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## Enhancing Writing Skills through Web-based Learning (WBL) in ESL/EFL Classrooms: A Systematic Review

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**Abstract.** Web-based learning (WBL) is an innovative approach to education that empowers learners by offering them flexibility and control over their educational journey. This systematic literature review aimed to identify web-based instructional strategies for enhancing English as a Second Language (ESL) and English as a Foreign Language (EFL) writing skills that have been employed over the past decade. This review employed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) framework across major academic databases, including Scopus, Web of Science (WoS), and the Education Resources Information Centre (ERIC). Out of 97 articles, 18 journal articles were selected based on set exclusion and inclusion criteria. The results highlighted a significant finding in research on WBL as a means of enhancing English writing skills worldwide. Accordingly, six types of web-based instructional platforms can improve ESL/EFL writing skills: 1) cloud-based applications, 2) learning management systems (LMS), 3) inquiry-oriented learning tools, 4) automated writing evaluation (AWE), 5) online grammar checking and editing tools, and 6) digital storytelling. Furthermore, the review identified three significant themes: the use of WBL methods improved collaborative writing, peer feedback increased learners' engagement and motivation and enhanced soft skills. Thus, this study offers valuable insights into the role of technology-enhanced language learning, specifically focusing on web-based instructional methods to be implemented to enhance ESL writing skills.

**Keywords:** ESL learners; ESL writing skills; technology-enhanced language learning; web-based learning (WBL)

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## 1. Introduction

The integration of technology to address writing difficulties among English as a Second Language (ESL) learners have gained significant attention in recent years. This multi-faceted approach not only enhances their writing proficiency but also fosters overall language acquisition and confidence in using English in various contexts, as well as their other skills (Almazroui & Awad, 2025; Asratie et al., 2022; Gharehblagh & Nasri, 2020; Haerazi et al., 2020). Web-based learning (WBL), also known as online learning or e-learning, offers interactive and engaging platforms that cater to the diverse learning needs of English as a Second Language and English as a Foreign Language (EFL) learners. It can include multimedia resources, collaborative writing tools, and feedback mechanisms that promote active participation and skill development among the learners (Mohd Zaki & Adnan, 2023; Yazid et al., 2024). By leveraging online environments, educators can create tailored learning experiences that support language acquisition and writing proficiency.

English writing is a complex skill that many ESL learners struggle with; it is widely accepted as a challenging activity and difficult to master (Bora, 2023; Karim, 2022; Kee et al., 2021; Singh et al., 2020; Taufiq et al., 2021) due to its complexity in phonological, morphological, semantic, and syntactic structure (Rao, 2019). Furthermore, writing involves several stages, including pre-writing, drafting, revising, editing, and publishing. Additionally, writing comprises multiple stages: pre-writing, drafting, revising, editing, and publishing. During the writing process, writers face challenges with two key aspects: the knowledge stored in their long-term memory and their strategy for managing rhetorical elements problems. Consequently, students often feel overwhelmed and lack motivation in completing writing tasks, as they may struggle to express themselves effectively. Hence, by having online platforms that provide comprehensive content and practices, ESL learners can utilise them at their convenience.

Recognising the effectiveness of technology-enhanced language learning, especially in developing writing skills, there is a clear gap in the types of platforms that teachers use to support English writing beyond the classroom. This study aims to provide valuable insights for teachers and developers involved in technology-assisted language learning, with the goal of enhancing English writing skills. The primary objective of this study is to conduct a systematic literature review on web-based learning strategies to enhance English writing skills among ESL/EFL learners. Additionally, the goal also includes identifying the instructional methods used in previous research and examining their impact on other skills among ESL/EFL learners. This comprehensive study adheres to the PRISMA protocol and examines the web-based instructional strategies employed by previous researchers over the past decade (2015-2024). Furthermore, this study aims to address the following specific research questions:

**RQ1:** Which platforms are used in a web-based learning strategy to enhance writing skills?

**RQ2:** What are the additional benefits of using a web-based learning strategy in ESL/EFL classrooms?

By thoroughly exploring these aims, this study seeks to gain a deeper understanding of WBL for teaching and learning English writing skills, as well as its impact on other skills. Our findings identify effective instructional methods and provide practical insights for educators and developers of technology-assisted language learning in the ESL/EFL context.

## **2. Literature Review**

### **2.1 Web-based learning**

Web-based learning (WBL) has become an important method in ESL/EFL education, with many studies conducted on web-based learning across different fields (Bashori et al., 2022; Cook, 2007; Destianingsih & Satria, 2017; Farah Amirah & Nur Ehsan, 2023; Girard & Pinar, 2011; Kusumawati et al., 2025; Nordin et al., 2016; Prystiananta et al., 2025). One benefit of WBL is its ability to create a flexible learning environment that suits different learning styles and speeds. Kashefian-Naeeni et al. (2024) noted that web-based vocabulary lessons offer a richer context than traditional methods, enabling learners to navigate content more adaptively and engage more meaningfully with the materials. This flexibility is essential in helping various resources boost a learner's ability to express ideas in writing.

### **2.2 Approaches to the Teaching of Writing**

Several theories and approaches are recognised and adapted by ESL teachers in the teaching of writing. Teachers often employ various teaching methods and approaches, but they undoubtedly have their favourite method and approach (Hyland, 2003). Some focus on the end product (product-based approach), while others prefer the process-based approach. The product approach focuses on the written product, which is the essay. In an ESL classroom, students are asked to write an essay following a specific pattern provided by their teachers (Shahrina & Norhisham, 2017). While completing a writing task assigned by the teacher, students' progress from pre-writing to composing the essay and, finally, correcting the errors in the essay (Pasand & Haghi, 2013). The focus of this approach is the final product, a writing that is coherent and error-free (Hyland, 2003).

On the contrary, Hyland (2003: 10) stated that "the process approach to writing teaching emphasises the writer as an independent producer of texts, but it goes further to address the issue of what teachers should do to help learners perform a writing task". The writing activity emphasises the writer as an independent producer of text and further addresses the issue of how to help learners complete a writing task. This highlights the teacher's responsibility in guiding and supporting students through the stages of writing in ESL/EFL classrooms. Since students require continuous support and guidance, a web-based learning platform can provide them with guidance as they can access it anywhere and at any time.

### 2.3 Challenges of Learning Writing in Tertiary Education

The challenges faced by tertiary students in developing writing skills are multifaceted and deeply rooted in pedagogical practices, student perceptions, and institutional frameworks. Academic writing represents a significant hurdle for students transitioning into higher education. One prominent challenge is the perceived lack of adequate preparation and understanding necessary for effective academic writing. Research by Arneback et al. (2017) emphasises that many students struggle to navigate the conventions of academic writing, which often prioritises adherence to structural and formatting rules over creative expression. Moreover, students may find that developing critical and creative thinking skills is overshadowed by an intense focus on learning these formal rules, which can diminish their motivation and confidence in their writing abilities (Arneback et al., 2017; Rossa et al., 2023).

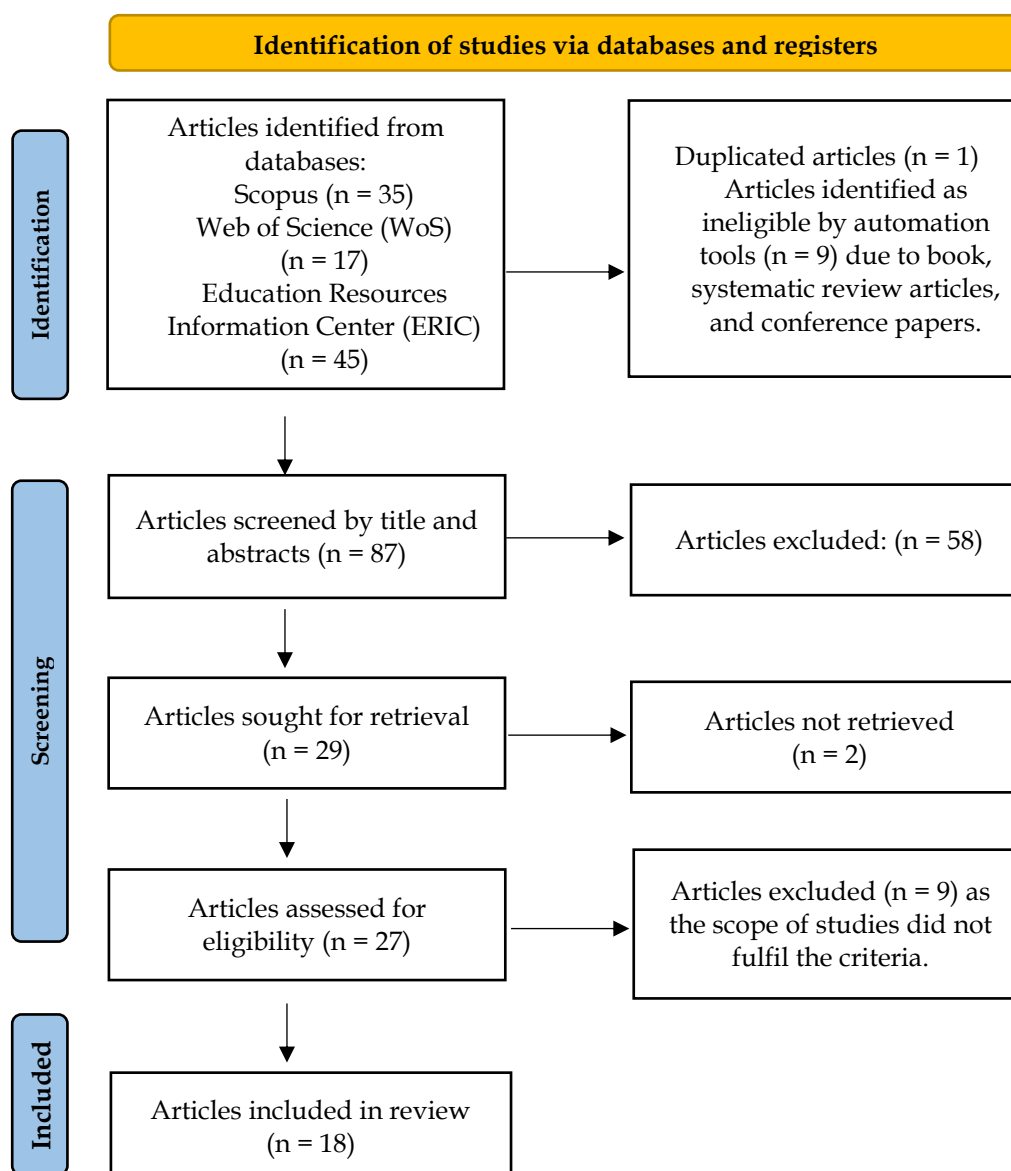
Another significant issue is the pedagogical environment in which writing is taught. Traditional methods often fail to effectively engage students, resulting in a disconnect in the development of writing skills. The integration of technology in writing instruction presents both challenges and opportunities. While digital platforms and blended learning technologies can enhance writing skills, as Azizov (2024) suggests, the effectiveness of these approaches heavily depends on how they are implemented within the curriculum. Insufficient instructional support in using these tools can lead to suboptimal outcomes, as students may struggle to capitalise on the benefits of technology-enhanced learning (Ghamdi & Alnajami, 2022).

Based on the research highlighted above, there is a need of research pertaining the platforms and instructional strategies used by ESL instructors in teaching writing skills effectively. Further investigation is necessary to identify the types of online platforms that effectively enhance ESL learners' writing skills so that the findings can serve as guidelines for utilising web-based instructional methods in teaching and learning English writing skills.

## 3. Methodology

### 3.1 The Review Protocol (PRISMA)

This systematic review adhered to the established systematic review guideline of Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA 2020 statement) by Page et al. (2021). The PRISMA 2020 statement includes four stages: identification, screening, eligibility and inclusion criteria. This updated guideline for reporting systematic reviews offers numerous advantages that enhance the quality and transparency of systematic reviews. One advantage is the comprehensive 27-item checklist that provides a structured framework for researchers to follow. This checklist ensures that systematic reviews are reported thoroughly and precisely, thereby facilitating a better understanding of the findings (Page et al., 2021). On the other hand, to conduct a systematic review, researchers employed a series of scientific methodologies to minimise systematic errors (bias) while locating, evaluating and synthesising relevant studies (Rose et al., 2018). Figure 1 illustrates the application of the PRISMA 2020 framework in this study.



**Figure 1: PRISMA 2020 flow diagram adapted from Page et al. (2021)**

### 3.2 Resources

The primary data sources for this study were online database searches. The three databases used are Scopus, Web of Science (WoS), and the Education Resources Information Center (ERIC). Scopus, the primary source for this systematic review, is a comprehensive database and a crucial resource across various disciplines. It is widely regarded as one of the largest databases, encompassing 23,500 journals, 194,000 books, and approximately 9 million conference papers (Cebrino & De la Cruz, 2020). The second database used in this study was WoS, a robust source that includes approximately 33,000 journal articles across more than 256 disciplines (Ramalingam et al., 2022). The third database examined in this systematic review was ERIC, a valuable tool for researchers in the educational field. Operated by the U.S. Department of Education, this database offers free access to numerous full-

text documents, making it accessible to a broad international audience. Although it is a U.S.-based database, it includes publications from several other countries, making it a suitable resource for this study. Thus, all three databases offer sufficient coverage to facilitate a deep and rigorous understanding and analysis of web-based instructional methodologies and their impact on ESL/EFL learners.

### 3.3 Identification

The initial phase of the systematic review is identification, where key terms are defined and related or synonymous terms are found using a thesaurus and Boolean operators. The keywords for searching were “Web-based instructions”, “ESL”, and “Writing skills”. Next, initial search strings were developed in November 2024 based on the keywords. By searching the three databases, 97 studies were yielded. However, after a rigorous application of inclusion and exclusion criteria, the final sample was narrowed down to 18 studies. Table 1 below displays the search strings used in this study for each database.

**Table 1: Keywords used in the process of finding relevant literature**

Database	Search String
Scopus	TITLE-ABS-KEY (("writing skills" OR "writing proficiency" OR "writing ability" OR "composition skills") AND ("web-based instruction" OR "web-based teaching" OR "online instruction") AND ("English as a second language" OR "ESL" OR "English for foreign language" OR "EFL"))
Web of Science (WoS)	TS = (("writing skills" OR "writing proficiency" OR "writing ability" OR "composition skills") AND ("web-based instruction" OR "web-based teaching" OR "online instruction") AND ("English as a second language" OR "ESL" OR "English for foreign language" OR "EFL"))
Education Resources Information Center (ERIC)	Web-based learning and writing skills and ESL or EFL

### 3.4 Screening

Table 2 outlines the eligibility and exclusion criteria for our research, detailing the parameters used to select and exclude participants.

**Table 2: The eligibility and exclusion criteria**

Criterion	Eligibility	Exclusion
Article type	Journal (Research articles)	Books, book series, book chapters, systematic review articles and conference proceedings.
Language	English	Non-English
Timeline	Between 2015 and 2024	Published in 2014 and earlier
Study area	ESL/EFL learning & writing skills.	Other educational fields and language skills.

At this stage, the identified articles from the search are reviewed by the inclusion and exclusion criteria. During the initial keyword search across the three databases, a total of 97 studies were obtained (Refer to Figure 1). All studies were assessed using four exclusion criteria (Table 2): article type, language, timeline, and study area. After screening, 66 articles were excluded, leaving 31 studies for further review.

### 3.5 Eligibility

In the third stage, by adopting a two-step evaluation of abstracts and full-text analysis, 27 articles were identified as relevant to the scope of this study. Further screening led to the exclusion of another nine articles because they did not meet the study area's criteria or the methods employed in those studies. Therefore, only 18 articles are suitable and relevant to this systematic review.

### 3.6 Included

This systematic review examined web-based instructional methods to enhance ESL/EFL writing skills. The selected studies are presented in Table 3, which shows that seven articles were sourced from Scopus, six from WoS, and five from ERIC. These three databases were selected due to their reputation for high-quality articles, particularly in the field of education. Additionally, 17 studies were conducted in higher education, while only one study was completed in a high school (Hoang & Hoang, 2022). As indicated in Table 3, most studies employed an experimental research design involving pre-tests and post-tests to assess students' writing performance.

**Table 3: Overview of the selected articles**

Study	Database	Research design	Sample	Aims	Findings
(Wang, 2015)	Scopus	ER	48 first-year students	To enhance students' business writing skills through the use of wikis.	Students participating in collaborative writing tasks developed proficiency in business writing and appreciated the challenge of this new learning experience.
(Huang, 2016)	ERIC	TA	57 undergraduates	To investigate perceptions of blogging in EFL writing classes. To assess the impact of blogs on writing performance. To explore the effectiveness of	Both students and teachers had positive attitudes towards blogging. Blogging enhances EFL writing motivation and performance. Blogging improves language ability

				peer feedback through blogs.	and writing fluency.
(Hojeij & Hurley, 2017)	ERIC	MM	37 pre-intermediate learners of English	To explore app functionality in facilitating writing processes.	Students viewed that their writing improved through the process. They developed a meta-language to evaluate their work, leading to clearer assessments. As a result, essays showed progress from draft to final version.
(Cequeña , 2020)	Scopus	QER	76 college students	To investigate correlations among self-perception in reading and writing and to determine the effectiveness of web-mediated versus conventional writing instruction.	Both instructional methods significantly enhanced writing skills. Reading achievement positively influences writing performance in both groups. Self-perception in reading is linked to self-perception in writing.
(Al Asadi, 2020)	WoS	ER	43 first-year students	To enhance Iraqi learners' writing skills through intercultural awareness using WebQuest.	Participants demonstrated an enhanced understanding of intercultural concepts in their writing. Writing skills improved, but sentence structure remained weak. Cultural awareness positively impacted writing skills.
(Chatta & Haque, 2020)	WoS	QER	63 students of the Business College	To study the effect of Flipped Classroom Instruction on the writing skills of Saudi EFL students.	The participants in the experimental group wrote more effective paragraphs, showing a notable improvement in their writing skills. Both the students

					and the instructor displayed a positive attitude toward Flipped Classroom Instruction.
(Sajjadpour, 2021)	Scopus	ER	30 EFL learners of a private language institute	To explore the influences of the Grammarly® online website on correcting Iranian EFL learners' writing flaws and, as a result, enhancing their writing performance.	The experimental group outperformed the control group in writing performance. Significant differences were found in overall writing achievement between groups.
(Hoang & Hoang, 2022)	WoS	QER	24 high school students	To examine the potential impact of regular collaborative activities using Google Docs on students' English academic writing skills.	Students' overall academic writing skills significantly improved. Significant improvements in task response and lexical resources were noted.
(Salem, 2022a)	WoS	ER	66 English course students	This study investigates how online digital storytelling influences EAP students' argumentative writing skills and examines its role in enhancing self-directed learning and learner autonomy in language education.	Online digital storytelling has significantly improved argumentative writing skills. Participants reported positive attitudes towards blended learning.
(Salem, 2022b)	Scopus	ER	54 undergraduates	Examines how learning through a sheltered Internet setting, particularly the "WebQuest",	EAP students significantly improved their academic writing skills. Writing anxiety levels decreased among

				enhances the academic writing skills of non-native English speakers in English for Academic Purposes (EAP).	participants. Positive perceptions of WebQuest as a learning tool emerged. Students expressed increased motivation and engagement in learning.
(Dousti & Amirian, 2023)	Scopus	ER	49 EFL undergraduates	Analyse and compare the effectiveness of web-mediated, blended, and fully online instruction methods on EFL learners' writing achievement within the Iranian context.	EFL learners' writing skills improved significantly in all groups. Significant differences were found in overall writing achievement scores.
(Elgün Gündüz, 2023)	ERIC	AR	40 university students	To investigate university students' attitudes toward wiki-based collaborative writing tasks and how they perceive these tasks' impact on their writing development within an EFL (English as a Foreign Language) setting in Turkey.	Students found wiki-based tasks motivating and effective for writing. Wiki tasks increased student motivation and engagement in L2 writing. Feedback from peers improved students' awareness of writing weaknesses.
(Peungch aroenkun & Waluyo, 2023)	Scopus	QER	28 first-year students from the veterinary college	To explore how the process-genre approach, feedback, and technology interact in L2 writing among Thai university students.	The experimental group performed better on the post-tests compared to the pre-tests, with notable improvements in task response and lexical resources.
(Haro et al., 2023)	WoS	ER	221 undergraduates	To investigate how directed and undirected	The results showed notable differences between the

			enrolled in a life science course	online peer feedback influence students' peer feedback performance, argumentative essay writing skills, and domain-specific knowledge acquisition.	conditions regarding the quality of feedback given. They also demonstrated a significant boost in students' performance on argumentative essays and their domain-specific knowledge, although no significant differences were found among the conditions.
(Guo & Li, 2024)	Scopus	QER	64 EFL students	This study investigates how electronic portfolio-based writing instruction affects the writing performance and self-efficacy of Chinese EFL learners. It aims to explore the influence of this approach on their ability and confidence in writing in a second language.	Electronic portfolio instruction significantly improved writing performance, with notable improvements in language use and vocabulary scores. The mechanics of writing were enhanced in the experimental group. Writing self-efficacy increased among participants using Edmodo.
(He, 2024)	ERIC	QER	86 EFL students	The purpose is to demonstrate how automated writing evaluation (AWE) influences learners' writing skills, motivation, enjoyment, and academic resilience in open and distributed English as a	The experimental group participants showed higher motivation to write, greater enjoyment of writing, stronger academic buoyancy, and more academic success in writing compared to their control group peers.

				foreign language (EFL) learning.	
(Pitukwong & Saraiwang, 2024)	ERIC	MM	53 undergraduates enrolled in English education	To examine Thai EFL university students' perceptions of two digital writing tools, Paragraph Punch and ProWritingAid, and to assess their writing performance.	Notable enhancement in writing skills following the use of digital tools. Students hold positive views of Paragraph Punch and ProWritingAid. There is also increased motivation and engagement in writing classes.
(Yildiz & Gonen, 2024)	WoS	ER	38 English Preparatory Program (EPP) students of a foundation university.	The aim is to assess how effective AWE feedback is in reducing errors in English writing and to explore students' opinions on the usefulness of AWE tools.	AWE feedback effectively reduced errors in mechanics and usage. Teacher feedback was more effective in addressing content and organizational issues. AWE feedback improved errors related to ill-formed verbs, articles, and punctuation. It complements teacher feedback, enhancing the development of writing skills.

TA - Triangulation approach, MM = Mixed-Method, AR= Action Research, ER = Experimental Research, QER = Quasi-experimental Research

### 3.7 Data Analysis Procedure

The selected articles were imported into the reference management software Mendeley before conducting the thematic analysis. Next, a matrix table was created in Microsoft Excel that included the research topics, detailing the year each study was conducted, the design of the investigation, and the objectives of each study. The data were thoroughly analysed for each article, and all relevant information was collected to populate the matrix table. Through these analyses, several themes emerged to address the following research questions:

**RQ1:** Which platforms are used in web-based instructional strategies to enhance writing skills?

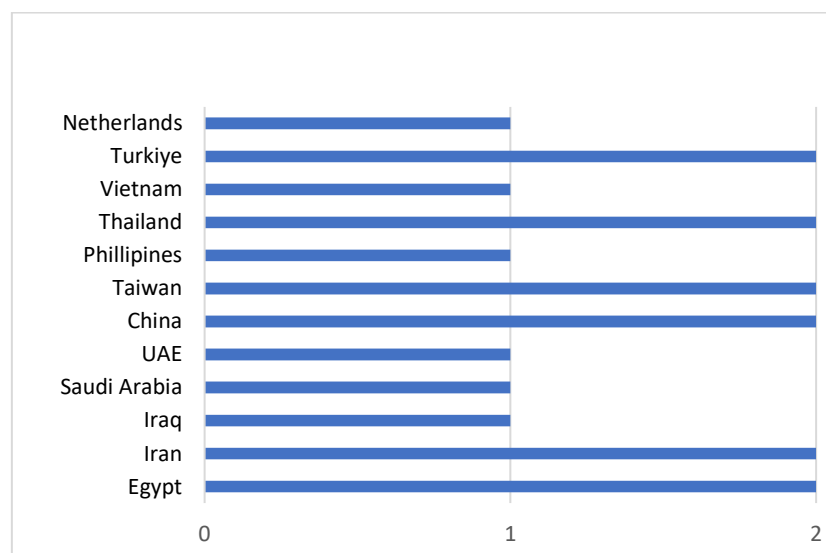
**RQ2:** What are the additional benefits of using web-based instructional strategies in ESL/EFL classrooms?

As noted in the first research question, the platforms were classified into six types of web-based platforms. Meanwhile, the second research question examined how web-based instructional methods affected aspects beyond writing skills. The findings of this systematic review are discussed in the next section.

## 4. Findings and Discussion

### 4.1 General Findings and Background of the Articles

This systematic review, analysing 18 articles published from 2015 to 2024, reveals a growing trend of web-based instructional methods in ESL/EFL writing from 2020 onward. The 18 journal articles originated from diverse countries where English is taught as a second or foreign language. Each study was grounded in specific pedagogical frameworks and technological integrations, reflecting the various challenges and innovations in language education. Figure 2 presents the geographical distribution of the articles.



**Figure 2: Geographical distribution of articles**

Figure 2 illustrates the geographical contexts of these studies, which encompass various regions, including the Middle East, Asia, and other global areas. Each region offers unique educational settings that significantly shape the methodologies and findings of the studies. The extensive geographical reach of this research reflects a global trend towards investigating technology-enhanced learning strategies for English writing. This distribution demonstrates that leveraging technology is one of the most effective ways to enhance the learning experience in higher education. It highlights the advantages of technology-mediated learning and the efficacy of online learning compared to traditional methods.

## 4.2 Samples of Studies

All studies examined the effectiveness of web-based instructional methodologies on ESL/EFL learners in higher education, except for one conducted in a high school (Hoang & Hoang, 2022). The summary of the sample used in the studies is presented in Table 4.

**Table 4: Sample of study**

Types of learners	Frequency	Author
High school students	1	(Hoang & Hoang, 2022)
Language academy/institute	2	(Sajjadpour, 2021) (Guo & Li, 2024)
College students	4	(Cequeña, 2020) (Chatta & Haque, 2020) (Peungcharoenkun & Waluyo, 2023) (Salem, 2022a)
University students	11	(Al Asadi, 2020) (Wang, 2015) (Huang, 2016) (Salem, 2022b) (Dousti & Amirian, 2023) (Pitukwong & Saraiwang, 2024) (Hojeij & Hurley, 2017) (Yildiz & Gonen, 2024) (Elgün Gündüz, 2023) (Haro et al., 2023) (He, 2024)

The findings in Table 4 show that the samples are categorized into four main learner groups: high school students, language academy/institute learners, college students, and university students. A close examination of the table reveals a significant imbalance in participant distribution, with a dominant focus on university students. Out of the 18 studies analysed, 11 involved university learners, comprising the majority of the sample. In contrast, only four studies focused on college students, two on language academy or institute learners, and one study addressed high school students. This distribution suggests a research trend that heavily favours tertiary-level education, especially university contexts. Such a pattern may reflect the accessibility of university students for academic research, as well as the institutional emphasis on academic writing at this level.

However, it also highlights a potential limitation in the current body of literature. The underrepresentation of non-tertiary groups, particularly high school students, indicates a significant research gap. These learners, who are at critical stages of language development, may have unique writing needs and challenges that are not sufficiently captured in existing research. Similarly, learners from language academies or institutes – who may include both adolescents and adults in non-formal educational settings – are underrepresented, despite the increasing popularity of such institutions globally.

**RQ1:** Which platforms are used in web-based learning to enhance writing skills?

Researchers have used various platforms to measure students' writing performance. Based on the literature review, there are six types of web-based instructional platforms to enhance ESL/EFL writing skills: 1) cloud-based applications, 2) learning management systems (LMS), 3) inquiry-oriented learning tools, 4) automated writing evaluation (AWE), 5) online grammar checking and editing tools, and 6) digital storytelling. Table 5 displays the platforms and writing genres utilised in the research.

**Table 5: Web-based instructional platforms**

<b>Types</b>	<b>Platform</b>	<b>Writing genre</b>	<b>Articles</b>
Collaborative-based instructions	Google-docs Wikis Blogs  Writeabout.com  Wikispace	A variety of types of essays (not specified) Personal and informal writing Narrative, argumentative, descriptive Business writing	(Elgün Gündüz, 2023)  (Hoang & Hoang, 2022) (Huang, 2016) (Cequeña, 2020) (Peungcharoenkun & Waluyo, 2023) (Wang, 2015)
Learning management system (LMS)	Edmodo, Notability, Powtoon, Explain Everything, Schoolology Blackboard  An online module	Discursive Argumentative  Paragraph writing  Argumentative	(Hojeij & Hurley, 2017) (Chatta & Haque, 2020) (Haro et al., 2023)  (Guo & Li, 2024)
Inquiry-oriented learning tool	WebQuest  Adobe Connect software	Not specified  Argumentative	(Al Asadi, 2020) (Salem, 2022b) (Dousti & Amirian, 2023)
Automated writing evaluation (AWE)	Criterion Paragraph Punch and ProWritingAid	Argumentative, opinion Descriptive	(Pitukwong & Saraiwang, 2024)  (Yildiz & Gonen, 2024)
Online grammar checking and editing tool	Grammarly	Not specified	(Sajjadpour, 2021)
Digital storytelling	Storybird	Argumentative writing	(Salem, 2022a)

As shown in Table 5, six articles utilised collaborative-based instructions to improve ESL/EFL writing skills (Cequeña, 2020; Elgün Gündüz, 2023; Hoang & Hoang, 2022; Huang, 2016; Peungcharoenkun & Waluyo, 2023; Wang, 2015). The platforms included Google Docs, Wikis, Blogs, Writeabout.com, and Wikispace. The writing activities encompassed various types of essays, such as personal and informal, narrative, argumentative, descriptive, and business writing. Huang

(2016) examined students' and teachers' perceptions of incorporating blog tasks and peer feedback into EFL writing classes.

The findings indicate a positive attitude towards blogging, suggesting its potential as a valuable instructional method, although it may not be suitable for all writing tasks. Hoang and Hoang (2022) emphasised the collaborative nature of online learning through Google Docs, aiming to enhance academic writing skills among EFL students. This research illustrates the potential of collaborative platforms in fostering effective writing instruction. Wang (2015) promoted collaborative writing through wikis in an ESP context, showcasing how technology can advance innovative and active learning strategies in language education.

Peungcharoenkun and Waluyo (2023) concentrated on combining the process-genre approach, various feedback types, and technology in second language (L2) writing instruction in Thailand university. This quasi-experimental study examines the interaction of these elements to enhance students' writing skills, highlighting the importance of integrating pedagogical strategies with technological tools in higher education.

The second type of web-based learning platform is a learning management system (LMS) that comprises Edmodo, Notability, Powtoon, Explain Everything, Schoology, and Blackboard. In Saudi Arabia, Chatta and Haque (2020) investigated the effectiveness of flipped classroom instruction to enhance paragraph writing skills among EFL university undergraduates. The study's findings contributed to the growing body of literature on active learning strategies, demonstrating how innovative instructional methods can enhance writing proficiency. A study by Hojeij and Hurley (2017) explored the use of mobile learning for peers and self-editing among university students in Dubai, discussing how technology can facilitate the writing process, enhance student engagement, and promote ownership of learning, thereby reflecting innovative educational practices in the UAE.

Finally, Haro et al. (2023) examined how online peer feedback affects argumentative essay quality, discovering that the better the peer feedback, the greater the improvement in students' essays. Higher-quality feedback resulted in improved revisions and enhancements in the essays, suggesting that effective feedback can effectively guide students in refining their arguments and overall writing.

Another type of web-based learning platform is inquiry-oriented learning tools, such as WebQuest (Al Asadi, 2020; Salem, 2022b) and Adobe Connect software (Dousti & Amirian, 2023). A study conducted by Al Asadi (2020) investigated Iraqi EFL learners' use of WebQuest to foster intercultural awareness and writing skills and underscores the importance of integrating cultural dimensions into language learning, particularly in regions where intercultural communication is crucial. Dousti and Amirian's (2023) comparative study examined the impact of web-mediated, blended and purely online learning on the writing achievement of EFL learners in Iran, particularly in the context of the COVID-19 pandemic.

This research highlights the need to adapt educational practices to accommodate the shift towards online learning, offering insights into how various instructional models influence writing skills.

The next type is automated writing evaluation (AWE), including tools such as Criterion (Yildiz & Gonen, 2024) and Paragraph Punch and Prowriting Aid (Pitukwong & Saraiwang, 2024). AWE tools are not viewed as replacements for teacher feedback but rather as complementary support. They enable teachers to focus on content and organisation, while the AWE system addresses surface-level errors, thereby reducing the teachers' workload (Yildiz & Gonen, 2024). Meanwhile, another platform, known as Grammarly, which is categorised as an online grammar-checking and editing tool, was used in a study conducted by Sajjadpour (2021). This study investigates how the Grammarly website influences the writing performance of Iranian EFL students. Employing a controlled experimental design reveals how technology can assist in correcting writing flaws and improving overall writing skills, emphasising the role of digital tools in language education.

Finally, Salem (2022a) used a platform called Storyboard, a form of digital storytelling that enhances students' argumentative writing, encourages self-directed learning, and promotes learner autonomy. The study showed that both offline and online digital storytelling tools effectively improved argumentative writing, self-directed learning, and learner autonomy among EFL students. Notably, digital stories positively influenced the post-test scores of the experimental group, consisting of English for Academic Purposes (EAP) learners. The results indicated that blended learning, combining online and offline approaches, was an effective way for students to develop digital literacy and critical thinking by creating content-based digital stories. Conversely, the control group, taught with traditional storytelling methods, showed the least progress in these areas.

**RQ2:** What are the additional benefits of using a web-based learning strategy in ESL/EFL classrooms?

The researchers applied thematic analysis to identify common patterns in the studies. The results are organized into two sections: i) benefits for students and ii) benefits for instructors. The benefits for students, along with the related study references, are shown in Table 6 below.

**Table 6: Benefits of using web-based learning strategies for students**

<b>Benefits</b>	<b>Frequency</b>	<b>Author</b>
Improve collaborative skills and peer feedback	3	(Haro et al., 2023; Hojeij & Hurley, 2017; Wang, 2015)
Increase learners' engagement and boost motivation	7	(Al Asadi, 2020; Guo & Li, 2024; Haro et al., 2023; He, 2024; Huang, 2016; Salem, 2022b; Wang, 2015)
Enhancement of soft skills	3	(Al Asadi, 2020; Salem, 2022b; Wang, 2015)
Better Critical Thinking & Analytical Skills	2	(Al Asadi, 2020; Haro et al., 2023)
Digital Literacy Development	3	(Al Asadi, 2020; Cequeña, 2020; Sajjadpour, 2021)
Flexibility and accessibility	2	(Guo & Li, 2024; Yildiz & Gonen, 2024)

Based on the thematic analysis, several benefits were identified from the reviewed articles, prominently the role of collaborative writing and peer feedback in enhancing writing skills. Wang's exploration of wikis as a collaborative tool demonstrates how such platforms can promote innovative learning strategies in English for Specific Purposes (ESP) contexts (Wang, 2015). Similarly, Hojeij and Hurley (2017) discuss how mobile learning apps can support peer and self-editing processes, thereby increasing student ownership of their writing (Hojeij & Hurley, 2017). Haro et al. (2023) demonstrate how online peer feedback influences the quality of argumentative writing, emphasizing the role of feedback systems in the writing process. These studies underscore the value of collaborative methods in fostering a supportive learning environment that improves writing results.

Secondly, the use of web-based instructional methods increased learners' engagement and boosted their motivation (Al Asadi, 2020; Guo & Li, 2024; Haro et al., 2023; He, 2024; Huang, 2016; Salem, 2022b; Wang, 2015). The use of web-based instructional methods has increased engagement among ESL learners, thanks to the interactive nature of online platforms, which enables learners to participate actively in discussions and feedback processes (Haro et al., 2023). Platforms such as Edmodo (Guo & Li, 2024), WebQuest (Al Asadi, 2020; Salem, 2022b), wikis (Wang, 2015), and blogs (Huang, 2016) were reported to be engaging and interactive, which increased learners' motivation to participate in writing activities. This heightened motivation contributed to their overall writing performance and student engagement in the learning process.

Furthermore, web-based learning encourages students to take ownership of their learning, leading to a more active and engaged approach to their education (Salem, 2022b). Likewise, Huang (2016) reported that students found writing blog assignments easier and more motivating due to the freedom to choose their topics. This autonomy contributed to a more engaging writing experience compared to traditional assignments. Moreover, Al Asadi (2020) noted that the use of WebQuest as a learning medium facilitated active participation and engagement among students (Al Asadi, 2020) who expressed enthusiasm in researching intercultural topics and completing assignments, which contributed to their motivation to learn.

Thirdly, this systematic review revealed another significant benefit: the use of web-based instructional methods contributed to the enhancement of soft skills such as communication and collaboration (Al Asadi, 2020; Salem, 2022b; Wang, 2015). Salem (2022b) reported that students in the experimental group demonstrated improved soft skills, particularly in communication and collaboration, fostered through the interactive nature of the WebQuest. Similarly, Al Asadi (2020) stated that when students engaged in discussions and group activities, their ability to work together and express their ideas effectively was also enhanced.

Similarly, engaging in wiki-based assignments supported ESL learners in enhancing their collaboration abilities and taking greater control of their learning process (Wang, 2015). Furthermore, they appreciated the convenience of working at their own pace and the peer-to-peer learning opportunities that wikis provided. Thus, using web-based instructional methods in teaching writing skills not only enhanced ESL learners' writing performance but also helped improve their soft skills, as evidenced by previous studies. Next, students also benefited from enhanced critical thinking and analytical skills, particularly when engaged in problem-solving tasks and peer evaluations using tools such as WebQuests and AWE platforms (Al Asadi, 2020; Haro et al., 2023).

Moreover, activities using those web-based learning strategies also promote students' deeper thinking skills. Another benefit is the development of digital literacy, a crucial skill for academic and professional contexts. Students learned to navigate various platforms, utilize digital writing tools, and communicate effectively in online environments (Cequeña, 2020; Al Asadi, 2020), preparing them for future academic and workplace demands. Finally, flexibility and accessibility of web-based learning tools allowed students to learn anytime and anywhere, which is especially advantageous for learners balancing multiple responsibilities or facing physical/geographical constraints (Guo & Li, 2024; Yildiz & Gonen, 2024).

**Table. Benefits of using web-based learning strategies for instructors**

<b>Benefits</b>	<b>Frequency</b>	<b>Author</b>
Efficient Feedback & Assessment	3	Sajjadpour (2021); Yildiz & Gonen (2024); He (2024)
Monitoring Student Progress	4	Huang (2016); Hojeij & Hurley (2017); Guo & Li (2024)
Timesaving & Reduced Workload	3	Sajjadpour (2021); Yildiz & Gonen (2024); He (2024)
Differentiated & Personalized Instruction	2	Wang (2015); Guo & Li (2024)
Promotion of Active & Collaborative Learning	3	Al Asadi (2020); Chatta & Haque (2020); Peungcharoenkun & Waluyo (2023)
Innovative Pedagogical Strategies	2	Salem (2022a); Elgün Gündüz (2023)
Professional Development	2	Al Asadi (2020); Guo & Li (2024)

From the teacher's perspective, web-based learning offers numerous instructional, managerial, and professional benefits. A primary benefit is efficiency in feedback and assessment. Technologies like Grammarly and Automated Writing Evaluation (AWE) systems streamline error detection and provide immediate, detailed feedback, reducing teachers' marking load and freeing up time for more personalized and strategic instruction (Sajjadpour, 2021; Yildiz & Gonen, 2024; He, 2024). Next, monitoring and tracking student progress becomes more manageable with digital tools that document revision history, student contributions, and engagement levels (Huang, 2016; Hojeij & Hurley, 2017). This data-driven insight allows for more targeted interventions and supports formative assessment practices.

Moreover, web-based tools also promote differentiated instruction. Teachers can customize content, tasks, and feedback to suit learners' varied proficiency levels and learning styles (Wang, 2015; Guo & Li, 2024). This adaptability promotes equity and enhances the overall effectiveness of instruction. Nevertheless, the use of collaborative online environments encourages active and student-centered learning. Teachers are able to design more interactive lessons that focus on peer learning and learner autonomy (Al Asadi, 2020; Chatta & Haque, 2020). These practices foster a more dynamic classroom atmosphere and improve student-teacher interaction. Additionally, teachers benefit professionally by expanding their pedagogical strategies and enhancing their technological competence. Engaging with innovative tools like Edmodo, WebQuests, and AI-powered platforms cultivates reflective teaching practices and provides opportunities for ongoing professional development (Salem, 2022a; Elgün Gündüz, 2023).

Furthermore, web-based instruction is particularly advantageous in blended or remote learning settings, as it provides continuity and flexibility in teaching during disruptions, such as the COVID-19 pandemic (Al Asadi, 2020). Platforms that support asynchronous instruction enable teachers to manage time more effectively while maintaining instructional quality. Lastly, teachers reported higher job satisfaction as they observed students becoming more motivated, autonomous, and successful in their writing tasks. This positive classroom dynamic contributes to a more fulfilling teaching experience (Pitukwong & Saraiwang, 2024; Peungcharoenkun & Waluyo, 2023).

## **5. Conclusion**

Web-based learning in ESL/EFL education offers multifaceted advantages for both students and teachers. For students, it enhances not only their writing proficiency—including grammar, structure, and coherence—but also promotes greater autonomy, motivation, and collaborative learning. Digital tools such as blogs, wikis, and Google Docs provide platforms for authentic communication, peer feedback, and interactive engagement, which foster improved self-regulation, confidence, and critical thinking. Furthermore, the flexibility and accessibility of online learning environments support personalized learning experiences, making education more inclusive and student-centred.

For teachers, web-based instruction improves instructional efficiency, enabling more timely and targeted feedback through tools like Grammarly and Automated Writing Evaluation (AWE) systems. Teachers gain deeper insights into student learning through continuous monitoring, data-driven feedback, and formative assessment. These technologies also facilitate differentiated instruction, collaborative classroom dynamics, and professional development. Importantly, the shift towards digital pedagogies helps educators foster more student-centred, interactive, and adaptive teaching environments, ultimately enhancing teaching effectiveness and learner outcomes.

In conclusion, this study reveals a rich tapestry of educational innovations and challenges in ESL/EFL writing instruction across various countries and contexts. The integration of technology, innovative pedagogical approaches, and an emphasis on cultural awareness are common themes that highlight the ongoing evolution of language education. Additionally, this review helps educators and practitioners select appropriate technology-based tools and resources for teaching and learning ESL writing skills. Moreover, the studies on web-based learning strategies empower language educators to incorporate technology-based training as a supplemental educational approach.

This review demonstrates that technology tools support ESL/EFL learning, particularly in developing language skills such as academic writing. This opens up more opportunities to incorporate additional tech-based tools into ESL teaching and learning. Therefore, using technology in language education not only enhances learners' language abilities but also promotes their personal development and adds to overall educational progress.

## 6. References

- Al Asadi, S. S. (2020). Intercultural awareness and writing through the use of WebQuest: Iraqi students at Al- Awsat Technical University as a case study. *Arab World English Journal, Special Is(6)*, 379–392. <https://doi.org/10.24093/awej/call6.25>
- Almazroui, K., & Awad, C. (2025). Integrating social media into language education: Designing a digital literacy pedagogical framework through a mixed methods approach in the UAE. *International Journal of Learning, Teaching and Educational Research, 24(6)*, 471–496. <https://doi.org/10.26803/ijlter.24.6.22>
- Arneback, E., Englund, T., & Solbrekke, T. D. (2017). Student teachers' experiences of academic writing in teacher education– on moving between different disciplines. *Education Inquiry, 8(4)*, 268–283. <https://doi.org/10.1080/20004508.2017.1389226>
- Asratie, M. G., Aylet, Y. T., & Alebachew, M. G. (2022). Attitudes and practices to improve english language skills through mobile applications: in the case of secondary schools english language teachers awi zone, Amhara Region, Ethiopia. *Education and Information Technologies, 27(6)*, 8489–8518. <https://doi.org/10.1007/s10639-022-10905-z>
- Azizov, S. (2024). Utilization of blended learning technologies in improving students' writing skills: Technology Integration Models. *The American Journal of Social Science and Education Innovations, 6(6)*, 190–202. <https://doi.org/10.37547/tajssei/volume06issue06-25>
- Bashori, M., van Hout, R., Strik, H., & Cucchiarini, C. (2022). Web-based language learning and speaking anxiety. *Computer Assisted Language Learning, 35(5–6)*, 1058–1089. <https://doi.org/10.1080/09588221.2020.1770293>

- Bora, P. (2023). Importance of Writing Skill to Develop Students' Communication Skill. *Journal of Research Scholars and Professionals of English Language Teaching*, 7(35), 1–6. <https://doi.org/https://doi.org/10.54850/jrspelt.7.35.0091>
- Cequeña, M. B. (2020). Correlations of self-perception in reading and in writing, reading and writing performance in web-mediated and conventional writing instruction. *Education and Information Technologies*, 25(2), 1067–1083. <https://doi.org/10.1007/s10639-019-10002-8>
- Chatta, B. S., & Haque, M. I. (2020). Improving paragraph writing skills of Saudi EFL university students using flipped classroom instruction. *Arab World English Journal*, 6(6), 228–247. <https://doi.org/10.24093/awej/call6.15>
- Cook, D. A. (2007). Web-based learning: Pros, cons and controversies. *Clinical Medicine, Journal of the Royal College of Physicians of London*, 7(1), 37–42. <https://doi.org/10.7861/clinmedicine.7-1-37>
- Destianingsih, A., & Satria, A. (2017). A study on students' need analysis on web-based English learning materials. *Inovish Journal*, 2(1), 48. <https://doi.org/10.35314/inovish.v2i1.184>
- Dousti, M., & Amirian, Z. (2023). The effect of web-mediated, blended, and purely online learning on EFL learners' writing achievement in the Iranian context: A comparative study. *Education and Information Technologies*, 28(2), 1675–1696. <https://doi.org/10.1007/s10639-022-11215-0>
- Elgün Gündüz, Z. (2023). Teaching writing with wiki-based collaborative writing tasks in an EFL context at higher education. *Acuity: Journal of English Language Pedagogy, Literature, and Culture*, 8(1), 68–86. <https://doi.org/10.35974/acuity.v8i1.280>
- Farah Amirah, M. F., & Nur Ehsan, M. S. (2023). ESL pre-university learners' needs analysis for web-based English academic vocabulary learning resource. *International Journal of Learning, Teaching and Educational Research*, 22(4), 195–216. <https://doi.org/10.26803/IJLTER.22.4.12>
- Ghamdi, H. A. A., & Alnajami, M. M. (2022). A Literature Review on the Impact of Digital Games on Improving Students. *Paripex - Indian Journal of Research*, 11(5), 109–111.
- Gharehblagh, N. M., & Nasri, N. (2020). Developing EFL elementary learners' writing skills through mobile-assisted language learning (MALL). *Teaching English with Technology*, 20(1), 104–121.
- Girard, T., & Pinar, M. (2011). A usability study of interactive web-based modules. *Turkish Online Journal of Educational Technology*, 10(3), 27–32.
- Guo, H., & Li, D. (2024). The effect of electronic portfolio-based writing instruction on the second language writing performance and writing self-efficacy of EFL learners: A mixed methods study. *SAGE Open*, 14(2), 1–18. <https://doi.org/10.1177/21582440241257697>
- Haerazi, Utama, I. M. P., & Hidayatullah, H. (2020). Mobile applications to improve english writing skills viewed from critical thinking ability for pre-service teachers. *International Journal of Interactive Mobile Technologies*, 14(7), 58–72. <https://doi.org/10.3991/IJIM.V14I07.11900>
- Haro, A. V., Noroozi, O., Biemans, H. J. A., Mulder, M., & Banihashem, S. K. (2023). How does the type of online peer feedback influence feedback quality, argumentative essay writing quality, and domain-specific learning? *Interactive Learning Environments*, 1–20. <https://doi.org/10.1080/10494820.2023.2215822>
- He, Y. (2024). The metaphor of AI in writing in English: A reflection on EFL learners' motivation to write, enjoyment of writing, academic buoyancy, and academic success in writing. *International Review of Research in Open and Distributed Learning*, 25(3), 271–286. <https://doi.org/10.19173/irrodl.v25i3.7769>
- Hoang, D. T. N., & Hoang, T. (2022). Enhancing EFL students' academic writing skills in online learning via Google Docs-based collaboration: a mixed-methods study. *Computer Assisted Language Learning*, 37(7), 1504–1526.

- <https://doi.org/10.1080/09588221.2022.2083176>
- Hojeij, Z., & Hurley, Z. (2017). The Triple Flip: Using technology for peer and self-editing of writing. *International Journal for the Scholarship of Teaching and Learning*, 11(1), 1-4. <https://doi.org/10.20429/ijsofl.2017.110104>
- Huang, H.-Y. C. (2016). Students and the teacher's perceptions on incorporating the blog task and peer feedback into EFL writing classes through blogs. *English Language Teaching*, 9(11), 38. <https://doi.org/10.5539/elt.v9n11p38>
- Hyland, K. (2003). Second Language Writing. In *Second Language Writing*. <https://doi.org/10.1017/cbo9780511667251>
- Karim, R. A. (2022). *The effect of a Mobile-Assisted Mind Mapping Technique toward ESL undergraduate students' argumentative writing skills performance*. <https://ir.upsi.edu.my/detailsg.php?det=6958>
- Kashefian-Naeeni, S., Hosseini, S. A., Dabiri, A., Rezaei, S., & Kustati, M. (2024). A comparison of the effects of web-based vocabulary instruction vs. the conventional method on EFL learners' level of L2 lexical knowledge. *Forum for Linguistic Studies*, 6(1), 1-15. <https://doi.org/10.59400/fls.v6i1.1947>
- Kee, T. P., Hashim, H., & Ainil Sulaiman, N. (2021). The use of technology in teaching of writing among Malaysian ESL secondary school teachers. *Arab World English Journal*, 7(Special Issue), 314-330. <https://doi.org/10.24093/awej/call7.22>
- Kusumawati, E. T., Solihati, N., & Sari, Z. (2025). Integration of Web-Based Intelligent Tutoring System (TuinLec) into Text Structure Strategy to Improve Text Strategy Memory and Reading Comprehension Skills. *International Journal of Learning, Teaching and Educational Research*, 24(4), 52-71. <https://doi.org/10.26803/ijlter.24.4.3>
- Mohd Zaki, N. A., & Adnan, N. H. (2023). ESL teachers' perceptions of web-based collaborative writing activity. *International Journal of Academic Research in Progressive Education and Development*, 12(4), 1368-1392. <https://doi.org/10.6007/ijarped/v12-i4/20153>
- Nordin, N., Norman, H., & Embi, M. A. (2016). Technology Acceptance of Massive Open Online Courses in Malaysia. *Malaysian Journal of Distance Education*, 17(2), 1-16. <https://doi.org/10.21315/mjde2015.17.2.1>
- Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., ... Moher, D. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *International Journal of Surgery*, 88(April), 1-9. <https://doi.org/10.26633/RPSP.2022.112>
- Pasand, P. G., & Haghi, E. B. (2013). Process-product approach to writing: The effect of model essays on EFL learners' writing accuracy. *International Journal of Applied Linguistics and English Literature*, 2(1), 75-79. <https://doi.org/10.7575/ijalel.v.2n.1p.75>
- Peungcharoenkun, T., & Waluyo, B. (2023). Implementing process-genre approach, feedback, and technology in L2 writing in higher education. *Asian-Pacific Journal of Second and Foreign Language Education*, 8(1). <https://doi.org/10.1186/s40862-023-00211-7>
- Pitukwong, K., & Saraiwang, S. (2024). Exploring the effectiveness of digital writing tools on Thai EFL students' writing. *Contemporary Educational Technology*, 16(3), ep519. <https://doi.org/10.30935/cedtech/14808>
- Prystiananta, N. C., Noviyanti, A. I., & Udhiyanasari, K. Y. (2025). The Impact of Assistive Technologies in Enhancing English Learning Outcomes for Students with Disabilities: A Meta-Narrative Analysis. *World Journal of English Language*, 15(2), 296-308. <https://doi.org/10.5430/wjel.v15n2p296>
- Rao, P. S. (2019). Effective Teaching of Writing Skills to the English Language Learners. *International Journal of English Language, Literature and Translation Studies*, 6(4), 196-205. <https://doi.org/10.33329/ijelr.64.196>

- Rose, H., Briggs, J. G., Boggs, J. A., Sergio, L., & Ivanova-Slavianskaia, N. (2018). A systematic review of language learner strategy research in the face of self-regulation. *System*, 72, 151–163. <https://doi.org/10.1016/j.system.2017.12.002>
- Rossa, R., Zuleni, E., Marfilinda, R., Muzayyanah, M., & Tulljanah, R. (2023). Enhancing Higher Education Writing Achievement: An Experimental Exploration Of Problem-Based Learning And Technological Integration. *Edumaspul: Jurnal Pendidikan*, 7(2), 5816–5821. <https://doi.org/10.33487/edumaspul.v7i2.7458>
- Sajjadpour, N. (2021). How Grammarly® website influences the Iranian EFL learners' writing performance. *Language Teaching Research Quarterly*, 22, 119–139. <https://doi.org/10.32038/LTRQ.2021.22.09>
- Salem, A. A. M. S. (2022a). Multimedia presentations through digital storytelling for sustainable development of EFL learners' argumentative writing skills, self-directed learning skills and learner autonomy. *Frontiers in Education*, 7(June), 1–14. <https://doi.org/10.3389/feduc.2022.884709>
- Salem, A. A. M. S. (2022b). The impact of WebQuest-based sheltered instruction on improving academic writing skills, soft skills, and minimizing writing anxiety. *Frontiers in Education*, 7(April), 1–18. <https://doi.org/10.3389/feduc.2022.799513>
- Shahrina, M. N., & Norhisham, M. (2017). The best of two approaches: Process/Genre based approach to teaching writing. *The English Teacher*, XXXV, 75–85. [http://www.melta.org.my/ET/2006/2006\\_6.pdf](http://www.melta.org.my/ET/2006/2006_6.pdf)
- Singh, C. K. S., Mohtar, T. M. T., Kepol, N., Abdullah, N. Y., Mat, M., Moneyam, S., ...Rahmayanti, H. (2020). ESL Teachers' scaffolding strategies to teach writing. *Universal Journal of Educational Research*, 8(7), 3064–3076. <https://doi.org/10.13189/ujer.2020.080735>
- Taufiq, M. A., Zaim, M., & Asri, Y. (2021). Analyzing students' needs for essay writing course at university. *Proceedings of the Tenth International Conference on Languages and Arts (ICLA 2021)*, 599(Icla), 14–19. <https://doi.org/10.2991/assehr.k.211129.003>
- Wang, Y. C. (2015). Promoting collaborative writing through wikis: a new approach for advancing innovative and active learning in an ESP context. *Computer Assisted Language Learning*, 28(6), 499–512. <https://doi.org/10.1080/09588221.2014.881386>
- Yazid, N. H. M., Hashim, H., & Sulaiman, N. A. (2024). A systematic literature review of web-based learning and digital pedagogies in grammar education ( 2015-2024 ). *International Journal of Academic Research in Business and Social Sciences*, 14(9), 2524–2542. <https://doi.org/10.6007/IJARBS/v14-i9/22858>
- Yildiz, H., & Gonen, S. I. K. (2024). Automated writing evaluation system for feedback in the digital world: An online learning opportunity for English As a foreign language students. *Turkish Online Journal of Distance Education*, 25(3), 184–206. <https://doi.org/10.17718/TOJDE.1169727>