

ENGAGING WITH AI: EXPLORING CHATGPT'S ROLE IN SELF-REGULATION AND PRE-WRITING STAGE

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Abstract: *Traditional English Language Teaching (ELT) methods often struggle to meet the diverse needs and learning preferences of students, resulting in limited engagement and suboptimal learning outcomes. However, in today's rapidly evolving digital landscape, ELT practices have been transformed using generative AI tools to cater to the diverse needs and learning styles of students. The tools enhance student engagement, personalised learning pathways, and improve learning outcomes. By integrating generative AI tools into teaching practice, students can engage in quality writing. This article delves into the benefits of using ChatGPT among undergraduate students. In the pre-writing stage, ChatGPT is useful for the students to brainstorm and outline their work. Using the self-regulated learning theory (SRLT), educators can create prompts tailored to specific learning outcomes, encouraging learners to elaborate on their thoughts and practice critical thinking. Moreover, while writing, these tools can also suggest alternative word choices, synonyms, and sentence structures while functioning as a grammar and mechanics checker. Despite the advantages of ChatGPT, ethical considerations involving ChatGPT are discussed.*

Keywords: *self-regulated learning theory, artificial intelligence, ChatGPT, pre-writing phase*

INTRODUCTION

One of the important components emphasized in higher education English courses around the world is writing. English courses focus on four skills: listening, speaking, reading and writing. Writing is the most

difficult skill to master as it requires continuous learning, and learners must have knowledge and creativity to express their ideas, thoughts, and feelings. Mastering writing skills can enhance their credibility, communication, and overall productivity (Hodgman, 2023). Writing can be challenging for learners due to several reasons. One of the challenges is a lack of vocabulary knowledge which affects students' motivation to write in English. Due to the lack of vocabulary, students are prone to translate directly from their mother tongue to the English language while writing (Lin & Pua, 2025) and this could affect the grammar and the organization of the text. According to Lin and Pua (2025), another challenge for students is that they face difficulty paraphrasing as they must possess good comprehension skills to rephrase sentences using their own words.

Artificial Intelligence (AI), as an emerging component of technological advancement, has been playing an important role in facilitating education and learning. Recently, many learners and educators are using AI generative tools like ChatGPT, Copilot, Grammarly, Quilt Bot, and Gemini. In the realm of writing, ChatGPT has emerged as a valuable resource, assisting with brainstorming and outlining the work. It can also suggest possible word choices, synonyms, and sentence structures while functioning as a grammar and mechanics checker. A recent study done in Pakistan confirmed that using ChatGPT helps learners improve their English writing skills and supports learning English, offering valuable insights for both instructors and learners (Qazi et al., 2025).

In higher education, learners are encouraged to practice independent learning. Self-regulated learning (SRL) is a fundamental educational approach that strengthens learners to be independent during the learning process (Astuti & Rozikin, 2024). SRL is closely related to writing education as it improves learners' ability in planning, monitoring, and evaluating their writing tasks and this helps learners to improve their writing skills. By applying the self-regulated learning theory (SRLT), educators can design prompts that align with specific learning goals, motivating learners to expand on their ideas and engage in critical

thinking. Notably, most research has focused more on the written products using ChatGPT rather than on the writing process. Thus, this article discusses the usefulness of ChatGPT among undergraduate students in the pre-writing stage.

OBJECTIVES

1. To discuss the significance of utilising ChatGPT in an ESL classroom which focuses on pre-writing stage.
2. To identify the potential limitations of ChatGPT in the pre-writing stage.

CONCEPTS

Self-regulated Learning (SRL)

Self-regulation includes the planning and continuous adaptation of self-generated thoughts, feelings, and actions to achieve personal goals. Continuous adaptation is essential in self-regulation as learners use feedback from previous experiences and adjust during current learning process for a more effective goal attainment. Self-regulated learners are active learners; they are aware of their strengths and weaknesses and can effectively seek and utilize information that supports their learning when necessary (Zimmerman, 1990).

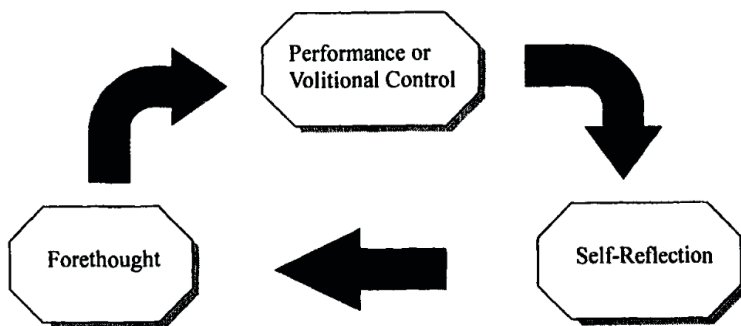


Figure 1: Cyclical Phases of Self-regulation

(Adapted from Schunk & Zimmerman, 1998 as cited in Boekaerts et al., 1999)

Figure 1 shows the cyclical phases of self-regulation from a social cognitive perspective. It consists of 3 phases; forethought, performance or volitional control, and self-reflection processes (Schunk & Zimmerman, 1998 as cited in Boekaerts et al., 1999). Task analysis and self-motivational beliefs are two vital components in the forethought phase. A key form of task analysis is goal setting. According to research by Bandura and Schunk (1981), students' self-efficacy and intrinsic interest in mathematics increased as they worked toward and achieved proximal goals in the subject. Self-control and self-observation are two major types of performance or volitional control processes. Self-control processes like self-instruction, imagery, attention focusing, and task-related techniques support learners in maintaining concentration and maximising their effort more effectively (Boekaerts et al., 1999).

The final phase is self-reflection. In this phase, Bandura (1986) has closely associated self-reflection with self-observation. According to Bandura (1986), self-reflection is a key component of self-regulated learning, enabling learners to evaluate their performance and make improvements. Through self-observation, learners monitor their thoughts and actions, then reflect on outcomes to determine what worked and what did not. This reflection includes causal attributions like deciding why success or failure occurred. Positive attributions can enhance self-efficacy and persistence while negative ones may reduce effort. Bandura (1986) emphasize that this reflective process helps learners adjust strategies, build confidence, and take greater control of their learning, making self-reflection essential for developing independent and effective learners. Denami and Adinda (2023) further support Bandura's theory (1986) that students' awareness of their own abilities has been increased because of reflective practice. This coincides with Lan and Zhou's study (2025) on learners appreciating the feedback provided by AI tools as part of their reflection to further improve their task performance.

ChatGPT

The latest in Generative AI, ChatGPT's capability in generating responses far exceeds what previous versions of AI have been able to do. ChatGPT is an AI chatbot that was introduced by Open AI in November 2022. In approximately two months, ChatGPT reached a hundred million users (Ebert & Louridas, 2023). The chatbot's advanced language model was designed to generate natural and coherent responses to users (Albadarin et al., 2023). What made this language model stand out was its ability to produce conversational interactions that made it seem more humanlike compared to previous versions of Chatbots. Another feature of ChatGPT that separates it from previous versions is its long-term memory. The tool was able to retain previous inputs by the users, thus creating a seamless conversation. This ability allowed the user to engage in natural and interactive dialogues with the tool, making it an innovative and game changing AI tool that is stay. As with any form of AI, the data generated from ChatGPT or Chat Generative Pre-Trained Transformer comes from a vast corpus of texts from the internet, accessible information that is readily available on the internet, and information that users or trainers have input into the corpus. Based on its understanding of the data, the tool would then provide the best possible answer or response to the user.

Generative AI's role as an educator's support tool has become a crucial component of learning. ChatGPT provides individualised learning environment, and it has the capability to motivate students' SRL. The tool's main potential lies in its ability to provide conversational responses, and its simple user interface (Hasanein & Sobaih, 2023). The uncluttered and clean interface coupled with its intuitive interactions with users means that users can focus on their interactions with the AI. This simplicity makes it accessible and a formidable tool in educational contexts, regardless of learners' technical expertise. The AI's language model allows users to ask a wide range of questions, or it is known as prompt engineering

(Leung, 2024). This prompt engineering enables ChatGPT to aid in content creation by providing varied viewpoints on specific topics or contexts, clarifying complex concepts, act as a supplementary resource, providing recommendations, analyse data, and providing other guidance where necessary (Albadarin et al., 2023; Dempere et al., 2023; Hasanein & Sobaih, 2023; Xiao, 2024).

Furthermore, ChatGPT has multilingual capability. With this, ChatGPT assists multilingual learners inside and outside the classroom, allowing learners to improve grammar and syntax, summarise complex texts and receive immediate feedback (Albadarin et al., 2023; Dempere et al., 2023; Hasanein & Sobaih, 2023). Combined with its increasing speed, accuracy, and relevance with each new version of the tool stemming from the constant updates to its Natural Language Processing (NLP) Model, this Generative AI tool creates a personalised learning environment and acts as a Virtual Writing assistant for learners in diverse groups, making it ideal for SRL. Chiu (2024) conducted a study involving school instructors who were experts in technology, and they include ChatGPT as part of their teaching and learning process. The result indicated that ChatGPT fosters the three SRL phases; forethought, performance, and self-reflection, respectively. Chiu (2024) emphasised that instructors were inspired to adapt generative AI activities for their teaching and provide policymakers with information on how to create standards for AI in education. It is notable that ChatGPT can facilitate SRL when the educators are aware of the SRL process. To gain the utmost benefits using ChatGPT, instructors need to be aware of their roles, abilities, and pedagogical principles.

Zimmerman (2000) developed a multi-level self-regulated learning framework which explains the SRL processes implemented by learners. This framework consists of 4 levels; observation, emulation, self-control, and self-regulation (Table 2).

Table 2: Development Levels of Regulatory Skill

Level	Name	Description
1	Observation	Vicarious induction of a skill from a proficient model
2	Emulation	Imitative performance of the general pattern or style of a model’s skill with social assistance
3	Self-control	Independent display of the model’s skill under structured conditions
4	Self-regulation	Adaptive use of skill across changing personal and environmental conditions

This framework indicates how a chatbot can support self-regulated learning (SRL) at each phase of Zimmerman’s model. Chang et al. (2023) proposed the above-mentioned framework to explain the SRL processes practiced by the students. For instance, when students engage with AI chatbots during their learning process, they use the chatbots as a resource by inputting questions or commands to obtain clarifications or information relevant to their tasks. In observation stage, learners may set their goals, or they can observe and learn from others who uses the chatbot. They can gain some ideas on the expected outcome and interactions when they use it. In emulation phase, learners practice their understanding of an assigned task by prompting the chatbot independently using their own words or similar phrases they have observed or even suggested by others. The third phase which is self-control denotes an important stage where learners must make wise decisions about their learning. The decisions must be ethical and honest, specifically when the chatbot generate the responses. Learners must be able to modify the responses accordingly rather than using the responses directly for their assigned tasks. They can also further re-prompt the chatbot for the tasks assigned to them as it will continuously provide responses and guide the learners. The final phase which self-control can be considered as a two-way interaction between the chatbot and learners.

As learners practice self-regulation process, they recognise the benefits of using Chatbot. For instance, ChatGPT could be a great tool for learners to develop an outline in the pre-writing stage. Educators play an important role to guiding their learners in the pre-writing stage. Its ease of use means that its adoption in education will continue to grow. Instructors must learn how to facilitate the learners who are technology savvy to ensure a smooth teaching and learning environment.

CHATGPT IN THE CLASSROOM

Writing skills are important in academic and professional settings. Xiao (2024) noted that students in the ChatGPT-assisted class exhibited significant improvement in their overall writing performance in terms of content organisation and language use. This preliminary study in an EFL classroom demonstrated ChatGPT's potential as a useful tool for enhancing writing proficiency. There are three main stages in a writing process; pre-writing, drafting and editing. Pre-writing stage is crucial as the learners need to organize the thoughts and plan the structure of the essay. In the pre-writing stage, both instructors and learners work hand in hand. Learners practice independent learning and produce the outline, and the instructors give constructive feedback for the learners to make sure the pre-writing stage is comprehensive. Despite advancements in technology and the increase usage of AI tools like ChatGPT, studies revealed that learners think that feedback from their lecturers and supervisors is a crucial source of support; therefore AlMarwani (2020) stated that scaffolded feedback is needed.

As mentioned earlier, multi-level self-regulated learning framework by Zimmerman (2000) is a great framework for pre-writing stage as the learners must complete several tasks in this stage. The main task is brainstorming the ideas for the essay. Completing this task can be challenging for learners with lesser level of proficiency in English language. A study conducted at Mizan Tepi University, Ethiopia indicated that the challenges faced by university students in English writing are vocabulary, grammar, and lack of writing skills (Taye &

Mengesha, 2024). Learners use ChatGPT to collect and organize information in the pre-writing stage.

ChatGPT in Action

With ChatGPT’s capability to generate content, a common issue that is being discussed in academia is academic integrity (Hasanein & Sobaih, 2023). The issue becomes significant when the learning outcome of the courses may not be met because students may violate academic honesty policies by submitting AI generated content as their own. This causes significant concerns among researchers (Dempere et al., 2023; Hasanein & Sobaih, 2023). However, equipping students with skills to critically evaluate AI-generated information for academic and professional work helps learners enhance their learning by teaching them to use AI responsibly. In an ESL classroom, prewriting activities utilizing ChatGPT’s features are essential for scaffolding the writing process. These activities provide opportunities for students to use the tool effectively and to foster ethical use of AI. The following steps in Figure 3 illustrates the process when employing ChatGPT in this stage of the prewriting process when creating an outline for an argumentative essay.

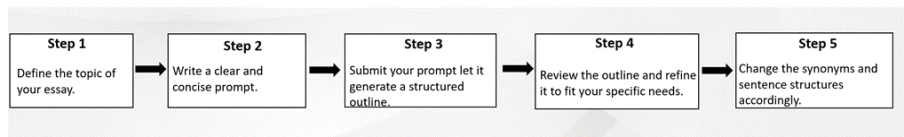


Figure 3: Step-by-Step Instructions on Using ChatGPT to Create an Essay Outline

To complement the steps above, the instructor’s role becomes significant. In class, it is essential for the instructor to assist students by first discussing the argumentative essay structure such as thesis statement, topic sentences, opponents, and proponents of the topic. Once the students can grasp the structure, the instructor provides a generic thematic topic based on the field of study. Then, the overall process using ChatGPT begins. In the first step, students start by clearly defining the topic. They need to be as specific as possible, ensuring the topic they select is linked to the generic thematic topic. In the second

step, upon getting the approval of topic from the instructor, students such as write a clear and concise prompt for ChatGPT, providing the topic and any specific requirements for the argumentative outlines. In this stage, students also need to be mindful of the context. In the third step, students must submit their prompts to ChatGPT and generate structured outlines with headings, subheadings, and potential points to discuss.

At this point, the instructor continues to scaffold the lessons with selected activities that utilize prompt engineering. These activities are crucial as they provide students with the opportunities to use ChatGPT to further refine their outlines, which moves the students to the next step. In step four, the students review the outlines generated by ChatGPT and refine them to fit their specific needs. They can add more details, adjust the structure, and ensure the outlines align with their argumentative topics. In the last step, it is compulsory for students to change the synonyms and sentence structures accordingly. The instructor asks students to copy the outlines created in ChatGPT and paste them in a shared word document. Shared word documents are important because they allow for synchronous collaborative learning. During this time, the instructor provides constructive feedback where necessary. Socratic questioning techniques are also employed by the instructor for students who require additional assistance. This method gives importance to questioning and answering techniques to generate ideas and encourage deeper thinking (Dalim et al., 2022). Students would be able to reflect, explore news ideas, and develop critical thinking skills when the instructor asks different types of questions rather than relying on ChatGPT.

DISCUSSION

Key Findings and Insights

The result of the developing an argumentative essay outline in the pre-writing stage practice in an ESL classroom in a higher education institution demonstrated significant improvements in learners'

engagement and learning outcomes. The learners used ChatGPT during the brainstorming session. They did set their goals and monitor their goals. This aligns with Zimmerman's SRL framework, particularly the phases of self-monitoring and self-reflection, highlighting the potential of AI to support these critical processes. Learners with a good level of proficiency in the language could improve further the information generated by ChatGPT for their pre-writing stage outline. They could add more critical information in their argumentative essay. This group of students did not request additional consultation sessions with their instructors. On the other hand, the learners with less proficiency in the language needed additional consultation sessions with their instructors to get scaffolded feedback for the outline that they developed using ChatGPT. This aligns with AlMarwani (2020) whom stated that scaffolded feedback is needed as it is a crucial form of support.

One key insight is that learners viewed ChatGPT as a useful tool to figure out the ideas for the pre-writing stage. Most of the learners indicated that ChatGPT was useful for them as it provides useful ideas, information, vocabulary, and suggests relevant writing skills and grammar. Learners gain a lot of benefits from it especially when the tasks require independent completion. However, the effectiveness of ChatGPT varies according to learners' technological literacy. A possible suggestion would be for the educators to guide the learners with lesser knowledge on using ChatGPT. Instructors can show samples in class, or they could even do a demonstration in class on how to create a good prompt for ChatGPT. This aligns with the SRLT; learners can be motivated to develop more ideas and think more critically when their instructors guide them by providing more prompts.

Practical Implications

There are several ways to successfully integrate ChatGPT into SRL in ESL classrooms especially for the pre-writing stage to improve further students' involvement and learning outcomes. Firstly, one of the key implications is that educators must be responsible and put additional

efforts to guide the students by providing constructive and immediate feedback, helping students to develop stronger self-monitoring and self-regulation skills. Morrison and Jacobsen (2023) stated that students who received regular feedback perceived their work as valued and felt reassured that they were progressing correctly. Personalized, strengths-based feedback contributed to increased motivation and self-reliance among students. Educators can include chatbots in the learning environment to help students with goal setting, progress tracking, and self-assessment. Secondly, to ensure a smooth teaching and learning session, educators must equip themselves with the knowledge and skills to use ChatGPT for lessons effectively. Current research done by Nguyen (2023) indicated that professional training for educators is vital to boost users' knowledge on the limitations and possible challenges related to ChatGPT. Thirdly, it is important to ensure that there is a balance between the use of ChatGPT and human instruction. Bianchi (2024) found that when instructors integrate AI's capabilities with human-centered learning, they may create inclusive, dynamic, and successful learning experiences that prepare students for the complexity of the modern world. Ultimately, when these implications are thoughtfully implemented, ChatGPT can bring valuable teaching and learning experiences for both the educators and students.

Limitations and Challenges

ChatGPT has a lot of benefits. However, several limitations and challenges must be acknowledged. One of the limitations is that the overdependent of students on ChatGPT. Some students especially those who have lesser level of English proficiency tend to depend on the responses created by ChatGPT without even trying to think critically or completing the argumentative essay outline on their own. Secondly, some failed to fulfill the third phase of Zimmerman's multi-level self-regulated learning framework (Zimmerman, 2000) which is self-control. They tend to be dishonest and misuse the information generated by ChatGPT. They use information directly to their outline

without making any changes or adding any additional information. This could lead to a poor development of outline. Poor outline will lead to a poor argumentative essay, and this will affect the learning outcomes. Considering the limitations, ChatGPT can result in a negative influence on students' learning.

CONCLUSION

ChatGPT is a widely used AI tool in every sector in this world. In educational settings, the usage of ChatGPT is tremendously increasing as it is very useful for educators and students. According to Sok and Heng (2023), ChatGPT is useful as it can be used to develop lesson assessments, improve further pedagogical practice, offer virtual personal tutoring, create an essay or even research article outline, and finally to brainstorm ideas. Despite these benefits, ChatGPT can be alarming if it is not utilized with integrity. Hasanein and Sobaih (2023) highlighted the concerns of ChatGPT such as over-reliance, loss of academic integrity, poor quality and accuracy, negative impacts on learning outcomes, potential biases, and a decline in student skill sets.

Implementing ChatGPT in an ESL classroom, especially in the pre-writing stage, can be very effective. Students will be more enthusiastic in completing their outlines with the help of their instructors and ChatGPT. Educators must act as a facilitator to create a personalized learning ambience for the students. They can use ChatGPT to scaffold the learning by providing prompts and feedback. Besides, instructors must be responsible to create an engaging classroom environment. In class, they should encourage active engagement and interaction among students. As mentioned earlier in this article, instructors must practice asking WH questions to the students to ensure that the students completely understand the content of the outline that they developed using ChatGPT. Furthermore, instructors must also address the ethical and academic integrity concerns in classrooms every time they conduct lessons using ChatGPT. This is very important to make sure students use ChatGPT in the right way.

As AI continues to evolve, educators and students will continue to figure out great opportunities to use ChatGPT in effective ways to enhance further the learning outcomes in ESL classrooms especially in the pre-writing stage lessons. There are both advantages and disadvantages of ChatGPT; thus, it is important for everyone to continue using this effective tool in a balanced way to harness its potential while practicing the right SRL process. Instructors must continue to motivate the students to embrace their ESL learning journey by using the tool wisely. Human interaction in language learning can never be replaced by AI; thus, there should be a balanced approach between the use of ChatGPT for independent learning and discussions between group members and the instructor.

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