The Interplay among SRL Strategies, English Self-Efficacy, and English Proficiency of Thai University Students

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Abstract

This study examined the interplay among self-regulated learning (SRL) strategies, English self-efficacy, and English proficiency of EFL students at the university level in Thailand. The data collection instruments comprised the Self-Regulated Learning Strategies Questionnaire (SRLSQ), English Self-Efficacy Questionnaire (ESEQ), and a standardized English proficiency test. It involved 215 first-year non-English major students through purposive and random sampling methods. The collected data were examined by using descriptive statistics, Pearson's correlation, and multiple-linear regression analyses. The results disclosed that lower-level Thai EFL students – A1 and A2 had a high use of SRL strategies. However, for higher proficiency levels – B1 and B2, it was only B2 students who reported high use of SRL strategies. B1 students reported that they only employed SRL strategies moderately. Moreover, higher proficiency students had higher levels of English self-efficacy than those with lower proficiency levels. A direct influence was observed between students' use of SRL strategies and their English proficiency levels, yet self-efficacy only possessed an indirect effect. This study proposes some practical ideas to integrate SRL strategies into the English curriculum and instructions and enhance Thai EFL students' English self-efficacy.

Keywords: English proficiency, English self-efficacy, self-regulated learning strategies, Thai EFL students.

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1. INTRODUCTION

The Ministry of Education of Thailand officially made English one of the compulsory subjects from primary school level onwards in 1996, emphasizing proficiency-based curriculum which was aimed at developing students' English proficiency required to perform communication, acquire knowledge and advance career involving the use of English as a tool (Wongsothorn et al., 2002). Since then, the English curriculum in the Thai education system was amended a few times, starting from the enactment of the National Education Act of 1999 and 2002, the Basic Education Core (BEC) Curriculum of 2008 (Baker & Jarunthawatchai, 2017) to the latest one that introduced the Common European Framework of Reference for Languages (CEFR) in 2014 (Ketamon et al., 2018). All the amendments in the English curriculum were triggered by the huge concerns with the low English proficiency of Thai students and the need to improve Thai global competitiveness to cope with international events and demands. Latest annual reports from international educational institutions have confirmed very low levels of English proficiency among Thai test-takers since 2011 (Education First, 2020), and the majority of Thai first-year university students fall into the category of basic users of English – A1, and A2 in the CEFR, whereas they should have reached B1-B2 levels (Waluyo, 2019).

The curriculum changes and the low level of English proficiency of Thai students in the last decade have driven the present study to contemplate the question: 'If the level of English proficiency students attained indicates the level of their success in learning English or the lack of it, what is it, then, that can potentially contribute to their success in learning English?' A growing number of studies have identified students' self-regulated learning (SRL) strategies and self-efficacy as key factors to success in learning English (Cazan, 2012; Cho & Kim, 2019). SRL strategies are the actions students use in their efforts to acquire information/skill encompassing agency, purpose, and instrumentality self-perceptions (Zimmerman & Pons, 1986), while self-efficacy refers to people's judgments about their competencies to perform a task (Bandura, 1977). Both were found to be positively correlated (Wang & Bai, 2017).

Studies on SRL strategies and self-efficacy are growing in the literature, reflecting the importance of these factors in student learning. Nonetheless, little is known about the interplay among SRL strategies, English self-efficacy, and English proficiency in the case of learners in Thailand. Therefore, this study was set out to address this gap by examining students' SRL strategies, English self-efficacy, and English proficiency in relation to each skill and different English proficiency at the university level in Thailand. The following research questions guide this study:

1. How often do Thai first-year university students with different English proficiency levels use SRL strategies?
2. What are the levels of English self-efficacy in listening, speaking, reading, and writing of Thai first-year university students with different English proficiency levels?
3. What are the relationships among Thai first-year university students' use of SRL strategies, levels of English self-efficacy, and English proficiency?
4. What predictive roles do Thai first-year university students' use of SRL strategies and levels of English self-efficacy play in their English proficiency?

2.   LITERATURE REVIEW

2.1   English Proficiency

Proficiency is mostly perceived as the main goal of English teaching and learning, which underlies teaching, learning, and assessment practices. However, since the 1970s, the notion of English language proficiency has been debated and unsettled on whether English proficiency should be viewed as unitary or divisible. Thirakunkovit (2018), who reviewed the literature focusing on language proficiency and language dimensionality, concluded that albeit there seems to be some degree of consensus on the understanding that English proficiency involves different sub-skills, it is still inconclusive. At this point, Harsch (2014) suggested looking at the multilayered componential nature of English proficiency, which included horizontal dimension and vertical dimension. The former refers to the division of English proficiency into sub-skills, such as the four main English skills of listening, reading, writing, and speaking. Meanwhile, the latter categorizes English proficiency into test reporting purposes, meaning that English proficiency is reported in different levels, either as a whole or in specific skills.

Ortmeier-Hooper and Ruecker (2016) state that the term 'English proficiency' is commonly applied to people who do not use English as their first language. In addition, Harsch (2017, p. 250) explains, "it is generally recognized that the concept of proficiency in a second or foreign language comprises the aspects of being able to do something with the language ('knowing how') as well as knowing about it ('knowing what')". Moreover, the Council of Europe (2001) highlights that English proficiency should represent ones' capability and knowledge using the target language in actual situations. Therefore, English standardized tests such as IELTS, TOEFL, and TOEIC are generally used to measure such ability and knowledge. The Common European Framework of Reference (CEFR) for Languages was developed by the Council of Europe (2001) to illustrate one's ability and knowledge in a second/foreign language. The framework has been adopted not only by European countries, but also by Asian countries, including Japan (Negishi et al., 2013), Taiwan (Wu & Wu, 2007), Vietnam (Nguyen, 2015), Thailand (Ketamon et al., 2018), and others.

The present study follows the concept of English proficiency as both unitary and divisible concepts, assessed by a standardized test and categorized into the CEFR levels. This study views English proficiency as unitary when it looks at the students' overall proficiency and considers it divisible when it explores the students' proficiency levels in the specific skills of listening, reading, speaking, and writing.

2.2   Self-Regulated Learning (SRL) Strategies

During the mid-1980s, the concept of self-regulated learning (SRL) appeared in educational psychology to examine the process by which learners become experts in their own learning (Zimmerman, 2001). SRL has been defined in different ways with different theoretical frameworks. Social cognitive researchers view that self-regulation is self-initiated thoughts, feelings, and behaviors that are planned and regularly adapted based on performance feedback to achieve personal goals (Zimmerman, 2000). Pintrich (2000) further defines SRL as "an active, constructive process whereby learners set goals for their learning and then attempt to monitor, regulate, and control

their cognition, motivation, and behavior, guided and constrained by their goals and the contextual features in the environment" (p. 453).

Studies in self-regulated learning are fundamentally part of the exploration around learning strategies which has been growing recently as the findings can enhance student learning from non-cognitive aspects (Cazan, 2012). Students' ability to self-regulate their own learning will positively impact academic functioning, transcending informal and formal study leading to the increased level of self-study practice. The ability to regulate one's own learning is important, especially in the present day when most teaching and learning materials can be found online and accessed from anywhere and anytime. The concept of self-regulated learning can have the potential to provide guidelines for students to foster their own self-regulated learning habits, which can help them attain their learning goals. Hence, the body of the literature on self-regulated learning has referred to the so-called 'self-regulated learning (SRL) strategies' as a set of categories of strategies or actions that are commonly practiced by students in their self-regulated learning. According to Zimmerman and Pons (1986), SRL strategies refer to learners' actions in their effort to acquire information or skill encompassing agency, purpose, and instrumentality self-perceptions. They proposed several categories of SRL strategies, and early studies have shown eight categories that play significant roles in students' learning outcomes (e.g., Bai et al., 2014; Kosnin, 2007), as displayed in Figure 1.
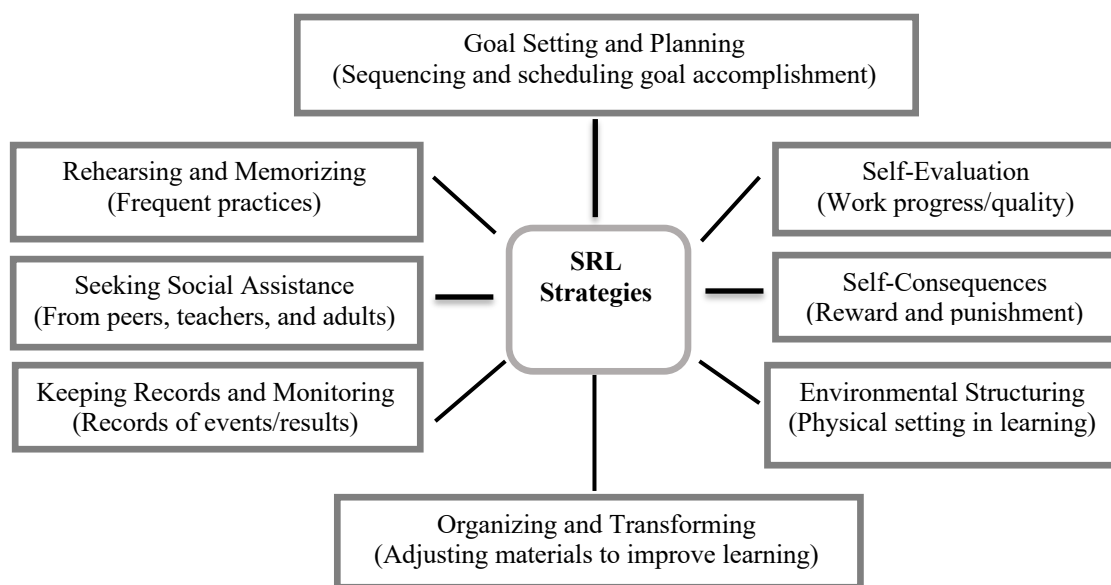

Figure 1. SRL strategies (adapted from Zimmerman & Pons, 1986).

Previous studies examining the relationships between students' SRL strategies and English proficiency have confirmed positive results (e.g., Bai et al., 2014; Seker, 2016). Furthermore, the impacts of SRL strategies were found to be significantly different across different levels of proficiency (Chen et al., 2020); however, a non-significant difference was also confirmed by Jeon (2011). Specifically, among the categories of SRL strategies, Goal Setting and Planning was reported as a motivation tool triggering effort to do self-regulated learning by students (Cheung, 2004). Additionally, Ainscough et al. (2018) highlighted that undergraduate students

employed the strategy frequently to overcome their learning hindrances. The studies investigating the roles of SRL strategies on students' language proficiency and achievement suggest the inclusion of SRL in language teaching to help foster SRL practice among students (Fukuda, 2019; Tsuda & Nakata, 2013).

2.3   English Self-Efficacy

Self-efficacy refers to people's judgments about their competencies to perform a task (Bandura, 1977). From the basic notion of self-efficacy, various studies have drawn a specific term named 'English self-efficacy' to help fathom English learning mechanisms encompassing all the essential skills such as listening, reading, writing, and speaking from learners' perspectives (Wang et al., 2013). Most of the previous studies anchor the definition of English self-efficacy on the basic notion of self-efficacy by emphasizing self-concept or belief in English learning. Therefore, to define English self-efficacy, it is important to link the term with the definition of self-concept in the context of language learners. Mercer (2011, p. 33) defines self-concept as "an internal psychological construct involving an individual's self-perceptions of competence and related self-evaluations in a specific domain". Hence, essentially, English self-efficacy can be perceived as learners' individual perceptions of their competence across the English skills based on self-evaluations. Wang et al. (2014) developed a questionnaire to identify English learners' self-efficacy in the four main English skills listening, reading, writing, and speaking which is known as 'the Questionnaire of English Self-Efficacy (QESE)'. Studies measuring self-efficacy must ensure that learners' perceptions are assessed at a level of specificity in line with outcome variables being explored (Pajares, 1996).

Empirical studies probing the relationships between English self-efficacy and English proficiency have been conducted both in general and specific skills. In general, a positive relationship has been observed between learners' English self-efficacy and their English proficiency (Anam & Stracke, 2019; Truong & Wang, 2019). Kitikanan and Sasimonton (2017) reveal that learners' self-efficacy in the four English skills was positively associated with their English learning achievement. Correspondingly, Kaur (2016) urges that to enhance learners' English learning achievement, self-efficacy should be considered as important as motivation and attitudes. Nevertheless, when assessing self-efficacy using self-reports, discrepancies between students' perceptions and real scores of English proficiencies may emerge (Im, 2018). Within specific skills of English, positive correlations have been consistently reported between English self-efficacy and reading (Boakye, 2015), English self-efficacy and writing (Hetthong & Teo, 2013), English self-efficacy and speaking (Asakereh & Dehghannezhad, 2015), and English self-efficacy and listening (Taguchi, 2018). It is, thus, suggested that English teaching and learning instructions should promote the enhancement of learners' English self-efficacy. The growth of learners' English self-efficacy may significantly influence learners' improvement across the skills of English.

2.4   The Interplay among SRL Strategies, English Self-Efficacy, and English Proficiency

Despite the small number, empirical studies on the interplay among SRL strategies, English self-efficacy, and English proficiency have been conducted on EFL

learners in different countries. In Korea, Cho and Kim (2019) discovered that high-proficiency students possessed a higher level of self-efficacy and successful learners used more SRL strategies. In Turkey, Çimenli and Çoban (2019) observed significant differences in listening and writing efficacy between A2 and B2 levels and moderate correlations between self-efficacy and SRL strategies, regardless of students' proficiency levels. In Japan, Yabukoshi (2018) highlighted that students with higher levels of self-efficacy demonstrated frequent use of SRL strategies which led to the enhancement of their listening proficiency. Wang et al. (2012) found significant correlations among Chinese medical students' self-efficacy, SRL strategies, and English proficiency, but the students' ratings of self-efficacy and SRL strategies were not high. Moreover, a qualitative study involving participants from China and Taiwan disclosed that efficacious students employed more SRL strategies and became more successful in learning English (Wang & Pape, 2005).

Meanwhile, in Thailand, studies exploring SRL strategies and self-efficacy related to English proficiency are still limited. Among the few studies include Pratontep and Chinwono (2008), who examined students' SRL strategies and English reading comprehension. It was found that higher achievers employed Goal Setting, Planning, and Self-Evaluation strategies more frequently than lower achievers. Another study was conducted by Woottipong (2019), who investigated the effects of SRL strategy training on students' learning achievement in the context of online learning. Siritararatn (2013) investigated the English self-efficacy of low proficiency graduate students and reported that their quite low level of self-efficacy was influenced by their unsuccessful experiences when they were studying English at elementary and secondary schools. Additionally, Hetthong and Teo (2013) underlined that there was a positive correlation between students' self-efficacy and their writing performance. Nonetheless, a different result was observed by Anyadubalu (2010), who conducted a study on self-efficacy and English performance among middle school students. The study found no significant relationship between self-efficacy and English performance.

From the brief review of the literature, it is evident that the body of the literature has provided sufficiently encouraging empirical evidence regarding the correlation between SRL strategies and English proficiency as well as that between English self-efficacy and English proficiency, yet still little is known about how these three variables interact with each other, especially in the Thai context. Exploring the interplay among SRL strategies, English self-efficacy, and English proficiency can potentially offer an alternative solution to English teaching and learning for teachers in the classroom and policymakers in the Thai education system.

3. METHODS

3.1 Research Design

This study employed a quantitative research design to explore and quantify relationships among self-regulated learning strategies, English self-efficacy, and English proficiency of Thai first-year university students. Quantitative research design fits the research objectives as it allows the examination of numerical variables using correlation and regression analyses (Wasserman, 2013).

3.2 Participants

This study involved undergraduate students with different English proficiency levels who are studying at Walailak University, Thailand. The participants were 215 non-English major first-year students (18.6% male, 79.5% female) from 12 different schools selected by purposive and random sampling, making up about 12% of the 1.672 target population. The students took a university standardized test of English proficiency named 'Walailak University Test of English Proficiency (WUTEP)' at the beginning of the first academic year of 2019-20. The details of the participants are provided in Table 1.

Table 1. The participants' information.

		Frequency	Percent
Gender	Male	40	18.6
	Female	171	79.5
	Not specified	4	1.9
Schools	Architecture and Design	3	1.4
	Engineering and Technology	9	4.2
	Informatics	16	7.4
	Liberal Arts	25	11.6
	Management	51	23.7
	Nursing	29	13.5
	Pharmacy	3	1.4
	Political Science	36	16.7
	Public Health	7	3.3
	Science	17	7.9
	Agricultural Technology	7	3.3
	Allied Health Sciences	12	5.6
English proficiency levels (CEFR)	A1	157	73
	A2	38	17.7
	B1	18	8.4
	B2	2	.9

3.3 Instruments

3.3.1 Survey questionnaire: SRLSQ

This study used the Self-Regulated Learning Strategies Questionnaire (SRLSQ) adapted from Wang and Bai (2017). The questionnaire consisted of 32 items exploring the students' use of SRL strategies in English learning in eight categories on a five-point Likert scale: 1 (never), 2 (seldom), 3 (sometimes), 4 (often), and 5 (always). The validity of the questionnaire was, first, checked by a panel consisting of three EFL lecturers at Prince of Songkla University. Some revisions were conducted until the panel committee approved the use of the questionnaire. Each item was translated into Thai and checked by native Thai speakers prior to the questionnaire distribution. The categories, number of items, and sample items can be seen in Table 2.

Table 2. Sample SRLSQ items.

Categories	Sample items
Self-Evaluation (5 items)	I evaluate my progress in learning English by checking my scores on exercises and quizzes.
Goal Setting and Planning (5 items)	I set goals for my English learning.
Organizing and Transforming (7 items)	I make charts or tables to help me organize the contents of English lessons.
Rehearsing and Memorizing (5 items)	I read English texts again and again in order to remember the contents.
Keeping Records and Monitoring (3 items)	I write down the mistakes I often make in studying English.
Seeking Social Assistance (3 items)	I ask my teachers when I encounter difficulties in studying English.
Self-Consequences (2 items)	I reward myself when I make a progress in studying English.
Environmental Structuring (2 items)	I have a place that helps me concentrate on studying English.

3.3.2 Survey questionnaire: ESEQ

This study also utilized the English Self-Efficacy Questionnaire (ESEQ) which was adapted from Wang et al. (2014). The questionnaire covered four skills: listening, reading, speaking, and writing. Students were asked to indicate their beliefs about their capabilities in each skill on a five-point Likert scale: 1 (I cannot do it at all), 2 (I cannot do it well), 3 (Maybe I can do it), 4 (I can do it), and 5 (I can do it well). The questionnaire was composed of 32 items in total and eight questions for each skill. The validity of this questionnaire was checked by a panel consisting of three EFL lecturers at Prince of Songkla University. After some revisions, the panel committee approved the use of the questionnaire. Each item was converted into Thai and edited by native Thai speakers preceding the questionnaire distribution. Sample items can be seen in Table 3.

Table 3. Sample ESEQ items.

Skills	Sample items
Listening	I can understand numbers spoken in English.
Reading	I can guess the meaning of unknown words in English texts.
Speaking	I can tell a story in English.
Writing	I can write email messages in English.

3.3.3 English proficiency test

The students' English proficiency levels were measured by using a standardized test named 'Walailak University – Test of English Proficiency (WUTEP).' The test was designed by referring to the Common European Framework of Reference for Languages (CEFR) and Classical Test Theory (CTT). It assesses the four English skills encompassing listening, speaking, writing, and reading in the CEFR levels from A1 to C1. WUTEP scores can be linked to other standardized test scores, such as TOEFL, IELTS, and TOEIC (Waluyo, 2019). Since 2018, WUTEP has been used to measure the proficiency levels of approximately 6,000 university students. In this study, the students took WUTEP before the survey questionnaires were administered. Students' raw scores in overall proficiency and each skill was collected in this study.

3.4 Data Collection

Prior to the data collection, the research proposal of this study was submitted to the Center for Social and Behavioral Sciences Institutional Review Board, Prince of Songkla University. After eight weeks, the study was approved by the ethics board: the certificate of approval of human research ethics was obtained (Research Code: PSU IRB 2020 – PSU – St 013).

After getting the approval, a pilot study was conducted. It involved 52 undergraduate non-English majors (25% male, 75% female) at Prince of Songkla University. The students majored in Engineering, Management Sciences, Nursing, Law, and Science. The pilot data were analyzed by using Cronbach's alpha to see the internal consistency of the questionnaire items. The analysis results displayed high internal consistencies for both SRLSQ (α = .877) and ESEQ (α = .952). Based on the reliability results, no item was removed. Afterward, the data collection of the main study was conducted for a week. The questionnaire distribution was done by using Google Form. The participants were informed of the study, and their participation was voluntary. Their consent to participate in the study was obtained prior to the questionnaire completion.

3.5 Data Analysis

After the data had been collected, they were analyzed using a statistical program. The reliability analysis was performed again to ensure the internal consistency of the questionnaire items. Higher Cronbach's alpha coefficients were obtained for both SRLSQ (α = .929) and ESEQ (α = .956). Afterward, the normality of the data was examined by using the values of *Skewness* and *Kurtosis*. George and Mallery (2003) suggested the values between -2 and +2 as an indication of normal distribution. The descriptive results displayed a normal distribution, signaling that the data could, further, be analyzed by using Parametric tests. The first and second research questions were addressed by using descriptive statistics (Means and Standard Deviation). The interpretation of means involved three levels, as shown in Table 4.

Table 4. Interpretation of the mean values.

Mean value	Meaning
1.00 – 1.66	The use of SRL strategies and the level of English self-efficacy are low.
1.67 – 3.33	The use of SRL strategies and the level of English self-efficacy are moderate.
3.34 - 5.00	The use of SRL strategies and the level of English self-efficacy are high.

The third question was examined by using Pearson's correlation. The strength of the correlation, as presented in Table 5, was interpreted in five levels. Lastly, multiple regression analyses were carried out to answer the fourth research question.

Table 5. Interpretation of the size of correlation.

Size of correlation	Meaning
.90 to 1.00 or -.90 to -1.00	Very strong positive/negative relationship
.70 to .89 or -.70 to -.89	Strong positive/negative relationship
.50 to .69 or -.50 to -.69	Moderate positive/negative relationship
.30 to .49 or -.30 to -.49	Weak positive/negative relationship
.00 to .29 or -.00 to -.29	Little if any relationship

4. RESULTS

4.1 SRL Strategies of Thai EFL Students by Proficiency Levels

Overall, the descriptive statistics as displayed in Table 6 revealed that students at A1 (M = 3.58, SD = .50), A2 (M = 3.40, SD = .40), and B2 (M = 3.64, SD = .15) levels had a high use of SRL strategies in their English learning, yet those at B1 level (M = 3.06, SD = .39) only used the strategies moderately. All the SD values were lower than 1, implying small differences among the participants' responses toward the SRL strategies questionnaire items.

Table 6. The use of SRL strategies with different English proficiency levels.

English proficiency levels	Use of SRL strategies		Level of use
	Mean	SD	
A1	3.58	.50	High
A2	3.40	.40	High
B1	3.06	.39	Moderate
B2	3.64	.15	High

For each category of SRL strategies, the results as seen in Table 7, first, indicated that the higher the students' proficiency levels were, the fewer SRL strategies the students used during their English learning. This case occurred to the levels of basic users of English – A1 and A2. A1 students reported that they practiced most of the strategies at a high level, encompassing goal setting and planning (M = 3.68, SD = .58), organizing and transforming (M = 3.66, SD = .57), rehearsing and memorizing (M = 3.64, SD = .63), self-evaluation (M = 3.61, SD = .61), keeping records and monitoring (M = 3.52, SD = .70), seeking social assistance (M = 3.48, SD = .73), environmental structuring (M = 3.42, SD = .86); nonetheless, self-consequences (M = 3.26, SD = .74) was moderately practiced during their English learning. For A2 students, among the high SRL strategies use were goal setting and planning (M = 3.53, SD = .61), rehearsing and memorizing (M = 3.48, SD = .55), organizing and transforming (M = 3.47, SD = .49), self-consequences (M = 3.40, SD = .91), and environmental structuring (M = 3.35, SD = .89), but such strategies as seeking social assistance (M = 3.32, SD = .55), self-evaluation (M = 3.27, SD = .53), keeping records and monitoring (M = 3.19, SD = .60) were moderately employed. All the SD values, which were less than 1, reflected small differences among the participants' responses.

Table 7. The use of SRL strategies of A1 and A2 students.

Categories	A1			A2		
	Mean	SD	Level of use	Mean	SD	Level of use
Self-evaluation	3.61	.61	High	3.27	.53	Moderate
Goal setting and planning	3.68	.58	High	3.53	.61	High
Organizing and transforming	3.66	.57	High	3.47	.49	High
Rehearsing and memorizing	3.64	.63	High	3.48	.55	High
Keeping records and monitoring	3.52	.70	High	3.19	.60	Moderate
Seeking social assistance	3.48	.73	High	3.32	.55	Moderate
Self-consequences	3.26	.74	Moderate	3.40	.91	High
Environmental structuring	3.42	.86	High	3.35	.89	High

However, the results, as presented in Table 8, signaled a reversed pattern for the levels of independent users of English - B1 and B2. For B1 students, for instance, only goal setting and planning (M = 3.48, SD = .55) was highly used, while the other strategies, including self-evaluation (M = 3.22, SD = .62), environmental structuring (M = 3.11, SD = .91), keeping records and monitoring (M = 3.03, SD = .72), rehearsing and memorizing (M = 3.00, SD = .43), seeking social assistance (M = 3.00, SD = .56), self-consequences (M = 2.97, SD = .77), and organizing and transforming (M = 2.74, SD = .59), were moderately employed. In contrast, B2 students applied more SRL strategies with high use, involving environmental structuring (M = 4.25, SD = .35), organizing and transforming (M = 4.00, SD = .60), keeping records and monitoring (M = 3.66, SD = .47), goal setting and planning (M = 3.60, SD = .00), self-evaluation (M = 3.50, SD = .42), and rehearsing and memorizing (M = 3.50, SD = .98), as well as with moderate applications of seeking social assistance (M = 3.33, SD = 1.41) and self-consequences (M = 3.00, SD = .70).

Table 8. The use of SRL strategies of B1 and B2 students.

Categories	B1			B2		
	Mean	*SD*	**Level of use**	**Mean**	*SD*	**Level of use**
Self-evaluation	3.22	.62	Moderate	3.35	.42	High
Goal setting and planning	3.48	.55	High	3.60	.00	High
Organizing and transforming	2.74	.59	Moderate	4.00	.60	High
Rehearsing and memorizing	3.00	.43	Moderate	3.50	.98	High
Keeping records and monitoring	3.03	.72	Moderate	3.66	.47	High
Seeking social assistance	3.00	.56	Moderate	3.33	1.41	Moderate
Self-consequences	2.97	.77	Moderate	3.00	.70	Moderate
Environmental structuring	3.11	.91	Moderate	4.25	.35	High

Furthermore, as shown in Tables 7 and 8, the results pinpointed similarities and differences across learners with different proficiency levels with regards to the most and least used SRL strategies. Goal setting and planning was the most used strategy by A1 (M = 3.68, SD = .58), A2 (M = 3.53, SD = .61), B1 (M = 3.48, SD = .55), but not for B2 (M = 3.60, SD = .00) students. Self-consequences were the least-used strategy for A1 (M = 3.26, SD = .74) and B2 (M = 3.00, SD = .70), while for A2 (M = 3.19, SD = .60) and B1(M = 2.74, SD = .59), the least used strategies were keeping records and monitoring and organizing and transforming, respectively. However, it should be noted that the SD value of B2 students on seeking social assistance was more than 1, implying that there were big differences in the number of the participants who chose "Never" and "Always" for this SRL strategy.

4.2   English Self-Efficacy of Thai EFL Students by Proficiency Levels

The overall descriptive statistics as depicted in Table 9 revealed that students at A1 (M = 3.22, SD = .47) and A2 (M = 3.14, SD = .45) levels of English proficiency possessed moderate levels of English self-efficacy, yet B1 (M = 3.46, SD = .42) and B2 (M = 3.79, SD = .28) level students had a high level of English self-efficacy. The alignment between proficiency level and English self-efficacy was noted from these

results. All the SD values revealed slight differences among the participants' responses toward the self-efficacy questionnaire items.

Table 9. The level of English self-efficacy with different English proficiency levels.

English proficiency levels	Mean	SD	Level of English self-efficacy
A1	3.22	.47	Moderate
A2	3.14	.45	Moderate
B1	3.46	.42	High
B2	3.79	.28	High

Moreover, in specific English skills, lower-level students reported homogeneity in their level of English self- efficacy as illustrated in Table 10. A1 students perceived that they had moderate levels of English self-efficacy in listening (M = 3.28, SD = .50), reading (M = 3.27, SD = .50), speaking (M = 3.26, SD = .52), and writing (M = 3.08, SD = .60). The moderate levels of self-efficacy were also reported by A2 students in listening (M = 3.17, SD = .51), reading (M = 3.28, SD = .51), speaking (M = 3.11, SD = .53), and writing (M = 3.01, SD = .51). All the SD values, less than 1, reflected small differences among the participants' responses.

Table 10. The level of English self-efficacy in specific skills of A1 and A2 students.

Skills	A1			A2		
	Mean	SD	Level of English self-efficacy	Mean	SD	Level of English self-efficacy
Listening	3.28	.50	Moderate	3.17	.51	Moderate
Reading	3.27	.50	Moderate	3.28	.51	Moderate
Speaking	3.26	.52	Moderate	3.11	.53	Moderate
Writing	3.08	.60	Moderate	3.01	.51	Moderate

However, different results were shown by students at B1 level as presented in Table 11. Their levels of English self-efficacy were high in listening (M = 3.50, SD = .58), reading (M = 3.52, SD = .44), and speaking (M = 3.52, SD = .51) but moderate in writing skill (M = 3.31, SD = .51). Moreover, B2 students considered that they had a high self-efficacy level in the four main skills of English. Their highest level of English self-efficacy was in reading (M = 4.00, SD = .70), followed by their self-efficacy in speaking (M = 3.87, SD = .17), listening (M = 3.68, SD = .26), and writing (M = 3.62, SD = .35). Small differences on the responses were also noted in these B1 and B2 students from all the SD values.

Table 11. The level of English self-efficacy in specific skills of B1 and B2 students.

Skills	B1			B2		
	Mean	SD	Level of English self-efficacy	Mean	SD	Level of English self-efficacy
Listening	3.50	.58	High	3.68	.26	High
Reading	3.52	.44	High	4.00	.70	High
Speaking	3.52	.51	High	3.87	.17	High
Writing	3.31	.51	Moderate	3.62	.35	High

4.3 Relationships among SRL Strategies, English Self-Efficacy, and English Proficiency

Overall, a little negative significant relationship was found between SRL strategies and English proficiency ($r = -.269$, $p < .001$), yet a significant relationship was not established between English self-efficacy and English proficiency ($r = .093$, $p = .176$). However, a weak positive significant relationship between SRL strategies and English self-efficacy was observed ($r = .489$, $p < .001$), as seen in Table 12.

Table 12. Results of Pearson's correlation analyses ($N = 215$).

		SRL strategies	English self-efficacy	English proficiency
SRL Strategies	r	1	.489**	-.269**
	p		.000	.000
English Self-Efficacy	r		1	.093
	p			.176
English Proficiency	r			1
	p			

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

4.4 Predictive Roles of SRL Strategies and English Self-Efficacy in English Proficiency

The results shown in Table 13 revealed SRL strategies as a significant predictor of English proficiency ($t (214) = 9.722$, $p < .001$). The regression model could explain 7% of the variance in the outcome variable ($R^2 = .072$), with small effect size (Cohen's $f^2 = .077$). Among the specific SRL strategies, significant predictors of English proficiency were self-evaluation, organizing and transforming, rehearsing and memorizing, keeping records and monitoring, and seeking assistance. In contrast, the other strategies, such as goal setting and planning, self-consequences, and environmental structuring, could not explain significant variances in the outcome variable. On the other hand, despite the significant regression results ($t (214) = 4.337$, $p < .001$), the ANOVA model that forecasted English proficiency by English self-efficacy was not convincing ($F (214) = 1.843$, $p = .176$), with very small effect size (Cohen's $f^2 = .009$). Subsequently, each specific skill of English self-efficacy could not predict students' English proficiency in the four main skills.

Table 13. Results of the regression analyses.

Dependent Variable	Predictors	R^2	Anova		Regression		Cohen's
			F	Sig.	t	Sig.	f^2
English Proficiency	SRL Strategies (Overall)	.072	16.59	.000	9.722	.000	.077
	Self-evaluation	.051	11.39	.001	10.266	.000	.053
	Goal setting and planning	.117	2.97	.086	7.980	.000	.132
	Organizing and transforming	.105	24.99	.000	12.010	.000	.117
	Rehearsing and memorizing	.064	14.50	.000	10.793	.000	.068
	Keeping records and monitoring	.037	8.09	.005	10.825	.000	.038

Table 13 continued…

	Seeking assistance	.046	10.36	.001	11.260	.000	.048
	Self-consequences	.003	.72	.396	9.977	.000	.003
	Environmental structuring	.002	.45	.503	10.438	.000	.002
	English self-efficacy	.009	1.843	.176	4.337	.000	.009
Listening Proficiency	Listening self-efficacy	.001	.15	.699	7.009	.000	.001
Reading Proficiency	Reading self-efficacy	.027	5.83	.017	3.914	.000	.027
Speaking Proficiency	Speaking self-efficacy	.019	4.19	.042	3.928	.000	.019
Writing Proficiency	Writing self-efficacy	.000	.002	.968	2.802	.006	-

5. DISCUSSION

The present study explored the interplay among SRL strategies, English self-efficacy, and English proficiency among first-year EFL university students in Thailand. The results disclosed four key findings worth discussing. First, variations were observed regarding the frequency of SRL strategies used among Thai EFL students with different proficiency levels in this study. The statistical results demonstrated that A1 and A2 students had a high use of SRL strategies. Their awareness of their low English proficiency levels might have encouraged them to employ SRL strategies more frequently. Meanwhile, among the high proficiency level students – B1 and B2, this study discovered different degrees of SRL strategies used in their English learning. B1 students reported a moderate level of SRL strategies use, which was likely due to their awareness of their English proficiency level. On the other hand, unlike those at the B1 level, B2 students reported that they employed SRL strategies frequently despite having a higher level of English proficiency. At this point, B2 students involved in this study might have had their own personal reasons for not lowering their use of self-regulated learning strategies, and personal English learning experiences might have motivated the students to maintain frequent use of SRL strategies in their English learning.

Chen et al. (2020) highlighted that students might apply different frequency use and a variety of SRL strategies because they were aware of their weaknesses and strengths. Nevertheless, it is worth pointing out that only a few students managed to be at the B2 level, which is a common condition for university students in Thailand. The small population and sample size of B2 level students might have affected this finding; in other words, if there were a large number of B2 level students, different results might have been generated. Preceding studies in this area (e.g., Nandagopal & Ericsson, 2012; Schunk, 1996) have only indicated disagreements on what SRL strategy matters most for students, implying various results across contexts. The first finding of the present study adds to the knowledge of how often EFL students in Thailand use SRL strategies in their English learning.

In addition, concerning the specific category of SRL strategies use, this study partially sustains the finding from the previous study by Pratontep and Chinwono (2008), who found that higher-level students employed goal setting and planning more frequently than lower-level students. The present study indicated that both low- and

high-level students reported high use of goal setting and planning. The finding signified that although Thai first-year university students in this study had different English proficiency levels, they were aware of the importance of goal setting and planning strategy in their English learning. Cheung (2004) states that goal setting and planning can serve as a motivation tool in the first year of study, which can lead to the circumstances where the students self-regulate their own learning. Ainscough et al. (2018) undergraduate students frequently employed goal setting and planning to overcome their learning hindrances.

Second, it was identified that higher proficiency students had higher levels of English self-efficacy towards their overall English proficiency, and vice versa, supporting the findings of the previous studies (Anam & Stracke, 2019; Truong & Wang, 2019). Among the main skills of English, lower-level Thai EFL students – A1 and A2 shared similarities. However, among the higher levels – B1 and B2, only the highest-level students (B2) possessed high self-efficacy in listening, reading, speaking, and writing. The students at the B1 level had high self-efficacy towards their listening, reading, and speaking proficiency, but they perceived their writing proficiency at a moderate level. In the CEFR levels, B1 and B2 are considered independent users of the target language being learned. Hence, this particular finding reveals that there was a slight difference among B1 students in perceiving their proficiency in a particular English skill. This indicates variances in the extent to which the students categorized as independent users of English perceive their proficiency levels on each English skill. Nonetheless, this assumption may need further exploration in the future. Furthermore, in this study, the descriptive statistics analysis revealed that Thai EFL students were adequately confident to judge their English capabilities. The discrepancies between students' perceptions and actual scores of English proficiencies were not entirely noticeable. A previous study by Im (2018) suggests that discrepancies between students' perceptions of their English proficiency and their actual performance may emerge when a self-report survey is used as the data collection tool, but this suggestion does not implicate in the present study.

The subsequent finding concerning the third research question did not confirm the positive relationship between students' English self-efficacy and their English proficiency. This result is not in line with the findings in the previous studies (e.g., Thompson et al., 2019; Truong & Wang, 2019). Although the descriptive statistical analysis pointed out that Thai EFL students seemed to be confident in rating their English abilities, the results of Pearson's correlation showed that it was not associated with their English proficiency. Hence, this study advises that students' self-report of English self-efficacy should be interpreted differently from proficiency level on the correlation terms. Moreover, SRL strategies had a negative relationship with English proficiency. This finding showed that the students who reported high use of SRL strategies had lower levels of English proficiency. There are two ways to interpret this finding. Firstly, the high use of SRL strategies among lower-level students may signify the students' awareness of their level of proficiency, thereby encouraging them to put efforts into managing their own English learning. Secondly, the students may not have a comprehensive understanding of SRL strategies, which implies that their reported perceptions could have been different from the actual implementation. Wang et al. (2012) pointed out that English classroom instruction could influence students' use of SRL strategies. Therefore, if the second interpretation is true, this study suggests that English teachers should incorporate SRL strategies practice in classrooms and

facilitate the students to develop their own understanding and use of SRL strategies. Meanwhile, students' SRL strategies established a positive relationship with their English self-efficacy, which was also confirmed by previous studies (e.g., Wang & Bai, 2017; Wang & Pape, 2005). These relationship results implicitly revealed a distinctive pattern of three variables of interest among Thai EFL students that the current body of the literature lacks. In brief, the students' English self-efficacy was only associated with their SRL strategies use, which means that the results of self-report efficacy can be used to identify students' SRL strategies in their English learning, regardless of their English proficiency levels.

The last finding regarding the fourth research question provided the answer to the inquiry of whether SRL strategies and English self-efficacy of Thai EFL students could predict their English proficiency levels. Empirical studies carried out in Asian countries, such as Korea, Turkey, Japan, and China, disclosed encouraging results that more proficient students had a higher level of English self-efficacy and used SRL strategies more often (Cho & Kim, 2019; Çimenli & Çoban, 2019). In Thailand, the present study, however, found that it was only SRL strategies that could predict students' proficiency levels, while the regression model from English self-efficacy to English proficiency was non-significant. A number of SRL strategies, e.g., self-evaluation, organizing and transforming, rehearsing and memorizing, keeping records and monitoring, and seeking assistance, became significant predictors of English proficiency, as seen in Table 13. Earlier, a study from Seker (2016), who investigated the use of SRL strategies by undergraduate foreign language learners, also found that students' use of SRL strategies could significantly predict their language achievement. In the aspect of English self-efficacy, empirical studies carried out in Thailand had identified both positive (Hetthong & Teo, 2013) and non-significant relationships (Anyadubalu, 2010). Siritararatn (2013) explored students' English self-efficacy at Kasetsart University using questionnaires and interviews and found that students' self-efficacy might be influenced by their previous unsuccessful English learning experiences at elementary and secondary schools. At this point, based on the findings of this fourth research question, the present study suggests that students' self-efficacy might have a role in their English learning process. Yet, the improvement in their English proficiency might depend on how they self-regulate their English learning.

5.1 Implications of the Study

The results of this study offer several implications. This study observed a direct influence of Thai EFL students' SRL strategies on their proficiency level; therefore, it is encouraged that the English teaching and learning curriculum promotes the inclusion of the practice of SRL strategies. The study noted that Thai EFL students had moderate to high-level use of SRL strategies in their English learning. This knowledge can be used to further maintain and develop students' use of SRL strategies until it becomes a common practice. The components of self-regulated learning involve various elements, in which success in manifesting such factors in student learning will result in a high degree of autonomous learning leading to an ability to conduct life-long learning (Fukuda, 2019). The practical integration can be accomplished by including SRL strategies, such as textbooks, task instructions, class activities, and formative assessments. Nevertheless, it is important to underline that students have complex intrinsic factors and motivation to learn (Koad & Waluyo, 2021; Tsuda & Nakata,

2013). Therefore, English teachers are urged to strive to understand each student's readiness and internal factors prior to integrating SRL strategies into their teaching.

Furthermore, various empirical studies have pointed out the influence of English self-efficacy on student English learning directly or indirectly (e.g., Anam & Stracke, 2019; Kitikanan & Sasimonton, 2017). The present study did not directly predict English self-efficacy on Thai EFL students' proficiency levels; nonetheless, students' judgments of their English competencies positively correlated with the frequency of their use of SRL strategies. The higher their English self-efficacy levels are, the more SRL strategies they employ in their English learning, thereby improving their English proficiency. This study agreed with Siritararatn's (2013) study that previous unpleasant English learning might affect Thai EFL students' self-efficacy at the university level. This type of non-cognitive area seems to have been overlooked by both the English curriculum in the Thai Education system and course instructions. Given the fact that Thai EFL students have been at low proficiency band since 2011 (Education First, 2020), it is reasonable to say that Thai EFL students have probably been in an 'unpleasant' English learning experience for some time and no sign of significant progress would come in the near future unless such learning experience affecting their self-efficacy be addressed. It is strongly advocated that the English curriculum and course instructions are not only accommodating the development of cognitive skills but also facilitating the change of students' mindset in English learning towards a positive direction.

6. CONCLUSION

To conclude, among the three variables of interest in this study, overall SRL strategies had a direct influence on Thai EFL students' English proficiency levels, while English self-efficacy played a role in affecting students' use of SRL strategies. However, despite the significant levels, the strengths of the relationships observed were weak, which should be taken into consideration in the interpretations of the findings. Furthermore, Thai first-year university students appeared to be aware of how to self-regulate their own English learning and their judgments of their English competence followed their proficiency levels. Nevertheless, continuous supports are required to transform such perceptions into sustained academic behaviors that potentially lead to improved English proficiency. Therefore, the present study encourages future studies to explore how the English curriculum and course instructions in Thailand have addressed such developments of non-cognitive areas among students.

As much as this study intends to offer, some limitations are acknowledged that restrict the interpretations of the findings. Regarding the sample size, although the collected data represented students with different English proficiency levels, this study could not involve students on each level of English proficiency with proportional numbers. Additionally, it only utilized quantitative data derived from survey questionnaires and an English proficiency test, meaning that the addition of qualitative data might have given more detailed insights; however, the study could not employ a mixed-method due to language barriers, time constraints, and emergencies caused by COVID-19. As much as this study intends to provide a distinctive profile of EFL students in Thailand in terms of SRL strategies and English self-efficacy, the

generalization of the results can be limited by the data collection instruments and measures as well as individual characteristics of the subjects.

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