

Exploring Academic Writing Strategies Using The Social Cognitive Theory

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ABSTRACT

Guided by Social Cognitive Theory, this study examines learners' academic writing strategies drawing on Bandura's (1986) model, and focuses on how environmental, personal and behavioural factors are interdependent in influencing learners' writing. The study employed a quantitative survey design involving 109 undergraduate and postgraduate students in a Malaysian public university. The data were gathered using a structured questionnaire adapted from Raoofi et al. (2017), consisting of 27 items grouped under three main strategy domains: metacognitive, cognitive/effort regulation and social-affective strategies. The data obtained were analysed using descriptive statistics and correlation analysis through SPSS. The findings show that learners reported using metacognitive strategies, particularly for revising and monitoring their writing, while social strategies were used at a moderate level. This correlation analysis shows significant relationships among all three factors, with the strongest between personal and behavioural factors. Overall, the findings reveal the interconnected roles of cognition, action, and the learning environment in academic writing. The study provides pedagogical insights on shaping self-regulated writers and offers directions for further research on developing writing strategies.

Keywords: academic writing strategies, ESL, metacognitive strategies, social cognitive theory, writing self-regulation

INTRODUCTION

Background of Study

Academic writing is an essential skill in university as it allows students to express knowledge, construct arguments, present evidence, and demonstrate critical thinking in their fields of study. Unlike general writing, academic writing requires students to organise ideas logically, use appropriate language, support claims with relevant sources, and write with awareness of purpose, audience, and disciplinary expectations. Academic writing is not just about grammar; it is a complex process that encompasses cognitive, metacognitive, behavioural, social, and affective aspects.

For English as a Second Language (ESL) learners, academic writing can be particularly challenging because they must manage both content and language demands simultaneously in the Malaysian tertiary context. English academic writing is important in the Malaysian tertiary context; students are evaluated on their ability to write academically, and many are still struggling with grammar, vocabulary, structure, coherence, referencing, and a



lack of confidence in writing. Academic writing remains challenging for Malaysian university students, as they must also use English accurately while applying academic literacy skills such as summarising, paraphrasing, and organising ideas in writing (Azmar & Razali, 2024). Hence, it is important for them to use appropriate writing strategies to manage their writing process.

Writing strategies are important because they allow the students to plan, monitor, regulate and improve the writing process. According to Baharudin et al. (2024), these strategies can include metacognitive strategies such as planning, monitoring, and evaluating; cognitive strategies (brainstorming, prior knowledge, applying language rules); effort regulation strategies (persistence, concentration strategies); social strategies (peer support); and affective strategies (anxiety management, confidence building). In a study investigating pre-writing, writing and revising, Aluemalai and Maniam (2020) found that ESL students employ different writing strategies at different stages of the writing process. This implies that writing is a process-oriented activity and not a single act of text production.

Recent Malaysian studies also demonstrate that academic writing strategies are applicable in the university context. For instance, Baharudin et al. (2024) analysed students' metacognitive, effort regulation, cognitive, social, and affective strategies for academic writing in Malaysia. In the same vein, Abdullah Kamal (2024) investigated students' perceptions, problems, and solutions regarding the development of writing skills in the Malaysian open and distance learning university context. These studies reveal that the learning process among university students in writing is not merely influenced by their own language mastery, but also influenced by their approach to language strategies, problems, confidence, and learning aids.

In this respect, Social Cognitive Theory is a useful theoretical framework for understanding academic writing strategies. Bandura's (1986) Social Cognitive Theory (SCT) is a learning theory that posits a dynamic triad among personal, behavioural, and environmental factors. In academic writing, personal factors can be learners' beliefs, confidence, metacognitive awareness and motivation. Behavioural factors can include the processes or techniques learners use when writing, such as strategies for drafting and revising, focusing, and language use. Peer, instructor, and class support, class procedures, and classroom atmosphere may be environmental factors that facilitate writing. These three are not distinct and constantly influence each other during the writing process (Khairuddin et al., 2025).

In the Malaysian university context, academic writing remains an important area of study because students are expected to produce written assignments, reports, research papers, and other academic texts. But many students might still have difficulty applying writing strategies systematically, particularly when they need to write in English. Azmar and Razali (2024) stress the importance of English academic writing at the university level, as it is widely used to evaluate students' proficiency and academic performance, while Abdullah Kamal (2024) highlights the significance of understanding ESL students' perceptions, challenges, and strategies during the writing process. Therefore, examining learners' perceptions of academic writing strategies through the dimensions of personal, behavioural, and environmental factors can provide a clearer understanding of how they approach writing tasks. Social Cognitive Theory is used in the study as a theoretical framework to examine the interaction between the three factors and the interaction between the learners and academic writing strategies in the writing process.

Statement of Problem

Academic writing remains one of the most demanding skills for students in higher education, particularly for ESL learners who must navigate both language accuracy and academic expectations. In the Malaysian context, students are often required to write assignments, reports, essays, and research-based papers in English. However, many still struggle with common academic writing concerns such as developing ideas, organising arguments, using appropriate vocabulary, maintaining coherence, applying academic conventions, and writing with confidence. Azmar and Razali (2024) note that English academic writing remains challenging in Malaysian universities because students must navigate not only linguistic accuracy but also the more complex demands of academic literacy. Similarly, Abdullah Kamal (2024) highlights that ESL students' writing development is shaped by their confidence, challenges, learning environment, and the strategies they use when completing writing tasks.



Although academic writing has received considerable attention, many studies still tend to discuss students' writing problems in broad terms or focus only on selected writing strategies. Some studies examine writing stages such as pre-writing, while-writing, and revising, while others focus on planning, editing, peer support, or writing anxiety. For instance, Aluemalai and Maniam (2020) examined writing strategies among successful and unsuccessful ESL undergraduate students across the main stages of the writing process, while Baharudin et al. (2024) explored ESL learners' use of metacognitive, cognitive, social, affective, and self-regulation strategies in academic writing. These studies are useful, but they often present writing strategies as categories of use rather than as part of a connected process involving learners' beliefs, actions, and learning environment. In reality, writing is rarely shaped by a single factor. A student may know how to plan an essay but may not feel confident enough to develop the ideas, while another may work hard on writing but still struggle without sufficient guidance or feedback. This suggests that it is not enough to simply identify what strategies learners use; it is also important to understand how different strategy domains relate to one another.

Also, many studies on writing strategies are not sufficiently grounded in an integrated theoretical framework. Without a clear theory, writing strategies can be understood as a list of practices rather than as part of a connected learning process. Social Cognitive Theory is useful here because it offers insight into how personal, behavioural, and environmental factors interact. In academic writing, these factors can be seen in learners' metacognitive awareness, their writing behaviours, and the support or constraints within their learning context. Khairuddin et al. (2025) argue that Social Cognitive Theory can be applied to ESL writing pedagogy because it enables researchers to examine how learners' cognitive, behavioural, and environmental factors interact to shape their writing strategies and perceptions. This theoretical lens is therefore suitable for examining academic writing strategies in a more holistic way.

Therefore, this study aims to fill this gap by examining academic writing strategies from the perspective of the personal, behavioural, and environmental aspects. By using Social Cognitive Theory as the guiding framework, the study moves beyond identifying writing strategies as separate behaviours. Instead, it provides a more comprehensive understanding of how university students perceive and use academic writing strategies, and how these factors relate to one another in their writing process.

Objective of the Study and Research Questions

This study is done to explore academic writing using the social cognitive theory. Specifically, this study is done to answer the following questions;

- How do learners perceive environmental factors in academic writing?
- How do learners perceive personal factors in academic writing?
- How do learners perceive behavioural factors in academic writing?
- What is the relationship between all factors in academic writing?

LITERATURE REVIEW

Social Cognitive Theory and Learning Academic Writing

This theory was introduced by Bandura (1986) to depict the reciprocal interaction between personal factors (cognition and beliefs), behaviour and the environment. In academic writing, the reciprocal interaction begins with the writer. The writer carries personal factors, including cognition and beliefs. These beliefs influence the way the writer approaches a writing topic. Beliefs represent his or her background knowledge. This schema determines how the writer organises knowledge in their brain based on their own experience.

Next, the beliefs would then snowball into the writer's behaviour towards the writing assignment. For instance, if the writer selects a topic that draws on prior positive writing experience, the subsequent writing process is likely to be positive, and vice versa. Lastly, Bandura (1986) emphasises the reciprocal influence of the environment. The writer's writing behaviour is influenced by the environment of the writing task. For example, when teachers assign a writing task, the amount of guidance can be seen as the writing task environment. The



amount and type of writing environment influence the way he/she behaves as a writer in the assigned writing activity.

Past Studies on Academic Writing

Sagredo-Ortiz and Kloss (2025) conducted a study to develop a standardised instrument for assessing the writing and rhetorical strategies of university students engaged in academic writing. 290 students participated in this study. The results of the study indicate that the developed instrument is appropriate for higher education contexts. Specifically, the findings reveal three writing strategies: revising the draft, checking whether it meets the requirements, and rewriting to emphasise key ideas. In addition to that, the study revealed five items for rhetorical strategies, and they are considering the audience, having a purpose of the written text, reader's comprehension in mind, and checking if the text is understandable. Finally, the study revealed no significant difference between the use of rhetorical and writing strategies.

Baharudin et al. (2024) conducted a quantitative study to investigate the use of writing strategies among ESL learners at the Centre of the Foundation Studies. 112 students participated in this study. Data were collected using a questionnaire on five writing strategies: metacognitive, cognitive, social-affective, and self-regulation. Findings showed that the majority of the students used metacognitive strategies. This is followed by cognitive strategy, self-regulation, affective, and social strategies. The study showed strong relationships between all writing strategies.

Next, Jones-Mensah & Hilton (2024) conducted a study to investigate whether there were statistical differences between university students' writing skills across three different levels. The quantitative data were collected from students' essays from four departments of a public university in Ghana. Findings revealed a significant difference in students' academic writing skills across levels within a discipline. On the other hand, the findings showed no significant difference in students' academic writing skills across departments.

Nhung (2023) conducted a quantitative study to investigate the use of writing strategies of English major students in a university in Vietnam. 137 students responded to the instrument to investigate their main stages of writing, namely: Before Writing Strategy (BWS), While Writing Strategy (WRS), and After Writing Strategy (AWS). The study also examined the strategies most commonly used by high-proficiency students compared with those at low proficiency levels. Findings reveal that students with high proficiency used more strategies.

Conceptual Framework of the Study

This study is anchored in Bandura's (1986) social cognitive theory. The factors presented in the theory are mapped onto writing strategies presented by Raoofi et al. (2017). The theory states that environmental factors play an important role in the classroom. In this study, the writers depict environmental factors using social and affective writing strategies.

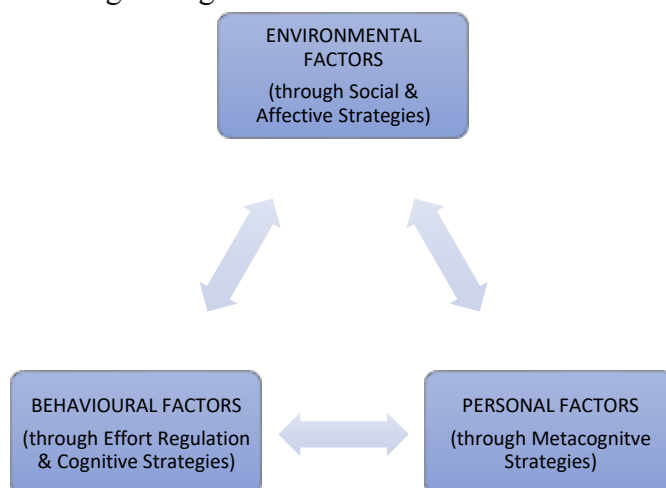


Figure 2- Conceptual Framework of the Study- Writing Strategies from the perspectives of the Social Cognitive Theory



METHODOLOGY

This quantitative study is conducted to explore writing strategies from the perspective of social cognitive theory. A purposeful sample of 109 students responded to the survey. The instrument used is a 5-point Likert-scale survey, rooted in Raoofi et al. (2017), to assess the variables in Table 3 below. Table 1 below shows the categories used for the Likert scale: 1 is Strongly Disagree, 2 is Disagree, 3 is Undecided, 4 is Agree, and 5 is Strongly Agree.

Table 1- Likert Scale Use Frequency

1	Never
2	rarely
3	Sometimes
4	Often
5	Always

Table 2 shows the distribution of items in the survey. The instrument combines social cognitive theory by Bandura (1986) and writing strategies by Raoofi et.al. (2017). The variable for section B is Personal factors with the construct of Metacognitive writing strategies. The variable for section C is Behaviour, with the constructs Effort regulation and Cognitive writing strategies. The variable for section D is Environment, with the constructs of Social and Affective writing strategies.

Table 2- Distribution of Items in the Survey

Section	Variable/ Factor (Bandura, 1986)	Construct/ Writing Strategy (Raoofi et al. 2017)	Item	Total Items	Cronbach Alpha
B	Personal	Metacognitive	10	10	.869
C	Behaviour	Effort Regulation	4	10	.886
		Cognitive	6		
D	Environment	Social	4	7	.819
		Affective	3		
		Total Items	27		.921

Table 2 also shows the survey's reliability. The analysis shows a Cronbach's alpha of .869 for section B, .886 for section C, and .819 for section D. The overall Cronbach's alpha for all 27 items is .921; thus, revealing a good reliability of the instrument chosen/used. Further analysis in SPSS is conducted to present findings that answer the research questions for this study.

FINDINGS

Demographic Analysis

Table 3- Percentage for Demographic Profile

Question	Demographic Profile	Categories	Percentage (%)
1	Gender	Male (28)	26%



		Female (81)	74%
2	Level	Bachelor (75)	69%
		Post-Graduate (34)	31%

Table 3 above presents the percentages for the participants' demographic profile. For gender, 26% are male while 74% are female students. Next, 69% of the students are studying at the bachelor's level while 31% are at the postgraduate level.

Descriptive Statistics

FINDINGS FOR ENVIRONMENTAL FACTORS

This section presents data to answer research question 1: How do learners perceive environmental factors in academic writing? In the context of this study, this is measured by social and affective writing strategies.

Table 4- Social (SWS)

Item	Mean	SD
SWSQ1 In order to generate ideas for my writing, I usually discuss the writing topic with a friend or classmate.	3.4	1.1
SWSQ 2 After revising and editing my essay thoroughly, I ask a friend or my classmate to read and comment on it.	3.2	1.1
SWSQ 3 I try to identify friends or classmates whom I can ask for help in my writing.	3.5	1.1
SWSQ 4 When I have trouble writing my essay, I try to do it with my classmates or friends.	3.4	1.2

Table 4 presents learners' use of social writing strategies in academic writing. Overall, the mean scores range from 3.2 to 3.5, indicating a moderate level of engagement with peer-related writing practices.

Among the items, the highest mean score is recorded for *identifying friends or classmates to seek help in writing* ($M = 3.5$, $SD = 1.1$). This suggests that learners are generally aware of the importance of having a support system when dealing with writing tasks. Similarly, discussing writing topics with peers ($M = 3.4$, $SD = 1.1$) and working collaboratively when facing difficulties ($M = 3.4$, $SD = 1.2$) also show moderate usage, indicating that students are somewhat open to collaborative learning.

However, the lowest mean score is observed for *seeking feedback after revising and editing* ($M = 3.2$, $SD = 1.1$). This may imply that while learners are willing to interact with peers during the initial stages of writing, they are less inclined to involve others in the final stages of refinement. Such a pattern suggests that peer feedback is not yet fully integrated into their writing routines.

The overall results suggest that students are aware of the importance of writing with others, but that these approaches are not always and fully applied. This is related to individual writing styles, with collaboration being used in an ad hoc, not systematic way.

Table 5-Affective (AWS)

Item	Mean	SD
AWSQ1I try to write an essay in class with confidence and ease..	3.7	1.0



AWSQ2I try to relax whenever I feel afraid of writing.	3.9	0.9
AWSQ3I encourage myself to write even when I am afraid of making mistakes	4	0.8

Table 5 presents learners' use of affective writing strategies, which relate to how they manage their emotions and motivation during the writing process. The mean scores range from 3.7 to 4.0, indicating a generally high level of engagement with affective strategies among the learners.

The highest mean score is observed for *encouraging oneself to write despite fear of making mistakes* ($M = 4.0$, $SD = 0.8$). This suggests that learners demonstrate strong perseverance and can push through anxiety when completing writing tasks. Similarly, the item on *trying to relax when feeling afraid of writing* ($M = 3.9$, $SD = 0.9$) indicates that students actively attempt to regulate negative emotions associated with writing.

Additionally, learners report a relatively high level of confidence when writing in class ($M = 3.7$, $SD = 1.0$), although this is slightly lower compared to other affective strategies. This may imply that while students are capable of managing anxiety and motivating themselves, their confidence in writing may still fluctuate depending on the context or task.

Overall, the results indicate that the students are well-versed in a variety of emotional regulation strategies which enable them to deal with challenges in academic writing. This indicates a high level of self-efficacy and that students are capable of regulating their emotions and maintaining their motivation throughout the writing process.

Findings For Personal Factors

This section presents data to answer research question 2: How do learners perceive personal factors in academic writing? In the context of this study, this is measured by metacognitive writing strategies.

Table 6-Metacognitive (MWS)

Item	Mean	SD
MWSQ1 I organize my ideas prior to writing.	3.9	0.8
MWSQ 2I revise my writing to make sure that it includes everything I want to discuss in my writing.	4.2	0.7
MWSQ 3I check my spelling.	4.4	0.8
MWSQ 4I check my writing to make sure it is grammatically correct.	4.5	0.7
MWSQ 5I evaluate and re-evaluate the ideas in my essay.	4.1	0.7
MWSQ 6I monitor and evaluate my progress in writing.	4	0.8
MWSQ 7I revise and edit an essay two or more times before I hand it in to my teacher.	4	0.9
MWSQ8 I go through the planning stages in my writing.	3.8	0.8
MWSQ9 I go through the drafting stages in my writing.	3.9	0.9
MWSQ10 I go through the revising and editing stages in my writing.	4.1	0.8

Table 6 presents learners' use of metacognitive writing strategies, which reflect their ability to plan, monitor, and evaluate their writing process. The mean scores range from 3.8 to 4.5, indicating a high level of engagement with metacognitive strategies among the learners.

The highest mean score is recorded for *checking grammatical accuracy* ($M = 4.5$, $SD = 0.7$), followed closely by *checking spelling* ($M = 4.4$, $SD = 0.8$). This suggests that learners place strong emphasis on language accuracy when reviewing their work. In addition, *revising writing to ensure all intended ideas are included* ($M = 4.2$, SD



= 0.7) and *going through revising and editing stages* ($M = 4.1$, $SD = 0.8$) also demonstrate that learners are actively engaged in refining their writing.

Other items, such as *evaluating ideas* ($M = 4.1$, $SD = 0.7$), *monitoring writing progress* ($M = 4.0$, $SD = 0.8$), and *revising drafts multiple times* ($M = 4.0$, $SD = 0.9$), further indicate that learners are consistently involved in self-regulation throughout the writing process. Meanwhile, slightly lower mean scores are observed for *planning stages* ($M = 3.8$, $SD = 0.8$) and *organising ideas prior to writing* ($M = 3.9$, $SD = 0.8$), suggesting that while planning is practised, it may not be as strongly emphasised as revising and editing.

Overall, the findings indicate that learners demonstrate strong metacognitive awareness, particularly in the later stages of writing such as reviewing and editing. However, the comparatively lower emphasis on planning suggests that learners may approach writing more reactively, focusing on correcting and improving drafts rather than systematically preparing before writing.

Findings For Behavioural Factors

This section presents data to answer research question 3: How do learners perceive behavioural factors in academic writing? In the context of this study, this is measured by effort regulation and cognitive writing strategies.

Table 7-Effort Regulation (ERS)

Item	Mean	SD
ERSQ 1 I write a lot to develop my writing skills.	3.5	0.9
ERSQ 2 I often work hard to do well in my writing even if I don't like English writing tasks.	3.7	0.9
ERSQ 3 Even if the writing activities are difficult, I don't give up but try to engage in them.	4	0.7
ERSQ 4 I concentrate as hard as I can when doing a writing task.	4	0.7

Table 7 above shows the mean and standard deviation for effort regulation. Two items share the same mean of 4. The first is item 3 (mean=4, SD=0.7), which states that even if the students found the writing activities difficult, they would not give up. Next, item 4 (mean=4, SD=0.7) states that students concentrate fully when performing a writing task. Item 2 (mean=3.7, SD=0.9) states that the students always work hard to do well in their writing even if they do not like English writing tasks. Lastly, item 1 (mean=3.5, SD=0.9) indicates that students write extensively to develop their writing skills.

Table 8-Cognitive (CWS)

Item	Mean	SD
CWSQ1 I use memorized grammatical elements such as singular and plural forms, verb tenses, prefixes and suffixes, etc, in my writing	3.9	0.9
CWSQ 2I put newly memorized vocabulary in my sentences.	3.8	0.9
CWSQ 3In order to generate ideas for my writing, I usually engage myself in brainstorming.	3.9	0.9
CWSQ 4I use different words that have the same meaning.	4	0.8
CWSQ 5I use my experiences and knowledge in my writing.	4.4	0.7
CWSQ 6I try to use effective linking words to ensure clear and logical relationship between sentences or paragraphs	4.2	0.8



Table 8 presents learners' use of cognitive writing strategies, which are practical techniques employed to generate ideas, organise content, and construct meaning in writing. The mean scores range from 3.8 to 4.4, indicating a generally high level of engagement with cognitive strategies among the learners. The highest mean score is observed for *the use of personal experiences and knowledge in writing* ($M = 4.4$, $SD = 0.7$), suggesting that learners strongly rely on their background knowledge to develop ideas. This reflects the ability to connect new writing tasks to prior understanding, an important aspect of effective writing. Similarly, the use of *linking words to ensure coherence and logical flow* ($M = 4.2$, $SD = 0.8$) and *the use of different words with similar meanings* ($M = 4.0$, $SD = 0.8$) indicate that learners are attentive to clarity and cohesion in their writing.

Moderate to high mean scores are also observed for *using memorised grammatical elements* ($M = 3.9$, $SD = 0.9$) and *engaging in brainstorming to generate ideas* ($M = 3.9$, $SD = 0.9$). These findings suggest that learners actively apply the language structures and idea-generation techniques they have learned during writing. The lowest mean score is for *using newly memorised vocabulary in sentences* ($M = 3.8$, $SD = 0.9$), which may indicate hesitation or a lack of confidence in incorporating new lexical items into their writing. Overall, the findings suggest that learners can employ a range of cognitive strategies to support their writing process. They tend to rely more on familiar knowledge and established language resources, while the integration of newly acquired vocabulary appears to be less consistent. This pattern indicates a preference for strategies that offer greater certainty and control during writing.

Exploratory Statistics

Findings For Relationship Between All Factors In Academic Writing

This section presents data to answer research question 4: What is the relationship among all factors in academic writing? To determine whether there is a significant association in mean scores across all factors in academic writing, the data are analysed using SPSS to compute correlations. Results are presented separately in Tables 9, 10 and 11 below.

Table 9- Correlation between Environmental and Personal Factors

Variable	Correlations	Environmental Factors	Personal Factors
Environmental Factors	Pearson (Correlation	1	.417**
	Sig (2-tailed)		.000
	N	109	109
Personal Factors	Pearson (Correlation	.417**	1
	Sig (2-tailed)	.000	
	N	109	109

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

Table 9 shows there is an association between environmental and personal factors. Correlation analysis shows that there is a moderately significant association between environmental and personal factors ($r=.417^{**}$) and ($p=.000$). According to Jackson (2015), the coefficient is significant at the .05 level, and a positive correlation is measured on a 0.1 to 1.0 scale. A weak positive correlation would be in the range of 0.1 to 0.3, a moderate positive correlation from 0.3 to 0.5, and a strong positive correlation from 0.5 to 1.0. This means that there is also a moderate positive relationship between environmental and personal factors.

Table 10- Correlation between Personal Behavioural Factors

Variable	Correlations	Personal Factors	Behavioural Factors
Personal Factors	Pearson (Correlation	1	.708**
	Sig (2-tailed)		.000



	N	109	109
Behavioural Factors	Pearson (Correlation	.708**	1
	Sig (2-tailed)	.000	
	N	109	109

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

Table 10 shows there is an association between personal and behavioural factors. Correlation analysis shows that there is a highly significant association between personal and behavioural factors ($r=.708^{**}$) and ($p=.000$). According to Jackson (2015), the coefficient is significant at the .05 level, and a 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 personal and behavioural factors.

Table 11- Correlation between Behavioural and Environmental Factors

Variable	Correlations	Behavioural Factors	Environmental Factors
Behavioural Factors	Pearson (Correlation	1	.484**
	Sig (2-tailed)		.000
	N	109	109
Environmental Factors	Pearson (Correlation	.484**	1
	Sig (2-tailed)	.000	
	N	109	109

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

Table 11 shows there is an association between behavioural and environmental factors. Correlation analysis shows that there is a moderately significant association between behavioural and environmental factors ($r=.484^{**}$) and ($p=.000$). According to Jackson (2015), the coefficient is significant at the .05 level, and a 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 behavioural and environmental factors.

CONCLUSION

Summary of Findings and Discussions

This study set out to explore academic writing strategies through the lens of Social Cognitive Theory by examining learners' perceptions of environmental, personal, and behavioural factors. Overall, the findings indicate that while all three factors are present and significantly related, learners tend to rely more on personal and behavioural strategies than on environmental ones.

In relation to Research Question 1, students reported that they sometimes have discussions with peers or engage in collaborative writing, but these interactions are not always part of their writing routines. The other affective strategies, like encouraging oneself and managing anxiety, are, on the contrary, practised more frequently. This indicates that students are at ease with managing their own emotions rather than actively reaching out for support to others. This finding is in line with Baharudin et al. (2024), who emphasised the importance of affective and self-regulatory strategies, but their results showed greater overall engagement in a range of strategies. Students' more individualised approach to writing in the present study may be due to the relatively limited use of social strategies.



Results for Research Question 2 on personal factors (metacognitive strategies) show high engagement. Revising and editing, monitoring progress, and checking for grammatical accuracy were common activities reported by learners. These findings indicate that the students are conscious about their writing process and also actively control their writing. This is similar to the results obtained by Nhung (2023), who concluded that more proficient students employ more writing strategies, especially planning and revising ones. In the present study, metacognitive awareness is further confirmed to be a vital component of effective academic writing.

With regard to Research Question 3, the students' behaviour in terms of effort regulation is highly persistent, and they use cognitive strategies regularly. Some students stated that they still write even when tasks are challenging and use strategies to support their writing, such as brainstorming, drawing on prior learning and structuring their ideas. Interestingly, personal experience and knowledge were the most prevalent cognitive strategy. This echoes the idea that writing is an active process influenced by effort and impactful interactions with content. Similar to Sagredo-Ortiz and Kloss (2025), these results highlighted that revision, the development of ideas, and audience understanding in academic writing are important.

Finally, Research Question 4 explored the relationships between environmental, personal, and behavioural factors. The findings show that all the factors are positively and significantly related, in accordance with Bandura's reciprocal determinism theory. The strongest correlation was between personal and behavioural factors, indicating that students' cognitions or beliefs are strongly related to their writing behaviour. The moderate relationships with environmental factors suggest that the learning environment does have an impact, but this impact may be related to students' level of engagement in the learning environment.

Taken together, the findings suggest that academic writing is a dynamic and interconnected process in which students draw on internal regulation and behavioural effort more consistently than on external support. While this reflects a level of independence and self-regulation, it also highlights the need to strengthen the role of collaborative and environmental support in writing instruction. Overall, this study supports and extends existing literature by demonstrating how writing strategies operate within an integrated social cognitive framework rather than as isolated components.

Implications and Suggestions for Future Research

Theoretical and Conceptual Implications

The findings of this study provide further empirical support for Bandura's work, particularly the key concept of reciprocal determinism, in which learning is shaped by the interplay among personal, behavioural, and environmental factors. All three domains are significantly correlated, which reflects the fact that academic writing is not a purely cognitive process but is shaped by learners' beliefs, actions, and context.

More specifically, the strong relationship between personal and behavioural factors suggests that metacognitive awareness plays a central role in shaping writing behaviour. Learners who are more conscious of their writing processes are more likely to engage actively in tasks, persist through challenges, and apply effective strategies. This reinforces the conceptual positioning of metacognition as a mediating factor between cognition and action.

At the same time, the comparatively moderate influence of environmental factors highlights an important conceptual gap. While Social Cognitive Theory emphasises the role of the environment, the findings suggest that learners may not be fully utilising available social and instructional resources. This indicates that the environmental dimension, particularly in writing contexts, may require more explicit structuring to become an active contributor to learning. Thus, the study extends the theoretical application of Social Cognitive Theory by illustrating how the balance among its components may vary across learning contexts.

Pedagogical Implications

The findings of this study carry several important implications for teaching and learning practices in academic writing, particularly in ESL contexts.



First, given the strong reliance on metacognitive strategies, educators should explicitly teach and scaffold metacognitive awareness. This can include guiding students through structured writing stages such as planning, drafting, revising, and reflecting. While learners in this study demonstrate strong engagement in revising and editing, the relatively lower emphasis on planning suggests that instructors should place greater focus on pre-writing strategies, such as outlining and idea organisation.

Second, the moderate use of social strategies indicates a need to strengthen collaborative writing practices in the classroom. Teachers can incorporate peer review sessions, group writing tasks, and guided feedback activities to encourage learners to engage more actively with their peers. Importantly, such activities should be structured and purposeful, as students may not naturally seek feedback unless it is embedded within the learning design.

Third, the findings on affective strategies highlight the importance of supporting learners' emotional engagement with writing. Since students demonstrate the ability to manage anxiety and motivate themselves, educators can build on this by creating a supportive classroom environment that reduces fear of error and promotes risk-taking in writing. This may include formative feedback, low-stakes writing tasks, and opportunities for revision.

Finally, the strong presence of behavioural strategies, such as effort regulation, suggests that learners are willing to persist with writing tasks. Therefore, instructors should design activities that sustain engagement and promote meaningful practice, such as authentic writing tasks, reflective journals, and iterative assignments that allow for continuous improvement.

Suggestions for Future Research

While this study provides valuable insights into academic writing strategies through a social cognitive lens, several avenues for future research emerge. A richer understanding of students' use of writing strategies in real contexts might be achieved in future studies through mixed-methods designs, which could include surveys and interviews, think-alouds, or reflective writing journals. Analyses can also be conducted to examine whether there are differences in the use of writing strategies among learners with varying levels of proficiency, across academic disciplines, and/or across educational contexts. Exploring writing strategies in technology-enhanced learning environments such as online collaborative writing and AI writing platforms would further expand the environmental aspect of Social Cognitive Theory. Furthermore, longitudinal studies examining changes in writing strategies with increased academic writing experience could be used to explore this, and intervention studies could investigate the effectiveness of particular writing strategies for developing more self-regulated writers and boosting underused strategies, such as social writing strategies.

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