A Study of The Use of Strategies in ESL Academic Writing

Eugenie Anyau[1], Aisyah Hani Mohd Habali[2], Afiqah Abd Aziz[3], Amir Lukman Bin Abd Rahman[4], Farhana Hasiqin binti Roslan[5], Noor Hanim Rahmat[6]

[1,2,3]Centre of Foundation Studies, Universiti Teknologi MARA, Cawangan Selangor, Kampus Dengkil, Dengkil 43800, Selangor, Malaysia, [4]Akademi Pengajian Bahasa, Universiti Teknologi MARA, 40450 Shah Alam, Selangor, Malaysia, [5]SMK Mat Salleh, Ranau, Sabah, [6]Akademi Pengajian Bahasa, Universiti Teknologi MARA Cawangan Johor, Kampus Pasir Gudang
Email: eugenie@uitm.edu.my, aisyahhani6629@uitm.edu.my, afiqahaziz@uitm.edu.my, amirlukman@uitm.edu.my, fare87@yahoo.com, noorh763@uitm.edu.my
Corresponding Author Email: aisyahhani6629@uitm.edu.my

Abstract
Effective writing demonstrates a mastery of the subject matter and contributes to the advancement of knowledge as the process of writing itself requires learners to be able to employ appropriate strategies to produce quality work. Numerous past studies have underscored the importance of learning strategies, particularly writing strategies in facilitating learners of English as a Second Language (ESL) in enhancing their proficiency in the language. However, as proclaimed by past studies, there are limited writing strategies studies on ESL undergraduate learners but more on generic learning strategies. Hence, this qualitative study was conducted to explore the writing strategies employed by ESL undergraduate learners when given a writing task and to investigate the relationship across all strategies used. The strategies focused in this study are metacognitive, effort regulation, cognitive, social and affective. A survey questionnaire rooted in Raoofi et al. (2017) consisted of six sections with 29 items distributed to 122 undergraduate students from a local public university. The findings revealed that metacognitive writing strategies are employed most by the participants and there is a high association between metacognitive and effort regulation strategies and between effort regulation and affective strategies. With these findings, this study offers insights that educators can use to enhance their pedagogical approaches to improve ESL learners' academic performance. It also highlights key factors in ESL academic writing strategies paving the way for future research to delve into adopting integrated

approaches and consider other variables like the role of technology for a more comprehensive analysis.

Keywords: Writing Strategies, Metacognitive, Effort Regulation, Cognitive, Social, Affective, ESL Learners

Introduction

Background of Study

Writing in a foreign language or even in one's native tongue can be challenging for many students. Writing involves understanding and reworking concepts to produce a cohesive essay, which is often the most difficult task when learning a language (Nunan, 1999). Rather than a straightforward act of communication, writing can be seen as a problem-solving exercise. In Malaysia, proficiency in writing is a fundamental requirement for all students enrolled in the English Language curriculum (Ministry of Education Malaysia, 2000). Despite years of studying English, many students continue to struggle with writing (Rashidah, 2005). Most Malaysian students are less skilled writers who find it difficult to complete written assignments that meet expectations (Chitravelu et al., 2005). Brown (2007, as cited in Thu, 2009) notes that educators and researchers have sought effective teaching methods and strategies for language instruction, finding that students perform better regardless of the methods or techniques used. The persistent challenges faced by Malaysian students in mastering English writing skills are crucial for academic success and future career opportunities. Understanding the specific difficulties students encounter can help educators develop more effective teaching strategies tailored to their needs. Language learning strategies are techniques employed by English as a Second Language (ESL) learners to facilitate easier learning.

It is widely acknowledged that writing is one of the most difficult skills for ESL students to master (Elashri, 2013). Dunsmuir (2015) emphasized that writing is a challenging skill necessary for language acquisition. Scholars classify language learning strategies into various categories. The importance of integrating audience awareness in teaching writing is essential for students to produce relevant and high-quality content. This insight can guide curriculum development and instructional design, ensuring that students are better prepared for the demands of academic writing (Hanizah & Moore, 2023). Moreover, the research emphasizes the role of confidence and prior knowledge in writing proficiency, suggesting that comprehensive language programs should incorporate these elements to foster more effective learning environments (Kim, 2020). For instance, Rubin (1981) categorizes language acquisition processes into direct and indirect strategies. Direct strategies, known as cognitive learning techniques, have a direct impact on the learning process and include tasks like monitoring, guessing, memorization, and clarification. Indirect strategies, which affect learning indirectly, involve metacognitive techniques such as planning, setting priorities, goals, and self-management (O'Malley & Chamot, 1990).

Academic writing proficiency is crucial for ESL students' educational performance and their ability to engage with the discourse of university courses (Bulqiyah et al., 2021; Jabali, 2018; Sujito et al., 2019; Toba & Noor, 2019). Writers must have prior knowledge about the essay's subject, composition abilities, and assignment comprehension. In Malaysia, Hanizah and Moore (2023) highlighted that instructors emphasize audience awareness, as understanding the audience helps writers include relevant information. Research on writing strategies underscores their importance in determining learners' success in writing courses (Kim, 2020; Mastan et al., 2017; Raoofi et al., 2017). Students knowledgeable about the subject matter

are more confident in their writing. Consistently producing high-quality, organized, and cohesive essays that meet academic standards is expected of students (Bakry & Alsamadani, 2015; Ceylan, 2019). Effective writing skills not only boost students' confidence but also enable them to regularly create text that fulfils academic writing requirements with clarity and purpose.

Statement of Problem

Effective writing strategies are important skills that English as second language (ESL) learners need to master. Without a proper understanding of strategic writing, learners will eventually make the same mistakes without them knowing and will not be able to produce a good piece of writing. Although Malaysian students are exposed to English language since primary school but recent studies still highlight on similar challenges of writing undergraduate students which are common mistakes made in sentences structures due to grammatical errors in subject-verb agreement and syntax as well as writing organisation (Fareed et al., 2016; Akhtar et al., 2020 & Jiang et al., 2023). This matter is not only faced by Malaysian students but most of ESL learners as many studies have reported similar finding of writing errors which include interlingual and intralingual (Mohammadi & Mustafa, 2020; Ramzan, 2023 & Abramora, 2023). Due to this matter, writing pedagogy of ESL learners has been equipped with writing strategies that aim to assist students in articulating their thoughts coherently. Effective language learning strategies have been proven to play a significant role in the achievement and success of language acquisition (Raoofi et al., 2017). However, writing apprehension faced by learners has hindered their capabilities in applying strategies for writing. Nervousness and stressful conditions has led to unsuccessful pre-writing strategies in generating ideas familiarising new topics (Akhtar et al., 2020). As claimed by Raoofi et al. (2017), there are limited writing strategies studies on ESL undergraduate learners but more studies on generic learning strategies. It is suggested that further investigation for more comprehensive research in this area in reviewing ESL learners' current situation and factors affecting the applied strategies is highly needed to explore further on the strategies employed by the ESL learners. Aripin and Rahmat (2022) also emphasised on the importance of comparative analysis by exploring the relationship between metacognitive writing strategies with other strategies in ESL writing as they claimed that students are mostly unaware of the need of applying planning, monitoring and evaluating elements in writing. Therefore, this study will explore the writing strategies employed by ESL undergraduate learners when given a writing task and to investigate the relationship across all strategies used; metacognitive, effort regulation, cognitive, social and affective on their writing tasks.

Objective of the Study and Research Questions

This study is done to explore perception of learners on their use of learning strategies. Specifically, this study is done to answer the following questions;

- How do learners perceive the use of metacognitive strategies in writing?
- How do learners perceive the use of effort regulation strategies in writing?
- How do learners perceive the use of cognitive strategies in writing?
- How do learners perceive the use of social strategies in writing?
- How do learners perceive the use of affective strategies in writing?
- Is there a relationship between all writing strategies?

Literature Review

Writing Strategies

Writing is one of the most important language skills that is capable of conveying a person's thoughts, opinions, ideas and attitudes. A person is capable of doing so by improving their writing skills and utilising the many writing strategies especially in the English language to further improve their writing skills. ESL learners should improve their writing skills especially in university level in order to achieve good academic results and better work opportunity upon graduating, which the ability to convey ideas, sentence structure, grammatical accuracy, vocabulary, spelling, punctuation and handwriting are factors that is to be considered in order to improve the learners writing skills (Aluemalai & Maniam, 2020). Hussain (2019) further supported this by highlighting the academic writing is one of the most challenging language skills that ESL learners will encounter in the classroom and it is important for learners to be able to understand how to improve their writing skills by looking at multiple strategies that can be utilise through independent learning, but also comprehend the nature of writing by not being influenced by their mother tongue (especially for non-native English learners). The many writing strategies that has been introduced by scholars play an important roles not just for learners but also educators to implement in their teaching and learning process - metacognitive, comprehension, cognitive, socio-affective, social, regulating effort - are some strategies that has been heavily implemented to assist ESL learners in improving their writing skills. Writing strategies are used as tools to regulate the writing process in order to compose a productive and effective piece of writing by ESL learners (Aripin & Rahmat, 2021). Without using any writing strategies, ESL learners are bound to encounter difficulties with their writing skills as shown by a study involving 60 ESL undergraduate students from across four universities in Lahore by (Ramzan et al., 2023). It was found that after a comprehensive analysis, the students were inconsistent between their sentences and paragraphs, limited lexical choices, errors in subject-verb agreement and pronoun-antecedent agreement, and incorrect use of punctuations. Another similar study in Malaysia was conducted by Habibi and Singh (2019) involving 50 male and female students from different college found almost similar results during pre-test where the students have inconsistent coherence in sentences and paragraphs levels, errors with grammatical structure (some parts were found interference with mother tongue), and incorrect punctuation used. However, both of the studies aforementioned highlighted similar results during the post-test level, after the participants were introduced with metacognitive strategies, social strategies, and reciprocal strategies, the students made little mistakes and able to understand the proper way to write essays indicating the importance of introducing or implementing the right writing strategies in ESL classroom. It can be concluded that ESL learners often felt that they have limited academic writing skills especially for non-native speakers and language problems hindered their ability to write properly. Jiang et al (2022) further explained that ESL learners require proper writing strategies to be introduced to them in the classroom to fully grasp the importance of learning the proper way of academic writing and motivate them to become better writers in achieving better academic results as well as getting a good job on a global scale. Writing strategies are introduced to assist and not hinder students' writing abilities and also to instil interest in learning and mastering the English language. Hence, further improvement in the curriculum and policies should be considered in implementing and introducing writing strategies to English educators in helping their students in ESL classrooms.

Past Studies on Writing Strategies

Many studies have been done to investigate the use of strategies in ESL Academic Writing. A study by Aluemalai and Maniam (2020) investigated the examination of writing approaches employed by undergraduate students in an ESL writing setting. The writing process encompassed three distinct strategies: pre-writing, during writing, and revising. The primary goals were to scrutinize the strategies favoured by both successful and unsuccessful ESL students during the writing process. In this cross-sectional investigation, the study targeted a sample of 50 undergraduate ESL students from Universiti Pendidikan Sultan Idris (UPSI). Utilizing a standardized questionnaire derived from prior research, the study measured three writing process strategies: pre-writing, during writing, and revising. Statistical analysis of the gathered data was conducted using the Statistical Package for the Social Sciences (SPSS) software. The outcomes revealed that ESL students exhibited a preference for planning strategies over writing and revising strategies. The implications of these findings are substantial for ESL undergraduate students in enhancing their writing skills.

On the other hand, the study conducted by De Mello et al (2023) delves into how learners perceive their utilization of learning strategies through the lens of social cognitive theory. Data was gathered from 102 university undergraduates via a survey employing a 5-point Likert scale. The questionnaire, comprising four sections, aimed to investigate the motivational factors influencing undergraduate learning. The data analysis included utilizing descriptive statistics such as average scores, as well as performing Pearson Correlation Analysis. The results indicated that respondents reported a high level of metacognitive strategy use in writing. Furthermore, a significant correlation was observed between personal factors (metacognitive strategy) and behavioural factors (effect regulation and cognitive strategies), surpassing the correlations between personal and environmental factors (low significance) and behavioural and environmental factors (medium significance). These findings imply that language instructors should incorporate writing strategies into ESL writing classes to enhance the skills of ESL writers. Additionally, instructors should guide ESL writers in self-evaluating their writing, enabling them to identify issues and determine appropriate strategies for improvement.

Similarly, a study conducted by Fong et al (2015) also investigated the writing approaches employed by undergraduates studying English as a Second Language (ESL) in higher education, aiming to understand the specific writing strategies they deploy. The study concentrated on five writing strategy categories: rhetorical strategies, metacognitive strategies, cognitive strategies, communicative strategies, and social/affective strategies. The research sample consisted of 40 students from social science disciplines at a local public university. Data collection utilized a questionnaire as the instrument. Findings revealed the utilization of all five writing strategy categories by the students. However, metacognitive strategies, cognitive strategies, and affective strategies were marginally more prevalent compared to communicative strategies and rhetorical strategies. This research carries implications for ESL student writers and instructors, shedding light on writing strategies that can enhance academic writing.

Conceptual Framework

Figure 1 shows the conceptual framework of the study. Writers use writing strategies to facilitate their writing process (Rahmat, 2021) . This study explores the perception of learners on their use of writing strategies. According to Raoofi, et.al (2017), during writing, writers use strategies such as metacognitive, effort regulation, cognitive , social and affective.
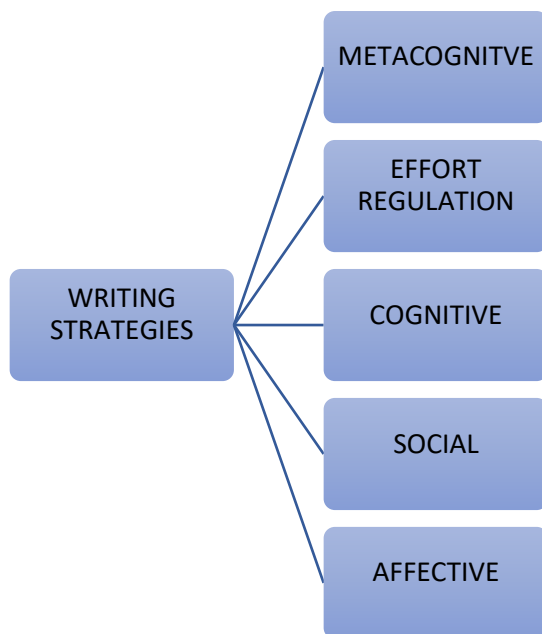
Figure 1- Conceptual Framework of the Study-Writing Strategies

Methodology

This quantitative study is done to explore motivation factors for learning among undergraduates. A purposive sample of 122 participants responded to the survey. The instrument used is a 5 Likert-scale survey and is rooted from Raoofi, et.al (2017) to reveal the variables in table 1 below. The survey has six sections with a total of 29 items. Section A has two items on demographic profile. Section B has 10 items on Metacognitive. Section C has four items on Effort Regulation. Section D has six items on Cognitive. Section E has four items on Social. Section F has three items on Affective.

Table 1
Distribution of Items in the Survey

SECTION	WRITING STRATEGY	NO OF ITEMS	Cronbach Alpha
B	Metacognitive	10	.867
C	Effort Regulation	4	.733
D	Cognitive	6	.765
E	Social	4	.828
F	Affective	3	.806
		27	.920

Table 1 also shows the reliability of the survey. The analysis shows a Cronbach Alpha of .867 for Section B, Cronbach Alpha of .733 for Section C, Cronbach Alpha of .765 for Section D, Cronbach Alpha of .828 for Section E and Cronbach Alpha of .806 for Section F. This thus reveals a good reliability of the instrument chosen/used. Further analysis using SPSS is done to present findings to answer the research questions for this study.

Findings

Findings for Demographic Profile

Table 2

Percentage for Demographic Profile

Q1	Gender	Male	Female
		34%	66%
Q2	Discipline	Science & Technology	Social Science
		47%	53%

Table 2 shows the percentage for demographic profile which consists of gender and discipline. Data from the survey shows that 34% of the respondents are male and 66% of the respondents are female. Additionally, 47% of the respondents are from science and technology discipline while 53% of the respondents are from the social science discipline.

Findings for Metacognitive (HIGHEST, SECOND HIGHEST & LOWEST)
This section presents data to answer research question 1- How do learners perceive the use of metacognitive strategies in writing?

Table 3

Mean for MTEACOGNITIVE (MWS)

ITEM	MEAN
MWSQ1 I organize my ideas prior to writing.	4.0
MWSQ 2I revise my writing to make sure that it includes everything I want to discuss in my writing.	4.1
MWSQ 3I check my spelling.	4.1
MWSQ 4I check my writing to make sure it is grammatically correct.	4.1
MWSQ 5I evaluate and re-evaluate the ideas in my essay.	3.9
MWSQ 6I monitor and evaluate my progress in writing.	3.8
MWSQ 7I revise and edit an essay two or more times before I hand it in to my teacher.	3.8
MWSQ8 I go through the planning stages in my writing.	3.8
MWSQ9 I go through the drafting stages in my writing.	4.0
MWSQ10 I go through the revising and editing stages in my writing.	4.0

Table 3 illustrates the mean scores for metacognitive writing strategies used by the students. The analysis indicates that students share the same level of perception of 'I revise my writing to make sure that it includes everything I want to discuss in my writing', think that 'I check my spelling', and perceive that 'I check my writing to make sure it is grammatically correct' (M: 4.1). This is followed by the same mean score of 4.0 on how confident the students are that 'I organize my ideas prior to writing', believe that 'I go through the drafting stages in my writing', and follow with 'I go through the revising and editing stages in my writing'. Furthermore, the data revealed that three items shared the lowest mean score of 3.8 in which the students believe that 'I monitor and evaluate my progress in writing', then 'I revise and edit an essay two or more times before I hand it in to my teacher' and 'I go through the planning stages in my writing'.

Findings for Effort Regulation

This section presents data to answer research question 2- How do learners perceive the use of effort regulation strategies in writing?

Table 4
Mean for Effort Regulation

ITEM	MEAN
ERSQ 1I write a lot to develop my writing skills.	3.1
ERSQ 2I often work hard to do well in my writing even if I don't like English writing tasks.	3.9
ERSQ 3Even if the writing activities are difficult, I don't give up but try to engage in them.	4.1
ERSQ 4I concentrate as hard as I can when doing a writing task.	4.2

Table 4 shows the mean scores for effort regulation. There are 4 items for this section that focus on how participants regulate their effort by employing the strategies mentioned. The highest mean is 4.2 for item 4 as participants positively responded that they exert high concentration when they do a writing task. This is followed by the second highest mean (M= 4.1) in which the participants showed positive response to their effort to continue the writing task although they found it challenging. Apart from that, most of the participants almost agree (M=3.9) that despite their dislike of English writing tasks, they will often work hard to do well in the task. The lowest mean is 3.1, in which the participants disagree that they do a lot of writing practice to enhance their writing performance. Overall, the result highlights a positive result on the effort regulation strategy as the majority of participants will positively engage in the task given.

Findings for Cognitive

This section presents data to answer research question 3- How do learners perceive the use of cognitive strategies in writing?

Table 5
Mean for -COGNITIVE (CWS)

ITEM	MEAN
CWSQ1 I use memorized grammatical elements such as singular and plural forms, verb tenses, prefixes and suffixes, etc, in my writing	3.8
CWSQ 2I put newly memorized vocabulary in my sentences.	3.8
CWSQ 3In order to generate ideas for my writing, I usually engage myself in brainstorming.	4.1
CWSQ 4I use different words that have the same meaning.	3.9
CWSQ 5I use my experiences and knowledge in my writing.	4.2
CWSQ 6I try to use effective linking words to ensure clear and logical relationship between sentences or paragraphs	4.2

Table 5 shows the mean score for cognitive (CWS). There are six items for this section which focus on how learners perceive the use of cognitive strategies in writing. Two items have the highest mean of 4.2 which are item 5 and item 6. Item 5 shows that participants agree that they use their experience and knowledge in their writing, while item 6 shows that participants

agree that they try to use effective linking words to ensure clear and logical relationship between sentences or paragraphs. Next, the second highest mean (M=4.1) is item 3 which shows that participants will engage themselves in brainstorming in order to generate ideas for their writing. Item 4 is the second highest mean (M=3.9) which shows that the participants almost agree that they use different words that have the same meaning as their cognitive strategies in writing. Lastly, the item with the lowest means are item 1 and 2 which show that participants disagree that they use memorized grammatical elements in their writing and that they put newly memorized vocabulary in their sentences. In short, the result indicates a positive result in the use of cognitive strategies in writing.

Findings for Social
This section presents data to answer research question 4- How do learners perceive the use of social strategies in writing?

Table 6
Mean for -SOCIAL (SWS)

ITEM	MEAN
SWSQ1 In order to generate ideas for my writing, I usually discuss the writing topic with a friend or classmate.	3.6
SWSQ 2After revising and editing my essay thoroughly, I ask a friend or my classmate to read and comment on it.	3.3
SWSQ 3I try to identify friends or classmates whom I can ask for help in my writing.	3.8
SWSQ 4When I have trouble writing my essay, I try to do it with my classmates or friends.	3.7

Table 6 depicts mean scores for Social (SWS). There are four items that focus on how learners perceive the use of social strategies in their writing. The highest mean score is 3.8 which most learners almost agree that they try to identify their friends or classmates whom they can ask for help in their writing. This is then followed by the second highest mean (M= 3.7) on item 4 as they will try to do the essay with friends if they have trouble in writing it. Meanwhile, the learners claimed that they will discuss the idea with their friends or classmates to help them generate ideas for writing (M=3.6). The lowest mean score is 3.3 on item 2 which shows that learners are less likely to show their essay to their friend or classmate to read and comment on it. Overall, the result of this section shows that the majority of the participants moderately agree on employing social strategies which seek help from their peers in completion of their writing tasks.

Findings for Affective
This section presents data to answer research question 5- How do learners perceive the use of affective strategies in writing?

Table 7
Mean for -AFFECTIVE (AWS)

ITEM	MEAN
AWSQ1I try to write an essay in class with confidence and ease..	3.8
AWSQ2I try to relax whenever I feel afraid of writing.	4.0
AWSQ3I encourage myself to write even when I am afraid of making mistakes	4.2

Table 7 shows mean scores for Affective (AWS). There are three items to identify on the participants' use of affective writing strategies. Item 3 has the highest mean score (M=4.2) that shows students self-encouragement to ensure they complete a writing task when they are afraid of making mistakes. Next, participants agreed on "try to relax whenever they feel afraid of writing" (M=4.2). The least mean score recorded is item 1 as participants moderately agree that they try to write an essay in class with confidence and ease. Generally, the result indicates that participants used affective strategies positively in doing their writing task.

Findings for Relationship between Metacognitive and Effort Regulation
This section presents data to answer research question 6- Is there a relationship between all writing strategies? To determine if there is a significant association in the mean scores between all writing strategies, data in 8,9 and 10 below.

Table 8
Correlation between Metacognitive and Effort Regulation Strategies

Correlations		METACOGNITIVE	EFFORTREGULATION
METACOGNITIVE	Pearson Correlation	1	.598[**]
	Sig. (2-tailed)		<.001
	N	122	122
EFFORTREGULATION	Pearson Correlation	.598[**]	1
	Sig. (2-tailed)	<.001	
	N	122	122

**. Correlation is significant at the 0.01 level (2-tailed).

Table 8 shows there is an association between metacognitive and effort regulation strategies. Correlation analysis shows that there is a high significant association between metacognitive and effort regulation strategies (r=.598**) and (p=.000). According to Jackson (2015), coefficient is significant at the .05 level and positive correlation is measured on a 0.1 to 1.0 scale. Weak positive correlation would be in the range of 0.1 to 0.3, moderate positive correlation from 0.3 to 0.5, and strong positive correlation from 0.5 to 1.0. This means that there is also a strong positive relationship between metacognitive and effort regulation strategies.

Table 9
Correlation between cognitive and Social Strategies

Correlations

		COGNITIVE	SOCIAL
COGNITIVE	Pearson Correlation	1	.367**
	Sig. (2-tailed)		<.001
	N	122	122
SOCIAL	Pearson Correlation	.367**	1
	Sig. (2-tailed)	<.001	
	N	122	122

**. Correlation is significant at the 0.01 level (2-tailed).

Table 9 shows there is an association between cognitive and social strategies. Correlation analysis shows that there is a moderate significant association between cognitive and social strategies (r=.367**) and (p=.000). According to Jackson (2015), coefficient is significant at the .05 level and positive correlation is measured on a 0.1 to 1.0 scale. Weak positive correlation would be in the range of 0.1 to 0.3, moderate positive correlation from 0.3 to 0.5, and strong positive correlation from 0.5 to 1.0. This means that there is also a moderate positive relationship between cognitive and social strategies.

Table 10
Correlation between Effort Regulation Strategies and Affective

Correlations

		EFFORTREGULATION	AFFECTIVE
EFFORTREGULATION	Pearson Correlation	1	.542**
	Sig. (2-tailed)		<.001
	N	122	122
AFFECTIVE	Pearson Correlation	.542**	1
	Sig. (2-tailed)	<.001	
	N	122	122

**. Correlation is significant at the 0.01 level (2-tailed).

Table 10 shows there is an association between effort regulation and affective strategies. Correlation analysis shows that there is a high significant association between effort regulation and affective strategies (r=.542**) and (p=.000). According to Jackson (2015), coefficient is significant at the .05 level and positive correlation is measured on a 0.1 to 1.0 scale. Weak positive correlation would be in the range of 0.1 to 0.3, moderate positive correlation from 0.3 to 0.5, and strong positive correlation from 0.5 to 1.0. This means that there is also a high positive relationship between effort regulation and affective strategies.

Conclusion

Summary of Findings and Discussions

The present study aims to explore the perception of second language learners on the writing strategies employed when they are given a writing task and also to investigate the relationship between all writing strategies. These strategies as mentioned in Raoofi et al (2017) are metacognitive, effort regulation, cognitive, social and affective strategies. Substantially, based on the reported analysis, it is suggested that the strategies highly employed by the learners are metacognitive followed by effort regulation, cognitive, and affective at a similar rate while social strategy is the least applied strategy.

The findings revealed that the learners reported a high level of metacognitive strategies as they positively agreed on the drafting, revising and editing stage. In making sure that they produced good writing, the learners organise and draft their ideas. They will revise their content and the accuracy of the language used. Few past studies Raoofi et al (2017); Chen (2022); De Melo et al (2023) have similar findings in which learners focus more on their initial part of the writing process and revise their writing by checking their spelling and grammar structures. This self-monitoring is a vital aspect to improve the quality of written text (Van der Bergh et al., 1994 as cited in Wischgoll, 2016). Based on the finding, cognitive strategy is reported to be applied positively by the learners in the present study. Cognitive strategies are utilised by the students to attain their writing proficiency (Sethuraman & Radhakrishnan, 2020). Learners were found to use their knowledge and experience in writing to complete a writing task in which they generate their ideas in the brainstorming phase. As emphasised in Chen (2022), learners showed positive outcomes in their metacognitive and cognitive strategies when clear strategy instruction is implemented by the instructor at the initial stage of writing. Raoofi et al (2017) highlights that students with high proficiency will use more metacognitive and cognitive strategies as compared to those with lower writing proficiency.

Effort regulation and affective strategies also play an important role in the learners' writing process as they were reported to apply these strategies positively. The findings showed that the learners will show good perseverance although they face difficulties in completing their writing tasks. In this study, effort regulation pertains to learners' attempt to persist when facing issues like concentration and writing difficulties. Similarly in Raoofi et al (2017); De Melo et al (2023), effort regulation and affective strategies are frequently used by learners. Su et al (2023) found that there is a positive influence on learners' self-efficacy when they applied high effort regulation strategies in order to manage their writing tasks. Yulianti (2018) indicated that there is a correlation between the strategies used with the learners writing score. It was found that learners with fair scores use affective writing strategies in completing their writing tasks. This is contrary to Raoofi et al (2017) as in their study, they found that students with high ability will employ affective strategy more as compared to students with lower abilities. The present study found that learners positively used self-encouragement and told themselves to remain calm when confronted with writing challenges. This is in line with Kurniasih et al (2022) as they found that affective strategies such as motivation has significant effect on learners' writing performance. Both of these strategies are found to be applied by the learners as each will help the learners to be more self-regulated in their effort as well as emotion in completing the writing task.

The least effective writing strategies employed by the learners of this present study is the social strategy. The findings showed that the learners only moderately used social strategies in which they were less likely to seek help in completing their writing task. This parallels with Raoofi et al (2017) that reported a similar finding in which learners used social strategy least frequently. However, this is contrary with few findings Abas & Abd Aziz (2018); Juniati et al (2020); Tran (2021) as they found that learners employed a high level of social writing strategies in their writing. They tend to seek help from their peers or instructors for clarification in their writing task or even use Internet resources to assist them on ideas that can be used in their writing. The contradictory of the findings might be due to the focus of social strategies. In this study, the social strategies only focus on seeking help from peers or coursemates. Unlike previously mentioned studies, they widen their scope to seek help from teachers and other sources such as Internet sources.

Among all the strategies mentioned, this study unveiled a high significant association between metacognitive and effort regulation strategies. Strong positive relationships between these strategies are shown and this indicates that learners interchangeably used these strategies to do their writing assignments. This corroborates with Akamatsu et al (2019) as they found a causal relationship between metacognitive and self-regulation as the utilisation of metacognitive strategies that is fostered with effort regulation strategy will prompt on general learning behaviour. The second association found in this study is between effort and affective strategies that showed a high significant association. This high positive relationship is in line with the study of Zhang and Dong (2022) that revealed the motivational regulation of students has yielded positive outcomes on their affective strategies. However, the findings of this study also indicate that there is a moderate positive association between cognitive and social writing strategies.

Therefore, based on the findings of this study, it can be concluded that all respondents who are second language learners have employed more than one writing strategy in doing their writing assignments with the majority of the learners preferred metacognitive writing strategies.

Pedagogical Implications and Suggestions for Future Research
The findings of this study have some pedagogical implications especially for language classrooms. It is very crucial for language instructors to include writing strategies in their writing class and to help improve ESL writers. Besides, language instructors can also promote the appropriate strategies for ESL learners to apply in their writing which tend to make their writing readable and comprehensible. They should be encouraged to employ social, cognitive, and affective strategies, drawing upon their own experiences and knowledge when undertaking academic writing tasks. Moreover, language instructors should assist students in self-assessing their academic writing tasks, enabling them to recognize issues and consequently develop effective writing strategies. As for future research, the findings suggest embracing an integrated approach that combines both qualitative and quantitative data gathering methods to delve deeper into how ESL learners construct their academic writing works through writing strategies. Additionally, examining the role of technology in supporting writing strategies and its influence on ESL learners' academic writing skills could provide further insights for instructional improvement.

References

Abas, I. H., & Abd Aziz, N. H. (2018). Model of the writing process and strategies of EFL proficient student writers: a case study of Indonesian learners. *Pertanika J. Soc. Sci. & Hum. 26*(3), 1815-1842. Retrieved from http://www.pertanika2.upm.edu.my/resources/files/Pertanika%20PAPERS/JSSH%20Vol.%2026%20(3)%20Sep.%202018/35%20JSSH-2083-2017.pdf

Akamatsu, D., Nakaya, M., & Koizumi, R. (2019). Effects of Metacognitive Strategies on the Self-Regulated Learning Process: The Mediating Effects of Self-Efficacy. *Behavioral sciences (Basel, Switzerland), 9*(12), 128. https://doi.org/10.3390/bs9120128

Aripin, N., & Rahmat, N. H. (2022). Are writers metaconscious when they write? A Look at genders. *International Journal of Academic Research in Business and Social Sciences, 12*(4), 1–15.

Aluemalai, K., & Maniam, M. (2020). Writing strategies utilized by successful and unsuccessful ESL undergraduate students in writing classroom. *Journal of English Language and Culture, 10*(2), 100-110. http://dx.doi.org/10.30813/jelc.v10i2.2140

Aripin, N., & Rahmat, N. H. (2021). Metacognitive writing strategies model used by ESL writers in the writing process: A study across gender. *International Journal of Asian Social Science, 11*(1), 1-9. http://dx.doi.org/10.18488/journal.1.2021.111.1.9

Bakry, M. S., & Alsamadani, H. A. (2015). Improving the persuasive essay writing of students of Arabic as a Foreign Language (AFL): Effects of self-regulated strategy development. Procedia - Social and Behavioral Sciences, 182, 89–97. https://doi.org/10.1016/j.sbspro.2015.04.742

Bulqiyah, S., Mahbub, Moh. A., & Nugraheni, D. A. (2021). Investigating writing difficulties in essay writing: Tertiary students' perspectives. English Language Teaching Educational Journal, 4(1), 61. https://doi.org/10.12928/eltej.v4i1.2371

Celce-Murcia, M., O'Malley, J. M., Chamot, A. U. (1993). Learning Strategies in Second Language Acquisition. (Cambridge Applied Linguistics Series). TESOL Quarterly, 27(1), 115-117. http://dx.doi.org/10.2307/3586954

Ceylan, N. O. (2019). Student perceptions of difficulties in second language writing. *Journal of Language and Linguistic Studies, 15*(1), 151–157. https://doi.org/10.17263/jlls.547683

De Mello, G., Omar, N. H., Ibrahim, R., Ishak, N., & Rahmat, N. H. (2023). A study of the use of writing strategies from the social cognitive view. *International Journal of Academic Research in Business and Social Sciences, 13*(5). https://doi.org/10.6007/ijarbss/v13-i5/17033

Dunsmir, S., Kyriacou, M., Batuwitage, S., Hinson, E., Ingram, V. & O'Sullivan, S. (2015). An evaluation of the Writing Assessment Measure (WAM) for children's narrative writing. *Assessing Writing, (ELSEVIER), 23*, 1–18. http://dx.doi.org/10.1016/j.asw.2014.08.001

Abd-ElFatah, E. I. I. (2013). The Effect of the Genre-based Approach to Teaching Writing on the EFL Al-Azhr Secondary Students' Writing Skills and their Attitudes towardsWriting. *ERIC*. 1-58. http://files.eric.ed.gov/fulltext/ED539137.pdf

Fong, L. L., Hoon, T. S., Narayanan, G., Sidhu, G. K., & Fook, C. Y. (2015). Writing strategies used by Malaysian ESL undergraduates. In *Social and Management Research Journal*.

Habibi, H., & Singh, M., K., S. (2019). Investigating ESL students' writing strategies: A corpus-based move analysis. *International Journal of Education, Psychology and Counseling, 4*(30), 83-102.

Zainuddin, H., & Moore, R. A. (2003) Audience in L1 and L2 Composing of Bilingual

Writers. TESL-EJ.Vol 7 (1).

Hussain, S. S. (2019). Strategies for teaching academic writing to Saudi L2 learners. *English Language Teaching*, *12*(12), 1-11. https://doi.org/10.5539/elt.v12n12p1

Jackson, S. L. (2015) Research methods and Statistics-A Critical Thinking Approach (5ᵗᴴ Edition) Boston, USA:: Cengage Learning.

Jabali, O. (2018). Students' attitudes towards EFL university writing: A case study at An-Najah National University, Palestine. *Heliyon, 4*(11), e00896. https://doi.org/10.1016/j.heliyon.2018.e00896

Jiang, S., Lee, K. F., & Ang, C. S. (2022). Chinese ESL students' perceptions of academic writing in English in Malaysian universities. *PASAA: Journal of Language Teaching and Learning in Thailand*, *63*, 93-122.

Junianti, R., Pratolo, B. W., & Wulandari, A. T. (2020). The strategies of learning writing used by EFL learners at a higher education institution. *Ethical Lingua, 7*(1), 64 - 73. doi: 10.30605/25409190.131

Kim, H. (2020). Profiles of undergraduate student writers: Differences in writing strategy and impacts on text quality. *Learning and Individual Differences, 78*. https://doi.org/10.1016/j.lindif.2020.101823

Kurniasih, Mukminatien, N., Arianto, M. A., Sari, R. N., Anggraini, M. P., & Umamah, A. (2022). Affective factors in online writing performance: do they matter? *Mextesol Journal, 46*(2). Retrieved from https://files.eric.ed.gov/fulltext/EJ1357793.pdf

Mastan, M. E. B., Maarof, N., & Embi, M. A. (2017). The Effect of Writing Strategy Instruction on ESL Intermediate Proficiency Learners' Writing Performance. *Journal of Educational Research and Review, 5*(5), 71–78.

O'Malley, J. M. & Chamot, A. U. (1990). Learning Strategies in Second Language Acquisition. Cambridge University Press. http://dx.doi.org/10.1017/CBO9781139524490

Rahmat, N. H. (2023). Writing about writing: An exploration of types of knowledge and writing difficulties. *International Journal of Academic Research in Business & Social Sciences, 13*(6) , 807-817. http://dx.doi.org/10.6007/IJARBSS/v13-i6/17230

Ramzan, M., Mushtaq, A., & Ashraf, Z. (2023). Evacuation of difficulties and challenges for academic writing in ESL learning. *University of Chitral Journal of Linguistics and Literature*, *7*(1), 42-49. https://doi.org/10.33195/maxskq26

Raoofi, S., Binandeh, M., & Rahmani, S. (2017). An Investigation into Writing Strategies and Writing Proficiency of University Students. *Journal of Language Teaching and Research, 8*, 191. https://doi.org/10.17507/jltr.0801.24

Raoofi, S., Miri, A., Gharibi, J., & Malaki, B. (2017). Assessing and validating a writing strategy scale for undergraduate students. *Journal of Language Teaching and Research, 8*(3), 624-633. http://www.academypublication.com/issues2/jltr/vol08/03/23.pdf

Rubin, J. (1981). Study of Cognitive Processes in Second Language Learning. *Applied Linguistics*, (2), 117-131. http://dx.doi.org/10.1093/applin/2.2.117

Sethuraman, M., & Radhakrishnan, G. (2020). Promoting cognitive strategies in second language writing. *Eurasian Journal of Educational Research, 88*, 105-120. doi: 10.14689/ejer.2020.88.5

Su, Y., Liang, J. C., Zheng, C., Tsai, C. C. (2023). Co-regulation strategies and their associations with writing self-efficacy in a computer-mediated collaborative writing setting. *Journal of Second Language Writing*, 59. doi: https://doi.org/10.1016/j.jslw.2023.100972

Sujito, B. T., Solikhah, I., Muttaqin, W. M. (2019). The effect of analogy variations on academic writing: How indonesian efl students perform with

different cognitive styles. *Journal of Social Studies Education Research, 10(*1), 116–132. https://jsser.org/index.php/jsser/article/view/506

Thu, T. H. (2009). Learning Strategies Used by Successful Language Learners. Online Submission.

Tran, T. T. M. (2021). Use of Self-regulated Learning Strategies in Paragraph Writing at Van Lang University. *International Journal of TESOL & Education, 1*(3), 1-13. EOI: http://eoi.citefactor.org/10.11250/ijte.01.03.001

Toba, R., & Noor, W. N. (2019). The current issues of Indonesian EFL students' writing skills: Ability, problem, and reason in writing comparison and contrast essays. *Dinamika Ilmu*, 57-73

Wischgoll, A. (2016). Combined training of one cognitive and one metacognitive strategy improves academic writing skills. *Frontiers in Psychology, 7*, 187. doi: 10.3389/fpsyg.2016.00187

Yulianti, D. (2018). Learning strategies applied by the students in writing English text. *Journal on English as a Foreign Language, 8* (1). doi: http://dx.doi.org/10.23971/jefl/v8i1.583

Zhang, Y., & Dong, L. (2022). A study of the impacts of motivational regulation and self-regulated second-language writing strategies on college students' proximal and distal writing enjoyment and anxiety. *Frontiers in Psychology, 13*. doi: 10.3389/fpsyg.2022.938346