

Exploring Students' Writing Strategy Use, Self-Efficacy, and Their Writing Proficiency in an EFL Context: A Mixed Method Study

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Abstract—This mixed methods research employed both questionnaires and semi-structured interviews for data collection. Its objectives were to explore writing strategies utilized by Thai EFL students and to examine the relationships among writing strategy use, self-efficacy, and writing proficiency. The sample consisted of 70 second-year English major students. The writing strategy questionnaire and writing self-efficacy scale were used for data collection. For the qualitative component of the study, a purposive sampling method was implemented to select eight students. Semi-structured interviews were implemented, and qualitative content analysis was applied to analyze the data. The study's results indicated that Thai EFL students employed writing strategies at a moderate level. Metacognitive strategies were the most frequently employed, followed by cognitive, compensation, and affective strategies, whereas social strategies ranked lowest. During the drafting phase, students implemented more writing strategies than they did during the pre-writing and revision phases. Students' writing proficiency correlated with their use of writing strategies. A positive relationship existed between students' writing proficiency and writing self-efficacy. Moreover, the results revealed a significant correlation between metacognitive writing strategies and writing self-efficacy. Additionally, students' writing self-efficacy and metacognitive strategies accounted for 39% of the variation in writing proficiency. The interviews supported the quantitative findings, illuminating the writing strategies employed by Thai EFL students. They implemented diverse writing strategies throughout each stage of the writing process.

Index Terms—EFL students, self-efficacy, writing strategies, writing proficiency

I. INTRODUCTION

L2 learners have consistently found English writing to be a challenging task. The process is complex and requires a sequence of cognitive, linguistic, and affective skills (Rahmatunisa, 2014). Writing is considered to be the most challenging aspect for language learners, particularly in foreign language acquisition (e.g., Sabti et al., 2019). Furthermore, academic writing is substantially more demanding than other types of writing. Nunan (1989) argued that writing is a cognitive skill that is highly complex for all individuals, as writers must simultaneously demonstrate control over multiple variables. Writing skills are sophisticated because writers must not only generate and organize ideas using appropriate vocabulary, sentence structures, and paragraph organization, but also transform these ideas into readable text that conforms to specific rhetorical patterns (Richards & Renandya, 2002). To help EFL students overcome such difficulties, writing strategies have been considered as an important tool for improving students' writing performance. Previous studies have demonstrated that explicit instruction of writing strategies effectively enhances EFL students' writing performance (e.g., Chen, 2022); moreover, prior research (e.g., Raoofi et al., 2017) has revealed that more-proficient students employed a greater number of writing strategies than those with lower writing proficiency. However, there are other factors which affect EFL students' writing abilities. Recent studies (e.g., Sabti et al., 2019; Xu et al., 2023) have shown that self-efficacy plays a crucial role in influencing students' writing achievement and have asserted that a high level of self-efficacy could enhance students' English writing performance. In an EFL context, self-efficacy's importance is particularly evident when writing assignments are challenging and motivational conditions are insufficient (Sabti et al., 2019; Xu et al., 2023). Accordingly, a strong sense of self-efficacy in writing is essential for developing EFL learners' writing skills. Despite this, relatively limited research has examined the correlation between students' writing proficiency and their writing self-efficacy in the Thai context. Specifically, scant research exists on the relationship among writing strategy use, writing self-efficacy, and writing proficiency of Thai EFL learners. The study's results will provide a more comprehensive understanding of writing self-efficacy among EFL students and identify writing strategies that can improve EFL university students' writing abilities. Thus, this research aimed to examine two research questions: 1) What writing strategies do Thai EFL students utilize in their writing? and 2) Does a correlation exist between self-efficacy beliefs, writing strategy use, and writing performance of EFL students in Thailand?

II. LITERATURE REVIEW

A. Writing Strategies

Writing strategies encompass specific procedures and techniques that writers implement to regulate the production of writing. Numerous studies have identified diverse writing strategies utilized by ESL or EFL students. For example, a study examining writing strategy usage among 55 third-year Thai EFL students majoring in English conducted by Apridayani et al. (2021) revealed that cognitive strategies were most frequent, followed by metacognitive and affective strategies. Social strategies had the lowest frequency of utilization. Moreover, the study by Ridhuan et al. (2011) demonstrated that ESL engineering students employed cognitive strategies for idea generation while utilizing metacognitive and social strategies to facilitate their search for appropriate words or expressions and idea development. Several studies have also identified differences between writing strategies utilized by high-proficiency and low-proficiency student writers (e.g., Raoofi et al., 2017; Sundari & Febriyanti, 2022). Furthermore, numerous studies have indicated that writing strategy use correlated significantly and positively with students' writing performance (e.g., Raoofi et al., 2017). Overall, these research findings demonstrate that writing strategy utilization can significantly influence students' writing skill development. Therefore, incorporating explicit strategy instruction into ESL/EFL writing classrooms is essential for enhancing students' writing proficiency.

B. Writing Self-Efficacy

Evidence suggests that students' writing performance is substantially influenced by their writing self-efficacy (e.g., Sabti et al., 2019; Teng & Wang, 2023). A recent meta-analysis conducted by Sun et al. (2021) showed a moderate effect size ($r = 0.29$) for the relationship between self-efficacy and writing proficiency among L1 and L2 student writers. Moreover, the research findings also revealed that writing self-efficacy had a more significant impact on L2 student writers' writing proficiency ($r = 0.441$) than on L1 student writers ($r = 0.23$). On the basis of these investigations, writing self-efficacy has proven to be a crucial factor in predicting students' writing performance. Furthermore, research has demonstrated that writing strategy use significantly correlates with students' writing self-efficacy (e.g., Chen, 2023). The positive correlation between these variables suggests that students with high self-efficacy utilize a greater number of writing strategies than those with lower self-efficacy. However, research examining the association between self-efficacy beliefs, writing strategy use, and students' writing proficiency in an EFL context remains limited. This research therefore aims to explore this issue in the Thai EFL context.

III. METHODOLOGY

A. Participants

The present study employed a mixed-method research design incorporating both questionnaire and semi-structured interview for data collection. The samples were purposively selected and consisted of 70 second-year English majors at a public university in Chiang Rai province, Thailand; additionally, eight students were recruited for the qualitative section. None of the participants had studied English in an English-speaking country; all were native Thai speakers, and English was their foreign language. They possessed twelve years of formal experience studying the English language in Thailand. All students had completed two academic writing courses.

B. Instruments

(a). Writing Strategy Questionnaire (WSQ)

The writing strategy questionnaire (WSQ) utilized in this research was developed based on the "Strategy Inventory for Language Learning," established by Oxford (1990), and a thorough literature review on writing strategies (Apridayani et al., 2021; Mistra et al., 2014; Sun & Wang, 2020; Sundari & Febriyanti, 2022). The questionnaire was segmented into pre-writing, drafting, and revising sections in accordance with the phases of the writing process. It contained 33 items representing five strategy types involving writing skills: cognitive (6 items), metacognitive (16 items), compensation (2 items), affective (3 items), and social strategies (6 items). Students were requested to rate the frequency of writing strategy use with all items rated on a five-point Likert scale that ranged from "1 = never true of me" to "5 = always true of me," with higher scores indicating a higher frequency of writing strategy use. Three experts reviewed the questionnaire, and the index of item-objective congruence (IOC) was computed for each item. The IOC values for all items ranged from 0.67 to 1.00. Cronbach's alpha coefficient was 0.82, indicating that this questionnaire exhibits a high degree of internal consistency. Strategy use was categorized into three levels based on mean scores: low use (1.0 to 2.4), medium use (2.5-3.4), and high use (3.5 to 5) (Oxford, 1990).

(b). Writing Self-Efficacy Scale

The writing self-efficacy scale was created to assess students' perceptions of their ability to effectively compose an argumentative essay and was developed based on self-efficacy theory (Bandura, 1986) and prior studies (Sun & Wang, 2020; Zimmerman & Bandura, 1994). The response for each item was reported on a seven-point Likert scale from 1 "I cannot do it at all" to 7 "I can do it well." All items had IOC values between 0.67 to 1.00, indicating that the writing

self-efficacy scale has acceptable content validity. Additionally, the scale's internal consistency was satisfactory, as indicated by a Cronbach's alpha of 0.86.

(c). *A Semi-Structured Interview*

The semi-structured interview was performed to elicit comprehensive information regarding students' use of writing strategies. An interview schedule containing topics and related questions guided the interviews, and the interview schedule was pilot tested before the research commenced. The questions posed to each student included "What is the first thing you do when you are assigned an English writing task? and Why?"; "Do you plan before you begin writing? If so, kindly explain the procedure"; "How do you draft your English writing?"; and "Do you revise after writing? If yes, please explain the process." Occasionally, if further information was needed, the researcher employed probing techniques and took notes on the respondents' ideas.

(d). *Writing Competence Test*

To assess English writing proficiency, students were required to compose an argumentative essay on a designated topic, with a minimum requirement of 200 words within 60 minutes. Each essay was independently evaluated by three raters who possessed extensive experience in teaching writing skills. The three raters scored the essays according to the "Test of English for Educational Purposes (TEEP) Attribute Writing Scale" (Weir, 1990). This scale includes seven evaluation criteria: "relevance and adequacy of content," "compositional organization," "cohesion," "adequacy of vocabulary for purpose," "grammar," "punctuation," and "spelling." Each criterion is individually evaluated on a four-point scale of 0 (poor) to 3 (excellent). The highest possible TEEP score is 21. Based on students' writing scores, there were two distinct groups: more-skilled student writers and less-skilled student writers. To assess the agreement in scoring students' essays, the Intraclass Correlation Coefficient (ICC) was computed. The ICC value demonstrated high agreement among the three raters (ICC = 0.95, 95% CI: 0.81-0.98, $p = .000$).

C. *Data Collection*

The research project was approved by the institution's research ethics committee (BCNCT04/2564). Students required approximately 45 minutes to complete both questionnaires. On the same day, they were requested to write an argumentative essay of at least 200 words within the time limit (60 minutes). Subsequently, four students with higher levels of writing proficiency and four with lower levels were selected for interviews based on their writing scores in the following week. The interviews, recorded with participants' consent, lasted between 45 and 60 minutes.

D. *Data Analysis*

Descriptive statistics were computed and reported for writing strategy use and students' self-efficacy. The two writing proficiency groups were compared utilizing the Student's t-test to examine the differences in students' writing strategy use and writing self-efficacy. Pearson's product moment correlations were performed to ascertain the correlations among writing strategy use, writing self-efficacy, and students' writing scores. Multiple regression analysis was then conducted to determine how writing strategy use and self-efficacy correlated with students' writing proficiency. For qualitative data, qualitative content analysis was applied for data analysis.

IV. RESULTS

A. *Quantitative Study*

The average score for the writing strategy use was 3.30 (SD = 0.15). This finding indicates that the Thai EFL students participating in the current study implemented writing strategies at a moderate frequency. The highest frequency of metacognitive strategy use was observed, while social strategies were the least frequently utilized by the students. Furthermore, Table 1 reveals that the average score for students' writing self-efficacy was moderate (M = 4.05, SD = 0.64).

TABLE 1
DESCRIPTIVE STATISTICS FOR STUDENTS' WRITING SELF-EFFICACY AND WRITING STRATEGY USE (N=70)

Writing self-efficacy	Writing strategies					
	Overall	Metacognitive	Cognitive	Compensation	Affective	Social
Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
4.05 (0.64)	3.30 (0.15)	3.34 (0.20)	3.33 (0.24)	3.32 (0.44)	3.30 (0.32)	3.14 (0.25)
-	-	1	2	3	4	5

TABLE 2
MEAN (SD) FOR STUDENTS' WRITING SELF-EFFICACY AND STRATEGY USE ACROSS PROFICIENCY LEVEL

Variables	More proficient student writers		Less proficient student writers		t-value	p
	Mean	SD	Mean	SD		
Writing strategy use						
Overall	3.37	0.10	3.25	0.15	3.62	.001*
Metacognitive	3.46	0.13	3.26	0.20	4.54	.000*
Cognitive	3.34	0.14	3.32	0.29	.11	.91
Compensation	3.44	0.32	3.25	0.47	1.82	.07
Social	3.20	0.24	3.10	0.25	1.58	.11
Affective	3.28	0.29	3.32	0.34	-.50	.62
Writing self-efficacy	4.49	0.59	3.76	0.49	5.6	.000*

A summary of results regarding students' writing self-efficacy and five types of writing strategies between the two proficiency groups is presented in Table 2. Statistically significant differences were found in both overall strategy use and metacognitive strategy use between more proficient and less proficient student writers. Table 2 further demonstrates the disparities in writing self-efficacy between the two proficiency groups.

TABLE 3
MEAN (SD) FOR WRITING STRATEGIES AT THREE STAGES OF THE WRITING PROCESS

Stage	Mean	SD	Level
Pre-writing	3.30	.22	Moderate
Drafting	3.36	.18	Moderate
Revising	3.19	.25	Moderate
Overall writing	3.30	.15	Moderate

Table 3 illustrates that Thai EFL students who participated in this study implemented more writing strategies during the drafting phase compared to the pre-writing and revising phases.

As demonstrated in Table 4, three metacognitive strategies were utilized substantially more frequently by higher writing-proficiency students during the pre-writing phase than by those with lower writing proficiency. These metacognitive strategies included "considering the task and instructions carefully before writing," "making an outline or plan in English," and "looking at the plan (an outline) again to see if it will help me reach my writing purposes." Furthermore, the social strategy "I discuss and share what I am going to write with my classmates" was significantly more utilized by students with higher writing proficiency during the pre-writing stage. During the drafting stage, students with higher writing proficiency excelled at "paying more attention to the content of the task or specific language aspects" and "editing my work as I am writing" compared to those with low proficiency. These constitute metacognitive strategies. Those with higher writing proficiency significantly more employed the cognitive strategy of utilizing resources such as an English-English dictionary. In contrast, less-skilled student writers employed more of the translation strategy "writing a draft in Thai first and then translating it into English," and they significantly preferred to review and edit the entire draft after completing their initial draft. During the revision stage, two specific metacognitive strategies were employed with significantly different frequencies between the groups: "editing and modifying the content (idea)" and "editing and changing the organization." Additionally, in the revising stage, higher-proficiency students employed significantly more of the social strategy of "exchanging the draft with peers for comments".

TABLE 4
SIGNIFICANT DIFFERENCE OF WRITING STRATEGIES BETWEEN TWO PROFICIENCY LEVELS IN EACH STAGE OF WRITING PROCESS

Individual strategy	Strategy group	More proficient student writers (n=28)		Less proficient student writers (n=42)		p-value
Pre-writing stage						
I consider the task and instructions carefully before I start writing.	Metacognitive	3.57	.69	3.24	.62	.04*
I make an outline in Thai. ^a	Metacognitive	3.64	.49	3.81	.39	.14
I make an outline in English.	Metacognitive	3.64	.49	3.26	.73	.02*
After completing my writing plan (an outline), I look it over again to see if it will help me reach my writing purposes.	Metacognitive	3.57	.50	3.26	.44	.01*
I discuss and share what I am going to write with my classmates.	Social	3.36	.62	3.00	.58	.02*
Drafting stage						
I pay more attention to the content of the task or specific language aspects (e.g., thesis statements and supporting sentences).	Metacognitive	3.86	.59	3.38	.69	.004*
I like to write a draft in Thai first and then translate it into English.	Cognitive	3.46	.50	3.76	.48	.02*
I use a monolingual dictionary (English-English).	Cognitive	3.43	.50	3.19	.39	.04*
I simplify what I want to write about if I'm not sure how to express my ideas in English.	Compensation	3.54	.57	3.31	.46	.09
I edit my work as I am writing.	Metacognitive	3.71	.53	3.14	.65	.000*
I edit my work when I have finished the whole draft.	Metacognitive	3.29	.54	3.64	.57	.01*
I exchange the draft with my peers to get comments. ^a	Social	3.75	.51	3.62	.53	.31
Revising stage						
I go back to my writing to edit and modify the content (idea).	Metacognitive	3.39	.57	2.69	.64	.000*
I go back to my writing to edit and change my organization.	Metacognitive	2.96	.43	2.62	.58	.006*
I exchange the draft with peers for comments.	Social	3.64	.48	3.36	.61	.04*

^a high-frequency strategy use; $p < 0.05^*$

Regarding the association between students' writing proficiency and their use of writing strategies, these two variables exhibited a positive and significant correlation, as indicated by the Pearson correlation coefficient ($r = .36$, $p < .01$). Among the subscales of writing strategies, only metacognitive strategies were significantly related to students' writing performance ($r = .45$, $p < .01$). The results also demonstrated that the utilization of writing strategies correlated significantly with students' writing self-efficacy ($r = .29$, $p < .05$) and writing proficiency ($r = .55$, $p < .01$). Similarly, significant positive correlations were observed between writing self-efficacy and metacognitive strategies ($r = .31$, $p < .01$) (Table 5).

Subsequently, a multiple regression analysis was conducted to examine the relationship between the independent variables and students' writing performance. The assumptions of multiple regression analysis were assessed, and multicollinearity existed between writing strategies and metacognitive strategies. Consequently, the writing strategy variable was not included in the regression model. The multiple regression analysis findings indicated that the model fitted the data adequately ($R^2 = .39$, $F = 21.33$, $p < .0005$). The independent variables (metacognitive strategies and writing self-efficacy) accounted for 39% of the variation in students' writing proficiency (Table 6).

TABLE 5
PEARSON'S CORRELATION MATRIX AMONG THE VARIABLES

Variables	1	2	3	4	5	6	7	8
1. Writing proficiency	1.00	.36**	.45**	-.007	.20	.17	-.10	.55**
2. Writing strategies		1.00	.81**	.54**	.38**	.49**	.47**	.29*
3. Metacognitive strategies			1.00	.13	.18	.15	.21	.31**
4. Cognitive strategies				1.00	.16	.20	.36**	-.05
5. Compensation strategies					1.00	.09	.04	.06
6. Social strategies						1.00	.10	.32**
7. Affective strategies							1.00	-.01
8. Self-efficacy in writing								1.00

* $p < .05$; ** $p < .01$

TABLE 6
SUMMARY OF REGRESSION ANALYSIS PREDICTING STUDENTS' WRITING PROFICIENCY

Variables	B	SE B	β	t	p
Metacognitive strategies	4.76	1.53	.31	3.09	.003
Writing self-efficacy	2.18	.49	.45	4.48	.000

$R^2 = .39$, Adjusted $R^2 = .37$, $F = 21.33$, $p < .0005$

B. Qualitative Study

In the present study, the data obtained from interviews with eight participants—four more competent students and four less proficient students—were analyzed to enhance the comprehensive understanding of writing strategies used by Thai EFL students. The findings revealed that the students employed various writing strategies across the three stages of the writing process.

(a). *Pre-Writing Stage*

In the pre-writing stage, all interviewees reported that they planned their essays before beginning to write, and they believed that a writing plan was essential as it facilitated their thinking and structuring of ideas. However, half of the students with lower writing proficiency made plans by noting only a few key points that they needed to include in their essays. For instance:

"First, I examine the topic and the purpose of the writing. Then, I create an outline by listing the key points that will be included in my paper using bullet points. Writing the plan in English is beneficial because I can utilize those words to find more relevant information to develop a comprehensive outline." (ID 2, more-proficient student)

"After considering the assigned topic, I jot down a few key points to guide me on what I should address in my writing." (ID 1, less-proficient student)

Additionally, several students who participated in the interviews created their outlines in Thai and translated them into English. For example:

"I review the topic and then jot down my thoughts in Thai. This method helps me identify the essential points for my essay. Sometimes I incorporate English words if I know them." (ID 5, less-proficient student)

Furthermore, half of the interviewees created essay outlines based on their background knowledge and experiences. This represents a metacognitive strategy, which involves "overviewing and linking with already known material." One interviewee stated that:

"I consider the topic and write down any relevant information I already know. This provides me with initial ideas for writing." (ID 3, more-proficient student)

Additionally, those with higher writing proficiency mentioned utilizing social strategies (such as collaboration with others) to generate ideas during the pre-writing stage. One of them stated that:

"Working in a group helps us support each other and generate numerous ideas about the given topic...I think this is very helpful...I can use these ideas to create an outline for my writing task." (ID 2, more-proficient student)

(b). *Drafting Stage*

Over half of the students stated that they used lecture notes and some writing samples provided by their teachers as a guide for their compositions. For example:

"I study the sentences or words that can be used in a narrative essay from writing samples my teacher brought me so that I can apply what I learned in my own writing." (ID 1, less-proficient student)

Several interviewees also reported that they attempted to adhere closely to an outline they developed during the pre-writing phase. For instance:

"I try to follow an outline I made beforehand, which I think helps me keep my writing on track." (ID 3, more-proficient student)

Additionally, a number of interviewees, especially those with lower writing proficiency, reported employing translation as a cognitive strategy throughout their writing process. For example:

"I write in Thai first, then I translate what I've written into English. This makes it more likely that I can finish my writing on time." (ID 5, less-proficient student)

During the drafting stage, several students with higher writing proficiency also reported that they self-monitored and evaluated the content and language of their compositions. They made corrections while writing the draft, whereas half of the low proficiency writing students did so after they had completed their first draft. For example:

"I edit as I write, evaluating each phrase for clarity and relevance. After completing the draft, I read the entire text again, making further adjustments to improve my essay." (ID 3, more-proficient student)

"I wait until the whole first draft is completed before I start editing it. It gets confusing for me when writing and editing at the same time." (ID 7, less-proficient student)

In addition, both groups exhibited a tendency to self-evaluate the challenges they encountered during the writing process. They preferred utilizing an online dictionary to look up words that they were not sure of regarding their meaning. For example: *"I use an electronic dictionary to check spelling and find out what words mean. It's more convenient and easily accessible. I really like it."* (ID 6, more-proficient student)

"If I have trouble with spelling or language while I'm writing, I use an electronic dictionary to help me figure out what words to use and how to spell them." (ID 1, less-proficient student)

Compensation strategy usage was also evident in the interviews. Few students stated that they used simple words to present their ideas when they did not know the exact words, such as *"When I don't know the suitable words in English to express my thoughts, I use simpler words to explain instead."* (ID 3, more-proficient student)

The participants also mentioned the utilization of social strategies. Some of them discussed their writing with peers for exchanging ideas and seeking advice on English grammar usage and vocabulary, while others preferred seeking assistance from those who were more proficient in English in order to improve the content and language use of their compositions. For instance:

"If I don't know how to put my thoughts and ideas into words while I'm writing, I ask my senior [a fourth-year student] to review my writing." (ID 8, less-proficient student)

Furthermore, several students participated in the interviews, especially those with lower writing proficiency, and employed affective strategies to remain highly motivated and manage their anxiety. For example:

"I find that eating tasty food helps me relax and feel better while I'm writing." (ID 7, less-proficient student)

(c). *Revising Stage*

All interviewees monitored their writing closely. They employed several metacognitive strategies, specifically "self-monitoring and self-evaluating." The interviewees with higher writing proficiency evaluated both their overall text and local writing elements, while correcting errors. Conversely, more than half of less-proficient students primarily focused on checking spelling, grammar, and punctuation. For example:

"Most of the time, I revise by reading the essay again to ensure unity and clarity of message. Then I review the grammar and spelling." (ID 2, more-proficient student)

"When I finish writing, I go back and make changes to what I've written. I look for mistakes in vocabulary usage, grammar, and spelling." (ID 7, less-proficient student)

Social strategies were frequently utilized during the revision stage. After completing drafts, many more-skilled student writers shared their work with peers for feedback and error identification. However, several students with lower writing proficiency sought guidance from more capable individuals, including friends or teachers. For instance:

"After finishing writing, I exchange papers with friends to read each other's work. They identify irrelevant or missing content, as well as suggest necessary changes or additions to my essay." (ID 6, more-proficient student); and

"When I finish writing the essay, I show my seniors [a fourth-year student] my work and request comments. The feedback primarily involves grammar corrections." (ID 5, less-proficient student); and

"I submit the draft to teachers at my old school after completing it. The teacher reviews it and provides feedback on areas needing improvement." (ID 8, less-proficient student)

Several interviewees implemented self-reward strategies upon completing their writing. Various affective strategies emerged during the interviews. For example:

"I reward myself by socializing with friends outside. Sometimes, I relax in my room by playing video games and chatting with friends on Facebook." (ID 5, less-proficient student)

V. DISCUSSION

The results of the current study showed that the average score for writing strategy use among Thai EFL students who participated in this research was 3.30 (SD=0.15), indicating a moderate level of writing strategy use. In other words, they sometimes used writing strategies to complete their writing compositions, which suggests that the participants did not exhibit adequate utilization of writing strategies. This result aligns with the findings of other research examining the frequency of writing strategy use among EFL students (e.g., Apridayani et al., 2021; Chand, 2014; Fajrina et al., 2021). This could be attributed to several factors, including educational context, task requirements, the students' language proficiency, their awareness of using writing strategies, and motivation. Additionally, in Thailand, contrary to countries in which English is either the native or second language, students' exposure to the English language outside of the classroom was limited. These factors could be the reasons why the students who participated in this research identified themselves as medium-strategy users. The most frequently reported strategy was the metacognitive strategy, followed by cognitive, compensation, and affective strategies. The social strategy ranked as the lowest. Similar results were observed in Chand's (2014) study, which reported that metacognitive and cognitive writing strategies were implemented most frequently. The high-frequency use of metacognitive and cognitive strategies reported by students who participated in the present study could be explained by the fact that these students were pursuing a major in English, and they had taken writing courses. By participating in an English language program, they are in an intensive English learning environment. They, therefore, are aware of the need to control, arrange, and evaluate their writing process. The findings also found that our students utilized social strategies the least. Despite employing fewer social strategies, the students still employed them to a moderate extent (M=3.14, SD=0.25). In accordance with prior research (Fajrina et al., 2021; Maarot & Murat, 2013), the students utilized a greater number of writing strategies during the drafting phase than they did during the pre-writing and revising phases (Table 3). This suggests that the students are more inclined to employ writing strategies during text production. Furthermore, there was a statistically significant difference in the utilization of overall writing strategies between more proficient students and those who were less proficient. This finding is congruent with the prior research results (Raoofti et al., 2017). Regarding each category of writing strategy, the two groups exhibited significant differences in the reported use of metacognitive writing strategies (Table 2).

In the pre-writing stage, the more proficient student writers focused more on identifying the purpose of the writing task, planning, and generating ideas. The findings agree with the interview data; all high-achieving students stated that they created a detailed outline before writing the essay, and creating an outline is a crucial step in the pre-writing stage because it guided them throughout the writing process. The following excerpt is an example of how the more proficient student writers create a plan before starting actual writing: *"I plan ahead about how to present my essay; how many paragraphs will be written and what will go in each one... It takes time, but a good plan helps in organizing my thoughts and guides my writing"* (ID 4, more-proficient student). These findings confirm previous studies (e.g., Maarof & Murat, 2013; Sasaki, 2000) revealing that proficient writers devoted additional time for planning prior to

commencing their writing. Unlike the high-achieving students, the data from the interview revealed that two less-proficient students spent less time on planning; they only took down a few key points and had a rough plan for their essays. For example, *“After considering the assigned topic, I jot down a few key points to guide me on what I should address in my writing”* (ID 1, less-proficient student). This aligns with the results obtained by Sasaki (2000) and Chien (2008), who found that more proficient student writers were more concerned with global planning as compared to the less proficient ones. Another metacognitive strategy that more proficient student writers reported was *“looking at the plan (an outline) again to see if it will help me reach my writing purposes.”* In other words, they evaluate their plan to ensure it is achievable and aligned with their writing objectives. This may suggest that high-achieving students were more capable of utilizing metacognitive strategies, including planning and self-evaluation, to enhance their writing quality than their low-achieving counterparts. Additionally, the more skilled student writers utilized the strategy of *“making an outline in English”* more frequently than the less-skilled ones ($p < 0.05$). These results are in accordance with previous investigation, which suggests that high-achieving students frequently used English in planning and outlining their essays before commencing the writing assignment (Maarof & Murat, 2013; Wei et al., 2012). In contrast, the dominant writing strategy employed by the less-skilled writers was *“making an outline in Thai before writing”* ($M = 3.81$, $SD = .39$). This may be due to the low English proficiency among less-proficient students. It has been revealed that L2 writers tended to depend on their first language (L1) to facilitate the writing process, generate, and organize ideas (e.g., Wang & Wen, 2002). Likewise, Woodall (2002) found that less proficient L2 writers used their L1 significantly more often than their more proficient L2 writers. Furthermore, high-proficient student writers utilized more social strategies than those with low writing proficiency. The interview also showed their preference for group work. For example, *“Working in a group helps us support each other and generate numerous ideas about the given topic...I think this is very helpful...I can use these ideas to create an outline for my writing task”* (ID 2, more-proficient student). Based on the quantitative data and the excerpt provided above, it can be inferred that, in the pre-writing stage, more proficient students utilized both metacognitive and social strategies in arranging and planning their writing.

In the drafting stage, quantitative data analysis revealed that the predominant strategies employed by the students in the drafting phase were metacognitive and cognitive strategies. Students with higher writing proficiency were better at *“paying more attention to the content of the task or specific language aspects”* and *“editing my work as I am writing,”* which are metacognitive strategies, than those with lower proficiency. While higher-achieving students significantly utilized strategies of reading back and editing their writing as they wrote their first draft, lower-achieving students more significantly preferred to read back and edit the whole draft after they had completed their initial draft. This suggests that high achievers were more active in managing and monitoring their own writing. By employing metacognitive writing strategies, students can effectively direct, manage, control, and shape their written work (Wenden, 1998). Additionally, the cognitive strategy of translation was employed frequently during the drafting stage. In particular, the use of translation strategy exhibited a statistically significant difference between the two writing proficiency groups. Students with low writing proficiency significantly more utilized the translation strategy. This result is not unexpected, given that the students who participated in the present study were EFL university students, and previous research revealed that the translation strategy was the most frequently used by EFL learners (Fajrina et al., 2023), especially students with low writing proficiency (Maarof & Murat, 2013). Other previous studies also found that EFL students frequently employed the translation strategy (e.g., Maarof & Murat, 2013; Fajrina et al., 2023). In addition, a few compensation strategies were reported by our students, such as *“simplifying what I want to write about if I don’t know how to express my ideas in English.”* and *“using another word with a similar meaning if I don’t know the right one.”* This suggests that they utilized these strategies to offset their lack of proficiency in the English language partially. Similar findings were observed in prior studies (Fajrina et al., 2021; Mistar et al., 2014).

In addition, this study found that, during the drafting stage, the implementation of social and affective strategies did not exhibit significant differences between the two groups. Students in both groups exchanged their drafts for peer comments, and some of them sought help from a more capable person to aid in problem-solving when they were unable to articulate their thoughts and ideas clearly in writing. This was evident in the interview data. Regarding the utilization of affective strategies, participants in this study reported using a couple of affective strategies, namely *“trying to relax when I am stressed about my writing”* and *“encouraging myself to keep writing by saying positive statements to myself”* at the moderate level. This was in contrast with a study conducted in Malaysia (Raofi et al., 2017), which revealed a substantial difference in the utilization of affective strategies between the more and less-proficient student writers. This could be due to the contextual differences.

For the revising stage, the findings of this research indicated that more and less-proficient students significantly differed in their use of two metacognitive strategies, which were *“editing and modifying the content (idea)”* and *“editing and changing the organization”* (Table 4). Students with higher writing ability utilized these metacognitive strategies more often than those with less proficiency. This suggests that high achievers were more concerned with both the mechanics and content of the writing. These results corroborate the findings of prior research, which demonstrated that more proficient student writers examined the entire text, including the content and organization of the writing, in addition to addressing surface errors such as spelling, grammar, verbs, and punctuation (Wei et al., 2012). Another strategy our students used in the revision stage was social strategy. The students with higher writing proficiency significantly utilized the strategy of exchanging draft papers with a peer for comments, whereas the less-proficient ones

sought comments or feedback from more capable persons. These results were confirmed by the qualitative data findings, which revealed that, after completing a draft, students with higher writing proficiency presented their work to their classmates for feedback and error checking. On the other hand, the less-proficient ones sought feedback from more capable persons, either their senior friends or teachers at their old school.

This research also found that the students' writing scores were significantly associated with their writing self-efficacy ($r=.55$, $p<.01$). In addition, writing self-efficacy was also discovered to be significantly correlated with the metacognitive strategy use ($r=.31$, $p<.01$). Prior research (e.g., Teng & Wang, 2023; Sun et al., 2021) has provided evidence showing a positive relationship between students' writing self-efficacy and their actual writing ability. Self-efficacy beliefs are essential for writers at all stages of the writing process. Perceived self-efficacy determines the amount of effort, persistence, and perseverance students put into their writing tasks, which, in turn, enhances their writing performance. A high sense of self-efficacy can also help students cope with stress and negative emotions during the completion of a writing assignment (Bandura, 1986; Sun et al., 2021). It may be articulated that self-efficacious students are more likely to exhibit a greater interest in and attention to writing, exert a more consistent effort, and demonstrate greater perseverance and resilience in the face of writing challenges compared to those who have low self-efficacy. As a consequence, high-efficacious students attain better writing outcomes. The findings of this study provide additional evidence to support the results of prior research, indicating that writing self-efficacy is a crucial factor in predicting students' writing proficiency (e.g., Teng & Wang, 2023). Furthermore, consistent with previous studies (e.g., Blasco, 2016), this study revealed a positive correlation between students' self-efficacy and metacognitive strategy use. As noted by Pajares (2002), students who were self-efficacious were more likely to utilize cognitive and metacognitive strategies. In the writing domain, students can develop their writing self-efficacy through mastery experiences when they employ metacognitive writing strategies to resolve problems that occur during the writing process and achieve writing success. In other words, students' self-efficacy can be improved through the utilization of metacognitive writing strategies, thereby potentially enhancing their writing performance. It has been argued that metacognitive strategies and writing self-efficacy are interdependent on each other (Bai & Guo, 2018). Additionally, the findings of this research demonstrated that metacognitive strategy use and writing self-efficacy explained about 39% of the variation in writing proficiency ($R^2 = .39$). Metacognitive strategies and writing self-efficacy were significant predictors of students' writing proficiency. This finding emphasizes the substantial influence of these two variables on writing instruction in the teaching of foreign languages and second languages.

Given the results of this research, it is imperative to promote writing strategy use among university-level EFL students by providing explicit strategy instruction and giving students opportunities to practice applying effective writing strategies. Furthermore, students in this study employed a greater number of writing strategies during the drafting stage than they did during the pre-writing or post-writing phases. Hence, further emphasis should be placed on the strategies employed during the pre-writing and revising phases. Additionally, the results revealed that the metacognitive strategy use between the two proficiency groups differed significantly. This finding suggests that metacognitive strategy use should be taught to students who are less proficient in writing in order to facilitate the planning, monitoring, and evaluation of their ongoing writing. In addition, the writing self-efficacy was positively associated with the use of metacognitive strategies, and both variables predicted students' writing performance. Given this relationship, EFL instructors may prioritize the teaching of metacognitive writing strategies to raise their students' perception of self-efficacy. To accomplish this, EFL instructors should provide ample opportunities for students to apply metacognitive strategies through a process of planning, monitoring, and evaluating their writing tasks. If this instruction is implemented, it not only increases students' awareness of writing strategies but also helps build confidence in their L2 writing. Thus, it is expected that a strategy-based writing program to enhance EFL students' writing performance will integrate both writing strategies and motivational constructs (e.g., self-efficacy). Other ways of improving learners' self-efficacy in L2 writing include selecting writing assignment topics based on students' interests and backgrounds; facilitating students' mastery of writing tasks by modifying task complexity to accommodate varying levels of students' proficiency; using a student work sample as a form of modeling influence (vicarious learning experiences); providing positive verbal persuasion to encourage students based on their current writing performance; and creating a supportive environment that fosters students' confidence in their own abilities for performing L2 writing tasks.

One main limitation of our study involves the inability to prove cause-effect relationships. Therefore, further investigation through longitudinal or intervention studies is necessary to establish a causal relationship between students' writing achievement, metacognitive strategy use, and writing self-efficacy. Additionally, future research should investigate the mediating function of self-efficacy in the relationship between metacognitive strategy use and the students' writing proficiency. Second, the generalizability of the results is restricted by the fact that only 70 EFL students participated in this research, which was conducted at a single public university in Thailand. While the research findings need to be replicated in a wider range of contexts using a larger sample size, they indicate that writing self-efficacy and metacognitive strategies are essential components in developing writing skills for students. This provides valuable information for EFL teachers to create quality teaching materials and further shape their pedagogical approaches to L2 writing instruction.

VI. CONCLUSION

This research demonstrated that Thai EFL students were medium users of writing strategies. They utilized more writing strategies during the drafting phase compared to the pre-writing and revising stages. Metacognitive strategies were the most frequently employed, whereas social strategies ranked lowest. Students with higher writing proficiency implemented strategies more frequently than those with lower writing proficiency. Specifically, this study revealed that higher-proficiency students utilized metacognitive strategies more effectively throughout the three stages of the writing process. The results also illuminated the interrelationship among metacognitive strategy use, writing self-efficacy, and writing scores of EFL students. Additionally, the findings indicated that students' writing scores could be predicted by their writing self-efficacy and the metacognitive strategy use. These findings call for the implementation of EFL writing instruction that integrates both the promotion of writing strategies and the cultivation of students' self-efficacy to enhance their writing performance and develop their abilities as English writers.

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