The Influence of Metacognitive Writing Strategies on Foundation Students' Writing Performance

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Abstract

Students faced difficulties producing a good essay due to ineffective writing strategies. One way to address this challenge is by employing metacognitive strategies. Metacognitive strategies are essential strategies that help learners plan, monitor and evaluate their writing. These strategies will help students become autonomous and overcome the challenges they face in the writing process. This study investigated the relationship between students' use of Metacognitive strategies and their Malaysian University English Test (MUET) writing score. A survey design using a set of questionnaires was administered to 102 foundation studies participants enrolled in a language programme. The questionnaire investigated participants' use of metacognitive strategies in academic writing. The data were analysed using descriptive and inferential statistics, revealing a high mean score for using the three stages of metacognitive strategies (planning, monitoring and evaluating). However, the correlation test indicated that there was no significant relationship between participants' use of metacognitive strategies and their MUET writing score. The findings showed that although students claimed to use metacognitive strategies, this was not evident in the results of their MUET test. These findings are essential for students to improve their writing skills, and at the same time, teachers need to be aware of the strategies to guide their students.

Keywords: Metacognition, Metacognitive Strategies, Writing Performance, Muet, Academic Writing

Introduction

Writing is considered a productive skill in learning English, as learners build sentences and paragraphs using words and phrases to produce meaning for their thoughts. In Malaysia, students have been taught to write from primary school to secondary and at the tertiary level, making it part and parcel of the English lessons. Hence, being able to write academically is an integral part of the early schooling years of students, which is transferred to the tertiary level.

At the university, students are often required to write more creatively and critically, with appropriate elaboration, to convince readers of their thoughts on given topics (Norhartini Aripin & Noor Hanim Rahmat, 2021). Many factors, such as the writer's personal experience, grammar mechanics, and writing strategies (Teng & Yue, 2022), influence the production of a quality essay. Among these, the most critical aspect that needs close consideration when writing a good essay is writing strategies (Norhartini Aripin & Noor Hanim Rahmat, 2021; Chien, 2012). In other words, writers need to identify appropriate strategies, plan their writing and monitor if their plans are well executed to produce a quality essay.

Writing strategies can be divided into rhetorical, cognitive, metacognitive, communicative, and social strategies (Mu, 2005). These strategies are important for learners to help them think of cohesive and thoughtful writing. The most commonly used are metacognitive strategies (Raoofi, Chan, Mukundan,& Rashid, 2014). Metacognitive strategies help learners to plan, monitor and evaluate their writing. This strategy is deemed essential because when ESL learners write, they need to be able to plan what to write, and as they write, they will have to constantly monitor if they are following their plan and on the right track. Finally, they must reflect on their writing to ensure they have added sufficient strong and thoughtful ideas and adhered to the appropriate grammar rules. Considering the importance of metacognitive strategies, this study aims to investigate the use of metacognitive strategies in writing among Foundation students.

Statement of Problem

For many, writing in English feels impossible and is considered more complex and challenging than other language skills (Bulqiyah et al., 2021; Baharudin et al., 2023). This is because students are required to master specific rules and develop various skills such as spelling, punctuation, and coherence, as well as organising ideas into comprehensible texts to help others understand what they are writing (Alsamadani, 2018; Ayuni Akhiar et al., 2017). While students may understand English in theory, they often fail to apply it effectively in writing (Taye & Mengesha, 2024; Hassan et al., 2021). This gap between knowledge and practice calls for more than exam-focused instruction—it demands supportive, creative teaching that builds students' confidence, encourages expression, and connects writing tasks to real-life situations. One way to reduce this gap is by introducing metacognitive strategies, which are believed to be one of the ways to help students improve their writing skills. However, some teachers and students are still unaware of the importance of teaching and learning these strategies. For instance, Suteu (2021) and Zohar and Ben-Ari (2022) stated that teachers do not feel trained or have sufficient knowledge to teach metacognitive strategies in the classroom. If teachers feel this way, learners will also be impacted because they will not be aware that it is crucial to learn these strategies to help their learning, especially in their writing (Colognesi et al., 2024).

The objectives of the study are:
1. To describe the metacognitive writing strategies that foundation students use the most when writing academically.
2. To determine the relationship between the metacognitive strategies used by foundation students and their MUET writing performance.

The research questions are:

1. What metacognitive writing strategies do foundation students use the most when writing academically?
2. Is there any significant relationship between the metacognitive strategies used by foundation students and their MUET writing performance?

Based on the research objectives and research questions, two hypotheses are formed:

1. There is a significant relationship between the level of metacognitive strategies used and students' MUET writing performance
2. There is no significant relationship between the level of metacognitive strategies and their MUET writing performance

Literature Review

Literacy is traditionally defined as the ability to read and write (Kern, 2000). Even though this might have changed with time, reading and writing are still considered essential skills in language acquisition (Kern, 2000). Writing is a way a writer expresses ideas through the choice of words, variety of sentence structures and multi-layered ideas to convey their thoughts on a topic (Harmer, 2004). It is one of the four main skills in English used to express ideas and emotions in a written form. Harmer (2004) also added that writing is a way to produce language and express ideas. Furthermore, writing is crucial in learning a second language, such as English, as it will help writers communicate their ideas with the world in word form (Sato, 2022). These words are composed of vocabulary, tenses, grammatical rules and others to ensure that they are sound and can be understood by other readers.

Even though it is one of the essential skills to master, unfortunately, most learners cannot write effectively (France, 2024). In Malaysia, this can be seen in the score obtained for writing skills in the comparison made by Majlis Peperiksaan Malaysia (MPM) or Educational Testing Service Malaysia, in which they compared Sijil Pelajaran Malaysia (SPM) or Malaysian Certificate of Education English results with the Malaysian University English Test (MUET) scores for writing. MUET is equivalent to international and standardised English tests like IELTS or TOEFL, except that this is a national-level English test required for university entrance. According to Bidin et al. (2019), the result indicated that the "highest band " test taker can get for Writing in MUET is Band 5. Only 41 (8.86%) attain this level, all but one of whom got a Distinction in SPM English. Of the 39 students with an A+ in SPM English, only 11 (28.21%) reached Band 5 in MUET Writing. Most students scored in Band 4, and a few were in Band 3" (pp.77-79). Bidin et al. (2019) cannot help but be concerned with the quality of the A+ in SPM English. Due to this fact, educators, especially teachers, are trying their best to find a way to help learners. This shows that the writing process requires not only the knowledge of grammar and vocabulary alone but also the planning of the writing, in which metacognitive strategies should be introduced as they are believed to play a significant role in helping learners improve their writing performance.

Metacognitive strategies are essential to allow students to reflect on their writing process. These strategies facilitate self-regulation and improve students' ability to plan, monitor, and evaluate their writing (Stanton et al., 2021). Fostering metacognitive strategies in writing instructions will eventually allow students to learn independently, which will help them to be more autonomous in their academic writing. Metacognitive strategies enable students to

identify their strengths and weaknesses, enhancing their ability to engage with the writing tasks effectively. Vasinadou et al. (2021) believe that individuals can improve their learning and academic performance through strategies as they help to plan, monitor and control their learning. Thus, it is crucial to foster metacognitive awareness among the learners as this will enhance their writing ability and encourage them to be critical in producing the end product of their writing. The alignment between metacognitive awareness and writing performance is a necessity that requires educators to incorporate metacognitive strategies into their teaching process. This is because the strategies allow students to be aware of what they are doing and what they are thinking, and they can eventually evaluate the effectiveness of their actions; in other words, the students are aware of their learning process (Hacker et al., 2009; Teng, 2025).

The cruciality of integrating metacognitive strategies in the classroom can be seen in many studies (Teng & Yue, 2022; Qin & Zhang, 2019; Teng & Huang, 2021; Al-Jarrah et al., 2019). The similarity shared by all of these studies is that metacognitive strategies are explicitly taught in treatment groups or the classroom. For instance, Teng and Yue (2022) explored whether awareness of metacognition can foster critical thinking and whether this can lead to enhancement in academic writing. The result indicated a significant relationship between metacognitive strategies and academic writing performance. Similarly, Qin and Zhang's (2019) study investigated the relationship between English as a Foreign Language (EFL) writers' reported metacognitive strategies and their performance in English. Results indicated that the strategy was correlated significantly with their writing performance. In addition, Teng and Huang (2021) obtained similar results when their study explored 352 university EFL students' writing complexity, accuracy and fluency development by incorporating metacognitive training into collaborative writing. The result indicated no positive results on writing complexity and fluency, but it significantly enhanced the learners' writing accuracy. Furthermore, Han (2024) found that the experimental group with learners who learned to use metacognitive strategies effectively outperformed the control group regarding writing performance and motivation. This finding was echoed in Koshravi et al. (2023) study, which found that applying metacognitive strategies enhances writing performance. Sa'adan et al. (2024) also surveyed 267 undergraduate students to examine their writing difficulties at three stages: Pre-writing, Drafting and Revising. The result indicated various challenges the students faced in each writing stage, with the lowest mean of 2.4 at the pre-writing stage, particularly in writing without a written or mental plan. Thus, all of these studies indicated that it is crucial to incorporate metacognitive strategies in class to help students improve their writing performance. Despite the need to foster awareness of metacognitive strategies among students, educators have yet to recognise the role of metacognitive strategies in writing (Qin & Zhang, 2019). Therefore, it is essential to acknowledge that learners' awareness of metacognitive strategies may play an important role in improving learners' performance in their academic writing (Teng, 2016). Hence, this study explores whether metacognitive awareness is crucial in enhancing learners' writing.

Conceptual Framework
This study employs a conceptual framework that explores the relationship between the independent variable (metacognitive strategies) and the dependent variable (MUET writing scores). This framework is grounded in Flavell's Metacognitive theory (1976). Flavell defined metacognition as thinking about one's thinking, in which people would be aware of their

cognitive process, and this awareness would allow them to regulate their mental process. According to Flavell (1976), metacognition comprises knowledge and cognition, in which he stated that individuals vary in terms of their capability to monitor, control, and regulate their cognitive processes to achieve goals. According to his theory, there are four key components: I. a person variable that involves belief about oneself or others as thinkers, II. task variables, where the person would know the nature of the tasks, III. Strategy variables, where the person would know strategies to regulate their thinking or cognition and IV. Metacognitive experiences. This is where the conscious or unconscious feelings and reflections accompany the cognitive strategies, such as feeling confident or vice versa, during problem-solving. He emphasised that metacognition is an intentional and conscious mental process that involves self-regulation in solving problems. This theory is aligned with this study as it investigates the relationship between metacognition and learners' writing ability. As the learners need to be aware and conscious of their ability and strategy to respond and solve the writing tasks, they can regulate the strategy to fulfil their needs and perform well in their writing. Thus, this study believes a significant difference exists between metacognitive strategies and MUET scores. In other words, the metacognitive strategies used influence the Foundation students' academic performance in writing. The research explores this framework using a quantitative survey design to investigate the extent of the type of metacognitive strategies used in academic writing. Moreover, this framework guides the research questions and assists in interpreting the findings within a larger theoretical context.

Methodology

The study employed the survey design, whereby the data were analysed quantitatively using descriptive and inferential statistics. Convenience and cluster samplings were used to select a sample from foundation students majoring in an English language programme at a public university, in which 102 students responded to the questionnaire. The questionnaire adapted 21 Likert scale items (1 = 'Strongly Disagree' to 5 = 'Strongly Agree') from Qin and Zhang (2019) to measure the students' use of Metacognitive strategies, which comprises planning, monitoring and evaluating strategies. Two additional items on gender and MUET test scores were incorporated into the demographic background section of the survey. These adapted items were reviewed by an expert for content validity, and a pilot study (N=51) was conducted. The pilot study exhibited a high internal consistency (Cronbach's α=0.9), as shown in Table 1, demonstrating strong validity and reliability of the adapted scale.

Table 1
Reliability of Survey

Reliability Statistics	
Cronbach's Alpha	0.9
N	21

Findings

Findings for Research Question 1: What metacognitive writing strategies do foundation students use the most when writing academically?

Table 2
Descriptive statistics for Metacognitive Strategies Usage

Metacognitive Strategies	N	Mean (M)	Standard Deviation (SD)
Planning	102	3.97	.652
Monitoring	102	4.27	.557
Evaluation	102	4.42	.649

The first research question seeks to describe the metacognitive writing strategies that foundation students use the most when writing academically. Descriptive analysis was conducted on the ratings that students made on five items in the metacognitive scale, and the mean scores and standard deviations for the usage across the three stages are presented in Table 2. At the planning stage, the mean score was 3.97 (SD= .652). At the monitoring stage, the mean score increased to 4.27 (SD= .557), and further increased to 4.42 (SD = .557) at the evaluation stage. These results suggest that the students used more strategies as they progressed through their writing. To answer the research question, Evaluation was the most utilised strategy among the students, whereas Planning was the least used.

Findings for Research Question 2: Is there any significant relationship between the metacognitive strategies used by foundation students and their MUET writing performance?

Table 3
Correlation between Metacognitive Strategies Usage and MUET Writing Performance

	N	Pearson Correlation (r)	Sig. (2-tailed) (p)
Metacognitive Strategies	102	-.115	.251
MUET Writing Performance	102	-.115	.251

The second research question seeks to determine the relationship between metacognitive strategies used by foundation students and their MUET writing performance. A Pearson correlation analysis was conducted, and the results, as presented in Table 3, showed that there is no significant relationship between the two variables (r = -.12, p = .252). Therefore, the null hypothesis is retained and the alternative hypothesis is rejected. Based on the results, it can be concluded that although the students reported using metacognitive strategies, they did not directly impact their MUET writing performance. An underlying factor could be that the students may have employed the strategies during the test, as reported, but they may not necessarily apply them appropriately or effectively.

Discussion
The descriptive analysis of students' use of Metacognitive Strategies revealed high mean scores across all stages, indicating that students actively employ the strategies when writing. However, the correlation analysis revealed a mismatch between students' reported use of strategies and their MUET writing test scores. The findings of this study show that there is no significant relationship between these two. This contradicts the norm, where when there is a high usage of metacognitive strategies, there should be a high test score to show the high usage of strategies. However, in the current study, the findings contradict those of Teng and

Yue (2022) and Qin and Zhang (2019), who reported that implementing metacognitive strategies improves writing performance. One of the reasons for this occurrence is the possibility of the ineffective way of using the planning, monitoring and evaluating in their writing. This is supported by Han (2024), who states that poor or absent use of metacognitive strategies can lead to poor writing outcomes. To concur, Khosravi et al. (2023) added that students who used the strategies ineffectively also showed a decline in their writing performance.

Based on the results of descriptive statistics, the planning stage shows the lowest mean score. This stage has received the least attention from the students. This finding is supported by Sa'adan et al. (2024), in which one of the items in their questionnaire on the pre-writing stage, (which is termed as the planning stage in this study) received the lowest mean, which is below 3 (M=2.4) where the students indicated that they start writing without a written or mental plan. It is believed that the students could have failed to meticulously brainstorm the ideas for the writing tasks, leading to surface planning and underdeveloped ideas. Also, Sa'adan et al. (2024) corroborated that students tend to put less effort and time into the pre-writing stage than other stages, such as drafting or revising. Therefore, it could be said that having enough knowledge of the metacognitive writing stages is insufficient, as the students also need to possess content knowledge to be able to complete the writing task effectively. This notion is supported by the findings from Teng and Huang (2021), who found that students' use of metacognitive strategies helped to improve their language accuracy; however, it may not improve the flow of writing and the complexity of ideas. This could explain the findings of this current study, where the metacognitive strategies have less of a significant impact on students' MUET writing performance. It is also worth noting that other important factors could influence students' writing performance. Some possible factors that come into play in producing writing are sufficient language proficiency, motivation, test anxiety and others. Overall, the findings of this study align with Flavell's Metacognitive theory (1976), which focuses on students' awareness of cognitive processes and how this awareness helps them to regulate their mental processes in solving problems. In this study, students' awareness and understanding of metacognitive strategies are interrelated with their ability to respond to writing tasks effectively, where the writing tasks are seen as problems that need to be solved. As mentioned earlier, students are aware of the strategies; however, the depth of their awareness and how to strategically use them to produce an impactful essay is lacking in the students. Thus, students must employ metacognitive strategies to help them be autonomous learners, especially in creating an effective essay.

Conclusion and Implications

The metacognitive strategies in writing aid students to write effectively. Awareness of effectively using metacognitive strategies enables students to be better prepared for academic writing. This could be seen in the current study, where students were aware of using the metacognitive strategies; however, the extent of their use was unclear. There could be other underlying factors that contribute to the writing performance. In other words, the metacognitive strategies, which consist of planning, monitoring and evaluating, should be used along with sufficient content knowledge to produce a quality essay. Future studies could be carried out on teachers' perceptions and awareness of metacognitive strategies, as their understanding of the use of the strategies is crucial. This is because teachers must possess a good mastery of the strategies, which can guide their students to use the strategies to

produce quality essays effectively. Moreover, teachers should incorporate content knowledge while teaching the strategies, as this is another vital aspect that needs to be focused on. To have a good piece of writing, students need to employ both metacognitive strategies and sufficient content knowledge. Thus, teachers must know metacognition. Moreover, it is also important to explore students' perceptions on the use of metacognitive strategies, as these would help to develop their problem-solving and analytical skills while being able to self-direct and be independent in their writing process. In other words, being conscious and aware of their learning would help them produce good writing. Overall, metacognitive strategies are considered important in improving students' writing performance.

The study contributes to the field of metacognitive strategies by highlighting a critical need to explicitly teach metacognitive writing strategies in the classroom. This is because there is a possibility that some students are unaware of these strategies. Also, the findings revealed that the students may be employing the strategies, but often do so unconsciously. This suggests that the students might be unaware of the metacognitive strategies they can use to help them write effectively. As a result, this inability hinders them from fully leveraging their potential. Moreover, there is also a concern that the teachers might lack awareness of these strategies, which hinders their potential to help unlock their students' ability to write well. Thus, teachers must also be mindful of the importance of these strategies and recognise their usage in the classroom, especially in writing classes. In addition, they must familiarise themselves with the strategies to fully utilise them to help improve their students' writing skills. By embracing these strategies, teachers can transform their classroom by creating an atmosphere where students can regulate their mental processes (Flavell ,1976). Thus, this research serves as an essential call for action to urge teachers to see the effectiveness of employing these strategies in the classroom, especially in teaching writing skills. Lastly, it is also worth noting that possessing a strong understanding of how to employ metacognitive strategies, along with sufficient content knowledge, will produce high-quality writing. It is equally important for teachers to stress this notion, as delivering good ideas through appropriate strategies should be seen as an integrated whole in the writing process.

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