ChatGPT Literacy for Fostering Language Proficiency and Writing Skills in ESL/EFL Classrooms

Hem Lal Pandey (PhD Candidate) The University of Texas at El Paso 200 Wallington Dr. Apt 130 El Paso Texas, 79902, USA <u>hlpandey@miners.utep.edu</u> <u>https://orcid.org/0009-0005-4683-7089</u>

Purna Chandra Bhusal* (PhD Student) The University of Texas at El Paso 3500 Sun Bowl Dr, El Paso, Texas, 79902, USA <u>pbhusal@miners.utep.edu</u> <u>https://orcid.org/0000-0002-7218-4940</u>

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Abstract

Background: The article posits that ChatGPT literacy functions as a pedagogical imperative to foster the writing skills of English as a Second Language (ESL) and English as a Foreign Language (EFL) students. The goal of the article is to explore key literacy skills that are crucial for the ethical and responsible use of ChatGPT in enhancing the teaching of writing skills to ESL/EFL students.

Method: Drawing upon the theory of Artificial Intelligence (AI) literacy (Dobrin, 2023) and ESL/EFL pedagogy of microlearning activities (Kohnke, 2023), this study employs a method of qualitative content analysis (Krippendroff, 2019) of 23 ChatGPT-generated texts as responses to given prompts. The qualitative analysis and interpretation of the given prompts and ChatGPT's responses have been discussed in four rubrics, namely parts of speech, sentence formation, paragraph writing, and genre convention.

Result: The result of ChatGPT's responses led to the findings that four literacy skills—literacy of prompting, literacy of hooking and specifying, literacy of qualifying and quantifying, and

literacy of rhetorical situations—are some useful techniques for the use of ChatGPT in advancing ESL/EFL writing skills in various educational contexts.

Conclusion: Integrating ChatGPT into ESL/EFL writing classrooms can be productive for both writing instructors and students, provided that microlearning activities are implemented to enhance the effective, ethical, and responsible use of ChatGPT.

Novelty: The paper demonstrates innovative strategies for using AI writing technology such as ChatGPT and shows the importance of effective prompting literacy for a productive conversation to happen in the writing classroom of ESL/EFL students.

Keywords: Teaching writing, Artificial Intelligence (AI), ChatGPT, prompting literacy, ESL/EFL pedagogy

Introduction

Launched on November 30, 2022, ChatGPT has become a matter of debate and dilemma heralded by its capacity of generating writing as natural as those produced by human minds (Yan, 2023; Cardon, et al. 2023) fulfilling the prediction of Blyth (2018), "learning and teaching will be taken over by computers" (p. 229). The instant educational responses to ChatGPT were negative, and its use was banned from some public schools in the United States (Rosenblatt, 2023, January 5) though was reversed later (Faguy, 2023, May 18). It was the government of Egypt to first ban the use of ChatGPT showing privacy concerns (Satariano, 2023, March 31). Currently, educational institutions have accepted ChatGPT but with some doubts about cheating and plagiarism (Singer, 2023, August 24). There are advocacies for teaching with ChatGPT in educational institutions (Roose, 2023, January 12) for research and writing purposes (Kasneci. et al., 2023), and there are also arguments for a new plagiarism-free and error-free algorithm to detect plagiarism and systematized Artificial Intelligence (AI) as a part of learning (Pal et al., 2023). Ecologists and environmentalists have already shown their serious concerns about the digital damage (of lands, water, and energies) caused by the consumption of "vast amounts of energy and water to power and cool their server spaces" due to the storage and travel of a large amount of digital data (Edwards, 2020, p. 60) wherein ChatGPT can no longer be an exception. Likewise, scholars had already predicted the encroachment of AI in language pedagogy, thereby advocating for the necessity of integrating advances in language-related technology that offer to improve student learning (Godwin-Jones, 2019; Chun, 2019).

Similarly, the struggle of ESL and EFL students to learn writing skills is common across the world. Study shows that in the United States, international students, whose first language is other than English, experience writing as a challenge throughout their university courses (Ravichandran, 2017) where students encounter difficulty even in asking questions by using 'wh-interrogatives' structures (Lee, 2016). In general, ESL and EFL students struggle to familiarize themselves with English grammar and rhetorical structures (Derakshan & Shirejini, 2020) as well as the English tense systems (Shruthi & Aravind, 2023). To address such a struggle, Miller (2022) advocated for developing technological competency in teachers for

effective technological use in the teaching of language skills. Against this backdrop, our study seeks to answer the following research question:

What specific literacy skills can be effectively utilized to enhance writing proficiency in ESL and EFL context using ChatGPT?

Background information and literature review

This paper introduces the concept of "ChatGPT literacy" as the ESL/EFL writing instructors' ability to effectively communicate with ChatGPT by utilizing prompt writing skills to achieve their functional goals. In this context, ChatGPT literacy also implies an understanding of the generative capabilities of the tool in teaching writing to ESL/EFL students. So, this literacy skill involves "sharing guidance on best practices on how to write commands to ChatGPT for achieving functional literacy goals" (Gupta et al. 2024, p. 7). Moreover, it can help orient instructors toward "wayfinding" (Lunsford et al., 2024), understanding or comprehending AI writing tools amidst the challenges of teaching writing to ESL/EFL students by leveraging the opportunities and affordances of ChatGPT. This becomes especially pertinent in a time marked by the rapid proliferation of large language models and AI writing technologies, which have introduced confusion within academic contexts. So, this literature review critically evaluates key arguments by organizing the "threads of meaning" through the thematic weaving method (Judge, 2012, p. 82), focusing on both ChatGPT and ESL/EFL writing environments. The following section reviews the existing literature under two main themes: "ChatGPT: Risks or Rewards?" and "ChatGPT in ESL/EFL Classrooms."

Use of ChatGPT: Risks or Rewards?

A considerable body of scholarship has engaged with the complexities and implications of integrating ChatGPT and other generative AI tools into educational practices. Cardon et al. (2023), take Generative AI as a significant disruption in "the teaching and practice of business communication" (p. 1) accentuating the risk of "less critical thinking and authenticity in writing" (p. 257). The authors propose "application, authenticity, accountability, and agency" (p. 257) as the themes that need attention in solving the issues caused by AI. For them, authenticity involves focusing on genuine communication and prioritizing the human element; accountability involves taking responsibility for the accuracy and appropriateness of AIgenerated content and using generative AI fairly and equitably, and agency involves professionals retaining control to make their own choices. In addition, Cotton, Cotton, and Shipway (2023) explore the issue of the use of ChatGPT in higher education institutions exploring its potential risks and rewards. The risk they find is academic dishonesty, cheating, or plagiarism and the reward is its wide applicability such as summarizing, answering text generating, and personalized assessing. In the same manner, Barrett and Pack (2023) report a survey of "brainstorming, outlining, writing, revising, feedback, and evaluating" (p. 1). Their findings indicated that GenAI can be an effective tool for learning about the writing process as it was helpful in brainstorming ideas in the process.

Scholars have also explored ChatGPT's productivity on a larger scale. Ray (2023) finds artificial intelligence "to benefit humanity" (p. 123) because "ChatGPT has exceptional

language generation capabilities" (p. 125). Ray highlights five benefits of ChatGPT in educational contexts: personalized learning, real-time feedback, content generation, constructive feedback, and the creation of adaptive learning environments. Similarly, Hinman (2023) highlights the usability of ChatGPT in lesson planning strategy: "ChatGPT prompts asking for appropriate grade-level Common Core Standards for a particular topic helped writers shape lesson objectives" . . . [providing] important recommendations and "practical suggestions" for a project (p. 43). Based on these findings, he concludes that "AI resources such as ChatGPT can serve as one more valuable tool to enhance our lesson-development process" (p. 44). In this sense, the use of ChatGPT receives its productive outcome.

ChatGPT in ESL/EFL Classrooms

Scholars have also discussed ChatGPT concerning ESL/ESL classrooms. Barrot (2023) assesses both the challenges and opportunities of using ChatGPT in ESL/EFL classrooms. One of the opportunities he found in it is to "engage users in natural and human-like interactive experiences" which can play the role of "an effective tutor and source of language input" (p. 1). However, it heralds a challenge that "concerns about its impact on writing pedagogy and academic integrity" (p.1). Stepping on the issue of integrity, they argue that ChatGPT "raises concerns about learning loss, especially in developing critical and creative thinking" (p. 4). In this context, the study draws a balanced perspective: "Rather than outright banning ChatGPT. . . One strategy to mitigate the potential issues of using ChatGPT is for teachers to emphasize the value of the writing process (p. 4). Mohamed's (2023) qualitative study is based on in-depth interview data collected from ten EFL faculty members at Northern Border University "regarding the effectiveness of ChatGPT in supporting their students' English language learning" (p. 1). He concludes that "real-time feedback, personalized instruction, a vast knowledge base, natural language processing, human-like responses, and cost-effectiveness" (p. 15) are some of the advantages of the ChatGPT. Hence, the author argues that ChatGPT can be used to advance students' language abilities by addressing "potential ethical concerns" such as privacy and data protection, language biases and stereotypes, and over-reliance on AI systems (p. 16). Similarly, Praphan and Praphan (2023) articulate their experiences of teaching English writing at the postsecondary level in Thailand. For them, the lack of formal institutional policies on the use of ChatGPT led them to produce their provisions by "incorporating AI generators in a productive way to help students enhance their potential as L2 writers" (p. 1). Some teachers argued that "students could misinterpret our intentions and think that we approve the use of AI technologies in all circumstances" (p. 2). Nevertheless, the authors believe that AI literacy skills can be cultivated without compromising academic integrity by employing strategies that enable us to adapt and coexist with these technologies, ensuring the best outcomes for both students and educators. Furthermore, in their research on EFL pedagogy in Saudi Arabia, AbdAlgane and Othman (2023) advocate the use of AI as a writing assistant, noting that it "can understand the writer's ideas and suggest alternative rewrites" (p. 92). They further write that AI-powered devices are to be "the pedagogical component of future education can be developed using an AI framework" (p. 92). Likewise, Liu and Ma (2024) in a

quantitative cross-sectional investigation seek to "conceptualize EFL learners' attitudes, intentions, and actual behaviors of using ChatGPT in their informal digital learning of English" wherein 405 EFL learners are the respondents (p.125). The study concludes that "learners who take positive attitudes toward the usefulness of ChatGPT" corresponded to "their Actual Use of ChatGPT in English learning outside the classroom" (p. 125). As a reflection, the authors write that "ChatGPT can revolutionize the ways in which language is learned, taught, and assessed" (p. 126).

Finally, the review has informed us that ChatGPT can be used as a pedagogical tool in ESL/EFL classrooms to foster the writing skills of students. The existing research shows that the use of ChatGPT should actively address the issues of academic dishonesty, cheating, plagiarism, overreliance, and potential loss of critical and creative thinking skills. However, they do not show the practical ways of using ChatGPT. Therefore, there exists a significant research gap: How can we practically address these issues? What are the required ChatGPT literacy skills to minimize risks and optimize rewards? Taking these questions as principal queries, our study seeks to explore ChatGPT literacy skills which facilitate appropriate use of it in fostering the writing skills of ESL/EFL classrooms. It demonstrates ChatGPT literacy skills as microlearning activities considering the importance of AI literacy.

AI literacy and ESL/EFL pedagogy of microlearning activities

AI literacy is one of the necessary skills in the present world: "People will not lose their jobs due to AI; they will lose their jobs to people who know how to work with AI" (Dobrin, 2023, p. 3). Dobrin distinguishes between conceptual AI and applied AI. Conceptual AI deals with "how AI will impact societies, economies and cultures" considering the ethical issues as an attempt to theorize AI keeping the question like "why and why if" at the center (p. 5). Applied AI, as the name suggests, concentrates on "how to use AI both generically and specifically" wherein the "questions of how" come to the fore (p. 5). Drawing insight from this theory of AI or ChatGPT literacy, this study investigates the way ChatGPT can be used in ESL classrooms to teach writing. In addition, unlike the traditional lecture method, microlearning activity is "a 2-8 min activity that effectively provides focused, personalized content using technology" (Kohnke, 2023, p. 2). Its goal is to "provide learners with small achievement milestones that further motivate them and increase their engagement" (p. 3). It also prioritizes self-regulated learning in ESL/EFL students requiring them "to complete bite-sized learning activities" (p. 11). Regarding developing the writing skills of ESL students, Kohnke prioritizes grammatical structures, vocabulary, and genre conventions by "creating clear, well-structured texts that communicate their intended messages to the reader" enabling them to produce more authentic and effective texts (p. 32). Most important to all, Kohnke also recommends using the ChatGPT chatbot in ESL/EFL classrooms as a tool to facilitate microlearning activities: ChatGPT can "explain the meaning of a word in context in multiple languages, offer dictionary definitions and sample sentences, correct and explain grammatical errors" (p. 72). In this sense, ChatGPT can become one of the tools to facilitate the ESL/EFL pedagogy of microlearning activities in advancing students' writing skills.

Screenshots and qualitative content analysis

This study is a qualitative project that employs qualitative content analysis (QCA) as the method of analysis and interpretation of the data, 23 prompts and ChatGPT responses captured as screenshots, for screenshots as data can afford a range of interactional possibilities between individuals and technology through the information they contain (Cramer, Jenkins & Sang 2023). Screenshotting, as a data collection method turns "iconography, shared experience, language, and visual elements into documentation that can easily be shared, circulated, analyzed, and interpreted" (Clark, 2020, p. 205). QCA as a research technique or a method, is an interpretative act wherein researchers have "their own values and beliefs" which influence the way they collect, interpret, and analyze data (Ryan, 2018, p. 17). As an analytical and interpretative method, QCA offers "replicable and valid inferences from texts (or other meaningful matter) to the contexts of their use" (Krippendorff, 2019, p. 24) calling for a trustworthy "preparation, organization, and reporting of results" (Elo et al. 2014, p. 1-2). One of the distinct features of content analysis is its data or text which "are meant to be read, interpreted, and understood by people other than the analysts" (Krippendorff, 2019, p. 38). This very trustworthiness adds meaning to the research making it more explicit, so that "the results of their analyses will be clear to their scientific peers and to the beneficiaries of the research results" (p. 42). In this methodological affordance, we used the prompting approach to generate data in which the prompting was done in a linear way to capture the logical connection between or among the prompts and responses. Then, the prompts and responses were analyzed and interpreted from two different but interrelated theoretical perspectives: ESL pedagogy and ChatGPT literacy. While doing so, textual patterns and themes were assembled and organized into four distinct thematic categories: parts of speech, sentencing, paragraphing, and genre conventions. Regarding the limitation, we considered the 23 responses generated by ChatGPT to be sufficient content for one of the learning modules in an ESL/EFL classroom. Using this approach, instructors can further develop the material to align with the specific learning objectives they bring into their classrooms.

Discussion: Results and Findings

Distinguishing Parts of Speech

The use of Chat GPT to teach/learn to distinguish the parts of speech in the English language was the first microlearning activity in our study. Indeed, distinguishing a lexical entry or a part of speech of an English word is a very initial step in teaching/learning to write in ESL/EFL classrooms (Ramadhani & Ovilia, 2022) because writing starts with syntax or sentence structure and "the first level of syntactic structure is the phrasal level, below which is the lexical level of parts of speech" (Zhang & Kang, 2022, p. 5). Hence, since distinguishing parts of speech is fundamental to ESL/EFL writing skills, our microlearning activity experimentation in ChatGPT started with the same.

Results

We started the experimentation with a very 'vague' prompt 'parts of speech in language'. Even though the prompt was unspecific, ChatGPT's response was extensive. Our prompt and ChatGPT response are shown in <u>Figure 1</u> below:



Figure 1: Concept of Parts of Speech

Here, our prompt does not specify what a learner 'exactly' wants to learn using ChatGPT. We intentionally started with the vague prompt as we had some intimate experiences with ELS/EFL difficulties in asking specific 'wh-interrogatives' like that of the students of Lee (2016). Thus, in our experience, the given prompt represents one of the possible natural prompts likely to be used by ESL/EFL beginners. In another prompt of "Provide examples of Parts of Speech" ChatGPT responded introducing us parts of speech in the English language enlisting 8 parts of speech with examples, which we have cropped out in Figure 2 below:



)

ChatGPT

- 1. Noun: Person, place, thing, or idea (e.g., "cat," "New York").
- 2. Pronoun: Replaces a noun (e.g., "he," "it").
- 3. Verb: Expresses action or state (e.g., "run," "think").
- 4. Adjective: Describes a noun (e.g., "happy," "blue").
- 5. Adverb: Modifies a verb, adjective, or adverb (e.g., "quickly," "very").
- 6. Preposition: Shows relationships (e.g., "in," "on").
- 7. Conjunction: Connects words or clauses (e.g., "and," "but").
- 8. Interjection: Expresses emotion (e.g., "Wow!").

Figure 2: Examples of Parts of Speech

From this response, an ESL learner can make sense of 'parts of speech' in English after looking at the 8 examples as the list is very informative and specific; they promptly elaborate on the parts of speech with examples. Out of this prompt, an ESL learner further needs a conceptual explanation and examples of all these types of parts of speech one by one. ESL/EFL learners, as shown in Figure 1 above, are likely to find words/phrases like 'linguistic,' 'grammatical properties' and 'functions of words' heavy. Thus, from ESL/EFL learner's perspective, we realized the potential difficulty of making sense of the 'parts of speech' or any prompting, for

that matter, unless they become more specific. It is an example of how the literacy of prompting becomes crucial in utilizing Generative AI in an ESL/EFL context. Therefore, in our second microlearning activity, we requested ChatGPT to be very brief in its examples.

Then, for the third microlearning activity, we picked up noun, pronoun, and interjection, and asked ChatGPT to respond to what they are with examples. The response was very specific as shown in <u>Figure 3</u> below:



Figure 2: Noun and examples

In this example, ChatGPT defined noun in relation to four specific aspects providing one example in each case. Therefore, we continued the fourth microlearning activity with the same structure of prompting (What is? Please, give examples.), and the response is shown in Figure 4 below:



Figure 3: Pronouns and examples

Utilizing the same AI literacy of prompting with 'what question', we further inquired about interjection in our fifth microlearning activity. ChatGPT response is shown in Figure 5 below:



Figure 4: Interjection and examples

Interestingly, in all these three last responses, we used the same pattern of questions (What is a ...? Please give examples.) in which ChatGPT produced the same form of response with examples. The same form of prompts could be given to the remaining 5 parts of speech (verb, adjective, adverb, preposition, conjunction) out of a total of 8, but we stopped reaching saturation as the three prompts provided a general pattern of how ChatGPT can be used in learning about a language such as Parts of Speech.

Findings

Our first prompt regarding 'parts of speech' was vague and unspecific due to which ChatGPT provided a broad response that is overwhelming to ESL/EFL beginners. However, when we requested to be specific with examples as in Figure 2, its response was specific and concrete as well. Likewise, the prompts for noun, pronoun, and interjection (Figures <u>3</u>, <u>4</u>, and <u>5</u> above) followed the same structures, and ChatGPT generated the same answers which appeared easier to follow. Thus, based on our prompts and ChatGPT's responses, we can infer that one of the ChatGPT literacy skills in teaching/learning ESL/EFL writing skills is 'prompting literacy'. This literacy skill means that ESL/EFL learners or teachers should learn/teach to formulate the right prompts as ChatGPT follows the principle of 'garbage in garbage out' (Citrome, 2023) and it is unable to reach into the users' expectations, thoughts, and queries. So, every prompt should be 'exact' and 'specific' enough to achieve the expected outcome. When ESL/EFL teachers and students use *prompting literacy* to build ESL/EFL writing skills, the learner is likely to be involved in an active and effective learning process.

Sentence Formation

After parts of speech, we wanted to experiment with a microlearning activity of sentence formation as syntax is one of the preliminary ESL/EFL skills of teaching/learning to write (<u>Altiner, 2018; Zhang & Kang, 2022</u>). This time we started our prompting with 'how-structure' rather than 'what-structure' as that of the previous example. The reason for this was to track the response of ChatGPT in the form of cumulative writing.

Results

From an ESL/EFL learner's perspective, my first microlearning activity focused on teaching or learning how to form simple sentences, serving as the initial step in developing basic writing skills. The first question we asked to ChatGPT was related to the formation of simple sentence structure formation as shown in <u>Figure 6</u> below:

PU	You	
	How to make simple sentences in English?	
6	ChatGPT	
	Constructing simple sentences in English involves combining a subject and a	
	predicate to express a complete thought. Here's a basic formula:	
	Subject + Verb (+ Object)	
1	. Subject: This is the main person, place, thing, or idea that the sentence is about.	
	 Examples: I, You, He, She, It, We, They, The cat, The book, My friend, The team 	
2	Verb: This is the action or state of being that the subject is doing.	
	 Examples: run, eat, study, is, are, play, like 	
з	B. Object (optional): This is what or whom the action of the verb is affecting. Not all	
	sentences have an object.	
	 Examples: the ball, a song, her, the park 	
	Examples of simple sentences:	1

Figure 5: Simple sentence structure

In the ChatGPT's response to how to make simple sentences in English, it provided basic formal (Subject + Verb (+Object) in the skeletal pattern with some examples. In this response, we can see a lexical inconsistency between process description and examples: 'predicate' versus 'verb'/'object'. Here, we could start asking what 'predicate' means, but we intentionally avoided it because the examples helped us to make sense of the meaning and there was also the risk of falling into a rabbit hole. In a sense, we utilized our own *prompting literacy* for the ChatGPT's response. It generated two types of examples for this: subject-verb sentences and subject-verb-object sentences. After asking for the 'how' of sentences, in our second microlearning activity, we requested ChatGPT to write any five simple English sentences, and its response is shown in Figure 7 below:



Figure 6: Sentence examples

In this response, ChatGPT's sentences go beyond the formula as of <u>Figure 6</u>: subject-verb type and subject-verb-object type, allowing us to notice potential confusion in ESL/EFL learners. So, we realized that we should have given the 'formula' and asked ChatGPT to produce sentences making it step-by-step microlearning activities. As it was not possible to go back, we asked ChatGPT to elaborate on the structure of those sentences, and its responses were concrete and specific as shown in <u>Figure 8</u> below:



Figure 7: Elaborating sentence structure

In this screenshot, we captured ChatGPT's elaboration of only two sentences, for they represent 'how' the remaining three must have been elaborated. In this microlearning activity, ChatGPT introduced some 'new' information such as 'reading books' as an object and 'in the evening' as an adverbial phrase. If ESL learners are confused about these uses, they can ask some specific questions about what they are. Such new information adds to the linguistic knowledge of ESL/EFL learners in every response. After doing with simple sentence structure, we further asked ChatGPT to produce some complex sentences in English. Its responses are shown in Figure 9 below:

PU You

Please, write any three short but complex English sentences for me.

ChatGPT

- 1. Despite the rain, they decided to have a picnic in the park.
- 2. Although she was tired, Maria continued working on her project.
- 3. Even though the movie was long, I found it incredibly interesting.
- 0070

Figure 8: Complex sentences

In this response, we can see three complex sentence structures that go beyond the 'formula' generated by ChatGPT in Figure 6. After having a sense of a potential struggle for ESL/EFL learners in this ChatGPT response for complex structures, we asked it to simplify their meanings. It responded as shown in Figure 10 below:

PU	You I do not understand their meaning. Can you simplify the meanings in brief, please?
6	 ChatGPT 1. They had a picnic in the park even though it was raining. 2. Maria kept working on her project despite feeling tired. 3. I found the long movie very interesting. 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

Figure 9: Sentence simplification

We discussed the responses of Figure 10 to each other and wanted further to explore whether the simplified version of the sentences was only their re-statement in some other complex structures. We wanted to assess the third sentences corresponding to each other in terms of their meaning. Therefore, we minutely observed and discussed on the potential of where the problem remained, and how to solve it. We also realized that the users in this context needed ChatGPT literacy. Then, we provided ChatGPT that we didn't understand, and it responded again with further changes as shown in Figure 11 below:



Figure 10: Further simplification of the sentences

With this response too, we were still dissatisfied with the problem of complexity of the sentence as the meaning of sentence 3 has become more complex to understand. The complexity persisted despite our additional microlearning activities. We wanted time, and we did not find what we were 'exactly' looking for. Tactfully, we decided to be more specific, and therefore started our microlearning activity with sentence one; we prompted with a request for an explanation of the sentence and ChatGPT responded as shown in <u>Figure 12</u> below:

PU	You Can you explain the meaning of sentence one in detail?
\$	ChatGPT
	Certainly! In sentence one:
	"They had a picnic in the park, even though it was raining."
	This sentence describes an action (having a picnic) and a challenging condition (rain).
	Here's a breakdown:
	• Subject: "They" (referring to a group of people).
	 Verb: "had" (indicating the action of having a picnic).
	• Object: "a picnic in the park" (what they had).
	Conjunction: "even though" (introducing a contrast or unexpected condition).
	• Condition: "it was raining" (describing the Ψ)enging weather condition).

Figure 11: Explanation of the simplified sentence

Now, we can see the simplified version of sentence one in this response. It has explained the contextual meaning of the sentence such as 'picnic' as an action and 'raining' as a challenging condition. We can also see the use of 'even though' in articulating such two contrasting situations. Here, we believe ESL/EFL students will be able to make sense of complex sentences through such processes, and they can continue with their microlearning activities with the remaining two sentences.

Findings

As shown in Figure 8, ChatGPT produced five simple sentences, and in Figure 9 it dissected their skeletal structure. These two prompts and responses have been hooked by the word 'their' in the second prompt. The response of Figure 9 is the hooked response to Figure 8. Thinking alternatively, if we had not hooked up but started a new chat after Figure 8, ChatGPT would not have been able to generate an appropriate response. We tried this as well to which ChatGPT responded as shown in Figure 13 below:

PU	You How to I understand their structure?
6	ChatGPT Understanding the structure of something depends on what that something is. Could you please provide more context or specify what you are trying to understand the structure of? It could be a document, a piece of code, a system, a concept, or something else. Once you provide more details, I'll do my best to assist you.

Figure 12: ChatGPT confusion with prompt

Interestingly, ChatGPT produces entirely irrelevant meaning. It lacks the connecting thread or hooking. This response helped us to infer that the effective use of ChatGPT is an act of continuing the prompts by hooking rather than starting over a new chat. Similarly, our struggle with simplification of complex sentence structure can be seen in Figures 9, 10, 11, and 12. Why did we have to go from Figure 9 to 12 for the answer we were looking for? We were particularly concerned because our prompt was not very specific. In Figure 12, we intentionally provided a specific prompt for the elaboration of sentence 1, and ChatGPT produced an elaborate and expected response. If we were able to do so in Figure 10, it would save our time and effort as well. Thus, the prompting literacy should be taught with the specifics of literacy of hooking and specifying while using ChatGPT in ESL pedagogy.

Paragraph Development

One of the fundamental skills of learning to write is paragraph writing (Gugin, 2014), one of the most significant skills in learning a language. Literature about language learning makes it important for "the development of English writing skills among English, as a second language, (ESL) students" (Aryadoust, 2016, p. 1742). Therefore, we chose to use some microlearning activities about teaching/learning paragraph development with the help of ChatGPT for ESL/EFL learners.

Results

In this first microlearning activity, we started with a 'what' of a paragraph, asking ChatGPT 'What is a paragraph' and it responded as shown in <u>Figure 14</u> below:

 You What is a paragraph?
 ChatGPT
 A paragraph is a group of related sentences that focus on a single topic or idea. It is a fundamental unit of writing and is typically composed of several sentences that elaborate on a central point. A well-constructed paragraph often includes a topic sentence that introduces the main idea, supporting sentences that provide details or examples, and a concluding sentence that summarizes or transitions to the next paragraph.
 Key features of a paragraph include coherence, unity, and a logical flow of ideas. Paragraphs are essential for organizing written communication and helping readers follow the structure of the text. They contribute to the overall clarity and organization of written content in essays, articles, stories, and other forms of written expression.

Figure 13: Paragraphing

In this response above, ChatGPT provides a comprehensive definition of a paragraph. Phrases like 'group of related sentences', 'single topic or ideas', 'topic sentence and supporting sentences', 'details and examples', and 'a concluding sentence' makes the response coherently organized as in a well-written paragraph. All these components can be used as a 'checklist' while teaching/learning to write a paragraph in an ESL/EFL classroom.

While analyzing meticulously the ChatGPT's response in Figure 14, we noticed that that it was more a theory of paragraphing. Therefore, we further wanted to generate an example of a

paragraph itself by using a specific prompt and ChatGPT responded to it as shown in <u>Figure</u> <u>15</u> below:



Can you please give me an example of a short paragraph for me?



ChatGPT

Certainly! Here's an example of a short paragraph:

Example:

The majestic mountains stood tall against the azure sky, their snow-capped peaks glistening in the morning sunlight. A gentle breeze rustled through the evergreen trees, carrying with it the crisp scent of pine. As I hiked along the winding trail, the serenity of the natural surroundings enveloped me. Birds chirped melodiously, adding a symphony to the picturesque scene. In the distance, a clear stream meandered through the valley, reflecting the vivid colors of wildflowers that dotted the landscape. Nature's beauty, in all its splendor, created a moment of tranquility and awe, making the hike a truly unforgettable experience.

Figure 14: Paragraph example

In this response, we can see a paragraph on a hiking experience. The sentence adds details that are more literary and enhanced with vivid imagery. For an ESL/EFL language learner, it could be a challenge to find the meaning of all those terms. Therefore, we wanted to keep it simple for which we prompted with 'a very simple paragraph' for which ChatGPT responded as shown in Figure 16 below:



Figure 15: Asking for simplicity of a paragraph

In this response, the response was much easier to understand compared to the previous one. There are five sentences, and they are interconnected to each other; they are all about the cat named Whiskers. Here, we can observe that the definition of a paragraph from Figure 14 has been well-integrated. We also felt that <u>Figure 15</u> was pointless again because of the lack of proper ChatGPT literacy skills. We continued and wanted to know a paragraph concerning specific elements of a paragraph for which we prompted with 'basic elements of a paragraph' to which ChatGPT responded as shown in <u>Figure 17</u> below:



Figure 16: Elements of a paragraph

In this response, we can see the connection across the elements as it provided the six constituents of a paragraph. This process and the product of ChatGPT can work as the guiding star in teaching/learning about paragraph composing in ESL/EFL classrooms.

Findings

In the above five microlearning activities about a paragraph, the prompts and responses on paragraph writing informed us about some literacy skills of using ChatGPT. For example, in Figure 14, we asked what 'a' paragraph is, and ChatGPT responded well. In Figure 15, we asked for 'a short' paragraph, and ChatGPT produced a paragraph that was short but relatively not so easy to follow by ESL/EFL beginners. Therefore, we had to give an additional load to ChatGPT by adding an adjective, that is 'simple'. As we prompted for a simple sentence, ChatGPT produced a simpler paragraph compared to the previous one. Then, we asked for the 'basic' elements of a paragraph, and ChatGPT introduced six basic elements of a paragraph. In all these examples, we can see the very crucial role of a quantifier (that is 'a') and qualifiers (short, simple, basic). In simple words, if we had added the word 'simple' in Figure 15, ChatGPT would have produced a relatively simple paragraph, and we would have wasted our time and ChatGPT's exploitation of data source and energy. Therefore, before using a prompt to ChatGPT, the users need to think about what we are 'really' looking for. For example, 'How many' and 'what types' of responses are we looking for? The exact type of response-simple, complex, descriptive, narrative, dialogic, short, long, five-sentenced, or ten-worded-is required to be learned before prompting. It helps us to save time and prompt ChatGPT more precisely as shown in its response in Figure 18 below:



Figure 17: Prompting with qualifiers and quantifiers

In this response, the quantifiers (one and five sentences) and the qualifiers (short and very easy) have delimited and specified what we expected from ChatGPT's response. It reveals that the *literacy of quantifying and qualifying* is one of the necessary skills in using ChatGPT to foster writing skills in ESL/EFL classrooms.

Teaching Genre Conventions

Teaching genre-based writing helps ESL/EFL students generate "purposeful responses to particular contexts and communities" in some recognized style and conventions (Chun & Aubrey, 2021, p. 818). It is one of the basic writing skills to be introduced to ESL/EFL classrooms (Yayli, 2011) since every linguistic community has certain genre conventions. Therefore, after paragraphing, we spent on microlearning activities using ChatGPT for diverse genres of writing.

Results

As the first microlearning activity, like before, we started with a 'what prompt' regarding a genre in writing, and ChatGPT generated its response as shown <u>Figure 19</u> below:



Figure 18: Prompting for 'genre' response

In this response, ChatGPT has not only responded to the prompt but also added one additional paragraph about the importance of genre with some examples. Nevertheless, the first paragraph of the response is enough to make sense of the genres of communication even though terms like 'expository, persuasive, descriptive, and argumentative' may appear unfamiliar to the ESL/EFL beginners. We did not take it very seriously this time because adding a single word 'simple' can solve this problem, or request through 'write in a very simple language' before prompting. Therefore, in another microlearning activity, applying our prompting for specific, we asked ChatGPT to write a sick live email to a professor for which it produced the response as shown in Figure 20 below:

G	ChatGPT		
-	Subject: Request for Sick Leave		
	Dear [Teacher's Name],		
	I hope this email finds you well. Unfortunately, I am feeling unwell today ar	nd won't be	
	able to attend class. I have [mention symptoms, if comfortable] and believe	ve it's best for	
	me to rest and recover.		
	I understand the importance of the upcoming lesson, and I am committee	d to catching	
	up on the missed work. Could you please advise on any assignments or re	eadings I	
	should focus on during my absence?		
	If there are any materials or instructions I need to be aware of, please let n	ne know. I	
	appreciate your understanding and assistance in this matter.		
	Thank you,		
	[Your Full Name]	G Get cita	ation
	[Class/Subject]		

Figure 19: Requesting a sick leave email

In this response, we can read not only the content but also the language and form/style of email. While observing the formality, tone, and cordiality in the language of the response ('Dear', 'I understand', 'Could you please', 'I appreciate, and 'Thank you'), we can see that ChatGPT has

a keen sense of audience, the professor. Again, by applying the *literacy of hooking*, we wanted to create some other genres in the 'same' situation. Our prompt for the continuation of the conversation with ChatGPT was signaled by the word 'same' as shown in <u>Figure 21</u> below:

RU	You How to write a text message to a friend in the same situation?
6	ChatGPT Hey [Friend's Name],
	Feeling under the weather today and won't make it to [place/activity]. 😔 Planning to rest up and recover. Any chance you could fill me in on what I miss? Thanks a bunch! Catch up soon.
	Take care, [Your Name]

Figure 20: Writing the same email to a friend

The response is comparatively simple and easy to understand. Then, our literacy of adding the word 'same' continued asking for another genre for which ChatGPT responded as shown in Figure 22 below:



Figure 21: Writing a text message to a girl/boyfriend

In these three responses (Figures 20, 21, and 22), we can find the difference in both the form and content. The latter two are more informal than the first. The second uses a smiley, and the third provides a masked face enhanced with a common symbol of love, the heart. It indicates a degree of formality. In these responses, the tone of formality is in descending order expressing a sense of endearment with the girlfriend/boyfriend.

Findings

The four microlearning activities on the prompting of genre conventions inform us that ChatGPT can be used to teach/learn to write different genres in different contexts, for different

audiences in ESL/EFL classrooms. For example, in Figure 20, ChatGPT produced a more formal response, whereas in Figures 21 and 22, it is more informal and more conversational with some smileys. The writing exigence is the 'same' in all three responses, however, there was a difference in the audience (professor, friend, and girlfriend/boyfriend). In these responses, ChatGPT's response showed a keen sense of audience. Based on these prompts and responses, we can conclude that *literacy of rhetorical situations*—intricacy of audience, purpose, genre, subject, context, exigence, and writer—is one of the required skills in using ChatGPT in ESL/EFL classrooms. Without writing instructors' control over these rhetorical elements and their functions in a piece of writing, ChatGPT will not come to fruition.

Conclusion and Significance



Figure 22: Thank You, Dear ChatGPT

The research question that played the role of a touchstone in limiting, delimiting, shaping, and revising the entire process of this study was: "*What specific literacy skills can be effectively utilized to enhance writing proficiency in ESL and EFL context using ChatGPT*?" The microlearning activities on parts of speech, sentence formation, paragraph development, and teaching genre conventions in this study have informed us that efficacy of ChatGPT in fostering the writing skills of ESL/EFL students depends on:

- a. Literacy of prompting
- b. Literacy of hooking and specifying
- c. Literacy of qualifying and quantifying
- d. Literacy of rhetorical situations

These ChatGPT literacy skills can be performed as microlearning activities in ESL/EFL writing classrooms as done in this study. Employing these skills to improve ESL/EFL students' writing skills becomes productive for the ESL/EFL learners even in the absence of the instructors.

The article explored four ChatGPT literacy skills fundamental to ESL/EFL classroom settings. The scope of the ChatGPT use and the importance of literacy skills appear applicable beyond the ESL/EFL writing classroom contexts as well. These literacy skills performed as microlearning activities minimize the risk of unethical and random use. Therefore, developing literacy skills in both the instructors as well as the students is essential to make it productive in the educational context. Thus, the time has come to integrate AI tools in all educational settings

through enhanced educational policies, syllabi, curriculum, and pedagogy across diverse educational disciplines. One of the integrating approaches could be using ChatGPT and literacy skills in both the instructors and students in every writing context, particularly in EFL and ESL classrooms. So "Let's Say, 'Yes to ChatGPT Literacy'."

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Purna Chandra Bhusal: Writing—introduction, literature review, methodology, data generation, data analysis, and interpretation—revising, editing, and conceptualization.

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