



Threading Transformative Impact of Artificial Intelligence: Navigating Challenges and Opportunities in L2 Writing Among Students

Remie S. Delos Santos Jr.¹, Donnie M. Tulud²

¹ Department of Secondary Education, University of Southern Mindanao, Cotabato, Philippines

² Department of English Language and Literature, University of Southern Mindanao, Cotabato, Philippines

Article Info

Article history:

Received Jul 24, 2025

Revised Aug 3, 2025

Accepted Aug 25, 2025

OnlineFirst Sep 7, 2025

Keywords:

Artificial Intelligence
Challenges
L2 Writing
Opportunities

ABSTRACT

Purpose of the study: The purpose of this study is to comprehensively explore the intersection of Artificial Intelligence (AI) and second language (L2) writing education. As AI technologies rapidly advance, they are increasingly integrated into educational practices, particularly in language learning environments.

Methodology: This study used a descriptive qualitative research design to explore the impact of AI on L2 writing among students at the University of Southern Mindanao. Thirty students participated, with 25 in individual interviews and 5 in a focus group discussion. Participants had used AI writing tools extensively and were enrolled in undergraduate programs with at least intermediate proficiency in English or their L2.

Main Findings: The study found that students' adoption of AI in L2 writing depends on its perceived usefulness and ease of use. AI offers opportunities to enhance writing quality but also presents challenges, including negative effects on critical thinking, writing process, and confidence. Despite these challenges, students found ways to overcome them, emphasizing the need for ethical integration, originality, and independence.

Novelty/Originality of this study: This study uniquely explores AI's transformative impact on second language (L2) writing, focusing on both its benefits (enhanced writing quality, personalized learning) and challenges (impacts on critical thinking, confidence, and independence).

This is an open access article under the [CC BY](https://creativecommons.org/licenses/by/4.0/) license



Corresponding Author:

Donnie M. Tulud,

Department of English Language and Literature, University of Southern Mindanao,

Kabacan, Cotabato, Region XII, Philippines, 9407

Email: dmtulud@usm.edu.ph

1. INTRODUCTION

Writing is one of the four essential macro skills in language learning and teaching, alongside reading, listening, and speaking. Schumacher and Nash [1] explained that writing is not merely a method for assessing students' understanding of a topic but also a technique used in the teaching process to help students learn. However, recent AI advances have transformed writing tools and services, significantly impacting English as a second language (L2) learners by changing and reshaping their writing process. This aligns with the claim made by Marzuki et al. [2] that AI advancements are significantly impacting L2 learning, particularly in the development of writing skills.

The idea of AI aiding writers in various aspects is compelling, especially for students who struggle with L2 writing. Flowerdew [3] asserted that L2 learners struggle to write cohesively within the conventions of specific academic contexts. As noted by Hyland [4], writing poses a significant challenge in L2 learning due to the linguistic features inherent in various text types, which may constrain the writing process. Hence, when faced with

Journal homepage: <http://cahaya-ic.com/index.php/JBER>

difficult tasks, L2 learners often turn to AI for assistance [5]. However, as emphasized by Liu et al. [6], it is crucial to thoroughly understand the technology's strengths and weaknesses to leverage its benefits while maintaining human agency and control over the writing process.

As a result of the increased utilization of AI in education, numerous studies have explored its impact on students' writing, including both its benefits and challenges. According to Dhillon et al. [7], AI contributes significantly to the writing process, improving the quality of users' writing. This improvement includes aiding in idea generation [8]; [9], providing assistance with synonyms and sentence structure [10], clarifying theoretical concepts, and enhancing grammar and vocabulary usage in writing [11], as well as improving content organization [2]. Meanwhile, several studies have indicated that AI in writing can pose threats to critical thinking, authenticity [9], creativity, and ethical writing practices [12], as well as to originality [13].

While the mentioned studies have explored the impact of AI in writing, detailing its opportunities and challenges, there remains a lack of research in understanding how students utilize AI in their writing at the University of Southern Mindanao. Given the university's focus on empowering students to develop competitive writing skills, investigating the impact of AI in L2 writing among students in this context is essential. Therefore, this research aimed to address this gap and provide valuable insights to educational stakeholders, future researchers, and academic communities.

The novelty of this study lies in its contextual focus and integrative approach. While numerous international studies have examined the influence of AI on L2 writing, few have explored this phenomenon within a regional Philippine university setting, particularly at the University of Southern Mindanao. This research contributes a localized perspective, capturing the lived experiences of students navigating AI integration in their academic writing amid specific socio-educational policies and campus practices. Additionally, the study goes beyond the technical dimensions of writing by incorporating social values, academic cultural norms, and ethical considerations—dimensions often overlooked in previous research. By foregrounding how students perceive and negotiate the ethical, pedagogical, and cognitive implications of AI use in their writing, this research offers a more holistic understanding of AI's role in shaping academic writing behavior in a non-Western, multilingual context. Thus, it introduces both a new geographic focus and a richer intersection of variables, filling a significant gap in the literature.

2. RESEARCH METHOD

2.1 Method Used

This study was carried out utilizing descriptive qualitative research design. It was used to describe the impact, including the opportunities and challenges faced by students in using Artificial Intelligence (AI) in their L2 writing. Qualitative researchers utilize an emerging qualitative approach to study, gathering information in natural settings that fit the people and places being studied. According to Sutton and Austin [14], qualitative research is an essential method to help researchers develop an understanding of what the research participants think and feel about or the meaning they associate with their experiences. It also helps figure out why and how people behave the way they do. Within the context of this study, a qualitative approach aided in understanding the impact of AI in the L2 writing among the students.

Also, the approach focuses on studying a central phenomenon of which few have limited knowledge. By directly involving participants, many can gain deeper insights into these areas and learn much more about the factors in play. Hence, the best way to learn about the experiences of the students with AI in their L2 writing and the issues and benefits they face in this context is through qualitative research.

2.2 Source of Data

The data were sourced out from the informants. The study involved L2 student-writers from various colleges at the University of Southern Mindanao (USM), Kabacan Campus. Thirty (30) students participated, divided into two groups: twenty-five (25) for individual in-depth interviews and five (5) for a focus group discussion (FGD).

2.3 Data Gathering Instrument

In this study, face-to-face qualitative interviews with semi-structured questions were employed. Semi-structured interviews involve a pre-prepared list of questions that the researcher can refer to during the interview, with the flexibility to add more based on the participants' responses [15]. This approach allows for the collection of open-ended data, enabling the exploration of participants' thoughts, feelings, and beliefs on the topic, including potentially sensitive issues [16]. Utilizing this method offered the most suitable means to understand the impact of AI on L2 writing among students, including the opportunities and challenges. This process was validated by a panel of experts and involved the use of mobile phones to record interviews.

2.4 Population and Sampling Technique

Participants were enrolled in undergraduate programs at USM and were actively writing in their L2. They had used AI writing tools and services for most or all of their writing tasks. Additionally, participants demonstrated at least intermediate proficiency in English or their L2 language. Exclusion criteria included students who were not actively engaged in writing tasks in their L2, those who had not used AI writing tools, and those lacking sufficient proficiency in English or their L2 language to effectively participate in interviews or group discussions.

2.6 Procedure of the Study

The researcher ensured uniformity by asking all participants the same questions using standardized procedures. To uphold the trustworthiness of this study, Lincoln and Guba's [17] criteria: credibility, transferability, confirmability, and dependability were employed. They also emphasized the importance of trustworthiness in assessing a research study's value [17]. Therefore, this study adhered to these criteria to ensure its quality. The findings focused on the impact experienced by students using AI in their L2 writing at the University of Southern Mindanao, with responses carefully examined and integrated into the study's results and discussions.

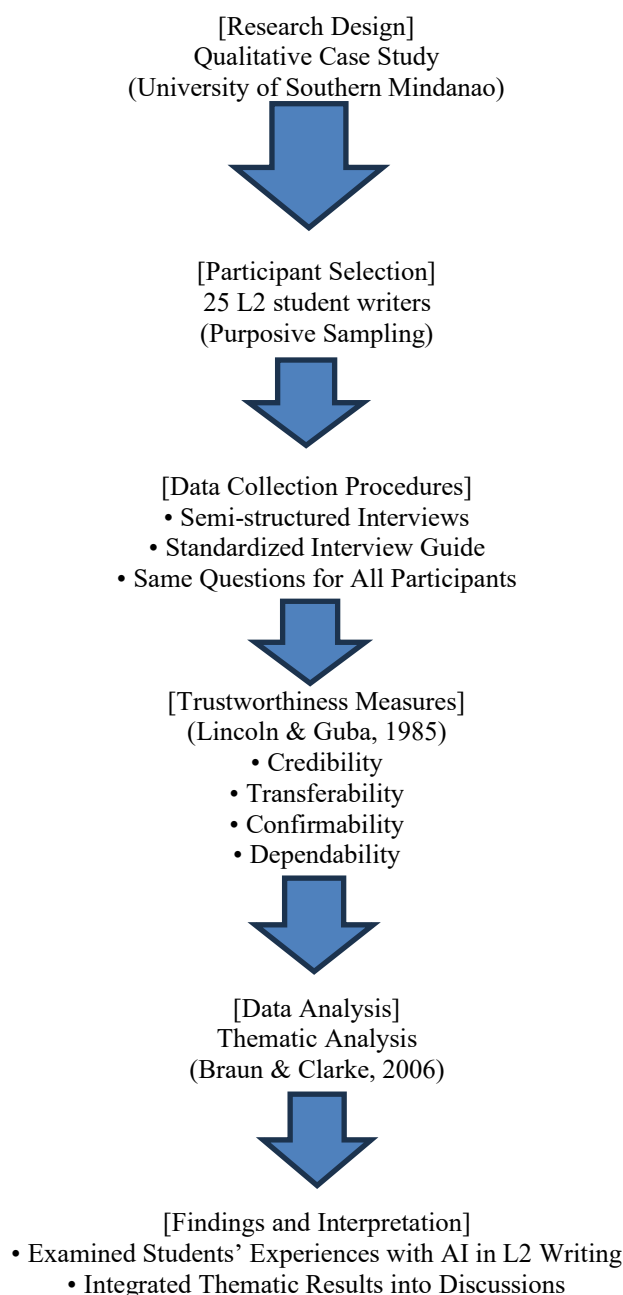


Figure 1. This flowchart provides a clear overview of your methodology from design to data interpretation

2.6 Ethical Considerations

According to Nii Laryeafio and Ogbewe [18], respecting the rights of research participants is crucial in qualitative research to ensure accurate information gathering and achieve the objectives of the study. Ethical principles such as anonymity, privacy, confidentiality, voluntary participation, and the option to opt-out guide researchers to follow data collection approaches that produce valid results in qualitative interviews. Therefore, the researcher of this study prioritized all necessary ethical protocols and considerations to ensure relevant and appropriate data collection and results.

All participants in this study received an informed consent form prior to scheduling interviews. Each participant was provided a signed acknowledgement, consent, and indication of willingness to participate. However, to protect the privacy of voluntary participants, the researcher ensured anonymity for interviewees. All collected information excluded personal details such as addresses, emails, names, and other identifying information [19]. Additionally, the interviewer ensured that any information collected remained private and confidential. Raw data was not accessible to any third party unless explicitly authorized by the interviewee for disclosure.

In addition, the informed consent letter outlined the steps that were taken to maintain privacy, confidentiality, and the non-attribution of individual responses. It assured participants that their background information would remain confidential and would not be released without their approval. Access to participant information was restricted to safeguard the confidentiality and anonymity of the participants and to ensure that responses were secured from inappropriate disclosure. By doing so, it enhanced reliability and validity of the provided data.

Furthermore, it is crucial to avoid coercing or inducing individuals to participate in the research, as this may lead to the provision of false information for material compensation. As emphasized by Mumford et al. [20], voluntary participation ensures that participants understand the research area and willingly engage in data collection. The researcher respected the participants' rights to opt out at any point during data collection. In such cases, any collected data about the participants was discarded.

Moreover, Guillemín and Gillam [21] highlighted that the ethical principle of non-maleficence and beneficence outlines the researcher's duty to prevent any harm to participants and to identify and remove any potential sources of harm. In this scenario, the researcher of this study refrained from overwhelming participants with excessive questions or creating uncomfortable situations for them.

2.7 Data Analysis

In this study, the researcher analyzed the collected data using a data analysis approach based on Miles and Huberman [22], which involved three steps: data reduction, data display, and conclusion drawing or verification. The first step in analyzing qualitative data involved data reduction. According to Miles and Huberman [22], data reduction refers to “the process of selecting, focusing, simplifying, abstracting, and transforming the data that appears in written-up field notes or transcriptions.” Data reduction involved condensing and simplifying gathered information by focusing on essential elements and identifying themes and patterns. This simplification made the data more manageable and facilitates the analysis process. In this study, the researcher collected data about the impact of AI on the L2 writing of the students through interviews and recorded it using a mobile phone. Next, the interview responses were transcribed and translated. Following this, decisions were made on how to code the data into categories, group, and organize them until the final report was achieved.

The next step was data display, which involved organizing information into a concise format that allowed drawing conclusions and taking action [22]. Once the researcher identified themes in this study, the researcher interpreted the results and presented them in tabular form to illustrate data patterns and findings. Following the data display was the drawing of conclusions.

The third step in qualitative data analysis involved drawing conclusions or verifying findings. After conducting data reduction and data display processes on the interview data, the researcher interpreted the analyzed data. Subsequently, conclusions related to the research questions were made. In this study, the conclusions focused on the impact of AI, including both the opportunities and challenges students faced in their L2 writing.

3. RESULTS AND DISCUSSION

3.1 Transformative Impact of AI in L2 Writing

Table 1 presents the essential themes and core ideas derived from the interpretation of the transformative impact of AI in L2 writing among students. Three (3) essential themes were generated from the transcripts of the in-depth interviews, complemented by the triangulation of focus group discussions.

Table 1. Themes and core ideas on the transformative impact of AI in L2 writing among students

Themes	Core Ideas
--------	------------

Perceived Usefulness	AI assists in academic writing AI enhances grammatical awareness and error correction AI simplifies complex concepts promoting comprehension AI introduces users to new vocabularies leading to writing versatility AI boosts confidence in one's work AI motivates personal growth and self-improvement AI encourages exploration by giving thought-provoking ideas AI identifies mistakes and provides insights on how to correct them AI develops critical-thinking skills
Perceived Ease of Use	AI gives immediate feedback to one's needs AI gives non-judgmental approach in making corrections AI offers a user-friendly experience to gaining information AI reduces hesitation in writing

As shown in Table 1, perceived usefulness and perceived ease of use are key factors driving AI adoption in students' writing processes. Students find AI tools valuable for improving writing quality by enhancing grammar, structure, and efficiency. The tools' simplicity and accessibility make them easy to use, encouraging students to integrate them regularly into their writing routines. These findings align with Kim et al. [23], who highlighted how these factors shape students' willingness to use AI, ultimately transforming their approach to writing.

Perceived Usefulness. It refers to users' confidence in using technology to improve their performance and assesses how effectively technology is integrated into their daily lives. In the context of this study, it highlights the long-term benefits of AI in enhancing writing quality and supporting the learning process. The following core ideas emerged from the participants' responses:

AI assists in academic writing. According to Malik et al. [12], AI takes a special role in supporting the academic writing of the students. This observation is validated by students' accounts, where they acknowledge the assistance AI provides in their writing activities. This result is supported by the participants' responses, who stated that:

"...one of our professors introduced ChatGPT to us, and with that I have discovered the uses of it, positive uses of it. Like, for example, correcting grammar in writing my article, I use it a lot." (ID11)

"So, when I use AI, I ask for suggestions and critiques on the articles assigned to me to see what's missing, what can be improved, and what good words to use. So, I use AI to check my work and also ask for improvements, so that I can apply it for the next article that I would write." (FGD2)

"For example, when I'm exhausted and out of creative ideas, sometimes I rely on what AI suggests, with minor edits, and modify it just enough to make it sound more human. So, yeah, it depends on the situation. Sometimes, though, when it's about improvement, AI does help." (FGD2)

Moreover, the following points highlight how AI assists academic writing: it refines writing skills and output, provides ideas and inspiration to overcome writer's block, and offers practical support throughout the writing process. AI also helps with appropriate expression and organizing ideas. It enhances clarity and simplicity, as well as accuracy and efficiency in writing. In addition, AI serves as a benchmark to improve future writing, enriches both learning and written output, and improves the fluidity of writing by enhancing transitions. AI also provides efficient proofreading and fact-checking, while supporting the development of essential writing skills.

The participants noted that AI refines writing skills and output, a finding supported by Hapsari et al. [24], who discovered that AI writing tools provide valuable feedback, engaging students in the evaluation and revision process, which ultimately leads to improved writing outcomes. This is further supported by Lee et al. [25], who observed that AI tools significantly enhance students' English writing abilities. Even more, Alammar and Abdel-Reheem Amin [10] highlighted the crucial role of AI-powered writing tools (APTs) in developing writing skills. Selim [26] also emphasized that AI tools help bridge gaps in language proficiency, improving writing and overcoming language barriers. Rad et al. [27] similarly underscored the effectiveness of AI in enhancing writing skills.

"I think I've become better in writing English because I can check the grammar, and I can enhance my ideas, broaden them, and fact-check what I'm doing in my writing." (ID13)

"It deepens your knowledge in terms of words, grammar, and writing styles. If you compare it to peer reviews or other personal methods, I think when you get it checked by others, it's more complex or takes

longer because there are also mistakes, they may not catch or see. So, I think using AI tools is very helpful, especially if you need to finish the writing swiftly.” (ID14)

“In the same way as the others, I use AI to ask for critiques. For example, when I write articles, I paste them into ChatGPT and then ask what else I can improve, what can be better in this part, and what the strong or weak points are so I can enhance it.” (FGD5)

Students highlighted that AI provides ideas and inspiration to overcome writer's block. This is supported by Guo et al. [28], who noted that regularly using AI to generate text variations can help writers move past creative blocks. In the same vein, Gayed et al. [5] found that AI writing tools are valuable for developing ideas and overcoming such challenges. Ozfidan et al. [29] also observed that AI tools facilitate the idea-generation process. This aligns with the participants' experiences, reinforcing the importance of AI in overcoming writer's block.

“As someone who is not so smart and I'm not really good at generating ideas and cultivating ideas, I find it really interesting that we can now ask artificial intelligence, to be specific, ask ChatGPT for additional ideas that I cannot think of, and it is just so much interesting for me that when ChatGPT suggests some ideas to me.” (ID120)

“How does it work? Positive? Well, maybe at first, like writing essays, my number one problem would be how to start an essay. Like the first idea or the first sentence, I guess. And AI helps me.” (ID12)

Students shared that AI offers practical support throughout the writing process. This matches the findings of Marzuki et al. [2], who stated that AI writing tools provide valuable assistance and improve students' writing processes.

“So, in using Grammarly, I think the impact it has is that it can accurately check my grammar without needing too much work to do it. Because if I do it on my own, sometimes there are lapses that I can't see, but with Grammarly, it can check my paper thoroughly. In Quillbot, there are some sentences that I write that make it hard to convey what I really want to say. So, a paraphrasing tool is really helpful in finding a better way to have that text or message written. In ChatGPT, I usually use it for arranging my paragraphs, like the layout of the whole piece, where I'll place the problem so the flow of the article I'm writing is better.” (ID14)

“I think it's very different because you can have it in real time, and it has a deeper understanding and provides more context.” (ID14)

“Although I can write, but with the help of AI, it improves my capability and my knowledge on what to do next time when I write my articles. Although I am confident enough that I can write, but AI somehow helps me in making my writing better, more impactful.” (ID111)

“I feel like I can write easily and then faster with the help of AI because when I don't understand something, I just can tap on my phone and then they will give me the answers that I need. So, it will be easier for me to write and to express what I want to write because I understand what I am writing through AI tools.” (ID119)

“Before, I could not really think about these kinds of things and it's just my perspective is very limited and when it comes, now that there is artificial intelligence, there are a lot of ideas, it makes my mind wander beyond my horizon because there are different ideas suggested by the ChatGPT.” (ID120)

AI helps with appropriate expression and organization of ideas, assisting students in selecting the right words and ideas to improve their writing. Woo et al. [30] found that AI-generated word suggestions played a key role in enhancing writing scores by offering students suitable word choices. Lee et al. [25] also observed that many university students rely on basic AI tools, such as Grammarly, to check grammar and select words. Dwivedi et al. [31] noted that AI technologies help students express themselves more clearly by automating routine tasks and providing real-time guidance. Song & Song [32] further suggested that AI tools not only assist with error correction but also contribute to overall writing improvement, particularly in organizing ideas and making writing more coherent and concise. This aligns with the participants' experiences, who shared that:

“Usually, I use AI when I write English things because it really corrects my grammar and the usage of my words. It also suggests different alternatives in order to correct the wrong formation of the sentence or the message I want to convey.” (ID15)

"Of course, there is really positive changes that ChatGPT gave to me. For example, I was able to express my opinions more and then I was able to use words that, um, I don't usually use and then I practice how to use them in a proper way possible." (ID121)

"...I'm very conscious of grammar, and I use grammar checks to correct my writing. This helps with the structure of my articles, and it helps me write in a way that's not too shallow." (FGD1)

Students also mentioned that AI enhances writing clarity and simplicity. This is supported by Roman-Acosta [33], whose findings show that AI can improve cohesion, precision, and clarity in texts, particularly when used as a support tool.

"When it comes to Grammarly, it influences my writing; it positively influences my writing when it comes to writing simply. Yeah, direct to the point. And, when I use Grammarly, often my writing is easier to understand because I don't really write technical papers. My style of writing is more feature-based, so it has a lot of twists and turns. On the other hand, ChatGPT helps me when I'm not familiar with a certain writing style. It also helps organize my thoughts." (ID16)

"I think, um, ChatGPT is more of like, um, not changing the idea of my output. It is more likely to, ChatGPT is more likely to just paraphrase it and then correct it and deliver it in a correct way." (ID121)

Students shared that AI enhances writing accuracy and efficiency, a finding supported by Santiago et al. [34], who discovered that AI improves writing accuracy. Yan [8] emphasized that AI serves as an efficient and practical tool in teaching L2 writing, demonstrating how its automated workflow can streamline and enhance the writing process. This is further supported by Cardon et al. [9], who argued that AI can boost efficiency and facilitate idea generation.

"Especially that oftentimes, I am very careless. I forgot the punctuation and spellings. Yeah, it's really helpful in that sense. Because oftentimes I'm really careless when I'm writing. It can perfect my output because it can detect everything. So yeah, in that sense, it can boost my confidence in writing." (ID16)

"In terms of positive effects, I think, first, it's time efficient. It speeds up my writing, and I can finish faster. Also, there's something in ChatGPT that helps me improve my writing. For example, if I have prompts, I send them, and then I ask, "Can you suggest anything that I can add?" Once I get a response, I rebuild it in another way, another piece. So, the feedback is what I need. When it comes to writing my articles, I rely on ChatGPT." (ID18)

"As a writer, without the use of AI, you need to really research, [you] need to study, [you] need to find certain sources. It will take too much time. But in AI, you can just ask. Five minutes, you can have so much information in five minutes. So yeah, it's more convenient. And it really broadened my perspectives. You can just ask and ask, and it will provide you an answer." (ID19)

"It was a completely different experience. Without the use of AI before, I took two days to finish a write-up, or even hours and hours of finishing a write-up. But with the assistance of AI, I can finish it in just 30 minutes, sometimes 10 minutes. So, I can really see the disparity in time management and the effort also." (ID122)

Students shared that AI serves as a benchmark to improve future writing. Dong [35] found that AI writing tools had a positive impact on students' writing abilities by providing personalized feedback, which they could use to improve their work. Utami et al. [13] also discussed how AI-based tools assist students with research and drafting, helping to boost their interest and engagement in writing. Both studies show that AI helps students create a reference point for better writing in the future, and participants in this study expressed similar sentiments.

"So, it's so positive. Yeah, it has a lot of positive benefits for me, especially in correcting my articles. Especially, it corrects my punctuation and the construction or structure of my sentences. And yeah, because of AI, they also give feedback. So, at least, you have a reference next time that this isn't right." (ID17)

"But personally, AI helps me because now I'm aware of which parts of my article are weak and where I made mistakes. The next time I write, I can improve. For example, I ask AI for a critique, so I know which

parts I'm not good at and can focus on improving them next time I write an article. In a way, it helps me improve my work." (FGD4)

"I can now write more confidently because, with AI, I can see where my mistakes are. When I see that I made an error, I can apply the changes suggested by AI the next time I write. This makes me write faster because I now know how to do it." (ID125)

In addition, AI enriches both learning and written output, particularly in the context of L2 writing. Marzuki et al. [2] pointed out that advancements in AI are transforming how L2 learners develop their writing skills. Building on this, Malik et al. [12] explained that AI's innovative technologies and flexible learning strategies allow students to engage in more interactive, dynamic, and personalized learning experiences, which in turn boost their writing abilities. Dhillon et al. [7] and Barrot [36] also highlighted that AI is reshaping language learning and writing processes, improving the writing performance of L2 learners [37]. Furthermore, Jiang et al. [38] emphasized that AI writing tools can deepen written content by providing personalized feedback and enhancing overall quality, creating richer learning experiences for language learners. This perspective is further supported by the students in this study, who shared that:

"I feel like I've improved in terms of writing. Because, while asking for feedback from AI, I also learn from it. It's easier for me as well." (ID18)

"I think the only difference is that my writing has improved, and I've learned a lot from using AI. But personally, I think AI is still hard to swallow because, as a writer, it feels like a thorn. But we are improving, so I think maybe, in time, using AI could help boost confidence, but only in a certain way." (FGD2)

"It also gives more information to inform my readers." (FGD1)

"I just get ideas. But when I'm really lazy, I might take 2–3 sentences or a paragraph from the AI suggestion." (FGD3)

"When I prompt AI, I usually generalize it or, sometimes, most of the time, I really specify it. For the information that I need. For the information I need, I keep it concise. I write down what I actually need, and if I want more, I just ask it to add information." (FGD1)

Students also mentioned that AI improves writer's fluidity by enhancing transitions. AI writing tools offer instant feedback and suggestions for reorganizing sentences and paragraphs, which helps students refine the structure of their work [39]. Likewise, in Marzuki et al.'s [2] study, students acknowledged the positive impact of AI writing tools in enhancing clarity and promoting a logical flow of ideas and arguments.

"The difference would probably be in the fluidity of my thoughts, the transitions I use to connect different ideas to one another. It is much more fluent; it is much more understandable. It is much more understandable." (ID112)

Students mentioned that AI provides efficient proofreading and fact-checking, which aligns with Fitria's [40] study, which found that AI enhances writing accuracy and efficiency by offering effective proofreading, from spelling to sentence structure and grammar. Mikheeva and Petrova [41] also highlighted that AI assisted students in their writing, supporting language skill development and helping them address challenges. Additionally, Guo et al. [28] found that AI helps students clarify their preferences, even when they choose not to use the generated text.

"It is actually very convenient right now that there are, um, technologies such as ChatGPT, Quillbot and other AI technologies and tools that we can use to write our articles, to proofread our articles, to correct our grammar, and to fix some of our mistakes when we are writing some articles. It is definitely convenient right now compared to before, because before we have to do it on our own, we have to make our articles, we have to make our academic writings without the seek of any of these technologies. Right now, that we have this kind of technology, it is kind of convenient and much easier." (ID120)

"I am a very conscious person when it comes to my grammar. So, after I write my articles, I have them checked by Quillbot. Most of the time, its corrections are correct, but there are times when I become skeptical about the way it corrects my grammar. So, I also check on Google, searching for the grammar

usage of other words like that. It has really helped me because sometimes, when I write, I tend to rush, and I don't notice that some words are used incorrectly, especially articles and similar words." (ID113)

"That is why I am using AI to fact-check the structures of my writing, and also to edit some. Because there are things in our writing, um, that we cannot see in our eyes, and my knowledge about English structure is limited. That is why I am using help from AI, specifically Grammarly." (ID117)

"Using AI, for example, I can use it to search for facts. For instance, if AI provides facts for my article, as a journalist, I do fact-checking to see if the information is correct." (ID125)

Students underscored that AI supports the development of essential writing skills. This is consistent with Nazari et al. [42], who found that the formative feedback and assessments provided by AI-powered writing tools offer students opportunities to enhance their skills and embrace technology in educational settings, allowing them to develop key writing abilities.

"Most especially in the way sentences are formed, the way ideas are created. Because, ah, although it is technically AI; however, the style of writing of the AI right now is so hard to identify to, to normal human beings. Their writing style is actually, um, I'll say, much better compared to the general public. So, I'd say that I am also learning while I use these said Ais." (ID112)

AI enhances their grammatical awareness. This perspective aligns with Stockwell's [43] assertion that AI-powered applications facilitate grammar learning and improve students' grammatical awareness by providing feedback along with explanations and examples. Similarly, Lee et al. [25] emphasized that one of the key strengths of AI tools lies in their error-checking capabilities.

The students appreciated the ability of AI tools to identify and correct errors, as noted by Ramzan et al., [44]. They emphasized that these tools could detect even minor mistakes in their writing, ensure grammatical accuracy, and highlight areas where their grammar usage needs improvement. This feedback helps them refine their skills and enhance their overall writing quality. Participants further supported this observation, expressing in their responses that:

"Um, I wasn't that very conscious now of my grammar since I use these AI tools a lot, and before, um, I have observed that, ah, I make so many errors in terms of my grammar, and I, like, most of the time, do not have, I did not have, any idea that I made those errors like that. Because it sounds just right, it sounds great for me, but, um, turns out, turned out, it was actually wrong. So, with these AI tools, I have learned now how to correct my grammar, and I have learned now some strategies on, on, on how to improve my grammar." (ID11)

"For me, AI helps me understand a certain topic, and it also helps me correct my grammar." (FGD3)

"It's similar to what they said, especially for grammar, word usage, and how to improve the assigned task. As I mentioned earlier, it shows the strong and weak points, so I know what to adjust and what parts of my work are done well." (FGD4)

"In terms of grammar, it actually helps, especially since there are small details that I miss. Or, for example, maybe the simple subject-verb-object. Sometimes, when I use AI, it helps in making sure that my grammar is correct." (ID112)

AI simplifies complex concepts promoting comprehension. This is supported by Khalifa and Albadawy [45], who found that AI's ability to process large data sets enables thorough comprehensive analysis, helping writers understand their own work and ensure their intentions are clear to readers. This is further supported by participants, who noted that:

"It positively affects my writing, especially my writing skills, since I love to write some things like in poems. I can enhance it, for example, if it's too much or too deep, and I want the audience to understand, I will search for basic terms to make it understandable for them. And if the word is too much for me, I'll also search so I can understand it, and I use it as a translator if I cannot write it in English." (ID13)

"Sometimes, if the words are complicated, I am using AI. Pero, not most of the time, I am using AI. If there are some words that I don't know, or maybe for the construction of sentences, that's it." (ID116)

"Sometimes, if the words are complicated, I am using AI. But, not most of the time, I am using AI. If there are some words that I don't know, or maybe for the construction of sentences, that's it." (ID116)

"They [AI writing tools] can give a comprehensive answer that's not complicated, in a way you can understand better than reading it on other websites, where it's more complex and complicated." (ID119)

AI introduces users to new vocabularies leading to writing versatility. This is consistent with Alharbi [46], who found that AI-powered tools improve the overall quality of students' writing by helping them learn new vocabulary and better understand the context of their texts. This is reinforced by participants, who mentioned that:

"Also, with the words used, like, you can learn more vocabulary because of the new words that you encounter." (ID14)

"For me, one of the advantages of using it is that my vocabulary has really expanded because AI uses certain words that aren't common in conversation. And, like she said, for some topics I don't understand, I can use AI to learn the easy way and understand more easily so that people can understand me better." (FGD1)

"It's actually great na naga-AI ko sometimes. Because I'm able to expand my vocabs, and I'm able to improve my construction skills." (ID17)

"It's actually great that I use AI sometimes. Because I'm able to expand my vocabulary and improve my construction skills." (ID17)

"I think I was able to practice more on how to correct my grammar in terms of writing, how to use proper words. And I get to, for example, like, exposed. I get exposed to new words that I am unfamiliar with." (ID121)

AI boosts confidence in one's work. This observation corresponds with Chong [47], who found that AI-based English writing tools not only help students improve their writing skills but also boost their confidence. Expanding on this, Wang and Dang [48] highlighted that AI tools can reduce anxiety and further increase confidence, especially for L2 students facing writing challenges. This is supported by the participants' responses in this study, who mentioned that:

"Ah, confidence? Yeah, mas maka-boost gyud siya ug confidence knowing that I'm more accurate in what I'm writing." (ID17)

"Ah, confidence? Yeah, it really boosts my confidence knowing that I'm more accurate in what I'm writing." (ID17)

"If I use Grammarly and the grammar is okay, I feel confident." (FGD3)

"For me, yes, it [AI] has boosted my confidence." (FGD5)

"I know, um, that this [article] was generated or corrected by AIs, and I am confident that, um, it has, I am confident that it is correct, or should I say, um, improved because the AI proofread it." (ID110)

"Most of the time, I'm more confident when I submit my write-ups because I know most of the mistakes have been corrected. So, yes, I'm more confident now when I use AI compared to before." (ID113)

"If I've already checked it, first, I create a draft, finalize it, then, if I've had it checked by AI and it says there are no more mistakes, I feel confident that it's okay and ready to submit. So, yes, it really helps boost my confidence that what I've written is alright." (ID115)

AI motivates personal growth and self-improvement. Song and Song's [32] study showed that students who received AI-assisted instruction experienced significant improvements in both writing skills and motivation. This is confirmed by the participant's response, who said that AI:

"I actually want to compete with AI. Like, I want a challenge. Okay, let's say I tell myself first, 'First, I'm using ChatGPT, like this, like that.' And then, it's like I want to train myself not to use ChatGPT anymore. And then, what I do is, like, maybe I write an article or an essay. I write an article, an essay,

and then grammar-check. And then, the corrections become minimal. So, the positive impact it gives me is that maybe it gives me a kind of motivation, like, "Oh, I can be as intellectual as artificial intelligence technology." (ID12)

AI encourages exploration by giving thought-provoking ideas. According to Ruiz-Rojas et al., [49], AI tools can generate coherent and contextually relevant sentences, which have been found to stimulate students' creative and critical thinking. This is reinforced by the participants' responses, who noted that:

"Yes, since, for example, the ChatGPT suggested a very interesting idea and it makes me, like, wonder, okay, let me just search through it since there are different resources right now, there is Google and other websites that we can get some information, more information out of this topic. It's just, I try to go beyond the topic and search more out of it, so yes." (ID120)

"It can give me an idea and it can make me think also if the provided information was right, was it right, was it connected to what I'm asking for, was it accurate, and in turn, I can really think more and not just rely on it 100%." (ID122)

AI identifies mistakes and provides insights on how to correct them. This relates to the study by Lam and Moorhouse [50], which found that AI tools effectively helped students identify their writing weaknesses, promoting self-assessment and learning. This is supported by the participants' responses, who said that:

"I think the feedback from the AI is fit for my, um, output in academic writings. And then, um, because AI can elaborate and give some bullet points about my ah where did I make wrong or for example, what are my difficulties in writing." (ID110)

"Because with grammar checking, it corrects me and at the same time explains why it needs to be corrected. So, I understand why it needs to be corrected. This helps me apply it next time." (ID113)

"When I think about my writing process, I realize that even the basics of English grammar were a weakness for me when I started. Even the basics were taught to me by Quillbot's AI." (ID114)

"Of course, it [AI] really checks things, sometimes it finds errors, but most of the time, it corrects typos, misspellings, and grammar issues. I think it enhances the writing as a whole." (ID115)

AI also develops critical-thinking skills. This corresponds with the claim of Lawasi et al. [51], who highlighted that AI can help students broaden their ideas, deepen their understanding, and verify the accuracy and relevance of the information. This is reflected in the participants' responses, who expressed that:

"My critical thinking skills are aligned with my technical skills because I am very strict when it comes to word choices. There are words that don't fit, so you really have to be mindful of your word choices in your writing. For me, my critical thinking skills improve alongside my technical skills." (ID124)

"But most of the time, it helps me think critically because it gives ideas, something pops up, and I just add it to the article." (FGD1)

Perceived Ease of Use. It emphasizes the accessibility and simplicity of AI tools, which make them user-friendly and non-intimidating for learners. It highlights how AI reduces the barriers to writing and fosters a stress-free learning environment. AI gives immediate feedback to one's needs. It is a feature highlighted by Fook [52], who emphasized that AI's ability to deliver immediate feedback is a valuable tool for learners, as it reduces the challenge of offering personalized responses. This is reflected in the participants' responses, who said that:

"I think AI is more accurate for me, and it's like, more accurate and more reliable. Although, most of the time, I don't really like feedback, so when AI gives feedback, I think I can take it better than personal feedback. Because, personally, when I get feedback, I feel nervous, and I can't take it well, unlike with AI." (ID13)

"AI is definitely faster [to provide feedback]. They process things more quickly and don't need to sugarcoat things like some people do, to avoid hurting feelings. AI is direct to the point. So, yeah, it's definitely faster with AI." (ID17)

“Majority of the time, when I ask feedback from the AI, they are fit and are easily understandable on my side.” (ID111)

“Before, when I had someone checked it [article]], I had to give it to them and wait for feedback. Sometimes, it would take weeks or days. So, now it’s faster.” (ID113)

AI gives non-judgmental approach in making corrections. Using AI in writing allows learners to receive quick corrective feedback that enhances their understanding of language usage and grammar rules, without the fear of being judged. Additionally, AI helps create learning materials and activities tailored to each learner's needs and proficiency levels [53]. This is supported by the participants in this study, who noted that:

“I can take AI feedback immediately, unlike when a person gives me feedback in person; I feel dumb. If it’s AI, it’s like it still provides me with knowledge, like spoon-feeding me knowledge while giving feedback. Unlike when it’s personal, it makes me feel dumb.” (ID13)

“I think it’s more comprehensive and easy to understand than the traditional feedbacks that I usually, um, get from my teachers or professors.” (ID16)

AI offers a user-friendly experience to gaining information. This is in line with Selim [26], who noted that AI-powered tools can be valuable additions to traditional writing skills due to their convenience and accessibility. This is supported by the participant’s responses, who shared that:

“Aside from that, it is much easier, the way we write right now, it is much easier just because these kinds of tools are easy to navigate and it’s just one click away.” (ID120)

AI reduces hesitation in writing. Gayed et al. [5], who found that using AI tools helps reduce the cognitive barriers students face in writing, allowing them to move past hesitation and feel more confident in their work. This is reflected in the participants’ responses, who shared that:

“Now, I’m more confident writing formal letters or sending messages to my colleagues, especially in the region, and other advisers. For formal messages or anything formal that I need to say, I usually write it in English now because I have a tool to help me write it. So, before, I hesitated to send messages in full English. So, sometimes, it was in Taglish. But now, I can send a full English message because AI has checked it.” (ID15)

“As I said earlier, I don’t hesitate to send the full-length message in English since it has been checked by AI. Compared to before, when I had to use Taglish terms just to avoid changing the impact of the message I was sending to the recipient.” (ID15)

“Um, utilizing AI tools when I write using the second language, it helps me, um, feel confident with my writing and also it helps me, specifically with Grammarly, it helps me improve my knowledge about the structures of English and makes me aware about the rules of specifically punctuation.” (ID117)

3.2 Opportunities and Challenges of AI in L2 Writing

Table 2a highlights the key themes and core ideas related to the opportunities students experience when using AI in L2 writing. Five (5) essential themes emerged from the analysis of the in-depth interview transcripts, further enriched by insights gathered through focus group discussions.

Table 2a. Themes and core ideas on the opportunities encountered by students when using AI in L2 writing

Themes	Core Ideas
Enhanced writing process and quality	AI is reducing students’ errors in writing AI is providing immediate feedback on students’ output AI is helping the students learn about writing mechanics AI is establishing a structure when generating a written piece AI is giving limitless suggestions for improving the students’ output AI is enhancing students’ confidence in their output AI is helping students develop a new writing style or pattern AI is supporting students in learning how to express ideas in varied ways

	AI is enhancing the vocabulary that students already possess
	AI is reducing the effort students are exerting when writing
	AI is doing tasks related to writing efficiently
	AI is helping to overcome writer's block
Improved knowledge and communication in writing	AI is providing students with knowledge on unfamiliar topics and subjects
	AI is simplifying complex concepts for students
	AI is giving additional information to students
	AI is offering opportunities for students to do in-depth analysis
	AI is giving translations for unfamiliar languages
	AI is aiding in the comprehension of readers

As shown in the Table 2a, the participants identified the opportunities encountered when using AI in their L2 writing. These opportunities include enhanced writing process and quality, and improved knowledge and communication in writing. Dhillon et al. [7] likewise emphasized that AI plays a significant role in the writing process, providing various opportunities to enhance the quality of users' writing.

Enhanced writing process and quality. According to Fithriani [54], the benefits of using AI include enhancing content, reducing errors, and refining language. The study also noted that integrating AI helps students overcome writing challenges and improve the quality of their work. Participants particularly emphasized that one significant advantage of using AI is reducing errors in writing.

Another benefit that the students shared is that AI is providing them with immediate feedback. Fook [52] also highlighted this advantage, noting the value of AI in delivering immediate feedback to users. These results are reflected in the participants' responses, where they noted that:

"...I just use AI for idea generation and for grammar. That's it." (ID11)

"I only use it for the information I need and grammar checking." (FGD1)

"I think the opportunities that I get from AI is when I, I think the opportunities that I get from AI is when I'm grammar checking or it is efficient for me to use it when I'm writing my outputs and also like paraphrasing." (ID110)

"That's one thing about Grammarly and AI tools. They are very convenient, and they are very efficient. If you want a feedback right away, they can give it to you right away. Unlike the traditional way of giving feedback and suggestion that you have to wait until your professor finishes reading your writing." (ID117)

Students also noted that one benefit of AI is its role in helping them learn writing mechanics. This idea is emphasized by Marzuki et al. [39], who highlighted that AI-powered technologies assist students in understanding writing mechanics by offering suggestions to improve vocabulary, sentence structure, and overall writing style. Moreover, another benefit AI offers to students is establishing a structure when generating a written piece. Marzuki et al. [2] also found that AI writing tools help enhance the clarity and logical progression of students' writing, providing a well-organized structure. These findings are supported by the participants, who mentioned that:

"AI opens many opportunities, like learning grammar, using punctuation, and writing styles too. It gives me more ideas on how to properly write what I want to write in essays and research. It gives me ideas without having to search through books, like the answers are immediate as long as you have internet access." (ID13)

"Aside from grammar and vocabulary, I think it's the format and finding the right angle on the topic because it's more cohesive, simpler, and easier for readers to understand, as the format isn't cluttered, and there's a proper structure and flow." (ID14)

"Especially if you're creating some ideas, AI can help organize ideas into a simple structure, like a flowchart or something. This arrangement makes it easier for you as a human to expand on those ideas. So, it's faster to create ideas with AI." (FGD2)

The participants also emphasized that one key benefit of using AI is its ability of giving limitless suggestions for improvement. This is supported by This is supported by Malik et al. [12], who focused on AI's capacity to offer a wide range of suggestions to improve various aspects of writing, including clarity, coherence, and style.

Additionally, students shared that AI beneficial in enhancing confidence about one's output, aligning with the findings of Wang and Dang [48], who highlighted that AI not only improves the quality of student writing but also significantly boosts L2 students' confidence. These observations are reflected in the participants' responses, where they mentioned that:

"Aside from the information, they also give a lot of suggestions. For me, when I use AI, I prompt them to look for the other side of the story, so my work isn't one-sided. That way, I know other factors that might affect what I'm writing." (ID17)

"I think one of the benefits of using AI, well, it's with confidence. And it enhances my technology use. I become more comfortable using technology, more familiar with computers and phones, and it allows me to practice using AI." (ID115)

"So, with the suggestions given by this AI, specifically Grammarly, it helps me to critically analyze my writing and also my skills. I am going to the point where I can see myself, or I can consider myself, good or a good writer in English." (ID116)

Students mentioned that AI is beneficial by reducing the effort exerted when writing. Zhao et al. [55] found that AI writing tools saved time by automating certain tasks and simplifying the editing process. This is echoed in the responses of the participants, who said that:

"Oh, is writing still challenging even with AI? I think it's not because even without AI, I can write. But it became better for me. It became convenient for me with the use of AI." (ID11)

"For me, it saves time. Instead of scrolling through Google Scholar or ERIC journals, AI can quickly provide information, though it's not always credible." (FGD3)

"Opportunities? For example, one of the most beneficial things that AI is giving me is convenience and less strain in structuring my sentences. Because AI provides me with what I need, what words I need to fit in this paragraph, and what structure I should use. In terms of time, I don't need to deeply search on the internet because I type my question. In a matter of seconds, it inputs what I need. And there will be less strain or less effort to exert because AI will do the work for me. And I, on the other hand, will only use my mind to filter out what I need." (ID111)

"It would definitely be artificial intelligence, with the use of artificial intelligence. Right now, I am in fourth year and I'm really busy right now, I am, it is not really easy to give time or give, give like a space to write and something like that. And it is, and it's just really beneficial for me right now, the use of AI." (ID120)

Moreover, Fitria's [40] study emphasized that AI tools enhance students' writing accuracy and efficiency by effectively checking grammar, from spelling to sentence structure and overall language conventions. In the same vein, Yan [8] found that AI is a valuable tool for teaching L2 writing, offering an automated workflow that optimizes and streamlines the writing process. In this study, students highlighted that AI is advantageous by being efficient at doing tasks related to writing. This is affirmed by participants, who noted that:

"Sometimes, when I do not, I, I'm not in the mood to write, and I have to submit output on time, and I have a deadline that I have to chase. What's so beneficial is you can just, like, put an idea on ChatGPT and ask ChatGPT to generate like a write-up, and then you will just get the output and just edit it out and just, um, change some things. So, it would fit your narrative, or it would fit the way you wanted it to be." (ID120)

"So instead of being overly shy with the editor, I can ask AI what to do. The next time I check with the editor, there are minimal errors." (FGD4)

"I'm not that really good in constructing prompts, or commands, or instructions. That's why using the AI really helped me to be very specific, very detailed, to give a structured format, or to give a prompt that is specific and also clear for the tool to understand me and to give me what I want." (ID122)

“Also, sentence construction improves with the use of simple, compound, and complex sentences. Also, you can see how AI works, the way it constructs sentences, and this has helped me a lot not only in my creative skills but also in my technical skills.” (ID124)

Students also underscored that AI is advantageous in terms of helping to overcome writer’s block. Gayed et al. [5] showed that AI writing tools are effective in promoting idea development, assisting students in overcoming writer’s block. This is echoed in the responses of the participants who mentioned that:

“Um, aside from what I've said earlier, um, when it comes to my vocabulary, if I need some, um, terms that I couldn't exactly, um, if I need terms, I can just ask AI and then it would give me, um, the words that I need for me to, um, hit the thoughts that I opt to write.” (ID16)

“Sometimes, when you experience writer’s block, you can ask AI for its opinion or perspective on a certain issue. If it provides a point, it’s up to you to decide if you will use it. For example, you could ask if AI is beneficial for writing, and it would provide good points and bad points, advantages and disadvantages. This can give you new insights, showing you advantages you hadn’t considered and helping you expand your ideas.” (ID125)

In the study by Marzuki et al. [2], students emphasized how AI played a significant role in developing a new writing style by analyzing their writing patterns and offering style suggestions. In this study, students similarly highlighted that AI assisted them in creating a unique writing style and pattern, reinforcing the importance of AI in enhancing their writing skills. This is supported by the response of the participant, who said that:

“I have observed that AI has a very, let's say, uniform way of creating articles or even essays. As an AI user, I can distinguish whether something is written by AI. And because of that, I have adopted a skill that, even though I'm using AI, I can, because of me being, let's say, engaged or exposed in AI, um, I have created a writing style that is anchored on AI but not really anchored on AI. Do you get my point here? Yeah, I learned to adapt but not really copying everything that AI has.” (ID19)

Furthermore, another benefit of using AI in writing, as shared by the students, is learning how to express ideas in varied ways. Reis and Huijser's [56] research highlighted that AI writing tools provide comprehensive feedback and practical features, offering students various options for delivering their writing more effectively. This finding is supported by the participants' responses, who stated that:

“I think other than providing more information about things, I was able to, um, learn that writing is not just about, um, correct grammars. Yeah, correct grammar, but also how to express what you want to say in a proper way and in an organized way.” (ID121)

“Things like translations and finding synonyms. Sometimes, the words I use in an essay are too redundant, so I use AI to look for synonyms.” (ID123)

Students also observed that using AI is beneficial in enhancing the vocabulary that one already possesses. This is corroborated by Sumakul et al. [11], who found that AI not only improves grammar but also enhances vocabulary usage in writing. In addition, Marzuki et al., [2] emphasized that AI can elevate the overall quality of writing by aiding students in learning new vocabulary and deepening their understanding of the context of the texts they work with. This finding is further validated by the responses of the participants, who indicated that:

“Another benefit is that it widens my understanding of the words that it provides. If I don't understand it, I will research the definition of it.” (ID116)

“For me, since using AI, comparing myself, like what I said, I use certain words that have broadened my vocabulary.” (FGD1)

“There are things you can really learn from Talk.ai because there are words you don’t know the meaning of, so it really boosts, it really enhances or expands your vocabulary.” (ID124)

“I can say my vocabulary has widened from using AI.” (FGD3)

Improved knowledge and communication in writing. Lawasi et al. [51] highlighted that AI is instrumental in helping students acquire knowledge on unfamiliar topics by offering tailored learning experiences. Students

shared that AI helps them in gaining knowledge on unfamiliar topics and subjects. This finding is reflected in the participants' responses, where they stated that:

"Just recently, in my economics quiz, I took a picture and then, boom, sent it to ChatGPT, and it gave me the answer to the other questions. And it actually turned out to be perfect. Not once. I didn't do this once. Actually, I did this probably a lot of times. And it was actually quite accurate. So, probably, since AI has general knowledge, you yourself could actually learn from the knowledge that the AI has given to you. I guess that's the opportunity it gave me." (ID12)

"Aside from that, some AI websites allow you to upload documents and ask questions based on those documents. It helps when reviewing something because, instead of scanning the document, you can ask questions, and AI finds the information for you. Sometimes, when writing, you need a reference from a journal or book, and instead of scanning through, you can upload it, which adds efficiency." (FGD4)

AI also aids students by simplifying complex concepts. Wang and Dang [48] observed that AI supports the writing process by breaking down large tasks into smaller, manageable parts and offering ideas to stimulate students' thinking. This is reflected in the participants' responses, where they mentioned that:

"The answers go beyond the book. And, at least, in other words, AI to me is actually a friend because if I lack comprehension sometimes, I would write the question, and then it would translate it into simple terms. That way, I could answer it." (ID12)

"Asking AI to elaborate or break down the topic makes it easier to understand. This helps me write better." (FGD5)

"It breaks down the complex terms that I don't know and stuff. It helps me understand." (ID12)

"For example, as I said about reporting, especially if there are concepts or contexts that are hard to digest, so, I ask AI to help me explain [the concepts]." (FGD5)

Students shared that AI is beneficial by giving additional information to the writer. Marzuki et al., [2] emphasized that students appreciate AI tools because they offer valuable extra information, such as enhancing vocabulary and helping students understand the context of the text they are working with. This result is supported by the responses of the participants, when they said that:

"So, in terms of writing, like for topics, for example, I want to write a poem about breakups or something like that. Then, I ask ChatGPT for ideas on how I can improve it, how to make the flow and fluency of my work better." (ID18)

"Yes, because if you don't have someone accessible or someone you can talk to right away, if you ask them [AI tools], they can really give useful insights that will improve what you write." (ID119)

"It would definitely be different perspectives. Because when I try to write up on my own, and I try to, isalang, isalang ko yung writing ko dun sa ChatGPT, and I would ask ChatGPT to fix it, the ChatGPT would generate or would add more ideas outside of my perspective. And I think that's something so beneficial about artificial intelligence, because it gives you a different perspective aside from the perspective that you have for yourself, or like the perspective that you only have. And I think that's interesting about ChatGPT and artificial intelligence." (ID120)

"It would definitely be different perspectives. Because when I try to write on my own, and I try to submit my writing to ChatGPT, and I would ask ChatGPT to fix it, the ChatGPT would generate or would add more ideas outside of my perspective. And I think that's something so beneficial about artificial intelligence, because it gives you a different perspective aside from the perspective that you have for yourself, or like the perspective that you only have. And I think that's interesting about ChatGPT and artificial intelligence." (ID120)

Students also mentioned that AI is beneficial for having an opportunity to do an in-depth analysis. This is backed by Lawasi et al. [51], who emphasized that AI enables students to engage in deeper analysis by offering interactive and adaptive learning experiences. AI allows students to explore concepts from multiple perspectives, providing

them with a more comprehensive understanding. This is confirmed by the participants' responses, where they noted that:

"It actually helps in the creation of ideas. You can have a deeper analysis of the topics that have been provided to you because AI does not just look at it at the surface level, and it allows you to find a better understanding of the topic that you are writing about." (ID112)

"It allows me to think if the information is credible or not. There are links sometimes, and I check those links to see if they're credible. If they are, I use them in my essay; if not, I don't." (ID123)

Alharbi [46] research found that language learners felt more at ease using AI tools, such as automatic translators, which helped enhance their English writing skills. Similarly, a recent study by Lee et al. [25] revealed that Korean college students held positive views of AI, particularly for its translation capabilities. This aligns with the experiences shared by students in this study, who mentioned that AI is valuable for giving translations on unfamiliar languages. Their responses further supported this idea when they stated that:

"It helps me understand things more. Because it can also act as a translator. Of course, my first language is Bisaya. So, sometimes I translate it to Bisaya. It can also be used for Tagalog and English" (ID18)

"If there are words in Tagalog that I need to translate to English to fit the sentence, I use AI." (ID123)

AI is also beneficial in aiding in the comprehension of the readers. Kim et al., [23] noted that students had positive experiences using AI, as its various features helped them understand what they were writing and produce clearer and more understandable writing. This is reflected in the response from the participant who mentioned that:

"Because of ChatGPT, it helps me understand what I'm reading better and makes it easier for me to grasp what I need to do." (ID18)

Table 2b presents the key themes and core ideas regarding the challenges students face when using AI in L2 writing. Five (5) essential themes emerged from the analysis of the in-depth interview transcripts, further supported by the insights obtained from the focus group discussions.

Table 2b. Themes and core ideas on challenges encountered by students when using AI in L2 writing

Themes	Core Ideas
Overreliance to AI	Students are becoming overly dependent or reliant on AI, decreasing confidence in their own ideas Students are copying and pasting instead of writing personally Students are altering their personal writing identity due to AI Students are having difficulty writing when AI is not utilized Students are failing to independently generate and process ideas
Unreliable AI content	Students are procrastinating due to the availability of AI Students are getting inaccurate information from AI software Students are encountering errors in AI-generated content Students are getting only the synonyms when asking AI to paraphrase the output
Limited writing assistance	Students are doing repeated regenerations to gain accurate answers Students are editing AI-content repetitively to ensure accuracy Students are getting too generic content when using AI Students are being provided with AI-content that is unfamiliar and complex Students are gaining information that is unclear Students are having content that is too exaggerated Students are getting limited feedback from AI tools regarding their writing Students are being provided with limited information Students are lacking discernment in assessing the data provided by AI Students are facing limitations in terms of human connection when interacting with technology

	Students are writing mediocre content Students are finding it difficult to express ideas through prompts to get the desired output
Disdain for traditional writing practices	Students are undermining the essence of traditional writing processes Students are perceiving oneself to be insufficient in knowledge Students are committing errors in writing due to lack of verification Students are experiencing challenges in using correct writing mechanics
Fear of judgment and self-doubt	Students are fearing judgement when others know about AI usage in their work Students are undermining their abilities due to reliance to AI

As shown in Table 2b, the participants identified several challenges they faced when using AI for their L2 writing. These challenges included overreliance to AI, unreliable AI content, limited writing assistance, disdain for traditional writing practices, and fear of judgment and self-doubt. In line with these findings, Nazari et al. [42] pointed out that while AI holds significant potential in second language (L2) writing, its use is often accompanied by various challenges that can impact the writing process and overall learning outcomes.

Overreliance to AI. Kim et al. [23] noted that students expressed concerns about becoming overly reliant on AI for writing tasks, which could undermine their creativity and confidence in their own ideas. Similarly, Talayhan [57] highlighted that students worried excessive dependence on AI might hinder critical thinking, creativity, and mastery of language conventions, ultimately reducing their confidence in their writing abilities. Santiago et al. [34] likewise emphasized that the use of AI poses challenges, particularly overreliance, which can impede the development of critical thinking and writing skills in students.

This study aligns with these findings, as participants shared, that being overly dependent or reliant on AI is decreasing their confidence in their own ideas. Their responses further validated this observation, revealing that:

"Um, because most of the time, I use AI in writing. Sometimes, I mainly depend on AI, on ChatGPT, to what my angle would be, like that. And sometimes, I cannot, I cannot function now without ChatGPT, like that, without still consulting ideas from ChatGPT. Now, like, I cannot confidently say that my ideas are, you know, that good without consulting ChatGPT because I think my ideas still have a, um, bigger potential that I cannot, um, it's like, I can't expand on them without the use of ChatGPT. So, it's like, before, I could really write even without the use of, like, any AI tools. But right now, it's like I've become dependent, and I think it is a negative thing for me too." (ID11)

"I would take down notes on suggestions that can help me, but if I'm really tired, I rely on AI." (FGD2)

"The challenge I face is dependency. I've become dependent on AI, and whenever I write an article, I don't want to think about it myself. I let AI process it first before writing the article." (FGD3)

"The main challenge I face when using AI is that when I use AI, I tend to become lazy to write. I mean, I become lazy to think thoroughly. For example, using AI to scan a journal. As a writer, you should read and read to enhance your vocabulary, refine your tone, and learn to use different tones. But with AI, sometimes, I get lazy. So, what happens is, you end up absorbing AI's tone instead of using your own thinking. You can't expand your vocabulary because relying too much on AI, I think, prevents it from sharpening your vocabulary overall." (FGD2)

Students also expressed concerns that using AI encourages them to rely on copying and pasting instead of writing personally. Dakakni and Safa [58] reported that 85% of students used AI unethically, allowing it to complete their writing entirely, without contributing their own input.

Moreover, students expressed concerns that AI plays a significant role in altering their personal writing identity. In Dhillon et al.'s [7] study, it was found that the use of AI writing tools led to a significant decline in both text ownership and overall satisfaction among users. This suggests that AI tools can potentially erode the sense of authorship and fulfillment that writers typically experience with their work. These findings are further corroborated by the responses from participants, who stated that:

"It's like, I don't write in physical notes anymore; I just copy and paste, and then read it. I don't use traditional notes anymore. Therefore, I've also become lazy to write and really dependent on it. Copy and paste, then read from the notes." (ID13)

"Just like what I've said earlier, um, I find it challenging to adapt because AI has this certain pattern. I think I tend to adapt easily. My identity in writing is altered or changed." (ID16)

"The challenges I think is, when I first used ChatGPT, the main problem was, as I've said, it has a distinct format in writing. And because of that, you become over-reliant on that, and you try to copy-paste everything." (ID19)

"And also, there are some parts of me that feel my output isn't authentic because, at some point, it's combined with AI. I feel like some of the output isn't entirely mine but rather AI's work. Only parts, but not all. So, there's a part of me that thinks people might assume I'm skilled, but at some point, the major contributor is AI, especially when I write essays." (ID124)

Another challenge shared by the students is having difficulty in writing when AI is not utilized. This is consistent with Song and Song's [32] claim that students rely heavily on AI for their writing, which creates a passive learning environment that inhibits the use of critical thinking skills. As a result, students find it challenging to begin writing without AI's assistance. Students also noted that they are failing to independently generate and process ideas because AI. Ho [59] argued that AI writing tools limit students' ability to think and create independently, often leading to patchwriting, errors, and a greater risk of plagiarism. These results are supported by the participants' responses, which expressed that:

"It would, right now, when I try to write traditionally without the use of artificial intelligence, I find it hard. I find it hard; it is because I get used to the assistance of artificial intelligence. And I think that's the downside of using too much assistance from artificial intelligence. It is because when you get used to it, um your critical thinking skills, you will um slowly lose it." (ID120)

"On a personal note, the main problem that I am having with AI is that there are these instances that I rely on it too much where I cannot think of an idea so I will just search on it on ChatGPT or Nova AI and ask them what ideas they can provide me. It lessens my processing capabilities and makes me dependent on it." (ID112)

"...before, your skills were sharpened a lot because you did it on your own. But now, because of AI, it's like it dulls over time. So, I think that's the downside, because, um, you become so dependent on the use of AI." (ID120)

"Actually, when it comes to the language, it is not much of a challenge because I um I'm studying English. I am studying English. So, it was not really a problem for me. The language was not really a problem for me. But I think it hampers my ability to really think on my own, to construct on my own, to frame things and information on my own." (ID122)

In addition, students pointed out that they are procrastinating due to the availability of AI. This is supported by Belleza-Torrejón et al.'s [60] study, which found that artificial intelligence (AI) significantly influences procrastination. This result is confirmed by the participants' responses, who indicated that:

"Especially if the teacher is not going to read your essay anyway. It's like that, there's also a factor involved. In other words, okay, the teacher is not going to read this anyway. This is a 5,000-letter, 5,000-word essay. There's that doubt that the teacher will read it. So, might as well just procrastinate it." (ID12)

"Or sometimes, I use AI to make slides or Quizlets. And then, through that, I realize I'm cramming. I cram because there's AI. I think, 'I don't need to do it now; I'll just search on AI later because there's still time.' That's how it is." (ID13)

"Sometimes, I feel I rely too much on AI. For example, I get lazy to write. As I mentioned, you can ask AI to generate points. Sometimes, I don't think of ideas myself and just rely on the main points provided by AI." (ID125)

Unreliable AI content. Ho [59] explored the limitations of AI in academic contexts, highlighting that AI systems, while efficient, are prone to generating errors in explanations and providing inaccurate information. In this study, students reported getting inaccurate information from AI software. This result is supported by the responses of the participants, who said that:

“Um, when I write, one of the biggest challenges, I think, is the inaccuracy of AI at some point. If you're really reliant on AI, there are so many times that the things that they're giving you are very inaccurate.” (ID19)

“Sometimes, I notice that AI gives repetitive feedback. Even if I make changes and incorporate its suggestions, it loops back with the same suggestions.” (FGD2)

“Sometimes, AI responses aren't very reliable. There are times when fact-checking is necessary to ensure accuracy. Or if it provides a source, you still need to search for it. It provides specific answers if the question is also specific.” (FGD4)

“Same answer here. AI isn't always reliable. There are times when the response is too generalized or “safe.” If you don't fact-check, you won't know if what it's saying is true or not. Especially if you're a, not fact-checking could lead to issues in the article. So, yeah.” (FGD5)

Song and Song's [32] study emphasized learners' concerns about the accuracy of AI-generated content, particularly its ability to provide contextually appropriate information. In this study, participants expressed similar concerns, encountering errors in AI-generated content, and getting only the synonyms when asking AI to paraphrase the output. These findings are further supported by the participants' responses, who indicated that:

“When using AI, maybe, there are times that every time you input a prompt, what comes out isn't always appropriate.” (ID124)

“Sometimes, it's not accurate because, usually, what I used before, like Quillbot, only suggested synonyms. It doesn't really correct the grammar or change the message entirely. Sometimes, some synonyms don't really connect with each other. So, when you're using synonyms, they just suggest words, but it can make the message sound worse.” (ID15)

Adams and Chuah [61] pointed out that some AI tools often deliver repetitive feedback, which hinders their ability to support meaningful learning. Moreover, these tools may struggle to accurately interpret the meaning of words or sentences due to their inability to fully understand the context of the prompts they are processing. This aligns with the findings of this study, as students shared doing repeated regenerations to gain accurate answers, having to edit AI-content repetitively to ensure accuracy, and getting too generic content when using AI. These observations are reinforced by participants' responses, who mentioned that:

“Example sa challenges, for example, when I prompt something in using AI, they can give unspecific information about it. So, I must regenerate it to get a proper and correct answer for that question.” (ID110)

“Example of challenges, for example, when I prompt something in using AI, they can give unspecific information about it. So, I must regenerate it to get a proper and correct answer for that question.” (ID110)

“I think one of the problems with AI is that sometimes it can't understand what I mean. It can't grasp the real context of what I'm writing. So, what I do is edit it again based on what I think is the proper context behind what I'm writing. Sometimes, it's wrong, especially if the context is a bit deep.” (ID115)

“I think, for my part, I don't really rely on the information they provide. Because it's too generic. It's too shallow. They don't provide details. They only give bullet points, but that's it; it's not explained well enough for what you want to get.” (ID17)

Moreover, Nacheva & Czaplewski [62] explained that certain AI tools struggle to generate customized outputs that meet users' needs, particularly in terms of readability. Some generated content was too complex for students to comprehend, preventing them from using it to complete their writing tasks. In the same vein, Santiago et al. [34] pointed out that AI tools may fail to capture the linguistic and cultural nuances essential in academic writing.

These issues were reflected in this study, as students underscored being provided with AI-content that is unfamiliar and complex, gaining information which are unclear, and having content which are too exaggerated. These findings are further validated by the responses of the participants, who shared that:

“For me, as a writer, one challenge is that some information it provides isn’t familiar to me. So, I must search for it again to understand it. It’s also sometimes hard to comprehend because it’s too deep, unlike the words I use in everyday life, which makes it harder to understand coming from AI since its ideas are broader compared to a person’s.” (ID13)

“Usually, with jargon words used, because sometimes AI uses esoteric words that are either far from the topic or hard for readers to understand. So sometimes I need to change that.” (ID14)

“So far, the only issue is that sometimes it generates sentences that are too exaggerated. But when it comes to grammar, it’s okay. It catches my minor grammar mistakes.” (ID118)

Limited writing assistance. Glahn [63] underscored that AI-generated writing often lacked concrete examples, citations, and a varied structure, which hindered its effectiveness and creativity. The absence of detailed feedback and the repetitive nature of AI responses made it challenging for students to enhance the quality of their work. In a similar context, participants in this study reported getting limited feedback from AI tools regarding their writing and being provided with limited information. These findings are reinforced by the responses of the participants, who articulated that:

“I’ve mentioned earlier that AI, specifically Grammarly, can only check the structure and the correctness of your grammar. However, they cannot fully check the flow of your sentences. What if your idea in this part is different from the idea that you are trying to portray in your whole paragraph? The AI, the Grammarly, AI cannot predict that.” (ID117)

“If I ask AI, especially Cici, to check my grammar, it can’t actually check it fully. I still need to use other AI tools like Grammarly to really check the grammar. Sometimes, when I ask Cici for grammar checking, it just returns the same essay I gave for checking. If there’s a part of the essay where I need to replace a word, it gives me a word that doesn’t fit the essay.” (ID123)

“So far, the answers I receive from AI are correct. If there’s something it didn’t specify, I ask further questions. But sometimes, the response isn’t related or strays far from the question.” (FGD3)

“AI is limited. It doesn’t always capture specific ideas. For example, one time I asked Cici to construct a specific sentence, but it couldn’t because of system limitations.” (ID123)

Another challenge shared by students is lacking discernment in assessing the data provided by AI. This is consistent with Song and Song [32], who noted that students often rely too heavily on AI for information without fully understanding the reasons behind the generated responses. Additionally, students reported facing limitations in terms of human connection when faced with technology. Malik et al. [12] pointed out that some students expressed worries about AI’s potential to stifle their creativity and reduce meaningful human interaction. These results are further validated by the responses of the participants, who indicated that:

“Can I just say I’m more reliant; whatever ChatGPT says, I’m going to copy? Can I just say that? Whatever the AI would say. Maybe, let’s just say I’m not media literate. In other words, whatever evidence it gives me, whatever data AI gives me, I would use it.” (ID12)

“The difference there is that when we look at AI, they will be technical. They will be focused on the technical aspect, your grammar, how structure should be written, how one thing should be defined and everything. However, compared to, compared to criticisms by my peers and my advisers or teachers, it’s actually much more human-like. Um, you can feel that it is written by, it is actually written by someone who has a soul. So, it feels more ah genuine to have feedback from your peers and your advisers or teachers.” (ID112)

“I think it’s the lack of, um, human connection which is given because it is technology. What I mean about human connection, how do I explain human connection? There is a difference between having your professor check your writing versus AI. There is no emotional connection. The AI itself cannot relate to the story that you are telling. There is no empathy or emotional attack on that part.” (ID117)

In Dhillon et al.'s [7] study, it was found that while AI writing tools did not cause significant cognitive strain, they led to a decline in text ownership and satisfaction. This implies that, while not mentally demanding, these tools can result in subpar content and obstruct users' ability to clearly convey their ideas. Similarly, in this study, student expressed that they are writing mediocre content and finding it difficult to express ideas through prompts to get the desired output. These findings are further supported by the responses of the participants, who stated that:

"It was very convenient, but it gives me an option to mediocrity because I choose to just let it do what I want, let it do the task that I need to do. So, my critical thinking skills, my problem-solving skills, they will not be developed. And, in turn, I will be stuck in that same space relying on AI." (ID122)

"Most commonly, for example, today, ChatGPT. In ChatGPT, you need to give the prompt you want to convey to get the desired result. So, that's one challenge. Sometimes, you have ideas that you can't fully express, especially when you can't get the output you want. So, you ask for help from AI. To explain to AI what you want, you need to create the right prompt. This is the main challenge, because it's different when you imagine it and when you say it." (ID15)

Disdain for traditional writing practices. The use of AI in writing presents several challenges, such as undermining the essence of traditional writing processes, perceiving oneself to be insufficient in knowledge, committing errors in writing due to lack of verification, and experiencing challenges in using correct writing mechanics.

The study by Lee et al. [25] also raised concerns, with students expressing fears about a potential decline in creativity and innovation. In addition, Cardon et al. [9] emphasized other challenges, such as a decrease in critical thinking and authenticity in students' writing.

These aligns in the challenges faced by students in using AI in writing in this study, including undermining the essence of traditional writing processes, and perceiving oneself to be insufficient in knowledge. These findings are reinforced by the responses of the participants, who mentioned that:

"It destroys the essence of a writer if you become reliant on artificial intelligence because I believe that even though we are in the age of technology, we are surrounded by technology, we really have to comply to the traditional way of writing." (ID19)

"Oh, information, some of it isn't accurate to the ideas I want, but I have no choice because I think it's more accurate since it's from the internet and has many sources, unlike just my own idea that I want to write but don't because I feel I lack knowledge." (ID13)

Moreover, participants in this study reported that they are committing errors in writing due to lack of verification and experiencing challenges in using correct writing mechanics. This reflects the findings of Alammar & Abdel-Reheem Amin [10], who observed that students have difficulty distinguishing between correct and incorrect AI suggestions, which complicates their writing process. These findings are supported by the responses of the participants, who said that:

"Another challenge is if AI doesn't understand, and you just copy-paste what AI gave you without checking. Usually, if you give a prompt and AI responds, and you don't check the answer, you might be shocked that something is wrong. That's usually the problem." (ID115)

"There's a tendency that if I'm going to make my own sentence, and then I'm going to put it in the tools, the AI, I encounter problems if I know the construction is correct, but I don't fully understand the punctuation. That's really where I struggle." (ID116)

Fear of judgment and self-doubt. Students voiced concerns about being judged if others discovered their use of AI in their work. This fear, along with a growing reliance on AI, often led to feelings of self-doubt and a sense of undermining their own abilities. Chai et al. [64] found that both students and faculty often lack awareness and understanding of AI's capabilities and limitations. This knowledge gap can lead to doubt and reluctance to use AI, making it more challenging to integrate it effectively. In this study, students also expressed concerns about being judged if others discovered their use of AI in their work. This result is confirmed by the responses of the participants, who shared that:

"I'm also conscious because some people have a negative view of AI. They think that if you use AI, it's not genuine. So, if I get questioned about it, like, "Why are you using that?" I just feel a bit conscious about it, but it's just something I worry about for myself." (ID113)

"For confidence, I sometimes feel uncertain. I wonder if, when using certain words, people might label me as using AI instead of attributing it to my writing." (FGD1)

"I still have a fear of being judged. Before, I was afraid my writing would be judged, and now, I'm afraid I might be judged for using AI. So, I don't think there's a big difference." (FGD2)

"For me, there's a tendency that my work will be labeled as AI-generated. I might feel guilty and hesitate to submit it because some words don't sound conversational or normal to read. I want my words to sound fancy, but some of them come out AI-like, so I feel like I need to change them to avoid being labeled as AI-generated." (FGD1)

In addition, students expressed that their reliance on AI is causing them to undermine their own abilities. This aligns with Talayhan's [57] claim that heavy dependence on AI tools can hinder the development of writing skills and diminish self-confidence. This finding is supported by the responses of the participants, who shared that:

"However, my confidence isn't fully boosted because there's a part of me that feels I might become too dependent on AI, and in the end, my critical thinking skills might suffer from relying solely on AI instead of depending on my own abilities." (ID124)

3.3 How L2 Students Address AI Usage Challenges in Writing

Table 3 outlines the key themes and core ideas related to how L2 students address the challenges they encounter when using AI. Six (6) essential themes emerged from the analysis of the in-depth interview transcripts, further enriched by the insights obtained from the focus group discussions.

Table 3. Themes and core ideas on how L2 students address the identified challenges on the use of AI

Themes	Core Ideas
Being ethical	Students are having awareness on overreliance to AI Students are using AI only as a supplementary and reinforcement tool for essential tasks
Developing writing independence and skills	Students are selecting and limiting exposure to AI-based content Students are practicing original writing to reduce dependence on AI Students are enhancing the AI-generated content Students are replacing complex AI-discourse with human-like language Students are establishing emotional appeal to connect with readers Students are emphasizing personal involvement and the reader's perspective in writing
Refining and critically evaluating AI outputs	Students are checking the credibility of information from AI Students are ensuring reliability of AI-based content Students are filtering the content of the AI Students are changing the content when something seems wrong Students are revising AI-generated content to ensure coherence Students are comparing own output to AI-generated content
Maintaining originality and style	Students are checking and re-checking personal work Students are separating AI-based content from personal opinions and thoughts Students are selecting AI suggestions to maintain personal style Students are integrating personal writing style Writers are using AI only as tool for clarification Students are prompting AI to achieve clarity of responses
Seeking alternative resources and human input	Students are gathering facts from non-AI websites Students are utilizing study materials provided by professors Students are utilizing published works as reference Students are searching credible information to improve writing Students are conducting research when AI is not satisfactory Students are using another tool to humanize content

Students are seeking ideas or assistance from another person

Improving Interaction with AI Tools

Students are knowing the different versions of AI
 Students are using appropriate prompts to enhance AI content
 Students are directing AI to provide tailored responses

As shown in Table 3, the participants suggested several strategies to address the challenges they face when using AI in their writing. These include being ethical, developing writing independence and skills, refining and critically evaluating AI outputs, maintaining originality and style, seeking alternative resources and human input, and improving interaction with AI tools. These findings align with Al-Sofi's [65] study, which emphasized the importance of well-defined strategies to address the challenges of using AI-powered tools writing.

Being ethical. To address the challenges of using AI in writing, students stressed the importance of ethical practices. Kumar [66] found that increasing students' awareness of the benefits and limitations of AI-powered tools enhances their academic skills and fosters metacognitive learning, emphasizing that AI tools should be used only as an instrument to improve structure, generate ideas, and proofread, rather than being relied upon to create original content.

In this study, students emphasized having awareness on overreliance to AI, and using AI only as a supplementary and reinforcement tool for essential tasks. These are echoed in the participants' responses, who shared that:

"Actually, I am self-aware that I am becoming too dependent on AI tools. And with that, actually, I have made, um, some interventions, some alternatives." (ID11)

"For writing and learning, I only incorporate it into myself and my writing style if, for example, I can't really understand the information provided, what I received from primary sources, things like that, then I rely on ChatGPT, on AI. That's when I start incorporating AI into my writing style." (ID13)

"You should check it first. Aside from gathering the information yourself, of course, you should be the one to formulate it. They [AI tools] should just provide little help. Assistance only, they shouldn't do everything for you." (ID17)

"I will let the AI tool help me on structure, on the framework, and also for the final checking of the grammar and the grammatical errors present, or any things that need to be corrected, such as the way the paragraphs are structured. But, content-wise, I think I would not let AI help me because it's a matter of you doing your job and AI providing assistance to you." (ID122)

"As for the writing itself, I only use Quillbot for grammar. I don't use it for the structure or to ask it to create an article based on a topic. That's not a challenge for me because I write the whole article myself. I check it paragraph by paragraph with Quillbot. It doesn't change the content, only the grammar." (ID114)

Moreover, Yang et al. [67] explored human-AI collaborative writing, uncovering patterns of AI reliance and their impact on the writing process. Their findings emphasize the importance of limiting excessive AI use by promoting tools that encourage human agency, such as modifying AI suggestions or generating independent ideas. Students shared that they are being selective and limiting exposure to AI-based content. These sentiments are reflected in the participants' responses, who expressed that:

"I would just effectively use it to correct my grammar, because that's my purpose in using AI: to correct my grammar and to generate ideas, especially when I'm too tired. I have no capabilities to generate an idea on a certain topic. So, with that, to effectively use it, we should not be too dependent on it. We should not let AI write our whole article." (ID11)

"I limit my use of AI. I only use it in case there are too many readings or, let's say, for emergency purposes." (ID13)

"When I face this challenge, for example, when I have an essay to write and I use Quillbot or Grammarly to correct it, they'll just give me synonyms of the words I used. When that happens, I don't use it anymore." (ID15)

Developing writing independence and skills. Washington [68] study emphasized how generative AI can support writing, while also highlighting the risks of overreliance due to limited AI literacy. As a result, structured practice is essential for developing writing skills and reducing dependence on AI tools. In addition, Hu and Wang [69] highlighted the need to maintain originality in research writing by using AI tools solely for language refinement, rather than for content creation. They urge researchers to focus on critical thinking, unique insights, and authentic arguments to preserve academic integrity and prevent over-reliance on AI. This finding is consistent with the results of this study, where students reported that they are practicing original writing to reduce dependence on AI.

“Like, for example, recently, I bought a notebook in order for me to write all my ideas there, my prompts, just like how I did before. So, through that, it’s like I’m also practicing myself in a way, reminding myself that if I indulge too much in that kind of attitude, I’ll be the one who suffers at the end of the day. So, I’m trying to change it.” (ID11)

“I just continue practicing. Sometimes, I don’t mind if they think it’s AI-generated as long as I know I made it myself.” (FGD4)

“To cope and maintain my writing, I jot down ideas myself. I still write it in my way but let AI fix the sentence structure. There are times when my sentence structure is all over the place because of fatigue.” (FGD5)

“Never prompt a whole article using AI. So, you must always write your own structure and have your own words in the article. Take suggestions, but don’t copy-paste.” (ID14)

Meanwhile, the study of Wang et al. [70] noted the importance of enhancing AI-generated content by replacing robotic language with relatable expressions, adding personal anecdotes and emotions to foster connection, and tailoring content to the readers' perspectives. Emphasizing personal involvement ensures authenticity, transforming AI drafts into engaging and meaningful narratives.

The same holds true in this study, where students shared that they are enhancing the AI-generated content, replacing complex AI-discourse with human-like language. They also focus on establishing emotional appeal to connect with readers and emphasizing personal involvement and the reader’s perspective in writing. These views are confirmed in the participants' responses, who said that:

“Um, when I write and if I get some insights from AI, I really make sure that my articles come out the style that I write. Like, for example, using symbolisms, using idioms instead of plain words to put a little spice to your article. You make the writing slightly complex, so it doesn’t come off as plain and AI-generated, which is noticeable compared to a skilled writer’s work. Readers can tell if it’s written by a real person or not.” (ID119)

“I paraphrase it, and, um, I remove those hifalutin words that make it more AI. That’s why I change it to more simple words so that it is more human.” (ID110)

“Looking for the emotion, like where it appeals because sometimes what AI writes is very general and broad. So, that’s where a human comes in, always focusing on emotions that appeal to people and readers.” (ID14)

“When I write, I usually look at it as if I’m the reader, as if I will be the one reading what I write. And I will look at it and ask myself, “Will I understand, or will I get the message of this specific article or this specific essay if I was the one reading it?” And if I wasn’t able to understand it, especially if it comes from AI, I would scrap the idea entirely and focus on rewriting it to make sure that I, as a normal person, would be able to get the message that I want to relay to other people.” (ID112)

Refining and critically evaluating AI outputs. Dwina [71] emphasized the importance of fostering students' critical thinking, evaluation, fact-checking, and information verification skills when using AI writing tools in L2 writing contexts. In line with this, students in this study shared that they are checking the credibility of AI-generated information, ensuring the reliability of AI-based content, and filtering out irrelevant material. These perspectives are reflected in the participants' responses, who stated that:

“But when it comes to information, I always fact-check. Therefore, if the AI gives me information, I would go to Google to fact-check it. So, it’s really not a problem for me, actually.” (ID11)

"First things first, I don't use AI in searching for any informational facts. I do that beforehand in writing so that I am sure of the information that I put into my writing. So, I didn't experience any issues with having false information." (ID14)

"So, first and foremost, whenever I, um, ask assistance for AI in academic articles or academic writings, I always, um, fact-check everything. Despite the AI giving me information, I always try to fact-check it by finding other sources to really say that it's accurate." (ID19)

"I address it by checking the data and information given by the AI and some of my strategies is to regenerate or to, yeah, regenerate what I have prompted to AI." (ID110)

"When I receive feedback from these AI tools, I, of course, check the accuracy, not just accepting the information. I filter it, and then I also evaluate those information from them." (ID121)

Additionally, Munawar et al. [72] evaluated the ability of AI tools to generate research content, noting strengths in topic generation but weaknesses in areas such as abstracts, methodologies, and citations. They recommended strategies like combining AI outputs with human expertise, critical evaluation, manual validation, and contextual refinement to maintain academic quality and integrity.

These strategies align with the findings of this study, where students highlighted that they are revising AI-generated content to ensure coherence and changing the content when something seems wrong. They are also comparing own output to AI-generated content and checking and re-checking of personal work. These views are mirrored in the participants' responses, who shared that:

"In writing my articles, I always write my own first, and then if I see any like complications or some parts that I do not like, that is when I use AI to enhance them. Whenever there are situations that are like the usage of conflict words in AI, I will redo that part and then check it again so that it fits the whole article." (ID14)

"In writing my articles, I always write my own first, and then if I see any complications or parts that I do not like, that is when I use AI to enhance them. Whenever there are situations where there's a conflict of words in AI, I will redo that part and check it again to better fit the whole article." (ID14)

"I write my own articles sometimes. After that, I check my own articles, then compare them to how AI writes to see what I can improve." (ID124)

"And for checking, as I mentioned, after running it through AI, I double check to ensure the AI's corrections are accurate." (ID125)

Maintaining originality and style. Lozić and Štular [73] observed that while AI writing tools like chatbots can generate fluent and grammatically correct text, they often fall short in terms of factual accuracy and originality. They emphasized the need for users to approach these tools with caution, highlighting the importance of personal involvement in the writing process. They also stressed the value of critical evaluation, thorough fact-checking, and efforts to maintain the originality of the text.

In this study, students addressed the challenges of using AI in their writing by separating AI-based content from personal opinions and thoughts, selecting AI suggestions to maintain personal style, and integrating personal writing style. These findings are reflected in the participants' responses, as they shared that:

"I would take all the objective aspects that AI would give to me, and then subjectively, it would be everything that I would write. In other words, what I get from ChatGPT is just the data or anything else. If there would be opinions, those would be mine." (ID12)

"I still follow my own writing style. I only use AI's suggestions if I know it aligns with what

I want to write or know. I take it only if it's not too exaggerated on certain topics or information." (ID13)

"I don't change the tone of my writing. So, I always make sure to maintain my style, even when I use AI." (ID113)

"I think after I input my words in these AI tools, I think I paraphrase it again in my own way, and then I try to, um, finalize my work through my voice and my writing style." (ID121)

"I still add my own writing style. Although I use AI, I only add it as a tool, but I don't rely on it for everything I write. There are parts where I don't use Grammarly or AI just to maintain my own writing style." (ID123)

"Of course, everything is a double-edged sword, right? It has advantages, but I discipline myself to remember that there are limitations when using AI. For example, with generated content, I make sure that I also include things that come from me, not just from AI." (ID125)

Nacheva & Czaplewski [62] emphasized that to address the challenges of using AI in writing, students need proper training on how to use these tools effectively to enhance their learning. They also highlighted the importance of engaging students in critical analysis of AI-generated content. Developing the ability to differentiate between reliable and unreliable sources is crucial for fostering strong critical thinking skills.

In this study, students shared that they are using AI only as tool for clarification and prompting AI to achieve clarity of responses. these insights align with participants' responses, who expressed that:

"I just ask, um, AI the necessary, um, questions that I need. For example, um, a format for writing, or, um, I mean, ah, just like what Sir Ant said, like AI, person, and then AI. I just ask the necessary questions, but then I, um, personally write the whole paper. I'm the one who works, but if I need some questions that I don't know, I just ask AI." (ID16)

"Ah, for example, um, I insert a paragraph. Then I put a prompt that, "Okay, ChatGPT make this paragraph more clear, more concise, and more readable." (ID111)

"So, make sure that you ask the right questions for them [AI tools] and be specific so that they can answer you in a specific way, too." (ID119)

"I add more detail to my prompt so that the AI response will be more specific." (ID124)

Seeking alternative resources and human input. According to Malik et al. [12], it is important to have a balanced approach to incorporating AI, advocating for collaboration between AI and human authors. They stressed the need to maintain human involvement, creativity, and critical thinking through thoughtful and intentional integration of AI tools. In this study, students pointed out that they are gathering facts from non-AI websites, utilizing study materials provided by professors, and utilizing published works as reference. These views are supported by participants' responses, who shared that:

"So far when I write my articles, I already used other websites to gather my facts and definitions. So, when using AI, I only paraphrase them." (ID111)

"One of my strategies I address is that, for example, there's no internet. Okay, since there are study materials that are given to us by professors and teachers, I utilize them." (ID111)

"For information that isn't accurate, maybe it's more effective to go somewhere that has access to books. For me, books are more accurate, like those in libraries." (ID116)

Moreover, they explained that they search for credible information to enhance their writing, conduct research when AI-generated content is unsatisfactory, and use other tools to humanize their work. These practices are reflected in the participants' responses, who shared that:

"I search for those facts on Google and look for credible websites. For example, if it's too technical, like about health, I look at the National Library of Medicine or credible websites from schools and government offices." (ID119)

"Um, when I ask, um, these AI tools or when I put my input or ask them, I usually, um, receive, um, information that are false. For example, authors, um, years. I try to confirm it. I use other platforms to confirm the accuracy of these inputs." (ID121)

“Sometimes, the prompts that Google gives you are different. For example, if you search like this, the first website it gives you compared to what AI provides is different. So, I usually dig deeper. If I don't like what AI gives me, I research it myself. Then, I read what Google or other websites offer. I compare them. And then, yes, usually, when I don't like what AI gives me, I lean towards what I find on Google or other websites.” (ID15)

In addition, students mentioned that they are seeking ideas or assistance from another person. These results are echoed in the participants' responses, who said that:

“I ask for ideas or ask people I know are good at writing. I have friends who are good writers, so it's not really easy, but there are times when I can approach them quickly.” (ID18)

“Yes, that's my strategy. I think, “It's AI, so if there's a mistake, it could be better corrected by a real person.” That's why I turn back to people I can ask for help.” (ID114)

“If I know I can do it myself, of course, I won't rely on the tools. But there are times when you really need help, so you use AI. But I think I'll just try to lessen my use and maybe ask more from my professor instead of the AI.” (ID116)

“The lacking of AI, I address them with the help of other people around me. I submit my writings to my friends and also to the professors or to the teachers that I am close with and let them read them and critique those papers. Because, again, AI cannot empathize with the writing. They don't; they cannot form human interaction. They cannot feel the emotions that you are trying to portray in your writing. That is why I am submitting those writings to my close friends and close teachers.” (ID117)

Improving Interaction with AI tools. Gasaymeh et al [74] noted the importance of technical training, hands-on opportunities, and AI literacy to enhance students' familiarity with generative AI tools, enabling them to address the concerns and maximize the benefits of using these technologies. In this study, students share that they are knowing the different versions of AI, using appropriate prompts to enhance AI content, and directing AI to provide tailored responses. These results are supported by the participants' responses, who said that:

“Yes, because ChatGPT, right, has many versions, like there's a mini version, or a faster version, or a better version. If you use the lowest version, it would most probably give you incorrect information and answers.” (ID11)

“So, when I have already written everything I know, I then prompt the AI. This way, it just adds more. So, it means that the main structure of my article really comes from me, and then the AI adds some points.” (ID125)

“With ChatGPT, what I usually do is at least ask for the explanation in its simplest form because you can direct ChatGPT.” (ID18)

3.4 Insights from Students on Using AI as a Learning Aid in Writing

Table 4 outlines the key themes and core ideas on what insights can students share to the academic community on the use of AI as learning aid in writing. The analysis of in-depth interview transcripts revealed five (5) essential themes, which were further supported by insights gathered from the focus group discussions.

Table 4. Themes and core ideas on what insights can students share to the academic community on the use of AI as learning aid in writing

Themes	Core Ideas
Integrating AI in writing demands ethical and responsible use.	Students should not abuse AI Students should avoid overreliance to AI Students should establish boundaries when using AI Students should use AI only as an assistant to one's work Students should avoid excessive use of AI to prevent decline in writing skills Students should be selective when using AI Students should check the accuracy of AI-generated content

Using AI involves preservation of originality.	Students should always be original in writing Students should integrate AI content but maintain personal writing style Students should integrate own work in AI-generated content
Writing with AI means using it only as a complementary tool.	Students should use AI only for improving the work Students should use AI only for error detection and correction Students should consider AI as a learning aid Students should use AI to improve writing skills
Utilizing a variety of learning resources is more important than relying solely on AI.	Read books to acquire valuable resource Students should read to expand understanding as well as enrich writing Students should explore other platforms to gain varied perspectives Students should always read and re-read contents
Cultivating independence in writing helps to avoid reliance on AI.	Students should develop self-reliance Students should prevent oneself from becoming lazy

As shown in Table 4, several insights emerged regarding what students can contribute to the academic community on using AI as a learning aid in writing, such as the following: integrating AI in writing demands ethical and responsible use; using AI involves the preservation of originality; writing with AI means using it only as a complementary tool; utilizing a variety of learning resources is more important than relying solely on AI; and cultivating independence in writing helps to avoid reliance on AI.

Integrating AI in writing demands ethical and responsible use. Students in this study voiced that to effectively use AI, one must be responsible and ethical in their approach. Muthukrishnan et al. [75] underscored the importance of AI literacy and responsible use of AI in writing, emphasizing that while AI tools can enhance creativity, critical thinking, and efficiency, their ethical use is essential to maintain academic integrity.

Students shared that AI should not be abused and that overreliance on AI in writing should be avoided. These views are reflected in the participants' responses, who expressed that:

"...do not abuse the use of AI because it can actually help us positively. For example, in academic writing, it can actually correct your grammar." (ID11)

"Well, as a future educator and as a student myself, I recommend them to use AI with moderation and also to use AI with conscience. Using AI with conscience lets you decide and also see to it that you're still learning while using it." (ID122)

"Use AI responsibly because AI was made to help, not to do all the work. When you're struggling, it's okay to use AI to assist, but don't make it a habit for it to do everything." (FGD4)

"Avoid being too dependent on AI tools. Focus on your own ideas first before using AI. The writing is different when AI writes an article versus when a person with experience does it." (FGD3)

"My recommendation is to use AI with caution because too much of a good thing can be a bad thing din po. So, you can use AI in generating ideas, but not entirely AI's idea. You can also incorporate your idea, bale siya lang yung base mo or foundation to create a big idea." (FGD2)

"My recommendation is to use AI with caution because too much of a good thing can be a bad thing. So, you can use AI in generating ideas, but not entirely AI's idea. You can also incorporate your idea, using AI as a base or foundation to create something bigger." (FGD2)

Moreover, students mentioned that using AI helped them learn how to establish boundaries when using AI, use AI only as an assistant to one's work, and avoid excessive use of AI to prevent decline in writing skills. These results are confirmed by the participants' responses, who indicated that:

"I think everything is good, but in moderation. It shouldn't be used all the time. You should know how to set boundaries for what you need help with. You need to know what they can help you with. Because, at the end of the day, only you can truly help yourself." (ID17)

"But, by embracing it, it doesn't mean that we should solely rely on it. Maybe, as my professor said, using AI is good if you use it as a guide. But for you to submit articles that are only copy-pasted in AI, that is

wrong. So, you should be fact-checking everything that you say. You should just use AI as a guide because it really has good suggestions. It is really convenient. But let's not really rely on it. We should always have to consider the human factor in everything." (ID19)

"I think my recommendations and suggestions would be, um, use AI for the betterment of your outputs. Do not use it too much, um, that it would lead you to abuse, but use it for, um, for the positive impact of your output." (ID110)

"Use them to improve your ideas, but not let them generate the ideas for you because that will hinder you to develop your critical thinking skills and imaginations." (ID117)

Additionally, students shared that it is important to be selective when using AI and to always check the accuracy of AI-generated content. These findings are supported by the participants' responses, who said that:

"They can use AI only if they need a prompt, or when experiencing writer's block, and maybe for grammar checking. Instead of asking AI to check grammar, they can ask someone who knows grammar." (ID123)

"I think you need to check the accuracy, the relevance of the input they give, and then don't just copy what these AI tools give to you. You have to embrace your writing styles and just seek help, but do not rely solely on these AI tools." (ID121)

"I suggest you still double-check. Even though AI is almost or 99% accurate, sometimes the information it provides, like facts, doesn't appear on Google. It's your responsibility as a writer to double-check and fact-check if the information is correct. AI is still a product of human creation, so it's not perfect and can make mistakes. It's the writer's responsibility to always double-check their articles, even after running them through AI." (ID125)

Using AI involves preservation of originality. Lai [76] explored the complex relationship between AI and the trustworthiness of information. While acknowledging AI's potential to enhance information access and accuracy, he also cautioned against the risks of AI-generated misinformation and the potential loss of originality. His research emphasized the need to protect originality in an AI-driven world, urging the use of critical thinking and responsible AI practices to ensure the reliability of information. Students in this study expressed that it is essential to always be original in writing. This result is supported by the participants' responses, who mentioned that:

"As I can observe, most people who use AI directly just copy and paste. That's when their credibility as a writer gets lost. You're not a writer if you don't write your own piece. So, if you only rely on AI, it doesn't look good. What you should do is just get ideas. AI is helpful, but at the same time, it has disadvantages because it can make you lazy in thinking." (ID18)

"AI was made to assist, but it's not there for you to rely on entirely or embody as another personality. You're a writer, and honestly, it's a shame to use AI improperly or to the extent that it does everything. As a writer, it's fine to ask for help, but don't let it become the sole content of your article. As a writer, you need to be responsible for your own writings." (FGD5)

"Never lose your touch in your write-up. Sometimes, we're tempted to just use AI to make it more pleasing to others. But you need to have your own touch in your writing so you can still claim that it's yours, and not just something you got from AI." (ID113)

"My only suggestion is that, as a writer, you'll feel more confident reading your article if you know you made it yourself." (ID114)

Moreover, students highlighted that it is essential to integrate AI content but maintain personal writing style. This result is reinforced by the participants' responses, who shared that:

"I think the right approach is to integrate the feedback from AI with your own work and stick to your own writing style." (ID18)

"Just get feedback that will really help you. Keep the feedback you get so that next time, if you ask for

assistance, not much will change. You've already learned how to use punctuation, grammar, and everything." (ID17)

"Learn from your peers, um, ask suggestions or feedback from your teachers, professors, so that you won't be consumed by this technology to the point that you will be dependent all your life. And have fun learning, have fun utilizing AI." (ID117)

They also shared that it is important to integrate their own work in AI-generated content. This view is mirrored in the participants' responses, who shared that:

"Although AI is a double-edged sword, it depends on an individual, on how he or she uses AI. In the case of being a writer, you need to read a lot of books, not just rely on AI. Because in writing, a good writer reads a lot. A good writer does not only rely on AI, but also relies on his or her life and his capability to write." (ID111)

"I think it's good to consult AI tools, but to rely on them is not. Because if you rely too much on them, you will lose your skill in writing, and then your articles would come out boring. And then they would come out as nothing. They cannot grab the attention of the readers because they will feel that they have read it somewhere else already. So, those articles appear on other sites or other pages. So, they won't put any attention to that article because it sounds plain and it sounds boring. So, do not rely too much on AI tools. You make your article your own. Like, you put your style to your writing and not rely solely on AI tools." (ID119)

"And the last thing is that you can use it to collaborate with each other, to have a discussion, and let AI do the first part, and then you discuss. After that, you do it individually. So maybe you can do it like a peer discussion, a group discussion, a collaborative or interactive work within the group in order to not just rely on AI but to rely on yourselves also to discuss, to provide ideas, to talk about something, and then after that you let the advice or the suggestions of AI and integrate it into your own writing, making it you, but not you 100%, because there's the help of AI." (ID122)

Writing with AI means using it only as a complementary tool. Kumar [66] stressed that AI tools should be used solely to improve structure, generate ideas, and proofread, rather than relying on them to create original content. Students mentioned that AI should only be used to enhance their work, and for error detection and correction. These results are reinforced by the participants' responses, who expressed similar thoughts:

"You can use AI for grammar checking because grammar checking is, let's say, how do I say this, grammar checking? Sometimes, it's correct, this part is correct. Just use it for grammar checking." (ID12)

"AI is good. It is very useful when it comes to writing, but I would say don't rely too much on AI, but rather just use it as a guide or tool to ensure the quality or to correct the errors in your paper." (ID16)

Additionally, they shared that AI should be considered AI as a learning aid, and to use AI to improve writing skills. These views are supported by the participants' responses, who shared that:

"Because too much use of everything is bad, but taking advantage of it while learning from it, I think, as a journalist in the age of technology is a very good thing." (ID19)

"There are good and bad things about AI, but it is actually, um, the burden is on the user, how you are going to utilize it. As for me, I became dependent on the use of AI when it comes to checking my grammar and English structure. So, be, um, aware in those areas that you can become dependent. If you feel like you are very dependent on the use of AI, try to reflect on yourself if it is good for you or if it is not. And then if you think or feel that it is not good for you, then, um, go back to the traditional way." (ID117)

Utilizing a variety of learning resources is more important than relying solely on AI. Han [77] study revealed that AI-suggested content can spark student curiosity, but it also emphasized the importance of incorporating a variety of learning resources beyond AI recommendations to provide a more balanced and comprehensive learning experience.

Students in this study stressed that it is essential to read books to acquire valuable resources and read to expand understanding as well as enrich writing. These results are reflected in the participants' responses, who said that:

“And probably, I guess, I would recommend to read the book. Read more books.” (ID12)

“It’s still better to actually read books, like physical books or e-books, because AI has a side effect. With too much AI use, you become dependent, and it’s like you don’t learn anything since you’re not the one creating those ideas; it’s the AI writing it, not you. Unlike with books that you read, the information sticks with you.” (ID13)

“They can improve their writing by using AI, by continuing their passion in writing. And not only just relying on AI, but by reading. Because in reading, they can expound their knowledge.” (ID11)

They also emphasized to explore other platforms to gain varied perspectives, and always read and re-read contents. These results are supported by the participants' responses, who shared that:

“I suggest utilizing the information and resources available on the internet. We don’t have just one AI. It’s not only ChatGPT. It’s not only Gemini. There are other platforms as well. So, I think I can suggest to people to really explore what they need. They should figure out what can truly help them. Explore. They shouldn’t just stick to one platform because one AI website gives them a certain piece of information. They should use other platforms to gain knowledge from different sources. That way, they can get different opinions and different learnings. We know that one platform might have limitations, so exploring other resources is necessary.” (ID15)

“For writers who use AI tools, it’s not wrong. You just need to minimize it and use it correctly. What I mean is, if you’re using AI, make sure to still check the AI’s answer. Because, um, sometimes it misunderstands the context of what you want it to do.” (ID15)

Cultivating independence in writing helps to avoid reliance on AI. Olszak and Krajka [78] explored the use of generative AI in academic writing, emphasizing the importance of students developing independent writing skills alongside the use of AI tools. While AI can be a helpful aid, it should not replace critical thinking or self-expression. In this study, students shared that it is important to develop self-reliance and prevent oneself from becoming lazy. These results are supported by the participants' responses, who mentioned that:

“You must always mitigate and balance this feedback and apply it to yourself, not just neglect the feedback and just use AI every time. You need to apply it for yourself so, next time, you don’t need the AI; you can do it for yourself.” (ID14)

“Just don’t be too dependent. If you get too used to it, you’ll forget how to think for yourself. Use AI, but rarely, only when you don’t have anything left to add to your article.” (FGD1)

“Don’t depend on AI all the time, because the time will come when you’ll struggle, especially if people’s expectations of your writing skills have increased. You really have to depend on yourself first and avoid using AI all the time.” (ID124)

“First, don’t be lazy. Never be lazy. And learn from your own work; hone your skills when you’re writing. I mean, learn to draw a line when you’re going to use solely AI or what. When you’re using AI, learn to, like, limit its use. Especially because, I mean, don’t be overly reliant on AI itself.” (ID12)

These insights reveal the importance of guiding students to use AI ethically and critically within academic writing contexts. Institutions should develop clear usage policies, conduct workshops on responsible AI use, and promote academic integrity. Educators are encouraged to frame AI not as a shortcut but as a complementary tool to traditional literacy strategies—emphasizing critical reading, self-editing, and creativity. Additionally, developing students' digital literacy and fostering balanced learning habits can help prevent AI overdependence.

The findings support educational theories such as constructivism, which views learning as an active, contextualized process, and connectivism, which acknowledges the role of digital networks and tools in shaping knowledge acquisition. This study reinforces the perspective that AI technologies, when integrated responsibly, can serve as catalysts for knowledge construction and reflective learning. However, it also highlights the need for a culturally responsive pedagogy that safeguards academic values like originality, autonomy, and responsibility.

While this study provides meaningful insights into how L2 students at the University of Southern Mindanao engage with AI in writing, it is context-specific and limited in scope. The qualitative nature of the research may not reflect the full diversity of experiences across other institutions or regions. Additionally, with rapid AI advancements, student behaviors and institutional responses may evolve, calling for longitudinal and

comparative studies. Finally, the study did not measure actual writing outputs, focusing instead on students' perceptions and self-reported practices.

4. CONCLUSION

This study found out that students' adoption of AI largely depends on its perceived usefulness and ease of use, both of which are seen as having a transformative impact. Students identified several opportunities where AI could enhance the writing process and improve writing quality. However, they also encountered challenges that could negatively affect their critical thinking, writing process, and confidence. Despite these obstacles, students found ways to address these challenges in their L2 writing. Moreover, the results offer valuable insights, highlighting how AI can be effectively used as a learning aid in writing while emphasizing the importance of ethical integration, preserving originality, and cultivating independence.

This study found out that students' adoption of AI largely depends on its perceived usefulness and ease of use, both of which are seen as having a transformative impact. Students identified several opportunities where AI could enhance the writing process and improve writing quality. However, they also encountered challenges that could negatively affect their critical thinking, writing process, and confidence. Despite these obstacles, students found ways to address these challenges in their L2 writing. Moreover, the results offer valuable insights, highlighting how AI can be effectively used as a learning aid in writing while emphasizing the importance of ethical integration, preserving originality, and cultivating independence.

Recommendations for future research include conducting longitudinal studies to observe how sustained AI use affects learners' writing development and critical thinking over time. Comparative studies across different universities, regions, or cultural contexts may also provide broader insights into the socio-academic dynamics of AI integration. Additionally, future research may explore the perspectives of teachers and curriculum developers on AI's role in shaping pedagogical approaches and assessment practices. Investigating institutional policies, access disparities, and the ethical implications of AI in multilingual and multicultural learning environments would further strengthen the discourse on equitable and responsible AI use in education.

ACKNOWLEDGEMENTS

The authors would like to express their sincere gratitude to the University of Southern Mindanao, particularly the Research and Development Office, for their invaluable support throughout this research endeavor.

REFERENCES

- [1] G. M. Schumacher and J. G. Nash, "Conceptualizing and measuring knowledge change due to writing," *Research in the Teaching of English*, vol. 25, no. 1, pp. 67–96, 1991.
- [2] Marzuki, U. Widiati, D. Rusdin, Darwin, and I. Indrawati, "The impact of AI writing tools on the content and organization of students' writing: EFL teachers' perspective," *Cogent Education*, vol. 10, no. 2, p. 2236469, 2023.
- [3] J. Flowerdew, "Genre in the classroom: A linguistic approach," *Genre in the classroom: Multiple perspectives*, pp. 91–102, 2002.
- [4] K. Hyland, *Second language writing*. Cambridge university press, 2019.
- [5] J. M. Gayed, M. K. J. Carlon, A. M. Oriola, and J. S. Cross, "Exploring an AI-based writing assistant's impact on english language learners," *Computers and Education: Artificial Intelligence*, vol. 3, p. 100055, 2022.
- [6] M. Liu, Y. Ren, L. M. Nyagoga, F. Stonier, Z. Wu, and L. Yu, "future of education in the era of generative artificial intelligence: consensus among chinese scholars on applications of chatgpt in schools," *Future in Educational Research*, vol. 1, no. 1, pp. 72–101, 2023.
- [7] P. S. Dhillon, S. Molaei, J. Li, M. Golub, S. Zheng, and L. P. Robert, "Shaping human-ai collaboration: varied scaffolding levels in co-writing with language models," in *Proceedings of the 2024 CHI Conference on Human Factors in Computing Systems*, 2024, pp. 1–18.
- [8] D. Yan, "Impact of ChatGPT on learners in a L2 writing practicum: An exploratory investigation," *Educ Inf Technol (Dordr)*, vol. 28, no. 11, pp. 13943–13967, 2023.
- [9] P. Cardon, C. Fleischmann, J. Aritz, M. Logemann, and J. Heidewald, "The challenges and opportunities of AI-assisted writing: Developing AI literacy for the AI age," *Business and Professional Communication Quarterly*, vol. 86, no. 3, pp. 257–295, 2023.
- [10] E. Abdel-Reheem Amin and A. Alammari, "EFL students' perception of using AI paraphrasing tools in English language research projects," *Arab World English Journals*, vol. 14, no. 3, 2023.
- [11] D. T. Y. G. Sumakul, F. A. Hamied, and D. Sukyadi, "students' perceptions of the use of AI in a writing class," in *67th TEFLIN international virtual conference & the 9th ICOELT 2021 (TEFLIN ICOELT 2021)*, Atlantis Press, 2022, pp. 52–57.
- [12] A. R. Malik, Y. Pratiwi, K. Andajani, I. W. Numertayasa, S. Suharti, and A. Darwis, "Exploring artificial intelligence in academic essay: higher education student's perspective," *International Journal of Educational Research Open*, vol. 5, p. 100296, 2023.
- [13] S. P. T. Utami and R. Winami, "Utilization of artificial intelligence technology in an academic writing class: How do indonesian students perceive?," *Contemp Educ Technol*, vol. 15, no. 4, 2023.

- [14] J. Sutton and Z. Austin, "Qualitative research: Data collection, analysis, and management," *Can J Hosp Pharm*, vol. 68, no. 3, p. 226, 2015.
- [15] M. K. Mwita, "Factors to consider when using qualitative interviews in data collection," *Social sciences, Humanities and education journal (SHE Journal)*, vol. 3, no. 3, pp. 313–323, 2022.
- [16] M. DeJonckheere and L. M. Vaughn, "Semistructured interviewing in primary care research: a balance of relationship and rigour," *Fam Med Community Health*, vol. 7, no. 2, p. e000057, 2019.
- [17] Y. S. Lincoln and E. G. Guba, "Naturalistic inquiry. Newberry Park," 1985.
- [18] M. Nii Laryeafio and O. C. Ogbewe, "Ethical consideration dilemma: systematic review of ethics in qualitative data collection through interviews," *Journal of Ethics in Entrepreneurship and Technology*, vol. 3, no. 2, pp. 94–110, 2023.
- [19] G. Crow and R. Wiles, "Managing anonymity and confidentiality in social research: the case of visual data in Community research," 2008.
- [20] M. D. Mumford, C. Higgs, and Y. Gujar, "Ethics in coercive environments: Ensuring voluntary participation in research.," 2021.
- [21] M. Guillemin and L. Gillam, "Ethics, reflexivity, and 'ethically important moments' in research," *Qualitative inquiry*, vol. 10, no. 2, pp. 261–280, 2004.
- [22] M. B. Miles and A. M. Huberman, *Qualitative data analysis: An expanded sourcebook*. sage, 1994.
- [23] J. Kim, S. Yu, R. Detrick, and N. Li, "Exploring students' perspectives on generative AI-assisted academic writing," *Educ Inf Technol (Dordr)*, vol. 30, no. 1, pp. 1265–1300, 2025.
- [24] Y. T. Hapsari, N. A. Drajati, and E. Setyaningsih, "University students' cyclical self-assessment process mediated by artificial intelligence in academic writing," *Journal of English Language Teaching Innovations and Materials (Jeltim)*, vol. 5, no. 1, pp. 31–48, 2023.
- [25] Y.-J. Lee, R. O. Davis, and S. O. Lee, "University students' perceptions of artificial intelligence-based tools for English writing courses," *Online J Commun Media Technol*, vol. 14, no. 1, p. e202412, 2024.
- [26] A. S. M. Selim, "The transformative impact of AI-powered tools on academic writing: Perspectives of EFL university students," *Int J Engl Linguist*, vol. 14, no. 1, p. 14, 2024.
- [27] H. S. Rad, R. Alipour, and A. Jafarpour, "Using artificial intelligence to foster students' writing feedback literacy, engagement, and outcome: A case of Wordtune application," *Interactive Learning Environments*, vol. 32, no. 9, pp. 5020–5040, 2024.
- [28] A. Guo, S. Sathyanarayanan, L. Wang, J. Heer, and A. Zhang, "From pen to prompt: How creative writers integrate AI into their writing practice," *arXiv preprint arXiv:2411.03137*, 2024.
- [29] B. Ozfidan, D. A. S. El-Dakhs, and L. A. Alsalm, "The use of AI tools in english academic writing by saudi undergraduates.," *Contemp Educ Technol*, vol. 16, no. 4, 2024.
- [30] D. J. Woo, H. Susanto, C. H. Yeung, K. Guo, and A. K. Y. Fung, "Exploring AI-generated text in student writing: how does AI help?," *arXiv preprint arXiv:2304.02478*, 2023.
- [31] Y. K. Dwivedi *et al.*, "Opinion Paper: 'So what if ChatGPT wrote it?' Multidisciplinary perspectives on opportunities, challenges and implications of generative conversational AI for research, practice and policy," *Int J Inf Manage*, vol. 71, p. 102642, 2023.
- [32] C. Song and Y. Song, "Enhancing academic writing skills and motivation: assessing the efficacy of ChatGPT in AI-assisted language learning for EFL students," *Front Psychol*, vol. 14, p. 1260843, 2023.
- [33] D. Roman-Acosta, "Potential of artificial intelligence in textual cohesion, grammatical precision, and clarity in scientific writing," *LatLA*, vol. 2, p. 110, 2024.
- [34] C. S. Santiago Jr *et al.*, "Utilization of writing assistance tools in research in selected higher learning institutions in the Philippines: A text mining analysis," *International Journal of Learning, Teaching and Educational Research*, vol. 22, no. 11, pp. 259–284, 2023.
- [35] Y. Dong, "Revolutionizing academic English writing through AI-powered pedagogy: Practical exploration of teaching process and assessment," *Journal of Higher Education Research*, vol. 4, no. 2, p. 52, 2023.
- [36] J. S. Barrot, "Using chatgpt for second language writing: pitfalls and potentials," *Assessing Writing*, vol. 57, p. 100745, 2023.
- [37] S. K. Kwon, D. Shin, and Y. Lee, "The application of chatbot as an L2 writing practice tool," 2023.
- [38] Z. Jiang, Z. Xu, Z. Pan, J. He, and K. Xie, "Exploring the role of artificial intelligence in facilitating assessment of writing performance in second language learning," *Languages*, vol. 8, no. 4, p. 247, 2023.
- [39] Marzuki, U. Widiati, D. Rusdin, Darwin, and I. Indrawati, "The impact of AI writing tools on the content and organization of students' writing: EFL teachers' perspective," *Cogent Education*, vol. 10, no. 2, p. 2236469, 2023.
- [40] T. N. Fitria, "Grammarly as AI-powered english writing assistant: students' alternative for writing english," *Metathesis: Journal of English Language, Literature, and Teaching*, vol. 5, no. 1, pp. 65–78, 2021.
- [41] N. F. Mikheeva and M. G. Petrova, "Artificial intelligence in academic writing teaching," *SICONSEM 2021*.
- [42] N. Nazari, M. S. Shabbir, and R. Setiawan, "Application of Artificial Intelligence powered digital writing assistant in higher education: randomized controlled trial," *Heliyon*, vol. 7, no. 5, 2021.
- [43] G. Stockwell, "Mobile language learning," in *The Routledge handbook of language learning and technology*, Routledge, 2016, pp. 296–307.
- [44] K. Ramzan, A. Batool, M. F. Arslan, and H. Fatima, "evaluating human vs ai feedback on students'performance; a comparative analysis of students at intermediate level," *Journal of Applied Linguistics and TESOL (JALT)*, vol. 8, no. 1, pp. 613–622, 2025.
- [45] M. Khalifa and M. Albadauy, "Using artificial intelligence in academic writing and research: An essential productivity tool," *Computer Methods and Programs in Biomedicine Update*, p. 100145, 2024.
- [46] W. Alharbi, "AI in the foreign language classroom: A pedagogical overview of automated writing assistance tools," *Educ Res Int*, vol. 2023, no. 1, p. 4253331, 2023.

- [47] D. Chong, "Research on artificial intelligence-based english writing blended teaching mode," in *Journal of Physics: Conference Series*, IOP Publishing, 2021, p. 032018.
- [48] H. Wang and A. Dang, "Enhancing l2 writing with generative ai: A systematic review of pedagogical integration and outcomes," *Preprint DOI: <http://dx.doi.org/10.13140/RG>*, vol. 2, no. 19572.16005, 2024.
- [49] L. I. Ruiz-Rojas, L. Salvador-Ullauri, and P. Acosta-Vargas, "Collaborative working and critical thinking: Adoption of generative artificial intelligence tools in higher education," *Sustainability*, vol. 16, no. 13, p. 5367, 2024.
- [50] R. Lam and B. L. Moorhouse, *Using digital portfolios to develop students' writing: A practical guide for language teachers*. Routledge, 2022.
- [51] M. C. Lawasi, V. A. Rohman, and M. Shoreamanis, "The use of ai in improving student's critical thinking skills," *Proceedings Series on Social Sciences & Humanities*, vol. 18, pp. 366–370, 2024.
- [52] C. Y. Fook and G. K. Sidhu, "Authentic assessment and pedagogical strategies in higher education," *Journal of social sciences*, vol. 6, no. 2, pp. 153–161, 2010.
- [53] A. Zadorozhnyy and W. Y. W. Lai, "ChatGPT and L2 written communication: A game-changer or just another tool?," *Languages*, vol. 9, no. 1, p. 5, 2023.
- [54] M. Syahnaz and R. Fithriani, "Utilizing artificial intelligence-based paraphrasing tool in EFL writing class: a focus on Indonesian university students' perceptions," *Scope: Journal of English Language Teaching*, vol. 7, no. 2, pp. 210–218, 2023.
- [55] X. Zhao, L. Scaffi, and A. Cox, "The digitisation of writing in higher education: exploring the use of wordtune as an AI writing assistant," *Electronics (Basel)*, vol. 14, no. 6, 2025.
- [56] C. Reis and H. Huijser, "Correcting tool or learning tool? Student perceptions of an online essay writing support tool at Xi'an Jiaotong-Liverpool University," in *Show me the learning: Proceedings of ASCILITE 2016: 33rd International Conference on Innovation, Practice and Research in the Use of Educational Technologies in Tertiary Education*, Australasian Society for Computers in Learning in Tertiary Education-ASCILITE, 2016, pp. 529–533.
- [57] Ö. G. TALAYHAN and M. V. BABAYİĞİT, "Yapay zekâ yazma araçlarının öğrenci yazılarının içeriği ve organizasyonu üzerindeki etkisi: Yabancı dil olarak ingilizce öğretmenlerinin algılarına odaklanması," *JOURNAL OF CURRENT DEBATES IN SOCIAL SCIENCES (CUDES)*, vol. 2, no. 6 (2), pp. 83–93, 2023.
- [58] D. Dakakni and N. Safa, "Artificial intelligence in the L2 classroom: Implications and challenges on ethics and equity in higher education: A 21st century Pandora's box," *Computers and Education: Artificial Intelligence*, vol. 5, p. 100179, 2023.
- [59] C. C. Ho, "Learning to paraphrase with ChatGPT," *Journal of Creative Practices in Language Learning and Teaching (CPLT)*, vol. 11, no. 2, pp. 85–105, 2023.
- [60] S. E. Belleza-Torrejón, C. C. M. Aguilar, N. M. P. De la Cruz, E. M. G. Vásquez, and J. M. Quispe-López, "The development of artificial intelligence as an influential factor in procrastination," *International Journal*, vol. 5, no. 10, pp. 5461–5467, 2024.
- [61] D. Adams and K.-M. Chuah, "Artificial intelligence-based tools in research writing: Current trends and future potentials," *Artificial intelligence in higher education*, pp. 169–184, 2022.
- [62] R. Nacheva and M. Czaplewski, "Artificial Intelligence In Helping People With Disabilities: Opportunities And Challenges," *HR and Technologies*, no. 1, pp. 102–124, 2024.
- [63] K. Glahn, "Using ChatGPT to teach english for academic purposes: Perspectives from the classroom," *Journal of Education, Innovation and Communication*, vol. 5, no. 2, pp. 63–75, 2024.
- [64] C. S. Chai, P.-Y. Lin, M. S.-Y. Jong, Y. Dai, T. K. F. Chiu, and B. Huang, "Factors influencing students' behavioral intention to continue artificial intelligence learning," in *2020 international symposium on educational technology (ISET)*, IEEE, 2020, pp. 147–150.
- [65] B. B. M. A. Al-Sofi, "Artificial intelligence-powered tools and academic writing: to use or not to use ChatGPT," *Saudi Journal of Language Studies*, vol. 4, no. 3, pp. 145–161, 2024.
- [66] A. H. S. Kumar, "Analysis of ChatGPT tool to assess the potential of its utility for academic writing in biomedical domain," *Biology, Engineering, Medicine and Science Reports*, vol. 9, no. 1, pp. 24–30, 2023.
- [67] K. Yang *et al.*, "Ink and algorithm: exploring temporal dynamics in human-AI collaborative writing," *arXiv preprint arXiv:2406.14885*, 2024.
- [68] J. Washington, "The impact of generative artificial intelligence on writer's self-efficacy: a critical literature review," *Available at SSRN 4538043*, 2023.
- [69] H. HU and W. WANG, "Research writing in the age of ChatGPT: resolving the debate," *Current Science (00113891)*, vol. 127, no. 8, 2024.
- [70] C. Wang, S. J. Aguilar, J. S. Bankard, E. Bui, and B. Nye, "Writing with AI: What college students learned from utilizing ChatGPT for a writing assignment," *Educ Sci (Basel)*, vol. 14, no. 9, p. 976, 2024.
- [71] L. Dwina, "ChatGPT: Empowering self-directed writing through mind mapping and AI-assisted composition," *Nusantara Science and Technology Proceedings*, pp. 33–45, 2024.
- [72] B. Munawar, H. Rafique, and N. M. Khan, "Assessing the effectiveness of chat GPT in english language and literature: an experimental investigation into AI-generated research content," *Journal of Education and Social Studies*, vol. 5, no. 3, pp. 230–240, 2024.
- [73] E. Lozić and B. Štular, "ChatGPT v bard v bing v claude 2 v aria v human-expert. how good are ai chatbots at scientific writing?," *arXiv preprint arXiv:2309.08636*, 2023.
- [74] A.-M. M. Gasaymeh, M. A. Beirat, and A. A. Abu Qbeita, "University students' insights of generative artificial intelligence (AI) writing tools," *Educ Sci (Basel)*, vol. 14, no. 10, p. 1062, 2024.
- [75] P. Muthukrishnan, A. C. Koo, R. Kunalan, B. R. Aravind, S. Raja Kumar, and B. Vadivel, "Prospective teachers' ai literacy and responsible use of ai in assignment writing," *Pakistan Journal of Life and Social Sciences (PJLSS)*, vol. 22, no. 2, 2024.

-
- [76] B. Lai, "AI and the quest of trustworthy information," *Applied and Computational Engineering*, vol. 109, pp. 24–30, 2024.
- [77] A. Han, *StoryAI: Designing, Developing, and Evaluating Generative AI-Powered Story-Authoring Platform for Young Learners*. University of California, Irvine, 2024.
- [78] I. Olszak and J. Krajka, "developing academic students' writing competence in the generative AI environment," *Annales Universitatis Mariae Curie-Skłodowska, sectio N–Educatio Nova*, vol. 9, pp. 87–105, 2024.