Navigating AI Writing Assistance Tools: Unveiling the Insights of Thai EFL Learners

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Abstract

Recently, AI writing assistance tools have emerged as pivotal aids in addressing L2 learners' writing challenges. With this emergence, this qualitative study delves into the perceptions of Thai EFL learners regarding the utilization of AI writing assistance tools. A total of ten Thai non-English-major undergraduates were interviewed to explore their experiences. The results unveiled a nuanced perspective, wherein the participants acknowledged both benefits and challenges linked to the integration of AI writing assistance tools in their writing processes. In terms of benefits, the participants highlighted improvements in linguistic aspects, enhanced affective factors, and pragmatic advantages. Despite these perceived benefits, the participants were attuned to the trade-offs associated with these tools, encompassing concerns about over-reliance on technology, the potential for academic misconduct, and the occasional ineffectiveness of the tools. This study provides valuable insights into the multifaceted impact of AI writing assistance tools on Thai EFL learners, offering implications for pedagogy and future research in the realm of language learning technology.

Keywords: AI tools, writing skills, EFL learners, writing assistance tools

Introduction

Mastering writing skills remains a formidable hurdle for many English as a Foreign Language (EFL) learners in the realm of EFL education (Ariyanti & Fitriana, 2017; Derakhshan & Shirejini, 2020; Koç et al., 2021). This complexity stems from diverse factors, encompassing learners' language proficiency (Derakhshan & Shirejini, 2020), their lack of confidence in writing (Zabihi, 2017), and varied approaches to writing instruction (Koç et al., 2021). The educational context, notably during the COVID-19 pandemic, encountered profound disruptions, compelling a shift to online teaching and learning due to social distancing measures (Khan et al., 2020; Pantelimon et al., 2021). Consequently, technology witnessed a surge in adoption as a solution to these challenges, a trend notably apparent in the increasing reliance on online writing tools, including Artificial Intelligence (AI) writing assistance tools by EFL learners experiencing writing difficulties (Haque, 2022).

AI writing assistance tools, characterized as AI-driven software endowed with human-like intelligence, have emerged as pivotal aids in addressing these challenges (Alharbi, 2023; Gayed et al., 2022; Mahlow, 2023). These tools encompass features such as generating word suggestions, crafting multiple paraphrase versions, and providing real-time corrective feedback, encompassing aspects like grammar, spelling, and sentence concision (Alharbi, 2023; Gayed et al., 2022; Mahlow, 2023). Prominent tools in this category include Grammarly (Haque, 2022), QuillBot (Dale, 2020), and ChatGPT, a novel AI chatbot that has gained traction for its advanced capabilities, including generating initial drafts and summarizing written work with precision (Johinke et al., 2023; Salvagno et al., 2023). Tambunan et al.'s (2022) study on EFL learners' use of *Grammarly* highlighted its widespread adoption for reviewing and revising written works, utilizing word suggestions and adhering to syntactic explanations for proper sentence structure.

In the specific context of Thai EFL learners, writing challenges persist despite English writing instruction since elementary school. The impediments are exacerbated at higher education levels due to an examination-oriented and rote-memorization culture overly emphasizing vocabulary and grammar and limited opportunities to practicing writing (Ahmed & Ahmad, 2017; Shukri, 2014). This deficit in proficiency regarding idea comprehension and organization continues to pose challenges for Thai EFL learners (Nguyen & Suwannabubpha, 2021; Stone, 2017). In response, Jeanjaroonsri (2023) noted the increasing adoption of digital tools, particularly AI writing assistance tools, by Thai EFL learners. This adoption is motivated by the learners' aspiration to enhance linguistic accuracy, subsequently bolstering confidence in their written works. Moreover, these tools empower learners to independently seek support for their writing tasks when assistance from teachers or peers is unavailable.

Despite the insights derived from existing studies (e.g., Tambunan et al., 2022), relying on self-reported data necessitates a more in-depth exploration. This underscores the imperative for further investigation, prompting the current study to address this gap through the application of interviews as a qualitative research method. The aim is to garner a nuanced and comprehensive understanding of how Thai EFL learners perceive the impact of utilizing AI writing assistance tools to augment their writing performance. Through this, the study endeavors to contribute substantively to the effective integration of AI writing assistance tools in both language learning and teaching within the EFL context.

Literature Review

Second Language (L2) Writing Difficulties

The acquisition of writing skills proves to be a formidable undertaking for English as a Foreign Language (EFL) learners, a challenge substantiated by various researchers (Ariyanti & Fitriana, 2017; Derakhshan & Shirejini, 2020). Writing proficiency encompasses diverse language

skills, including grammar, vocabulary, sentence construction, and content organization (Derakhshan & Shirejini, 2020). With its complexity, Derakhshan and Shirejini (2020) identify common writing difficulties among EFL learners, encompassing issues such as grammar, word choices, sentence construction, and the cohesion and coherence of paragraphs.

Beyond linguistic aspects, affective factors and sociocultural context also play pivotal roles in contributing to L2 writing difficulties. Zabihi (2017) delineates affective factors, citing writing anxiety and writing efficacy as influential elements affecting EFL learners' writing abilities. Learners experiencing anxiety or negative emotions during writing tend to exhibit diminished complexity, accuracy, and fluency in their written expression, whereas those with a strong belief in their writing capability tend to demonstrate more effective writing. Additionally, the sociocultural context (Koç et al., 2021) significantly impacts learners' writing skills. When grammar takes precedence over writing skills in L2 teaching, it adversely affects language proficiency for EFL students. The prevalence of rote-memorization in pre-tertiary education restricts opportunities for genuine communication and writing practice, hindering the development of effective writing skills (Ahmed & Ahmad, 2017; Shukri, 2014).

In the Thai educational context, English writing poses a perennial challenge for students. To illustrate, Nguyen and Suwannabubpha (2021) attribute this challenge to an examination-oriented culture that prioritizes exam-focused learning, emphasizing vocabulary and grammar over audience-oriented writing and meaning. Additionally, busy schedules and time constraints impede the development of writing skills, with teachers often neglecting writing lessons due to various extracurricular activities and academic contests. The shortage of well-trained EFL teachers in Thai rural schools compounds these challenges, requiring further development of instructional knowledge among educators (Hayes, 2010; Makmulma, 2020). Consequently, these persistent issues contribute to students' struggles with writing at higher educational levels, namely at a university level.

In summary, the challenges faced by EFL learners in L2 writing are multifaceted, involving both the learner's abilities and the instructional approach in the EFL context. Over the past decade, there has been a notable surge in the adoption of artificial intelligence (AI) and technology in language learning, particularly in writing. Htaw et al.'s (2022) meta-review on the use of AI and technology in academic English writing in higher education demonstrates a positive impact on EFL learners' writing performance. This suggests the potential for technology to play a significant role in enhancing writing skills.

Technology-Enhanced Language Learning (TELL)

In the digital era, technology has become ubiquitous, permeating every facet of global existence, including the realm of education (Iberahim et al., 2023). One prominent manifestation of this technological integration is Technology-Enhanced Language Learning (TELL), a tool leveraged to facilitate the teaching and learning of second languages (Chang & Hung, 2019; Iberahim et al.,

2023). Chang and Hung (2019) underscores the positive impact of TELL on students' learning outcomes and achievements in the domain of second language acquisition.

TELL's efficacy in enhancing various facets of language learning has been the subject of numerous studies, spanning diverse skills such as speaking (Bashori et al., 2021), vocabulary knowledge (Taj et al., 2017), and writing (Gayed et al., 2022). The collective findings converge to affirm that the integration of TELL into the EFL classroom represents an effective strategy for augmenting different dimensions of language learning, with a particular emphasis on writing skills.

Given the rising interest among EFL students in recent years, it becomes imperative to delve more deeply into the role of TELL in advancing writing skills, specifically through the incorporation of AI writing assistance tools (Nazari et al., 2021). The advent of these tools has garnered attention as they offer a contemporary avenue for language learners to refine their writing abilities. As such, exploring the intersection of TELL and AI writing assistance tools becomes crucial for a comprehensive understanding of their combined impact on writing skills within the EFL context. This discussion aims to critically examine the nexus between TELL and AI writing assistance tools, acknowledging their evolving significance and the implications they hold for language learners, particularly in the domain of writing.

AI Writing Assistance Tools

Since technology has become pervasive across the globe, its influence extends to the domain of education (Iberahim et al., 2023). One prominent manifestation of technological integration is the use of AI writing assistance tools, which traces its roots back to the 1970s when early versions were primarily employed for basic spelling and grammar corrections on personal computers (PCs) (Peterson, 1980). Over time, these tools (e.g., Grammarly, Microsoft Editor, and QuillBot) have evolved into sophisticated platforms capable of replicating human writing. They offer real-time corrective feedback encompassing grammatical and spelling accuracy, concision of sentences, word suggestions, and multiple paraphrase versions of the original text (Gayed et al., 2022; Mahlow, 2023).

A multitude of studies has explored the impact of AI writing assistance tools on the writing skills of EFL learners. For instance, Gayed et al. (2022) conducted research on the effects of AI Kaku, an application they developed, on the writing of 10 EFL Japanese students. While the study revealed a positive impact on syntactic complexity, specifically in expressing complex ideas fluently, other aspects such as lexical diversity and production rate did not show improvement. The researchers attributed these results to the limited training on AI Kaku and the small sample size, cautioning against drawing generalized conclusions about the impact of AI writing assistance tools on EFL learners. In addition, Chang et al. (2021) delved into AI-based automatic feedback, examining the impact of Grammarly on the writing performance of Chinese EFL students. Results indicated that students using Grammarly significantly outperformed their counterparts in terms of post-test writings. Grammarly's assistance was perceived as valuable in aiding students in learning grammar rules and selecting

appropriate word choices, fostering grammar awareness, enjoyment, and confidence in essay writing. However, the study's limited scope, focusing on students from the same major and university, underscores the need for cautious interpretation when generalizing findings. Marzuki et al. (2023) shifted the focus to EFL teachers, investigating their perspectives on AI writing assistance tools concerning content and organization of writing. The study revealed diverse tool usage, such as employing QuillBot for paraphrasing and Wordtune for refining sentence structures. This underlines that, beyond EFL learners, teachers are incorporating AI writing assistance tools into language teaching methodologies.

Examining the Thai context, Jeanjaroonsri (2023) explored the use and perceptions of mobile technologies, including AI writing assistance tools, among Thai EFL undergraduate students. The predominant usage of tools like Grammarly and online writing checkers was evident, with students acknowledging their assistance in expanding vocabulary and ensuring grammatical accuracy. However, concerns were raised about potential over-reliance hindering the integration of language knowledge into the writing process. Notably, the study's reliance on questionnaire responses may limit the depth of information, and participant choices were not scrutinized in terms of language proficiency, which could vary based on individual backgrounds or academic disciplines.

Clearly, the existing body of literature highlights the widespread adoption of AI writing assistance tools in educational contexts globally, with studies showcasing both positive and negative impacts on L2 learners. Nevertheless, research in the Thai context remains limited, primarily relying on self-reported questionnaires for data collection. To address this gap, the current study seeks to explore the impact of AI writing assistance tools on Thai EFL learners' perceptions, utilizing interviews for a more nuanced understanding. The research questions aim to delve into the varied utilization of AI writing assistance tools among EFL students with different language proficiency levels and uncover the associated benefits and challenges. Through this inquiry, the study aims to contribute a deeper understanding of the dynamics surrounding the integration of AI writing assistance tools in the writing processes of Thai EFL learners. Thus, this study addresses the following research questions:

1. How do EFL students with different levels of language proficiency utilize various AI writing assistance tools during the writing process?
2. What are the benefits and challenges associated with using AI writing assistance tools for EFL students?

Research Methodology

Research Design

To address the research questions, this study employed a qualitative research design, specifically adopting the case study methodology. The qualitative approach chosen is well-suited for

delving into the subjective viewpoints of individuals concerning social or human issues (Creswell, 2009). The case study methodology, frequently utilized in the social science field, proves instrumental in gaining a profound understanding of a particular issue within its authentic, real-life context (Crowe et al., 2011). This design's strength lies in its emphasis on elucidating the *how*, *what*, and *why* aspects of events, contrasting with experimental designs that prioritize hypothesis testing through controlled manipulation (Crowe et al., 2011). Consequently, the chosen research design empowers researchers to amass comprehensive insights, unravelling the nuanced impact of employing AI writing assistance tools on the perceptions of Thai EFL learners within the genuine setting of EFL education.

Participants

The participants of this study consisted of 10 Thai undergraduate students who passed the inclusion criteria (see Table 1). They were recruited through purposive sampling. This sampling method is appropriate for qualitative research because it involves selecting participants who are directly relevant to the issues of interest, which allows researchers to gather information that aligns with the specific assumptions they aim to investigate, understand, and gain insights into (Merriam, 2009). Therefore, this approach helped us to gain a deeper understanding of the impact of using AI writing assistance tools in Thai EFL learners' perceptions and its implications since we selected participants who were EFL learners and could provide detailed information about their AI writing assistance usage. To be included in the study, the participants were carefully screened using the following criteria: 1. being a Thai citizen, and 2. being non-English-major undergraduate students. The chosen participants had different English proficiency levels, determined by their enrolment in different English courses at a public university. These courses were designated with T1 (the mandatory basic English course) and T2 (the basic English II course). If the participant was required to enrol in both T1 and T2, they were considered to be at the A1 to A2 level. If the participant was only required to enrol in the T2 course, they were considered to be at the B1 to B2 level. Lastly, if the participant was not required to enrol in any of these two courses (exemption), they were considered to be at the C1 to C2 level (Faculty of Liberal Arts, Thammasat University, 2023).

Research Instrument

In this qualitative study, interviews were employed as a research instrument. We adopted a semi-structured interview approach because it enabled us to gather comprehensive information and insights from the interviewees (Ruslin et al., 2022). To formulate our interview questions, we drew upon relevant studies (i.e., Jeanjaroonsri, 2023; Marzuki et al., 2023), since these studies shared similar aims to our study which were to explore the use of writing assistance tools to facilitate writing in an EFL context. This allowed us to construct open-ended interview questions that aligned with our research questions. Therefore, the content of the interview questions focused on participants' usage of AI writing assistance tools and their perceptions regarding the challenges and benefits they

encountered while utilizing these tools. The example interview questions were: *What are the AI writing assistance tools that you commonly use to support your English writing?* and *What are the reasons that you use AI writing assistance tools to support your English writing?*

Table 1

Demographic Information

Participants	Academic disciplines	Gender	Ranges of English proficiency
S1	Law	Male	A1 - A2
S2	Public Health	Female	B1 - B2
S3	Political Science	Male	C1 - C2
S4	Thai	Male	B1 - B2
S5	Thai	Male	B1 - B2
S6	Accounting	Female	B1 - B2
S7	Southeast Asian Studies	Female	A1 - A2
S8	Southeast Asian Studies	Female	A1 - A2
S9	Russian Studies	Female	A1 - A2
S10	Psychology	Female	C1 - C2

Data Collection

After formulating our interview questions, we conducted a pilot test with participants who were not part of our main study to ensure whether the questions were clear and effective or needed any revisions. After that, we created an interview schedule that was convenient for our participants. Participants were interviewed individually by the researchers, which lasted approximately 30 minutes each. Following ethical guidelines, we sent a protocol document to the participants before the interview date. This document explained the research's purpose, assured participants of their anonymity, provided an estimated time of the interview, and allowed participants to ask questions or withdraw at this stage if they desired. During the actual interviews, we asked the questions listed as guiding questions, as well as additional questions that could provide valuable information related to our research questions. With the participants' permission, we recorded the interviews to facilitate transcription and ensure the accuracy of their responses. After the interviews, we transcribed the

recordings carefully and had member-checking. This transcription step was important for maintaining the accuracy of the information that would be further analysed as part of our research.

Data Analysis

The qualitative data were analysed using a thematic analysis method. Braun and Clarke (2006) asserted that thematic analysis was the approach for identifying or interpreting the patterns of the collected information by following six phases of data analysis. In the first phase, we accustomed ourselves to the transcribed interview by reading it several times. In phase two, we thoroughly examined the data and looked for noteworthy elements. This involved identifying key statements, recurring ideas, or significant phrases for generating initial codes, which were meaningful phrases that were related to our research questions. In phase three, we found patterns among the initial codes, identified potential themes, and categorized data into each theme. In phase four, we reviewed all themes by assessing the themes' relevance and coherence with the coded data. In phase five, we defined and described themes in more detail and generated names for themes that provided a clear concept about them. In the last phase, we analysed the findings and wrote an analysis report that explained themes and their significance and relevance to our research questions. This approach allowed us to create meaningful categories based on the connections found within interview responses. Moreover, it also allowed us to systematically analyse the data in a way that was both insightful and valid.

Findings

The Utilization of AI Writing Assistance Tools

In the course of this research, the participants employed two distinct AI writing assistance tools, namely *Grammarly* and *QuillBot*. While all participants utilized Grammarly, QuillBot was specifically employed by four of them (S2, S3, S4, and S6). The utilization patterns varied concerning the purposes of using Grammarly. S2 and S3 primarily employed it to scrutinize grammar accuracy and word choice. Conversely, some participants (S1, S3, S7, and S8) reported that they utilized Grammarly with a main focus on checking grammar, as reported by S2, S3, and S1:

I mainly use Grammarly to check grammar when I have to write a paragraph longer than four sentences. (S2)

Mostly I use Grammarly to check grammar accuracy in my essays. Actually, I'm confident in myself, but I think Grammarly can provide more precision on grammar. (S3)

I use Grammarly for transition word suggestions that can fit with sentences and enhance coherence of my writing. (S1)

Additionally, all participants reported using Grammarly to assess vocabulary choices in their writing tasks. For instance:

Sometimes I use it to find suggested synonyms in case I want to change some words in my writing to maximise word variety. (S2)

Grammarly can ensure that there won't be any misused vocabulary. (S3)

Beyond English subjects, S2 mentioned employing Grammarly for general purposes, such as verifying grammar accuracy in messages before communicating with foreign friends. This multifaceted usage underscores the writing assistance tool's versatility in aiding diverse aspects of writing, from grammar precision to vocabulary refinement, and extends beyond academic contexts to encompass personal communication.

When I text with my friends who are foreigners, I use Grammarly to type to see if it is correct. [Because] sometimes I forget to change the adverb. Grammarly corrects it [for me]. (S2)

In the context of QuillBot utilization, four participants (S2, S3, S4, and S6) employed it for the purpose of paraphrasing their writings, aiming to enhance the organization of their content and select the most suitable version for transcription. For instance:

It arranges phrases to sound better. At first, I wrote it in my own style, but then I wanted to paraphrase it. So, I tried putting [my writing] in QuillBot to see if the vocabulary could be more sophisticated than my own. (S3)

In some of my writing tasks, they required coherence. So QuillBot helped me in refining the writing to enhance organization and coherence of my writing. (S6)

Looking at how AI writing assistance tools were adopted, the results were diverse among the then participants. Some of them mostly used them as a guideline or proofreading of their written works, while the others frequently incorporated the tools in casual texting by setting up Grammarly on the keyboard to ensure grammar accuracy when typing messages. Additionally, some only used them when feeling unconfident and writing in a critical writing class in which the course required various writing formats, such as narrative or opinion essays.

The Impact of AI Writing Assistance Tools

The next section of the interview focused on participants' perceptions regarding the impact of AI writing assistance tools, which yielded both benefits and challenges.

Benefits.

Concerning the benefits derived from the use of AI writing assistance tools, participants underscored three dimensions: *linguistic*, *affective*, and *practicality* aspects. A unanimous consensus emerged among all participants, affirming that these writing assistance tools played a pivotal role in enhancing the overall quality and precision of their writing. This encompassed improvements in grammatical accuracy, the construction of well-organized sentences, and the appropriate usage of vocabulary. Notably, participants acknowledged the potential efficacy of AI writing tools, although they remained mindful of the tools' susceptibility to errors or oversights in certain instances. In this context, S2 provided insights, asserting that AI writing tools proved particularly beneficial for individuals less adept in mastering intricate grammar rules, as illustrated below:

> *For the benefits, I think it's beneficial for people who are not really good at grammar. Sometimes, I use it wrong which also makes the sentence grammatically wrong, [but] these tools will help to generate correct grammar.* (S2)

Furthermore, all participants underscored the role of AI writing assistance tools in advancing their language learning abilities. S8, for instance, highlighted the positive value of identifying grammatical mistakes, enabling her to avoid recurrent errors. Some emphasized the tools' contribution to expanding their vocabulary, with S3 noting:

> *I think it helps to a certain extent because it's like learning new vocabulary that I didn't know before. In the future, perhaps I'll read some text or take English exams, and then find this vocabulary that I've seen from QuillBot.* (S3)

In terms of the affective aspect, participants reported heightened confidence in their writing endeavours when employing AI writing tools. In comparison to writing without these tools, they expressed concerns about correctness. S2 elucidated this sentiment, stating:

> *It helps me feel that I don't have to worry about grammar whenever I write. I can just write, and AI will help edit it. I don't have to worry about what words I'll use next. [Or] Will I use grammar correctly? It gives me the courage to write.* (S2)

Regarding the practicality dimension, unanimous agreement emerged among participants regarding the convenience of AI writing tools in offering prompt suggestions, especially when uncertainty arose about grammar accuracy, as opposed to relying on assistance from teachers or friends. Participants articulated their perspectives on the practical use of AI writing tools:

If I put my writing into QuillBot, they will give me an answer right away. Meanwhile, if I ask teachers, I'll have to wait for their answers. It takes a long time which sometimes I may have to submit [my assignment] right at that moment. Therefore, I need to choose the most convenient way. (S7)

It's more convenient. In case I'm not sure [about grammar] and it's a graded assignment. And I'll have to wait for my friends to check, [but] they might be busy or something. It may take a lot of time and there's other work to do. (S9)

I mean, none of my friends are as good at English as I am, so I can't ask anyone for help, and I have to use the programs instead. (S10)

These excerpts collectively highlight the participants' shared perspectives on the time-saving benefits provided by AI writing tools, allowing them to promptly receive feedback without causing delays or inconveniencing friends or teachers. Moreover, the tools facilitated the timely completion of writing assignments, freeing up time for additional tasks. Some participants additionally emphasized the *practicality* advantage of using AI tools when friends lacked the necessary proficiency, reinforcing the notion that these tools offer instant feedback and can be accessed at any time, thereby serving a practical purpose.

Challenges.

In addition to acknowledging the benefits, the study also delved into the challenges encountered by participants in utilizing AI writing assistance tools, shedding light on potential drawbacks. Notably, some participants expressed concerns about the possibility of over-relying on technology, leading to a diminished confidence in their own language proficiency. Their sentiments were articulated as follows:

I feel anxious when I have to write without using the tools. I worry about making mistakes. (S2)

Sometimes, I find myself relying on these tools too much. As I start to use them, it becomes a habit. Consequently, I've started to trust the tools more than myself. (S4)

Moreover, some participants shared instances of experiencing challenges related to potential academic misconduct resulting from their use of AI writing assistance tools:

I once used QuillBot to check my sentences in my English assignment. I decided to use the revised version suggested by QuillBot. However, I got a point deduction. My professor told me that she used Turnitin and discovered that these sentences were from websites. (S5)

Sometimes, when I check my works on Turnitin, it flags potential plagiarism, which makes me feel really confused. (S6)

S2 also highlighted a perceived limitation in the effectiveness of the tools, noting instances where the suggested corrections were inaccurate:

Sometimes, I'm aware that these tools may not always provide accurate corrections. When I text with my foreign friends, Grammarly sometimes suggests some corrections that seem odd to me. [To verify their accuracy], I send the suggested version to my [foreign] friends and ask for their feedback. They often point out the mistakes and provide the right corrections for me. This experience made me realize that If I'm not aware of using these tools, I might memorize the wrong information. (S2)

Contrastingly, S3, who did not frequently use the tool, perceived minimal challenges and asserted his autonomy in decision-making regarding tool suggestions:

I don't think it has a negative impact on me because I see it as just a tool. Even though it corrects my written work, the decision still depends on me whether to follow their suggestions or not. (S3)

In conclusion, participants' experiences with AI writing assistance tools were not devoid of challenges. While concerns about over-reliance and potential academic misconduct surfaced among some users, others like S3 maintained a more cautious and independent approach to tool utilization, emphasizing their role as mere aids rather than definitive decision-makers in the writing process. This diversity of perspectives underscores the nuanced nature of incorporating AI tools in language learning contexts.

Employment of AI Writing Assistance Tools in Language Teaching

The unanimous consensus among all participants highlighted the potential advantages of integrating AI writing assistance tools into English classes, particularly in alleviating the burden of proofreading for students. S1 succinctly expressed this sentiment, stating:

It's really convenient. We can use these tools to proofread for us. (S1)

However, a nuanced perspective emerged as both S5 and S7 raised concerns about the possible repercussions of excessive reliance on technology, emphasizing its potential to hinder students' writing skill development. For example, S5 expressed some concerns:

The drawbacks revolve around skill development. [Using these tools] might impede our skill development. If we don't use our own writing abilities, there's a risk of losing them. (S5)

When contemplating the application of AI writing assistance tools in examinations, a unanimous disagreement surfaced among the three participants. Their reservations primarily revolved around the perceived risk of academic misconduct. S3 encapsulated this apprehension, stating:

I think [using AI writing assistance tools during exams] might appear like cheating because the content might not originate from our own thoughts but will be more likely to come from AI. (S3)

In summary, participants displayed a dual perspective on the potential benefits and drawbacks of incorporating AI writing assistance tools into language teaching. While acknowledging the convenience in proofreading, concerns about potential over-reliance and the risk of academic misconduct underscore the need for a cautious and balanced integration of these tools within educational settings. This duality emphasizes the importance of considering both the advantages and challenges when contemplating the incorporation of AI writing assistance tools in language teaching.

Discussion

The ensuing section engages in a discussion based on the findings derived from the exploration of the two research questions. In response to the first research question, which delved into the utilization of various writing assistance tools by EFL students with distinct language proficiency levels, the study identified *Grammarly* and *QuillBot* as the two primary AI writing assistance tools employed by participants. Grammarly served multiple purposes, including grammar checking, coherence enhancement, and vocabulary scrutiny, while QuillBot found utility primarily in

paraphrasing. This discovery aligns with Ginting et al.'s (2023) investigation, emphasizing the use of Grammarly and QuillBot among EFL students for grammar, vocabulary, and paraphrasing assistance.

A noteworthy revelation emerged concerning the frequency of tool usage among participants. Contrary to expectations, some participants with seemingly lower English proficiency exhibited the least utilization of these tools, whereas some with more proficient in English emerged as the most frequent user. This divergence underscores that usage frequency does not necessarily correlate directly with English proficiency levels but rather aligns with individual purposes. This finding resonates with Pratama's (2020) study, indicating students' limited use of Grammarly for teacher-assigned tasks, and Kurniati and Fithriani's (2022) findings, emphasizing the frequent utilization of writing assistance tools by students with academic writing requirements.

Turning to the second research question, which scrutinized EFL students' perceptions of the impact of AI writing assistance tools, participants recognized the benefits in three key dimensions: *linguistic*, *affective*, and *practicality*. These writing assistance tools were deemed instrumental in refining writing quality through grammar and spelling checks, addition of transition words, paraphrasing, and vocabulary suggestions. Furthermore, students perceived them as valuable language-learning resources, aiding in the corrections of grammatical errors and acquisition of new vocabulary. Confidence in written expression received a boost, and the tools were deemed convenient problem-solving aids, especially when immediate assistance was needed. This aligns with Jeanjaroonsri's (2023) findings on EFL students' use of mobile technologies for accuracy improvement and confidence enhancement. The findings are also in agreement with Marzuki et al.'s findings (2023) which showed that teachers observed improvement in EFL learners' writing organization. This improvement was derived from how these tools provide improved phrasing of sentences, eliminate some redundancies, and enhance content flow by suggesting transition words, consequently enhancing students' confidence in their writing skills. In terms of language learning, this can also be supported by Marzuki et al. (2023), who indicated that AI writing tools could be a valuable resource for learning vocabulary since these tools could provide synonyms or suggest more advanced words that students might not have known before, and Chang et al. (2021), who indicated that AI writing assistance tool, Grammarly, could assist students in learning grammar rules.

However, challenges were voiced, with technology over-reliance being a prominent concern. Paradoxically, this over-reliance seems to erode participants' confidence in their writing abilities, highlighting a potential drawback. This contradicts the earlier identified benefit of enhanced confidence, and the discrepancy may arise from excessive dependency on these tools. Also, it could create uncertainty about their knowledge when writing without the tools (Jeanjaroonsri, 2023). This concern can also be supported by teachers' perceptions by Marzuki et al. (2023), suggesting that students could potentially rely less on their critical thinking and problem-solving skills while writing. A parallel concern emerged regarding the potential for academic misconduct, raising questions about the authenticity of written works and violating academic integrity. This resonates with Roe et al.

(2023) whose study focused on academic integrity and the integration of features in plagiarism detection software to identify AI-generated text. Consequently, Turnitin, a plagiarism detection software, has integrated a new feature to detect AI-generated text (Turnitin, n.d.). The third concern was the potential ineffectiveness of the tools. The possible explanation might be that AI writing assistance tools like Grammarly may overlook some errors (referred to as *missed error*) or inaccurately identify some errors despite their appropriateness in the context (referred to as *over-flagged errors*) (Dodigovic & Tovmasyan, 2021).

In contemplating the integration of AI writing assistance tools in the EFL classroom, participants envisioned benefits in workload reduction but also acknowledged the risk of fostering over-reliance on technology. The unanimous disagreement regarding the use of these tools during examinations reflects an awareness of potential academic misconduct. This aligns with Burkhard's (2022) findings, emphasizing the complementary role of AI-powered writing tools alongside human skills, and underscores concerns about misrepresenting students' writing abilities in examination settings (Roe et al., 2023).

Conclusion

This study aimed to investigate Thai EFL learners' perceptions regarding the impact of using AI writing assistance tools by adopting a qualitative research approach through interviews. There were ten participants recruited in this study who were Thai non-English-major undergraduates. The findings revealed that students perceived both benefits and challenges associated with the use of AI writing assistance tools to facilitate their writing. For benefits, they perceived that these tools could facilitate their writing in three aspects: linguistic, affective, and practicality. However, they also acknowledged trade-offs from employing these tools which consisted of technology over-reliance, academic misconduct, and ineffectiveness of the tools.

Pedagogical Implications

The present research carries substantial implications for EFL instructors, urging a thoughtful approach to the integration of AI writing assistance tools in language learning. Despite the evident benefits these tools offer, a cautious stance is essential to prevent undue dependence. Instructors are advised to steer students towards purposeful tool utilization, prioritizing the nurturing of writing skills rather than their outright substitution. Moreover, discussions on academic integrity should encompass the responsible and ethical use of AI tools, underlining the importance of maintaining integrity in the writing process. When incorporating these tools into the curriculum, the focus should be on enhancement rather than fostering dependence. A balanced approach to technology-assisted language learning is paramount for optimal pedagogical outcomes.

Pedagogically, for high-level students, AI writing tools like Grammarly and QuillBot can enhance writing quality, boost confidence, and expand vocabulary. However, there is a risk of over-

reliance, potentially diminishing critical thinking and risking academic misconduct. These tools should be supplementary aids to foster independent writing skills. Low-level students can also benefit from these tools to improve basic grammar and vocabulary, gaining confidence through immediate feedback. Yet, they might misuse them, leading to a false sense of proficiency. Educators should guide these students to use the tools as learning aids rather than crutches. Overall, both high-level and low-level students should use AI writing tools as supplementary aids. Educators should integrate these tools into the curriculum with structured activities, provide continuous monitoring, and offer personalized feedback. It should be noted that awareness of such tools' limitations and training to address potential academic misconduct are essential to maximize benefits and minimize drawbacks.

In addition, the study highlights that while AI writing assistance tools can alleviate English writing challenges for EFL learners, they also introduce specific hurdles. Consequently, teachers play a pivotal role in guiding learners to navigate these tools judiciously and effectively. Firstly, educators should offer comprehensive guidance on the diverse applications of these tools across different aspects of language, such as grammar, vocabulary, and writing organization. This guidance empowers students to select the most suitable tools to address specific writing challenges. Secondly, instructors should counsel learners on maintaining a delicate balance between tool usage and the cultivation of their intrinsic writing skills, averting over-reliance on technology. This consideration should align with the objectives of the subjects at hand. For instance, in subjects focused on fundamental writing skills, cautious employment or prohibition of these tools may be necessary to ensure students remain connected to the authentic writing process (Jeanjaroonsri, 2023). Notably, the study cautions against potential shortcomings in paraphrasing tools, emphasizing that true paraphrasing involves more than mere word substitution and should encapsulate inferential thinking (Roe et al., 2023). Conversely, when the objective centres on enhancing writing content, the judicious use of these tools may be deemed acceptable, as supported by Marzuki et al.'s (2023) findings showcasing their potential in refining phrasing, organizing content, and expanding vocabulary.

In conclusion, acknowledging the inevitability of technology usage in the contemporary digital landscape, teachers can leverage the insights from this study to adeptly guide EFL learners in the effective utilization of AI writing assistance tools without hindering their own writing abilities. This guidance ensures that the integration of technology aligns with pedagogical goals and enhances rather than detracts from the fundamental objectives of language learning.

Limitations and Recommendations

This study exhibits certain limitations that warrant consideration. Firstly, the constrained number of participants poses a limitation. Although information was gathered from 10 participants, each representing a distinct level of English proficiency and diverse majors of study, the limited number may hinder the comprehensive understanding of how EFL students across varying proficiency levels and majors engage with AI writing assistance tools. Future investigations would benefit from an

expanded participant pool, incorporating multiple and diverse representatives at each proficiency level and major to facilitate a more nuanced analysis.

Secondly, the exclusive reliance on an interview-based research design introduces potential biases into the data, including the risk of social desirability bias, wherein interviewees may provide responses that align with societal expectations rather than their true perspectives (Shah, 2019). To address this limitation, future research endeavours might consider incorporating observational methods, enabling researchers to capture data in authentic settings and minimizing the impact of biased self-reporting.

Thirdly, the criteria employed for determining participants' English proficiency levels may not fully capture their current proficiency status. Since participants enrolled in English courses during their first year of study, their proficiency levels may have evolved over time. Future studies could enhance the accuracy of proficiency assessments by gathering information from participants who have recently undergone English proficiency tests, ensuring a more precise reflection of their current language proficiency.

In light of these limitations, future research endeavours are encouraged to adopt more inclusive participant sampling strategies, employ diverse data collection methods, and refine criteria for proficiency assessment. These measures would contribute to a more comprehensive and nuanced understanding of EFL learners' interactions with AI writing assistance tools.

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