and content knowledge through the use of the TPACK framework. Learning through instructional design for teachers.<br>Blended learning with a focus on the individual student | ACF tools (grammar checkers, collocation tools), collaborative writing tools, VR, CALL, MALL                  |
| 20.(Muralei et al., 2025)       | Technology-assisted task-based language teaching (TBLT).                                                                                                                                                       | Google Docs, Padlet, Quizizz, Kahoot, ChatGPT, Duolingo                                                       |

|                               |                                                                                                                                                                                              |                                                                                             |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
|                               | Cooperative assignments based on digital and real-world simulation. Utilizing task cycles to improve learning interaction and motivation.                                                    |                                                                                             |
| 21. (Regmi, 2024)             | Blended learning with a learner support subsystem and an e-teacher system. Learner-centered, constructivist, and technology-enabled methods for changing learning habits.                    | Blog, Wiki, Online Forums, LMS, Zoom, Web 2.0 tools.                                        |
| 22.(Kusuma, 2022)             | During the pandemic, Emergency Remote Teaching (ERT) was used. Pre-service teachers' media literacy and individual technology preferences. Experience-based education using social media.    | WhatsApp, YouTube, Facebook (tidak digunakan), Instagram (jarang), Blog, Twitter            |
| 23.(Soesanto et al., 2023)    | In online learning, emotional pedagogy refers to understanding the emotional context of students. Designing digital instruction with a focus on empathy and individualized learning.         | Zoom, educational multimedia, visual tools, interactive video                               |
| 24. (Umar & Pujiastuti, 2024) | An online theater director is compared to an instructor. Put an emphasis on virtual class guidance, narration, and interaction. A blend of performance components and intellectual material. | LMS, video conferencing, multimedia presentation tools, and digital storytelling platforms. |

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|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
|                            |                                                                                                                                                                          |                                                                                                                 |
| 25.(Novawan et al., 2024)  | AI combined with a human method is known as a hybrid model. Customized instruction and data-driven choices based on what each student has learned.                       | ChatGPT, speech recognition tools, adaptive assessment platforms, and learning analytics dashboards.            |
| 26. (Sherov et al., 2025)  | individualized instruction, gamification, teamwork, autonomy, and realistic simulation.                                                                                  | Duolingo, Kahoot, Quizlet, ChatGPT, Elsa Speak, Moodle, Zoom.                                                   |
| 27. (Çakmak, 2022)         | Emotion-centered teaching, paying particular attention to the psychological difficulties associated with distance education. Contextualized and adaptable education.     | Microsoft Forms, Zoom, online portfolio, video-based reflection tools                                           |
| 28. (Mulyadi et al., 2021) | Centered on digital literacy. Project-based learning with digital literacy components is known as TBLT. Delivering realistic simulated practice and multimodal feedback. | Quizizz, Kahoot, Padlet, AI Chatbots, email-based tasks, and video scenario simulations.                        |
| 29. (Bhardwaj, 2025)       | konteks ELT berbasis AI Blended learning + learner-centered, Kritik terhadap adopsi non-pedagogis Empirical + critical digital pedagogy                                  | Grammarly, Duolingo, Elsa Speak, Google Assistant, Google Classroom AI, Chatbots, Speech Recognition, NLP       |
| 30. (Jumanazarova, 2025)   | Digital material adaptation Gamification & immersive ELT Emphasis on engagement, learner agency, and accessibility                                                       | Moodle, Google Classroom, Kahoot, Quizlet, Duolingo, ChatGPT, Grammarly, BBC Learning English, MondlyVR, TED-Ed |

The use of digital pedagogical tools in ELT classes follows a consistent pattern, according to an examination of over 30 studies on the subject. Gamification and Task-Based Language Teaching (TBLT) are two of the most popular approaches. In order to increase student motivation and engagement, these tactics place a strong emphasis on task-based learning exercises and the application of game features like scores, challenges, and rewards.

Furthermore, flipped classroom and blended learning approaches are frequently used to allow students to learn autonomously outside of the classroom, with face-to-face sessions focusing on conversation and concept reinforcement. The TPACK-based instruction technique, which blends technology, pedagogy, and content knowledge, also stood out, highlighting the necessity of teacher preparedness in developing effective digital learning.

The personalized learning method, as well as the utilization of AI-based applications like ChatGPT, Grammarly, and Elsa Speak, are increasingly being used to give students adaptive and real-time feedback. Several studies emphasize the significance of collaborative learning, multimodality, and formative assessment using digital platforms (e.g., Google Forms, Quizizz, LMS). Furthermore, several studies emphasize the role of socio-cultural and emotional pedagogy, particularly in the post-pandemic period. This demonstrates a recognition of the value of empathy, local context, and students' emotional well-being in technology-based learning.

In TELT, digital pedagogical tactics often result in more interactive, personalized, collaborative, and real-context-based learning, despite the wide range of context and tool variations. These tactics not only improve learning results but also change how students and teachers function in the contemporary learning environment.

## 4 Conclusion

In the contemporary digital age, integrating technology into secondary school English language instruction has become essential. A number of digital pedagogical techniques have been used to improve student engagement, motivation, and learning outcomes. These include gamification, Task-Based Language Teaching (TBLT), flipped classrooms, blended learning, personalized/adaptive learning, and the widespread use of artificial intelligence (AI) and digital platforms. The key conclusions show that digital techniques essentially increase learning's interactivity, personalization, collaborativeness, and reality-basedness. Utilizing learning management systems (LMS), learning apps, instructional videos, and online games can improve student engagement and maximize learning across all language skills (speaking, listening, reading, and writing). Technologies that offer automatic and adaptive feedback, such as ChatGPT, Grammarly, and Elsa Speak, help students become more independent learners. The use of digital technology in language instruction presents a number of difficulties, despite the fact that it provides excellent flexibility and learning appeal. These include inadequate infrastructure, low levels of digital literacy among instructors and students, and difficulties integrating technology with the curriculum. The success of integrating technology into the classroom and the fair distribution of access are also impacted by Indonesia's diverse social and economic environments. All things considered, if accompanied by sufficient infrastructure preparation, teacher training, and adaptations to the demands and local context of learners, digital pedagogical tactics can improve the effectiveness and quality of English language instruction. These results offer crucial suggestions for teachers, curriculum designers, and legislators to enhance the effective use of technology in secondary school language instruction.

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