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Exploring the Use of ChatGPT in EFL/ ESL Writing Classrooms: A Systematic Review

Yustinus Calvin Gai Mali

Universitas Kristen Satya Wacana, Indonesia

ABSTRACT

Background: ChatGPT has become increasingly prevalent in higher education, particularly within EFL/ESL writing classrooms. However, the rise in plagiarism and academic dishonesty associated with its unethical use is concerning. Educational institutions must explore and design AI-use-related best practices for using generative AI technology, such as ChatGPT, more ethically in the writing classrooms.

Purpose: To systematically review previous studies to investigate how university students use ChatGPT in their EFL/ESL writing classrooms. Given the evidence of how the students used ChatGPT, this study explores existing best practices to regulate ChatGPT's ethical and responsible use in the classes.

Method: Thirty-two (32) articles (i.e., 17 empirical and 15 non-empirical studies) from 31 peer-reviewed international journals were selected based on specific criteria comprising article types, quality, year of publication content, and contexts of the study, following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines. The articles were searched in May 2024, facilitated by the Publish or Perish software. Within the software, Google Scholar was deliberately chosen as the primary database. The inductive data analysis results were rigorously checked using multiple validation strategies and presented as themes to address the research goal.

Results: The analysis revealed that ChatGPT was utilized in the writing process for various academic and non-academic writing tasks, highlighting the potential bright and dark sides of ChatGPT's use in writing. The study then identified four main categories of regulating the use of ChatGPT in EFL/ESL writing classrooms, which include institutional policies, instructional writing strategies, assessment design innovation, and ethical co-regulation practices. Drawing on the analyses and discussions of the previous studies, the researcher suggested sample writing activities with the ethical and productive use of ChatGPT, outlined pedagogy and policy implications for regulating ChatGPT in the writing classrooms, and proposed directions for future research.

Conclusion: Key patterns in how EFL/ESL learners have used ChatGPT in writing tasks and eight replicable best practices for regulating its use in classroom contexts were identified, where among these, co-creating ethical guidelines with students and emphasizing the writing process seemed to be particularly promising strategies to mitigate the unethical use of ChatGPT in EFL/ESL writing classrooms.

KEYWORDS:

ChatGPT, EFL/ESL, literature review, students, teachers, writing

INTRODUCTION

The emergence of ChatGPT, a large language model developed by OpenAI and publicly released in November 2022, has brought significant transformation to the landscape of education, particular-

ly within English language teaching and learning (Imran & Almusharraf, 2023; Mahyoob et al., 2023; Synekop et al., 2024). As early as 2022, Sumakul et al. (2022) anticipated that artificial intelligence (AI) would soon become a major force in education, and this projection

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Correspondence:

Yustinus Calvin Gai Mali yustinus.mali@uksw.edu

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has rapidly materialized with the widespread adoption of ChatGPT. Trained on extensive textual data, ChatGPT is capable of generating human-like responses, which has drawn considerable attention from researchers for its potential applications in academic contexts, including student writing (Vázquez-Cano et al., 2023; Klyshbekova & Abbott, 2024).

Despite its potential to support students' writing processes and improve writing fluency (Rababah et al., 2023; Song & Song, 2023), ChatGPT also raises pressing concerns in educational settings. Notably, academic staff find it increasingly difficult to differentiate between student-written texts and those generated by ChatGPT (Hang, 2023; Krajka & Olszak, 2024; Matthews & Volpe, 2023), and there is growing documentation of plagiarism and academic misconduct associated with its misuse (Alberth, 2023; Grassini, 2023; Perkins, 2023). In this context, scholars emphasize the necessity for institutions to formulate clear, pedagogically grounded strategies to regulate generative AI tools in the classroom (Gustilo et al., 2024), especially as evidence suggests that students will continue to use ChatGPT as an integrated part of their academic experience (Ajlouni et al., 2023; Ho & Nguyen, 2024; Marzuki et al., 2023; Nguyen et al., 2024). As Algasham (2023) notes, ChatGPT is likely to become as ubiquitous as Google. Without formal guidance, students cannot be expected to independently navigate the ethical boundaries of AI-assisted writing (Črček & Patekar, 2023).

While recent research has sought to identify best practices and policy recommendations for using ChatGPT in education, most of these discussions remain general in scope and are not situated within the specific context of English writing instruction (Ajlouni et al., 2023; Crawford et al., 2023; Grassini, 2023; Matthews & Volpe, 2023; Rudolph et al., 2023; Tikhonova & Raitskaya, 2023). Furthermore, many studies have been conducted within single national contexts: the Philippines (Gustilo et al., 2024), Croatia (Črček & Patekar, 2023), or Jordan (Rababah et al., 2023), limiting the generalizability of their findings.

In response to these limitations, the present study undertakes a focused review of empirical and conceptual research to examine how university students in EFL/ESL writing classrooms have used ChatGPT. Based on this analysis, the study then identifies and synthesizes replicable best practices for regulating its use in pedagogically appropriate and ethically responsible ways.

The study is guided by the following research questions:

RQ1: How do university language students use ChatGPT in their EFL/ESL writing classrooms?

RQ2: What are the existing best practices to regulate the use of ChatGPT in EFL/ESL writing classrooms?

In addressing these questions, this review responds to recent calls in the literature (e.g., Alqasham, 2023; Baskara & Mukarto, 2023; Cong-Lem et al., 2024; Klimova et al., 2024) for the development of comprehensive guidelines that promote responsible AI use while reinforcing academic integrity in EFL/ESL writing contexts. The results are also intended to support instructors who remain uncertain about how to address AI-related academic dishonesty in their classrooms (Cong-Lem et al., 2024). Additionally, the study proposes examples of ethically grounded writing tasks that incorporate ChatGPT as a support tool rather than a substitute for student work.

METHOD

This study adopts a systematic literature review method by Li (2018) and Zain (2022) to explore previous studies that address the use of ChatGPT in English writing classrooms in EFL/ESL contexts. In short, the term EFL shows contexts where people mostly learn English in a formal classroom setting, with limited opportunities to use the language outside their class for daily communication (Mali, 2017), while the term ESL shows contexts where people learn English in a place where English is necessary and plays important roles in everyday life, education, business, and government (Richards & Schmidt, 2010).

Transparency and Databases

The review followed an a priori literature search and data extraction protocol, and no deviation from the protocol was made during the study. To identify relevant sources for analysis, the researcher employed the Publish or Perish software, a bibliometric tool previously utilized in systematic review studies such as Putrie et al. (2024). Within the software, Google Scholar was deliberately chosen as the primary database, following the approach of Li (2018), due to its accessibility and inclusion of a wide range of open-access journal articles, in contrast to subscription-based platforms such as Web of Science. The search strategy involved the use of targeted keyword phrases, including: "ChatGPT in English language writing class," "ChatGPT in EFL writing class," "guidelines for using ChatGPT in EFL/ESL writing classrooms," "policy of using ChatGPT in EFL/ESL writing class," and "students' experiences in using ChatGPT in writing class." The search for the articles was done in May 2024. A more detailed protocol used for the literature search is explained in the following section.

Inclusion and Exclusion Criteria

Articles retrieved from the search were then further selected based on the following inclusion and exclusion criteria of the Preferred Reporting Items for Systematic Reviews and

Meta-Analyses (PRISMA) guidelines, used by Teng (2024a) to ensure the quality and novelty of the review. First, the articles should be written in English and peer-reviewed academic articles. Second, the selected articles can be both empirical and non-empirical studies. Still, they should discuss the use of ChatGPT in English language writing classrooms in EFL/ESL contexts in higher education settings. Third, the articles were recently published in 2024-2023. Fourth, the articles are published in peer-reviewed SCOPUS-indexed journals. Fifth, if not indexed by SCOPUS, the articles should be cited at least ten times by other studies. Last, the selected articles should be open-access. The researcher was aware that the criteria might be influenced by the potential subjective bias of the researcher, yet most of the criteria in Table 1 were also used by the previous systematic review studies (e.g., Teng, 2024a; Zain, 2022). Thus, the criteria should remain relevant for future studies, with necessary modifications in certain areas, e.g., the number of citations of the articles to include in the review, to enhance the quality of the review.

In addition to studies situated within EFL/ESL contexts, the review also included selected articles from broader higher education settings (e.g., Črček & Patekar, 2023; Yeo, 2024) given the relevance of their findings and the value of the authors' perspectives in addressing the present study's research questions. To respond to reviewer feedback on an earlier version of the manuscript, a complementary manual search was conducted using Google Scholar, guided by the inclusion criteria outlined in Table 1. This process yielded seven additional studies deemed relevant to the study's objectives and capable of enriching the analysis of ChatGPT use in EFL/ESL writing classrooms. The manual search also served as a strategy to minimize the risk of omitting significant works that may not have been retrieved through the Publish or Perish software alone. As a result, 32 peer-reviewed journal articles (17 empirical and 15 non-empirical studies) were selected based on the established inclusion and exclusion criteria. As detailed in Table 2, the majority of these articles were published in education-focused journals,

with a smaller subset appearing in journals related to educational technology.

Data Analysis Procedures

To analyze the selected studies, the researcher adopted an inductive, qualitative content analysis approach, following procedures commonly used in systematic and narrative reviews (e.g., Li, 2018; Teng, 2024a; Zain, 2022). The analysis began with multiple close readings of each article, during which the researcher identified and highlighted segments of text deemed relevant to the study's research questions, as guided by Saldaña and Omasta's (2018, p. 286) recommendation to extract information that is "closely related to and can help to answer the research questions." Following the initial reading phase, the researcher created a structured document in Microsoft Word to compile annotations, organize highlighted excerpts, and assign preliminary codes to specific data segments. These initial codes served as analytic labels that captured patterns across the data. Through an iterative review process, codes were examined, compared, and refined to generate a set of emergent themes, largely derived using in vivo phrasing from the original notes. These themes were then used to organize the presentation of findings in the Results section, each directly addressing one or both of the study's research questions.

It should be noted that the data were analyzed by a single coder, which may limit intersubjective reliability. This decision is consistent with other single-author review studies (Li, 2018; Teng, 2024a; Zain, 2022); however, it remains a methodological limitation. In the absence of coder triangulation, transparency was prioritized in the coding and theme development process to enable readers to assess the coherence and validity of the interpretations presented. That said, the researcher developed a data extraction table (see Table 3) to systematically record key information from each reviewed study. For each reviewed article, the researcher documented the methodological type, study contexts, ChatGPT's use case for writing practices and policies, and relevance to the

Table 1 *Inclusion and Exclusion Criteria*

Criteria	Inclusion	Exclusion
Language	English	Non-English
Document	Journal articles	Non-journal articles
Article types	Peer-reviewed articles	Non-peer reviewed articles
Content	Discussing the use of ChatGPT in English writing class	Not discussing the use of ChatGPT in English writing class
Context of study	EFL/ESL contexts in higher education settings	Non-EFL/ESL contexts; non-higher education settings
Year of publication	2024-2023	Before 2023
Quality	SCOPUS-indexed or has been cited at least ten times	Non-SCOPUS indexed or has been cited less than ten times
Access	Open-access	Non-open access; needs to pay to access articles

Table 2Distribution of the Reviewed Articles

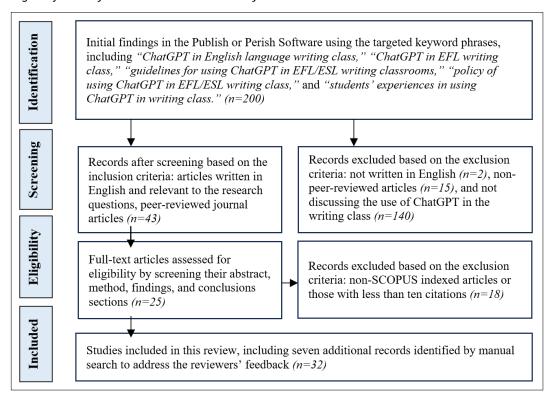
Journal Titles	Number of Articles	Studies	Types
Arab World English Journal	1	Algaraady and Mahyoob (2023)	
Asia CALL Online Journal	1	Schmidt-Fajlik (2023)	
Cogent Education	1	Marzuki et al. (2023)	
Computers and Education: Artificial Intelligence	1	Teng (2024b)	
Electronic Journal of e-Learning	1	Tseng and Lin (2024)	
Frontiers in Psychology	2	Klimova et al. (2024); Song and Song (2023)	
International Journal of Engineering Pedagogy	1	Rababah et al. (2023)	щ
International Journal of Language Instruction	1	Hang (2023)	Empirical Studies
Journal of Applied Learning & Teaching	1	Mohammadkarimi (2023)	ical s
Journal of Language & Education	1	Črček and Patekar (2023)	študi
Journal of University Teaching & Learning	1	Ho and Nguyen (2024)	es
Languages	1	Xiao and Zhi (2023)	
Migration Letters	1	Alqasham (2023)	
Research Methods in Applied Linguistics	1	Mizumoto and Eguchi (2023)	
Smart Learning Environment	1	Özçelik and Ekşi (2024)	
Teaching English with Technology	1	Cong-Lem et al. (2024)	
XLinguae	1	Krajka and Olszak (2024)	
Assessing writing	1	Barrot (2023)	
Computers and Education Open journal	1	Moorhouse et al. (2023)	
Contemporary Educational Technology	1	Imran and Almusharraf (2023)	
Indonesian Journal of English Language Teaching and Applied Linguistics	1	Baskara and Mukarto (2023)	
Indian Journal of Ophthalmology	1	Mondal and Mondal (2023)	Nor
International Journal of Education and Learning	1	Baskara (2023)	Non-Empirica
International Journal of TESOL Studies	1	Teng (2024a)	pirio
Journal of China Computer-Assisted Language Learning	1	Tseng and Warschauer (2023)	_
Languages	1	Zadorozhnyy and Lai (2023)	Studies
RELC Journal	1	Yeo (2024)	σ
Teaching English with Technology	1	Bonner et al. (2023)	
TEFLIN Journal	1	Alberth (2023)	
TESL-EJ	1	Kostka and Toncelli (2023)	
TESOL Journal	1	Carlson et al. (2023)	

research questions. The table also included a column for initial coding and interpretive notes, which later informed theme development. This structured approach ensured consistency across articles and enabled a transparent link between data and emerging insights.

Data Evaluation

Although the inductive data analysis, including the coding and synthesis process, was conducted by the researcher himself, the researcher also employed multiple validation

Figure 1 *PRISMA Flow Diagram for the Systematic Review in This Study*



strategies to enhance the credibility of the findings presented in this study. First, the researcher used the inclusion and exclusion of studies based on transparent and replicable criteria, as presented in Table 1, which was similar to previous studies. Second, the researcher maintained a reflective, analytic memo throughout the coding process to document interpretive decisions and ensure consistency. Third, the researcher carefully checked all data extraction and theme development with the original studies to maintain fidelity to source meanings. Fourth, the researcher encouraged readers of this paper to consult the data extraction table (see Table 3), which provided detailed information on how each reviewed study contributed to the findings. These strategies align with recognized approaches for establishing trustworthiness in qualitative research (Poveda-Garcia-Noblejas & Antropova, 2024; Tikhonova & Raitskaya, 2024).

RESULTS

This section presents the systematic review results of the two research questions. It also summarizes the scope, research designs, geographical coverage, and quality of the included studies and highlights key trends, gaps, and areas of divergence across the literature. The researcher retrieved 200 studies as the initial search results. The researcher then screened articles written in English and peer-reviewed, as well as those relevant to the research questions. As a result, the researcher excluded 157 articles following the criteria

defined in the protocol. The researcher then performed a full-text reading of the remaining 43 studies. Among these, 18 articles that did not fulfill the inclusion criteria were removed, such as non-SCOPUS-indexed articles or those with fewer than ten citations. Finally, this study reviewed the remaining 25 studies plus seven other studies identified by manual search. As shown in Table 3, the study finally reviewed 32 articles in total.

Study Characteristics

The matrix in Table 3 provides a general overview of the reviewed studies. First, among the thirty-two articles, 17 are empirical studies, while the other 15 are non-empirical. Second, most studies (n=23) were published in 2023, while a few (n=9) were published in 2024. Though these studies are very recent, they were commonly conducted in a single country or site and aimed to explore ChatGPT in isolation without comparing it with other recently published AI tools, such as Google AI Studio or DeepSeek. Third, all the reviewed studies were conducted in higher education contexts, either in private or state universities, involving university lecturers and students. Fourth, methodologically speaking, previous studies (n=7) commonly used the qualitative method and selected interviews as their primary research instrument. Yet, these qualitative studies involved a limited number of research participants, such as four lecturers (e.g., Marzuki et al., 2023) and five students (e.g., Xiao & Zhi, 2023), which might limit the generalizability of their findings. The

Table 3 *Matrix of the Previous Studies*

Study	Research/	Contexts and	Designs	Uses of	Policies
Alberth (2023)	Examine the potential benefits and drawbacks of ChatGPT in academic writing, as well as provide solutions to address the drawbacks	Participants Academic writing contexts	Conceptual paper	To provide feedback on essay structure, sentence clarity, coherence, and cohesion in academic essays	Acknowledging how ChatGPT was used in the writing process (e.g., to paraphrase some ideas); explicitly explaining what stu- dents may or may not do when using ChatGPT in their writing class
Algaraady and Mahy- oob (2023)	Investigate ChatGPT's effectiveness in detecting writing errors made by EFL students	88 EFL university written tasks in a university in Yemen	A mixed-method study involving error analysis done by EFL instructors and ChatGPT	To provide feedback on grammar, vocabu- lary, spelling, punctu- ation, and sentence structure	Not discussed
Alqasham (2023)	Explore EFL university perceptions of ChatGPT in their English language acquisition journey	5 undergraduate students from various majors at an English-medium college in Saudi Arabia	A qualitative study using a semi-structured interview	To be a digital tutor offering various feedback to students' academic essays, helping students brainstorm writing ideas, and drafting their introductions	Acknowledging and citing ChatGPT's contribution appropriately, incorporating training sessions highlighting the potential and limitations of AI tools
Barrot (2023)	Explore the potential benefits and challenges of using ChatGPT for second language (L2) writing	L2 writing class- room practices	Technology review (conceptual paper)	To brainstorm writing ideas, to refine students' initial writing outline, to provide writing feedback on language style, vocabulary, and grammar	Emphasizing the value of the writing process, asking students to document their writing process, encouraging students to incorporate personal experiences in their writing, and asking students to write their original output first and then refine it using ChatGPT
Baskara (2023)	Explore potential benefits and challenges of using ChatGPT in EFL writing instruction	EFL writing instructions	A literature review study	To provide writing feedback, which includes vocabulary, grammar, and syntax, and suggestions for improvement	Assigning writing tasks that require a high level of creativity or originality, co-creating ChatGPT guidelines with students, providing students with examples of how to use ChatGPT for writing practice, and being prepared to provide support and guidance to students as needed
Baskara and Mukarto (2023)	Explore the current knowledge of ChatGPT and its potential implica- tions of ChatGPT for lan- guage learning in higher education	Higher education contexts	A literature re- view study	To provide feedback on students' writing	Creating new peda- gogical methods or assessment techniques in writing classes

Study	Research/ Study Goals	Contexts and Participants	Designs	Uses of ChatGPT	Policies Discussed
Bonner et al. (2023)	Provide examples of how ChatGPT can be used to develop learning materials and classroom activities as well as to provide feedback	School and higher education contexts	Conceptual paper	To check grammatical errors in students' writing	Not discussed
Carlson et al. (2023)	Examine the use of ChatGPT 4 to provide feedback on students' writing	General English for academic purposes classes	Media review	To give feedback on the quality of a topic sentence, grammat- ical accuracy, ideas development, and language quality	Practicing ChatGPT prompts, having the writing done in class, as well as using AI detec- tors to review students' work
Cong-Lem et al. (2024)	Explore EFL lecturers' perceptions and responses to academic integrity in the era of ChatGPT	25 EFL university lecturers in Vietnam	A qualitative study using a structured, open-ended survey	To generate essays for students	Teaching students about how to use AI tools appropriately, raising students' awareness of the importance of their original ideas, using AI detection tools, redesigning writing assessments, co-creating AI guidelines with students, using stricter regulations, using offline assessment
Črček and Patekar (2023)	Investigate the use of ChatGPT among university students for written assignments, explore ways the students utilize the tool, and explore the students' perspectives on the ethical aspects of using ChatGPT	201 university students from private and public universities in Croatia	A quantitative study using an online question- naire	To generate writing ideas, paraphrase sentences, summarize, write parts or whole of students' writing assignments	Banning the use of AI, fostering the spirit of honesty-humility to students (i.e., prioritizing fairness over students' interests), conscientiousness (i.e., a strong work ethic), and openness to experience (i.e., tackling challenges with students' ideas)
Hang (2023)	Explore EFL lecturers' thoughts on the use of ChatGPT in their writing classes	20 EFL university instructors at a uni- versity in Vietnam	A mixed-method study using a questionnaire and structured interview	To be a supportive tutor, providing suggestions for revising students' work, writing samples, and examples of language use	Designing writing activities that require students to use their critical thinking and problem-solving skills; explaining where, when, and how ChatGPT is or is not allowed to be used in the writing process
Ho and Nguyen (2024)	Explore students' per- ceptions on the use of ChatGPT in English language learning	369 English-ma- jored students at a university in Vietnam	A quantitative study using a questionnaire	To provide feedback on students' writing and language use	Adding courses on how to integrate technology in general and ChatGPT into teacher education programs
Imran and Almusharraf (2023)	Examine the role of ChatGPT as a writing assistant in academia	Higher education contexts	A literature re- view study	To assist the writing process of a scientific paper	Being fully aware of the limitations of ChatGPT

Study	Research/ Study Goals	Contexts and Participants	Designs	Uses of ChatGPT	Policies Discussed
Klimova et al. (2024)	Explore students' atti- tudes and perceived use- fulness of using ChatGPT for learning a foreign language	91 undergraduate students studying English at a univer- sity in the Czech Republic	A qualitative study using a questionnaire survey	To help students in writing their bachelor thesis, providing references to cited sources, creating presentations, and writing seminar papers	Establishing guidelines and protocols to ensure responsible and ethical use of AI technologies, particularly regarding issues of plagiarism, data privacy, and academic integrity; upskilling teachers and students' AI competencies
Kostka and Toncelli (2023)	Explore the roles of ChatGPT in English language teaching, its benefits, and challeng- es, as well as describe best practices of using ChatGPT for language teaching purposes	University settings in the USA	Conceptual paper	To correct grammatical errors and provide explanations for the corrections	Assigning students writing assignments that require problem-solving and critical thinking, using Turnitin software to detect AI-generated texts, co-creating guidelines for ChatGPT use with students, and refining them as the semester goes on (if necessary)
Krajka and Olszak (2024)	Investigate university students' experiences in determining if AI tools or a human wrote an essay, as well as see how much AI assistance they need to summarize, generate text, and write from prompts when trained to use an AI-assisted word processor	24 undergraduates in the applied lin- guistics study pro- gram at a university in Poland	A quasi-experi- mental treatment involving a single group	To provide feedback on students' writing	Using AI detection tools, understand- ing the differences between AI and hu- man-generated written texts
Marzuki et al. (2023)	Examine the range of available AI writing tools and assess their influence on student writing	4 EFL lecturers from three different universities in Indo- nesia	A qualitative study using inter- views	To brainstorm and generate writing ideas	Not discussed
Mizumoto and Eguchi (2023)	Perform automated essay scoring using GPT-3 (text Davinci-003 model) and evaluate its reliability and accuracy	12.100 essays in the ETS Corpus of Non-Native Written English	Scoring the essays using the GPT-3	To score an essay and explain the reasons for giving that particular score	
Moham- madkarimi (2023)	Examine EFL lecturers' perspectives on academic dishonesty made by EFL university students in the era of AI	67 EFL lecturers from various state and private universities in Iraqi Kurdistan	A mixed-method study using a semi-structured interview and a questionnaire	To deliver fast writing feedback	Using AI detection tools, discussing with students what they may or may not do with ChatGPT when writing, designing writing tasks requiring creativity, originality, problem-solving, and critical thinking
Mondal and Mondal (2023)	Explores the use of ChatGPT in academic writing and provides insights on how to utilize it judiciously	Academic writing in higher education	Conceptual paper	To assist students in academic writing (e.g., checking grammar and summarizing journal articles)	Properly citing all sources and avoiding copying and pasting text directly from ChatGPT without proper attribution, recognizing the potential risks of using ChatGPT

Study	Research/ Study Goals	Contexts and Participants	Designs	Uses of ChatGPT	Policies Discussed
Moorhouse et al. (2023)	Examine the extent to which the world's 50 top-ranking HEIs have developed or modified their assessment guidelines to address generative artificial intelligence (GAI) use and, where guidelines exist, the primary content and advice given to guide instructors in their GAI assessment design and practices	Websites of the top (based on Times Higher Education (THE) World Univer- sity Rankings 2023) 50 universities' official websites	Analyzing information on the websites	To provide meaningful feedback on students' writing	Submitting notes they took on any sources to prepare their writing, providing alternative ways for students to demonstrate what they have learned beyond the text, breaking larger writing assignments into smaller pieces of writing tasks, and discussing with students what they may or may not do when using ChatGPT in their writing classes
Özçelik and Ekşi (2024)	Examine the impact of ChatGPT on the acquisi- tion of register knowledge across various writing tasks	11 EFL university students at a uni- versity in Turkey	A qualitative case study with field notes and unstructured open-ended interviews	To correct the gram- mar, punctuation, and sentence structure of students' writing	Giving instructions on how to ask ChatGPT to edit their writing, including ChatGPT's suggestions made to students' writing when students submitted their final writing
Rababah et al. (2023)	Analyze perspectives of postgraduate university students about the use of ChatGPT in writing their theses	80 postgraduate students at a uni- versity in Jordan	A quantitative study using a questionnaire	To support the thesis writing process (i.e., searching relevant materials and generating ideas)	Emphasizing the importance of proper citation practices
Schmidt-Faj- lik (2023)	Compare ChatGPT with online grammar checkers to check students' work	69 university stu- dents in Japan	Comparative study coupled with a question- naire to explore students' per- spectives	To provide clear and direct explanations related to grammar errors, ChatGPT can have the explanations translated into students' L1	Closely monitoring the writing process and scoring that process, using the process writing approach
Song and Song (2023)	Evaluate the impact of AI-assisted language learning on EFL students' writing skills and writing motivation	50 EFL students enrolled in a Bach- elor's degree pro- gram at a university in China	A mixed-method study involving pre-and post- tests to assess writing skills and semi-structured interview	To identify grammatical errors in students' writing, provide feedback on essay structure, vocabulary, sentence clarity, and coherence in writing	Being fully aware of the limitations of ChatGPT
Teng (2024a)	Investigate the role of ChatGPT in EFL writing	EFL writing class- rooms	A literature review study	To spot and analyze writing errors	Establishing clear guidelines and best practices for the ethical use of AI in writing, banning the use of ChatGPT, and creating new pedagogical methods or assessment techniques in writing classes
Teng (2024b)	Explore students' perceptions and experiences in using ChatGPT for their writing process in an EFL context	45 EFL students in Macau	A mixed-method study using ques- tionnaires and interviews	To check grammatical errors in students' writing, provide instant and personal- ized writing feedback	Being fully aware of the limitations of ChatGPT

Study	Research/ Study Goals	Contexts and Participants	Designs	Uses of ChatGPT	Policies Discussed
Tseng and Lin (2024)	Explore students' reflections on using ChatGPT in their writing process	15 EFL university students at a private university in Taiwan	A qualitative study analyzing students' written works and reflec- tive writings	To be a virtual peer reviewer that provides immediate feedback on grammar, essay structure, clarity, and coherence of students' writing; to act as a writer who can write a well-structured composition	Telling students what they can/cannot do when using ChatGPT in writing
Tseng and Warschauer (2023)	Propose a five-part peda- gogical framework to use AI tools effectively	Second language learning and writing instructions	Conceptual paper	To help with spelling and grammar checks and paraphrasing suggestions	Teaching students how to note and cite the role of AI-based tools in their writing process
Xiao and Zhi (2023)	Investigate students' experiences with ChatGPT and perceptions about ChatGPT's role in lan- guage learning	5 undergraduate students from diverse majors at an English-medium international uni- versity in China	A qualitative study using a semi-structured interview	To generate new ideas when planning or writing an essay	Telling students to report how they used ChatGPT in completing their writing tasks, guiding students to use ChatGPT legitimately and productively, verifying information generated by ChatGPT
Yeo (2024)	Use ChatGPT to write an editorial for the RELC Journal	Academic journals	Editorial writing	To assist an author in writing an editorial	Publicly disclosing which AI tool was used, how it was used (including the prompts), and why it was used
Za- dorozhnyy and Lai (2023)	Explore the potential benefits and roles of ChatGPT to enhance second language communicative practice	School and higher education contexts	Conceptual paper	To provide input for students' writing to enhance its sentence structure, grammar, and spelling	Not discussed

other studies used the mixed (n=5) and quantitative (n=3) methods. Two distinct methods, i.e., a comparative study to compare ChatGPT with online grammar checkers to review students' work (see Schmidt-Fajlik, 2023) and content analysis of websites' information related to the AI guidelines (see Moorhouse et al., 2023) were also used. Many are conceptual papers (n=6) and literature review studies (n=4). The other studies were related to media review (Carlson et al., 2023), technology review (Barrot, 2023), and editorial writing (Yeo, 2024), which might lack of empirical validation. The matrix also informs that ChatGPT has been used in many countries, heavily centered in Asia and the Middle East. Those countries are Japan (Schmidt-Fajlik, 2023), Taiwan (Tseng & Lin, 2024), Indonesia (Marzuki et al., 2023), China (Song & Song, 2023; Xiao & Zhi, 2023), Jordan (Rababah et al., 2023), Croatia (Črček & Patekar, 2023), Yemen (Algaraady & Mahyoob, 2023), Macau (Teng, 2024b), Vietnam (Cong-Lem et al., 2024; Hang, 2023; Ho & Nguyen, 2024), Iraqi Kurdistan (Mohammadkarimi, 2023), and Saudi Arabia (Algasham, 2023). Some other countries include the Czech Republic (Klimova et al., 2024), Turkey (Özçelik & Ekşi, 2024), Poland (Krajka & Olszak, 2024), and the United States (Kostka & Toncelli, 2023).

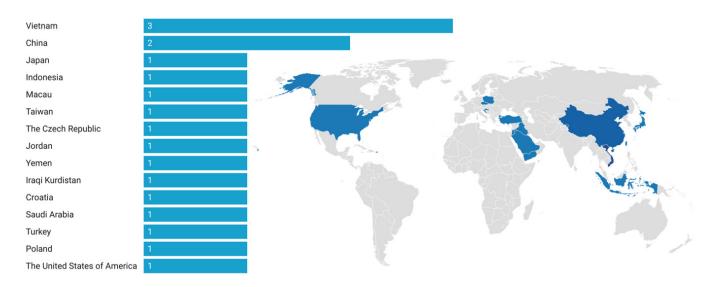
RQ 1: The Use of ChatGPT in English Language Writing Classrooms

The review reported various students' practices using ChatGPT in English language writing classrooms. As a note, not all previous studies explicitly stated the types of ChatGPT used by university students. There are only a few researchers (e.g., Alqasham, 2023; Bonner et al., 2023; Özçelik & Ekşi, 2024; Tseng & Lin, 2024; Xiao & Zhi, 2023; Zadorozhnyy & Lai, 2023) who stated using the free access ChatGPT 3.5 version in their studies. Thus, this study assumes that the students reported in the previous studies used the ChatGPT 3.5 version.

Different Types of Writing

Students used ChatGPT to write various types of written work. These include seminar papers (Klimova et al., 2024), argumentative essays (Song & Song, 2023), thesis (Klimova et al., 2024; Rababah et al., 2023), and editorial writing (Yeo, 2024). The other types include academic (Alberth, 2023; Alqasham, 2023) and non-academic (Xiao & Zhi, 2023) es-

Figure 2The Locations of the ChatGPT Use Informed by The Previous Studies



Note. This figure was created on the Datawrapper website (https://www.datawrapper.de/).

says, scientific papers (Imran & Almusharraf, 2023; Mondal & Mondal, 2023), an email, a blog post, a letter of request, and an informal text message (Özçelik & Ekşi, 2024).

Generating Writing Ideas

ChatGPT was also used to generate ideas for writing (Alqasham, 2023; Črček & Patekar, 2023; Marzuki et al., 2023; Rababah et al., 2023). This is evidenced by Xiao and Zhi's (2023) study that reported the voices of two students. The students said: "For example, if I plan to write an essay on a specific topic. I will ask ChatGPT to give me some ideas about where to start (student 1); When I do not know where to start, I will ask ChatGPT to think of several topics for me; then, I will take a look to see which one I am interested in (student 2)". For another student, "ChatGPT is a beacon when I'm grappling with ideation. If I'm set on an essay theme, I typically consult ChatGPT for initial thoughts or potential starting points" (Alqasham, 2023, p. 1256).

Asking for Feedback

Many previous studies (e.g., Baskara, 2023; Bonner et al., 2023; Carlson et al., 2023; Özçelik & Ekşi, 2024; Schmidt-Fajlik, 2023; Song & Song, 2023; Teng, 2024b; Tseng & Lin, 2024; Zadorozhnyy & Lai, 2023) reported that students asked ChatGPT to check grammatical errors in their writing. For that purpose, ChatGPT could present detected grammatical errors in students' writing in a table (Tseng & Lin, 2024), explain the errors translated into students' L1 (e.g., Japanese) (Schmidt-Fajlik, 2023), provide examples of using the

correct grammar (Baskara, 2023), and give a score for an essay along with reasons for giving that score (Mizumoto & Eguchi, 2023). Besides grammar, other forms of feedback that ChatGPT could provide for students include feedback on sentence structure, spelling (Özçelik & Ekşi, 2024; Zadorozhnyy & Lai, 2023), punctuation (Algaraady & Mahyoob, 2023), essay structure, sentence clarity, cohesion, and coherence in writing (Alberth, 2023; Song & Song, 2023; Tseng & Lin, 2024). With these practices reported by the previous studies, Mizumoto and Eguchi (2023) see the potential of utilizing ChatGPT to empower non-native English speakers linguistically.

Doing the Writing Work

It is alarming that some students were reported to use ChatGPT to write their writing assignments. The students used it for completing either as part of (36.1%) or the entire assignment (18%) (see Črček & Patekar, 2023). Similarly, "some students only copy essays generated by ChatGPT and submit them as their own ones. This leads to a worry over academic integrity" (Hang, 2023, p. 26).

The reviewed literature suggests that students use ChatGPT across multiple writing stages, from brainstorming to grammar checking. Yet, some students seem to face difficulties using ChatGPT ethically and independently without institutional guidance. Therefore, it is crucial to learn about best practices in the literature that readers can adopt to regulate the use of ChatGPT in their EFL/ESL writing classrooms, which will be presented in the following sections.

RQ 2: Best Practices to Regulate the Use of ChatGPT in EFL/ESL Writing Classrooms

The review informed various best practices for regulating the use of ChatGPT in the writing classroom, which could be categorized into four main sections: institutional policies, instructional strategies, assessment design innovations, and ethical co-regulation practices.

Institutional Policies

The institutional policies cover two best practices: using AI detection tools and implementing citation policies when using ChatGPT. Each will be described in the following paragraphs.

Using AI Detection Tools. AI detection tools were proposed to discover potential plagiarism in students' writing. Some tools include *Turnitin* (https://www.turnitin.com/) (Carlson et al., 2023; Cong-Lem et al., 2024; Mohammadkarimi, 2023), *Originality.Ai* (https://originality.ai/), Copyleasks (https://copyleaks.com/), *GPTZero* (https://gptzero.me/), and *Open. ai* (https://openai-openai-detector--qz8sj.hf.space/) (Krajka & Olszak, 2024). Then, as stated by an EFL teacher, "teachers should inform students that they will use some detectors to check the authenticity of their submitted papers, and a cheater will get a zero for a ChatGPT-generated essay. I believe students will be reluctant to use ChatGPT to complete a writing assignment" (Hang, 2023, p. 29).

Properly Citing ChatGPT-Generated Texts Used in Students' Writing. Students must tell their teachers how they used ChatGPT in their writing. One possible way is to ask students to cite ChatGPT-generated texts that they use or paraphrase in their work to prevent plagiarism and adhere to scholarly writing principles (Alqasham, 2023; Mondal & Mondal, 2023; Rababah et al., 2023; Tseng & Warschauer, 2023). Recently, the American Psychological Association released guidelines to cite ChatGPT-generated texts on its website, which should be discussed in writing classes. For more details, read McAdoo (2024)¹.

Instructional Strategies

The instructional strategies highlight the value of the writing process and have the students write in class. The other one is to scaffold writing assignments, that is, to break larger writing assignments into smaller writing tasks.

Emphasizing the Value of the Writing Process. The value of the writing process can be emphasized more to mitigate the potential issues of using ChatGPT. For instance, teachers can ask their students to document their writing steps, such as selecting their topic, outlining their ideas, writing their

draft, and revising their work until they finally produce their final writing work (Barrot, 2023). Students should also submit notes they took on any sources to prepare their writing (Moorhouse et al., 2023). Regarding ChatGPT, teachers can ask their students to submit their conversation history with ChatGPT as an appendix to their final work so that the teachers can see the writing process and how much ChatGPT helps students improve their writing.

Having the Writing Done in Class. Students can be asked to write in class. Doing so, students are not allowed to access mobile devices and the internet when completing the written work (Cong-Lem et al., 2024). A teacher suggested that "to evaluate students' writing performance precisely, students should be asked to do several writing tests in class with the observation of the teacher without the use of ChatGPT" (Hang, 2023, p. 28).

Scaffolding Writing Assignments. Teachers should thoughtfully scaffold their writing assignments to ensure their students have sufficient time, space, and support during their writing process. It is possible to break larger writing assignments into smaller pieces of writing tasks. Moorhouse et al. (2023) reminded us that students are more inclined to turn to ChatGPT if they feel stressed, overwhelmed, unsupported, or out of time.

Assessment Design Innovations

In the AI era, EFL/ESL writing lecturers should start designing innovative writing assessments for students, making them more integrative and holistic (Cong-Lem et al., 2024), and providing alternative ways for students to demonstrate what they have learned beyond the text (Baskara & Mukarto, 2023; Moorhouse et al., 2023).

Innovating the Design of Writing Assessments. That said, teachers might integrate some speaking or interviewing activities to ensure that students' writing results from their genuine work (Cong-Lem et al., 2024). For example, "teachers should require students to present the progress of constructing ideas, making outlines, and generating the essay to determine the originality of their written work" (Hang, 2023, p. 29). Teachers can also think about writing tasks requiring creativity, originality, problem-solving, and critical thinking (Mohammadkarimi, 2023). As Baskara (2023) observed, ChatGPT is limited to generating text based on the input given by its users; thus, it cannot generate completely original or creative text. Additionally, Hang (2023) suggested a combination of formative and summative writing assessments; in this case, students' consistent writing performances in those diverse assessments might indicate students' actual writing skills. Students can also write an essay that requires a close analysis of the materials (e.g., images, videos, course

McAdoo, T. (2024). How to cite ChatGPT. APA Style. https://apastyle.apa.org/blog/how-to-cite-chatgpt

books, class conversations) used in their class (Moorhouse et al., 2023), and that encourages students to discuss their personal experiences (Barrot, 2023).

Ethical Co-Regulation Practices

The other best practices relate to ethical co-regulating practices, where students and their lecturers openly discuss and create guidelines of what students can/cannot do when using ChatGPT in their writing process.

Co-Creating Guidelines for ChatGPT Use with Students.

Some researchers (e.g., Baskara, 2023; Cong-Lem et al., 2024; Kostka & Toncelli, 2023; Tseng & Warschauer, 2023; Xiao & Zhi, 2023) suggested that teachers discuss and co-create guidelines and ethical uses for ChatGPT with their students when doing their writing tasks once the course begins and (if necessary) refine the guidelines as the semester progresses. All these guidelines should be present in the course syllabus and communicated to the students as clearly as possible. Teachers can discuss with their students what they may or may not do when using ChatGPT in their writing classrooms, including potential limitations of ChatGPT. These discussions should be "open-minded" (Moorhouse et al., 2023, p. 8). For example, learning from Alberth (2023); Mohammadkarimi (2023), teachers and students may agree that copying texts generated by ChatGPT as they are and pasting them into students' papers is unethical. Yet, students may use ChatGPT to generate writing ideas (Črček & Patekar, 2023).

Learning from Schmidt-Fajlik's (2023); Özçelik and Ekşi's (2024) study, the instructors asked their students to write their first draft themselves. Then, after their first draft was ready and reviewed by their instructors, the students were allowed to use ChatGPT to edit their writing based on the prompts provided by their instructors. After including the ChatGPT suggestions and corrections in their draft, the students submitted their final draft to their instructors for a final review. Another thing is to cite ChatGPT-generated texts that students used in their writing, as discussed in the previous part. By engaging in the co-creation process with the students, it is hoped that teachers can also foster the spirit of honesty-humility (i.e., prioritizing fairness over students' interests), conscientiousness (i.e., a strong work ethic), and openness to experience (i.e., deciding to tackle challenges with students' ideas) to their students (Črček & Patekar, 2023). In that process, teachers can also communicate with students about the essence of original writing, the implications of using ChatGPT inappropriately for themselves and their community, and the value of their academic degree (Moorhouse et al., 2023).

Applying Stricter Regulations. The discussions with the students can also cover how far teachers could implement stricter regulations to minimize inappropriate and dishonest use of ChatGPT. The stricter regulations can include giving a

kind of punishment for students who are caught unethically using ChatGPT in their writing task (Cong-Lem et al., 2024) "[...] If AI-generated paragraphs are detected, students will get a zero for the assignment" (Hang, 2023, p. 29). Črček and Patekar (2023) reported the act of banning the use of ChatGPT, as Italy did temporarily in March 2023. To sum up, the reviewed literature has suggested eight best practices, each with its potential strengths and weaknesses, to regulate the use of ChatGPT in EFL/ESL writing classrooms, indicating that the unethical use of ChatGPT can be mitigated through carefully planned pedagogical writing instructions.

DISCUSSION

This discussion section interprets the findings in light of the two research questions and situates them within the broader scholarly discourse. That said, this study can also evaluate the current state of research, synthesize emerging trends and tensions, and suggest future directions for pedagogical practice and scholarly inquiry.

Interpretations of Key Findings in Light of Research Questions

This study aimed to answer two main research guestions regarding the use of ChatGPT in EFL/ESL writing classrooms. The first research question describes how university language students use ChatGPT in their language writing classrooms. The previous studies show the widespread use of ChatGPT across various countries to help students in their writing process for various academic (e.g., seminar papers, essays, thesis, and editorial writing) and non-academic types of writing (e.g., email, blog post, informal text messages). On the positive side of ChatGPT, previous studies have consistently reported that ChatGPT functions well as a supportive digital tutor for students, helping them generate writing ideas and providing feedback to enhance their writing work. On the negative side of ChatGPT, Crček and Patekar (2023) and Hang (2023) have the same concern that students use ChatGPT to write for them; they copy and paste the ChatGPT-generated text into their essays and submit it to their teacher as their work. No doubt, this action is extreme and unethical. If this happens continuously in the students' writing process, writing instructors might find it challenging to discern students' proper understanding and mastery of learning materials (Grassini, 2023), presented in the writing class. Besides, the ongoing unethical use of ChatGPT, such as in formative writing practices, can also make students dependent on ChatGPT to generate answers to any questions, which makes them unable to think logically in their writing (Hang, 2023).

In that case, as the answer to the second research question, previous studies have similar views on applying stricter regulations, such as giving a kind of punishment to the students (Cong-Lem et al., 2024), giving zero points to students'

work detected with AI-generated paragraphs (Hang, 2023), or banning the use of ChatGPT thoroughly (Črček & Patekar, 2023). Yet, the researcher believes it is an unsustainable solution to respond to the dark side of ChatGPT. In the ongoing debate on whether ChatGPT should be banned in education, what Cong-Lem et al. (2024); Črček and Patekar (2023); Hang (2023) suggested about the use of strict regulations contradicts Tseng and Warschauer's (2023) view, believing that students will lose essential opportunities to learn how to effectively use AI-based tools in their future workflows if they are not allowed to use the tools in their classrooms. "In a world that increasingly values the use of AI in the workplace, students who lack experience manipulating AI tools to increase their productivity and efficiency will fall behind those who do have the experience and skills to use those tools effectively" (Tseng & Warschauer, 2023, p. 259).

In alternative to applying the strict regulations described above, previous studies suggest that teachers use webbased AI detection tools to identify potential plagiarism in their students' writing. While this approach holds promise and is worth trying, Cong-Lem et al. (2024) pessimistically said that utilizing the detection tools might not work well for detecting AI-generated texts; this highlights a critical area for future research: exploring and evaluating the efficacy of various AI detection tools to better support teachers in identifying AI-generated writing in their students' work.

As reported in the findings, the ideas of designing writing tasks requiring creativity, problem-solving, and critical thinking, incorporating real-life and personal illustrations (Mohammadkarimi, 2023) and integrating additional oral assessments to clarify what they write (Cong-Lem et al., 2024) challenge traditional writing instructions. EFL/ESL writing lecturers can no longer assign their students to write an essay on a free topic and directly submit it to their lecturer for final grading, given that students might ask ChatGPT to write for them. That said, the researcher views the need to encourage the lecturers to monitor the students' writing process more closely, not just the final product, and carefully plan their pedagogical writing instructions. That writing process consists of five main stages: planning, drafting, revising and editing, and submitting (see Mali & Salsbury, 2021, pp. 251-252)

Moreover, students will likely use ChatGPT if they feel stressed and overwhelmed and lack time and support to complete their writing tasks (Moorhouse et al., 2023). This might mean that teachers should carefully consider the number of writing tasks to complete within a semester to ensure that students have time to complete each assignment. Moorhouse et al.'s (2023) argumentation also means a strong critique for all undedicated writing instructors who are often busy with their projects outside campus, which makes them unable to give time for consultations or sup-

port students in their writing process. These instructors should be aware that their lack of support for students might be one of the reasons why their students decide to use ChatGPT.

Methodological and Conceptual Gaps in the Literature

While many previous studies have been conducted to explore the use of ChatGPT in EFL/ESL writing classrooms, the researcher could identify some methodological and conceptual gaps. Methodologically speaking, the earlier studies had not conducted any in-depth class-based observations to see how well lecturers regulate the use of ChatGPT in their EFL/ESL writing classrooms, which was commonly obtained from interviews and questionnaire data. The researcher also viewed that most previous studies lack longitudinal work within a specific period to deeply explore and understand how students use ChatGPT in their writing process and how lecturers can regulate its use ethically in writing classes. Very few studies compared students' use of ChatGPT and other related AI tools in their writing process. Moreover, all the reviewed studies were also conducted in higher education settings, mainly in Asia and the Middle East counties, leaving the question of how senior, junior, or perhaps elementary school students used ChatGPT or similar AI tools, particularly to complete a written work assigned by their English language teacher, in less-represented educational settings, such as in South America, and Africa. Conceptually speaking, all the reviewed studies cannot assure the most effective ways to regulate the ethical use of ChatGPT in EFL/ ESL classrooms, particularly from the eyes of university lecturers teaching EFL/ESL writing courses or relevant stakeholders in the EFL/ESL education field. While some studies (e.g., Baskara, 2023; Hang, 2023; Kostka & Toncelli, 2023) suggested using writing tasks that require a high level of creativity, problem-solving, and critical thinking that might help prevent students from using ChatGPT unethically, they did not clearly illustrate what the tasks look like.

The author of the current review acknowledges a degree of overlap between the present review and the recent study conducted by Teng (2024a), published in July 2024. To clarify the distinct contribution of this study, several points merit consideration. First, the current review extends the geographical scope of Teng's work by incorporating studies from a range of educational contexts that were not represented in his review, including Taiwan, Indonesia, the Czech Republic, Jordan, Vietnam, Iraq, Saudi Arabia, and Poland. This broader inclusion enhances the cross-cultural relevance of the findings and allows for a more comprehensive understanding of ChatGPT's use in diverse ESL/EFL writing classrooms. Second, unlike Teng's study, which did not specify the use of bibliometric tools for data retrieval, the present review employed the Publish or Perish software to system-

atically identify relevant literature. This methodological divergence reflects a more transparent and replicable search strategy and resulted in the inclusion of a different body of studies. Notably, only two sources (Algaraady & Mahyoob, 2023; Song & Song, 2023) were common to both reviews. Finally, the findings presented in this article aim to confirm, refine, or challenge those reported by Teng (2024a), as well as those of other studies included in the present corpus (see Table 2). By offering new empirical insights and comparative perspectives, this review seeks to advance the scholarly conversation on the pedagogical applications of ChatGPT in ESL/EFL writing instruction.

Recommendations for Future Research

Future studies might plan the following research agendas to address the methodological and conceptual gaps in the literature mentioned previously. To complement the interview and questionnaire data commonly reported by previous studies, future researchers can conduct a longitudinal (i.e., in a semester) in-depth classroom-based observation in EFL/ ESL writing classrooms involving underexplored populations of K-12 students (elementary, junior, and senior high school students) in less-researched settings in South American and African countries. That observation should be aimed at seeing how well teachers in the classes mediate and regulate the use of ChatGPT with their students and how far students implement that regulation in each stage of their writing process. With those observations, future researchers could capture real situations or conditions when students used ChatGPT ethically or unethically and how far the regulation to mitigate the unethical use of ChatGPT works well in their classes. In that longitudinal research, future researchers can also assess ChatGPT's quality of feedback, writing assistance, and perceived usefulness in supporting students' writing process compared to related AI tools developed recently, such as Google AI Studio or DeepSeek.

Implications for Pedagogy and Policy

The findings of this study yield several important implications for institutions, writing instructors, department heads, and students involved in EFL/ESL writing classrooms (Table 4).

First, at the institutional level, there is a growing need to acknowledge what may soon become the new normal in academic practice: the increasing use of generative AI tools such as ChatGPT by university students to support their writing. Rather than resisting this shift, universities should take proactive steps to foster responsible and competent use of such technologies. This includes promoting digital literacy initiatives aimed at helping both faculty and students develop the necessary skills to effectively engage with AI tools. Specifically, institutions should offer opportunities for learning how to craft effective prompts, critically evaluate AI-generated content, and understand ethical boundaries

in its application. In this regard, the present study supports earlier calls by Hang (2023) and Özçelik and Ekşi (2024), who emphasize the importance of institutional engagement through symposiums, workshops, faculty-student discussions, and targeted training programs that focus on the practical, pedagogical, and ethical dimensions of using ChatGPT in academic contexts.

Second, writing instructors are encouraged to revise their course syllabi to include explicit guidelines on the appropriate and inappropriate uses of ChatGPT in academic writing. These guidelines should not merely appear as policy statements but should be introduced and discussed constructively with students at the beginning of each semester. Such dialogue can help students internalize expectations and avoid unintentional misuse of generative AI tools.

Third, the study highlights the pedagogical value of implementing a portfolio-based assessment approach in writing instruction. Portfolios allow instructors to track students' development over time by evaluating not only the final product but also the full writing process. As proposed by Sulistyo et al. (2020), a comprehensive writing portfolio may include an outline, in-class draft, final submission, a documented interaction with ChatGPT for revision purposes (e.g., grammar checking), and, if needed, results of an oral follow-up to verify authorship and comprehension.

Fourth, department heads play a critical role in ensuring quality instruction. They are advised to assign writing courses to instructors who are not only qualified but also committed to supporting students throughout the writing process. Given the labor-intensive nature of such instruction, especially in large classes, writing instructors should be provided with teaching assistants if the student-teacher ratio exceeds 10:1. As Moorhouse et al. (2023, p. 7) warn, students are more likely to rely on ChatGPT when they feel overwhelmed, unsupported, or constrained by time—factors that institutional design and instructor availability can directly mitigate.

Finally, students themselves must develop a nuanced understanding of both the capabilities and limitations of ChatGPT. Raising students' awareness of ethical boundaries and promoting critical digital literacy should begin early in their academic journey. Universities might consider offering a short, compulsory orientation course or workshops focused on maximizing the pedagogical benefits of ChatGPT while avoiding overreliance. Such training could be integrated into first-year curricula or offered through extracurricular channels.

Furthermore, reflecting on the previous discussions, the researcher would like to propose sample writing activities (see Figure 3). The activities should inform how writing lecturers and students can ethically and productively use ChatGPT in a writing classroom. These writing activities can be adapted to suit various EFL/ESL writing classes that use the pro-

Table 4 *The Summary of the Implications*

Stakeholders	Implications		
Institutions	Encourage their teachers and students to upgrade and enhance their competencies to handle the current advancements of ChatGPT or other related AI technology.		
	Conduct symposiums, conferences, trainings, regular discussions among faculty members and students, or other feasible attempts to enhance the teachers' and students' competencies.		
Writing instructors	Enhance their AI and technology literacy.		
	Include clear guidelines on acceptable use of ChatGPT in their course syllabi.		
	Discuss the guidelines with students.		
	Implement the writing portfolio to assess each student's writing.		
	Implement the process approach of teaching writing (see Figure 3).		
Department head	Thoughtfully select instructors who will teach the writing class (i.e., the ones who are technology and AI literate and committed to supporting students' writing.		
	Plan a writing class with a small number of students.		
	Prepare a teaching assistant for writing lecturers who teach a class of more than 10 students.		
Students in EFL/ESL writ-	Raise their awareness of ChatGPT's bright and dark sides.		
ing classrooms	Clearly understand what they can/cannot do with ChatGPT when completing their written work.		
	Be aware of the potential risks and limitations of ChatGPT and being too dependent on ChatGPT.		
	Enhance their AI and technology literacy.		

cess-based writing approach of Mali and Salsbury (2021). The writing activities can also facilitate the writing of diverse genres, such as seminar papers, argumentative essays, theses, and editorial writing. The other genres include academic and non-academic essays as well as scientific papers. Moreover, the researcher was confident that the sample writing activities, along with the results and discussions presented in the study, are generalizable to broader EFL/ESL writing contexts, given that they were derived from the rigorous analysis of relevant studies on the use of ChatGPT in EFL/ESL writing classes across various countries (see Figure 2).

In the planning stage, where students still brainstorm, write an outline of their writing, and develop writing ideas, for example, the lecturers and their students can collaboratively formulate guidelines for the ethical use of ChatGPT, establishing clear agreements on what they may or may not do with ChatGPT in their writing tasks. All the agreed-upon points should be stated clearly in the class syllabus. In support of the literature, students should always cite ChatGPT-generated texts that they use or paraphrase in their work (Xiao & Zhi, 2023). This practice underscores the importance of providing students sufficient time to learn and practice in-text and end-text citations (e.g., based on APA 7th edition or other writing conventions) early in their writing coursework, not just in upper-level academic or research proposal writing classes.

To engage in fruitful discussions when creating the guidelines for using ChatGPT with students and later provide support and guidance to their students when needed, first and foremost, teachers should make themselves familiar with ChatGPT. They should experiment with ChatGPT (or other generative AI tools in their fields) for their writing to understand its features, potential strengths, weaknesses, as well as patterns of texts generated by ChatGPT (Alqasham, 2023; Hang, 2023; Mohammadkarimi, 2023). Indeed, a commitment to exploring the applications of ChatGPT in teaching and learning practices is crucial for preparing students for the era of AI (Kostka & Toncelli, 2023). However, this commitment might be challenging for teachers who lack the skills to use technology for teaching and learning purposes (Mali, 2025) and are too busy with their administrative work (Muslem et al., 2018).

Then, in the *drafting* stage, where students start to develop a structured written text from their outline, their lecturers can ask their students in class (Carlson et al., 2023; Cong-Lem et al., 2024). That method could be interpreted as encouraging teachers to know their students' writing capabilities. Practically speaking, at the beginning of the semester, teachers might ask their students to write two to three descriptive paragraphs about any topic that interests them. The writing should be done in class without the use of ChatGPT. The teacher can then collect the students' work and read it closely to know their current level of writing quality at the beginning of the semester. In this stage, teachers should embrace imperfection in their students' writing; emphasizing that it is okay to make mistakes in the first draft, but, more importantly, the students write themselves and know

Figure 3The Sample Writing Activities Using ChatGPT

Precursor: Teachers should familiarize themselves with ChatGPT (and other generative AI tools) to understand the patterns and features of texts it generates. They try various prompts to serve different writing purposes. With this knowledge, teachers should be able to guide their students to write prompts to meet their writing objectives.

This commitment to exploring ChatGPT might be challenging for teachers who lack the skills to use technology for teaching and learning purposes and are too busy with their administrative work.

Planning: The students collect information, brainstorm, take notes, and develop initial (outline of) ideas. At this stage, students **may use ChatGPT**. They can try different prompts with the teacher asking ChatGPT to perform the tasks. They can then discuss and critically evaluate information suggested by ChatGPT in groups.

Drafting: The students write a structured text based on the notes developed in the planning stage. At this stage, students **may not use ChatGPT**. Let them write themselves (i.e., can be in class) to understand what they are writing. Embrace imperfection in the students' writing, it is okay to make mistakes. The writing teacher checks this draft and gives suggestions for improvement.

Requiring all writing to be completed in class, particularly for longer texts, may be challenging for some students who might find it hard to write in class with others, as they might prefer to be alone to concentrate and write well.

Revising and editing: Problems in the students' written work are identified. The essay is revised. Students may use ChatGPT as their virtual tutor to review their writing in terms of grammar, coherence, or other aspects asked in the writing rubric used to assess their writing. The students can try different prompts (i.e., might be guided by the teacher) to tell ChatGPT to perform the tasks. Students evaluate the feedback generated by ChatGPT.

Submitting: The students submit the work to their teacher and openly acknowledge the roles of ChatGPT in their writing. They should also submit their chat history with ChatGPT (e.g., as an appendix) so their teacher can see how they use ChatGPT to support their writing. The students might be asked to present what they write. The teacher then scores the students' presentation and uses the score to decide the final writing score.

what they are writing. Suppose there is a significant disparity between the quality of this initial work and subsequent writing assignments. In that case, teachers might be skeptical that their students (e.g., in school contexts with excellent internet access) might be using ChatGPT or other unethical means (e.g., copy-pasting from online resources) to write for them. However, requiring all writing to be completed in class, particularly for longer texts (e.g., essays or theses), may be challenging for the students. Mali (2024) reported that some university students found it hard to write in class with others, as they needed to be alone to concentrate and write well.

In the *revising* and *editing* stages, where students identify possible grammatical errors in their writing and write a clean copy of their work, students may use ChatGPT to provide various feedback on the first draft of their writing but *not* ask ChatGPT to write parts or the entire parts of the writing, as suggested by Özçelik and Ekşi (2024). It is import-

The teacher should discuss all these writing stages and their activities with their students before starting the planning stage. They should provide opportunities for the students to ask questions and make suggestions. They should also make an agreement with their students on when they can or cannot use ChatGPT, as suggested in the writing stages.

To do all of these writing activities requires a writing instructor who: 1) is technology and AI literate; 2) is committed to reviewing students' work several times and closely monitoring students' writing process; 3) has a positive attitude of employing the process approach of writing.

ant to emphasize that the students should write the draft before ChatGPT reviews it. After revising their work based on ChatGPT's suggestions and corrections in their first draft, the students could submit their final draft to their instructors for a final review.

For transparency purposes in the *submitting* stage, teachers may require students to submit the feedback generated by ChatGPT and the chat history made with ChatGPT as an appendix in their final draft submission. In this case, it is crucial that teachers directly teach and practice various clear and personalized prompts for ChatGPT to generate valuable and good feedback for students' writing. For prompt references, see Carlson et al. (2023); Mondal and Mondal (2023); Teng (2024b).

Overall, the reviewed literature in this study paints a complex picture of ChatGPT as a promising support tool and digital writing tutor for students and, simultaneously, a po-

tential threat to writing integrity. The challenge now is not whether to use AI tools in writing. Yet, it is more about planning pedagogical writing instructions that can mitigate the unethical use of ChatGPT or other AI tools in the recent massive disruption of AI to preserve the pedagogical integrity and critical literacy goals of writing education.

CONCLUSION

This study has identified key patterns in how EFL/ESL learners have used ChatGPT in writing tasks and replicable best practices for regulating its use in classroom contexts. Among these, co-creating ethical guidelines with students and emphasizing the writing process seemed to be particularly promising strategies to mitigate the unethical use of ChatGPT in EFL/ESL writing classrooms. What this study has found and discussed offers timely support for EFL/ESL educators and policymakers seeking to balance innovation with integrity in AI-mediated writing instruction. Nevertheless, this study is far from perfect because of the absence of research participants in sharing their perspectives on the themes presented in this study, e.g., how far the participants can/cannot accept the ideas of regulating AI use in the writing class. To address this limitation, future researchers can invite research participants, e.g., students, fellow lecturers, AI or technology experts, and experienced writing professors, to respond to their literature review results and explore their views on how they perceive the ethical integration of AI tools in diverse cultural and institutional contexts, or to assess the long-term impact of such tools on writing proficiency and academic integrity. As generative AI becomes a permanent fixture in educational practice, this study serves as a strong foundation for developing pedagogically sound, ethically aligned writing instructions in EFL/ ESL writing classrooms that empower students in their writing process without compromising academic standards.

GEN AI STATEMENT

The researcher affirmed that he did not use ChatGPT or other generative AI tools to write any single sentence in this paper. However, the researcher would like to acknowledge the use of *Grammarly* Premium after he has finished writing the first draft of this paper. The researcher used Grammarly to help identify grammatical errors in his sentences. The identified errors were then revised to enhance the grammatical accuracy of this paper. The researcher also used Grammarly to ask for some suggestions on academic phrases to improve the readability of his sentences. The researcher thoughtfully reviewed all the suggestions made by Grammarly to ensure the accuracy and quality of the sentences in this paper. Importantly, as informed by Cheng et al. (2025), researchers can ethically use ChatGPT or related generative AI tools to "check grammar, improve syntax, ensure consistency in technical terminology, refine complex sentences, and ensure that the manuscript flows well and is easy to follow" (p. 4) as long as they disclose the use of the tools in their manuscript.

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DECLARATION OF COMPETING INTEREST

None declared.

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