



A Study of English Reading Strategies Used by Grade 12 Students in Mueang District, Chachoengsao Province*

Received: 19 November 2025

Revised: 26 December 2025

Accepted: 6 February 2026

Nuntiporn Raungsawat**
Suwicha Saengroongpetch***

The aims of this study were 1) to investigate English reading strategies employed by Grade 12 students in Mueang District, Chachoengsao Province and 2) to compare English reading strategy use of those with different English reading abilities. One hundred and five Grade 12 students in Mueang District, Chachoengsao Province participated in this study. Quantitative data collected from Survey of Reading Strategies or SORS (Mokhtari & Sheorey, 2002) and a validated reading comprehension test was analyzed using descriptive statistics. Qualitative data drawn from semi-structured interview was analyzed by content analysis. The findings show that Grade 12 students in Mueang District, Chachoengsao Province used English reading strategies at a high level. Support strategies were employed mostly, followed by problem solving strategies and global reading strategies, respectively. There was a statistically significant difference between reading strategy use of the students with high and low reading abilities at 0.05 level. The students with high reading ability used English reading strategies at a high level with the highest use of global reading strategies, followed by problem solving strategies and support strategies, respectively.

Research Article

Abstract

Keywords

English reading;
English reading strategies;
English reading ability

* This research was funded by Research and Development Institute, Rajabhat Rajanagarindra University, Fiscal Year 2024 and received a COA No. 010/2567 RRU-IRB No.005/2567 from Rajabhat Rajanagarindra University Research Ethics Committee on 25 September 2024.

** Lecturer, English Department, Faculty of Humanities and Social Sciences, Rajabhat Rajanagarindra University, e-mail: nuntiporn.rau@gmail.com

*** Lecturer, English Department, Faculty of Humanities and Social Sciences, Rajabhat Rajanagarindra University, e-mail: asgoodasever21@gmail.com (corresponding author)

The students with low reading ability employed English reading strategies at a medium level with the highest use of support strategies, followed by problem solving strategies and global reading strategies, respectively. Content analysis reveals two more reading strategies the students with high reading ability used before reading that is not included in the framework of Mokhtari and Sheorey (2002), namely previewing text from grammatical structures and reading questions before text.



การศึกษากลวิธีการอ่านภาษาอังกฤษของนักเรียน ระดับมัธยมศึกษาปีที่ 6 อำเภอเมือง จังหวัดฉะเชิงเทรา*

Received: 19 November 2025

Revised: 26 December 2025

Accepted: 6 February 2026

นนทิพร เรืองสวัสดิ์**

สุวิชา แสงรุ่งเพชร***

การวิจัยครั้งนี้มีวัตถุประสงค์เพื่อ 1) ศึกษาการใช้กลวิธีการอ่านภาษาอังกฤษของนักเรียนระดับมัธยมศึกษาปีที่ 6 ในเขตอำเภอเมือง จังหวัดฉะเชิงเทรา และ 2) เปรียบเทียบการใช้กลวิธีการอ่านภาษาอังกฤษของนักเรียนที่มีความสามารถในการอ่านภาษาอังกฤษแตกต่างกัน กลุ่มตัวอย่างคือ นักเรียนระดับมัธยมศึกษาปีที่ 6 จากโรงเรียนรัฐบาลในเขตพื้นที่อำเภอเมือง จังหวัดฉะเชิงเทรา จำนวน 105 คน เครื่องมือที่ใช้ในการเก็บรวบรวมข้อมูลเชิงปริมาณ ประกอบด้วยแบบสอบถามกลวิธีการอ่านภาษาอังกฤษ (Survey of Reading Strategies: SORS) ซึ่งปรับมาจากแบบสอบถามของม็อคทารี และเชียร์รี (Mokhtari & Sheorey, 2002) และแบบทดสอบการอ่านภาษาอังกฤษที่พัฒนาขึ้นโดยผู้วิจัยโดยใช้สถิติเชิงพรรณนาเพื่อวิเคราะห์ข้อมูล เครื่องมือที่ใช้ในการเก็บรวบรวมข้อมูลเชิงคุณภาพ คือ แบบสัมภาษณ์กึ่งโครงสร้าง วิเคราะห์ข้อมูลโดยการวิเคราะห์เนื้อหา (Content Analysis) ผลการวิจัยพบว่า นักเรียนระดับมัธยมศึกษาปีที่ 6 ในเขตพื้นที่อำเภอเมือง จังหวัดฉะเชิงเทรา ใช้กลวิธีการอ่านภาษาอังกฤษในระดับมาก โดยใช้กลวิธีการอ่านที่ใช้สนับสนุน (Support Strategies) สูงที่สุด รองลงมา คือ กลวิธีการอ่านที่ใช้แก้ปัญหา (Problem Solving Strategies) และกลวิธีการอ่านแบบองค์รวม (Global Reading Strategies) การใช้กลวิธีการอ่านของนักเรียนที่มีความสามารถในการอ่านภาษาอังกฤษระดับสูงและระดับต่ำแตกต่างกันอย่างมีนัยสำคัญทางสถิติที่ระดับ 0.05 นักเรียนกลุ่มที่มีความสามารถในการอ่านภาษาอังกฤษ

บทความวิจัย

บทคัดย่อ

คำสำคัญ

การอ่านภาษาอังกฤษ;
กลวิธีการอ่านภาษาอังกฤษ;
ความสามารถในการอ่าน
ภาษาอังกฤษ

* บทความวิจัยนี้ได้รับทุนสนับสนุนจากสถาบันวิจัยและพัฒนา มหาวิทยาลัยราชภัฏราชนครินทร์ ประจำปีงบประมาณ 2567 และได้รับหนังสือรับรองการพิจารณาจริยธรรมการวิจัย COA No. 010/2567 RRU-IRB No. 005/2567 จากคณะกรรมการจริยธรรมการวิจัยในมนุษย์ มหาวิทยาลัยราชภัฏราชนครินทร์ เมื่อวันที่ 25 กันยายน 2567

** อาจารย์ประจำสาขาวิชาภาษาอังกฤษ คณะมนุษยศาสตร์และสังคมศาสตร์ มหาวิทยาลัยราชภัฏราชนครินทร์ ติดต่อได้ที่: nuntiporn.rau@gmail.com

*** อาจารย์ประจำสาขาวิชาภาษาอังกฤษ คณะมนุษยศาสตร์และสังคมศาสตร์ มหาวิทยาลัยราชภัฏราชนครินทร์ ติดต่อได้ที่: asgoodasever21@gmail.com (ผู้ประพันธ์บรรณกิจ)

ระดับสูงใช้กลวิธีการอ่านในระดับมากโดยใช้กลวิธีการอ่านแบบองค์รวม (Global Reading Strategies) สูงที่สุด รองลงมา คือ กลวิธีการอ่านที่ใช้แก้ปัญหา (Problem Solving Strategies) และกลวิธีการอ่านที่ใช้สนับสนุน (Support Strategies) นักเรียนกลุ่มที่มีความสามารถในการอ่านภาษาอังกฤษระดับต่ำใช้กลวิธีการอ่านในระดับปานกลางโดยใช้กลวิธีการอ่านที่ใช้สนับสนุน (Support Strategies) สูงที่สุด รองลงมา คือ กลวิธีการอ่านที่ใช้แก้ปัญหา (Problem Solving Strategies) และกลวิธีการอ่านแบบองค์รวม (Global Reading Strategies) นอกจากนั้น ผลการวิเคราะห์เนื้อหาที่ได้จากการสัมภาษณ์พบว่ามีกลวิธีการอ่านเพิ่มเติมที่ไม่ได้กล่าวถึงตามกรอบทฤษฎีของม็อคทารีและเชียร์รี (Mokhtari & Sheorey, 2002) ที่นักเรียนที่มีความสามารถในการอ่านสูงใช้เมื่อเริ่มอ่าน ได้แก่ การสำรวจบทอ่านจากโครงสร้างไวยากรณ์และการอ่านคำถามก่อนเนื้อหา

1. Introduction

For Thai students at Grade 12, having good English reading skill is essential since they are required to read a wide range of written works in English, such as textbooks, articles, magazines, and newspapers. This can be seen from Grade 12 indicator prescribed by the Ministry of Education in the revised Basic Education Core Curriculum 2017 that secondary school students are supposed to analyze the essence, conclude, interpret, and express opinions from listening and reading feature articles and materials for entertainment purpose, as well as provide justifications and examples for illustration (Office of Academic Affairs and Educational Standards, 2017). Moreover, English reading skill is crucial for students who learn English in the current Thai education system, especially for Grade 12 students who are required to take the Ordinary National Education Testing (O-NET). Importantly, the scores obtained on this test affects admission to higher education (Krungyut, 2019). However, the result of the 2021 National Education Test (O-NET) for the students at Grade 12 in English subject was not satisfactory. Statistically, the students' proficiency in English communication was low, with an average of 25.56% (National Institute of Educational Testing, 2021). This is consistent with the results of Thailand's Programme for International Student Assessment (PISA) in 2023 which revealed that Thai students had an average score of 379 in reading literacy, lower than those of the past year for 14 points. In addition, the average reading score of Thai students tends to decrease when looking back in the past 20 years, and the PISA score of Thai students in reading literacy in the year 2023 is the lowest in Thailand's record.

To improve English reading ability, educators, experts, and researchers in the field of English reading have suggested learners to use reading strategies (Nisbet & Huang, 2015; Par, 2020; Songsiengchai, 2010; Suraprajit, 2019). Reading strategies play an important role in reading because they are tools that help readers achieve their desired reading goals. Furthermore, reading strategies assist readers to understand what they read more quickly. By using reading strategies, readers can capture as many ideas as possible in the least amount of time. Put it simply, if readers choose appropriate reading strategies, they can achieve their reading purpose faster. To date, most of the existing research on reading strategy use were conducted with undergraduate students. Yet, studies carried out with high school students regarding their English reading strategy use have received less attention. Therefore, the present study aims to examine English reading strategies used by Grade 12 students in Mueang District, Chachoengsao Province, and to investigate whether those students with different reading ability employed different English reading strategies. The findings of this research would help develop English reading skill of Grade 12 students in Mueang District, Chachoengsao Province, as well as those in other educational contexts who share similar characteristics.

2. Research Objectives

1. To investigate English reading strategies used by Grade 12 students in Mueang District, Chachoengsao Province.
2. To compare the use of English reading strategies of Grade 12 students with different English reading ability in Mueang District, Chachoengsao Province.

3. Literature Review

3.1 Reading Strategies

Pritchard (1990) describes reading strategy as “a deliberate action that readers take voluntarily to develop and understanding of what they read” (p. 275). Anderson (1991) defines reading strategies as “deliberate, cognitive steps that learners can take to assist in acquiring, storing, and retrieving new information” (p. 460). Urquhart & Weir (1998) view reading strategies as “ways of getting round difficulties encountered while reading” (p. 95). In conclusion, reading strategies can be defined as cognitive, deliberate operations readers employ while reading to enhance their reading comprehension and overcome reading difficulties.

Researchers have classified reading strategies into different categories. For example, Block (1986) divides reading strategies as general and local strategies. Anderson (1999) classifies reading strategies as cognitive, metacognitive, and compensation strategies. Mokhtari & Sheorey (2002) categorize reading strategies into three major groups that students perceive they use while reading academic materials in English such as textbooks and research articles.

1. Global Reading Strategies (GLOB) refer to intentional, carefully well-planned techniques by which learners monitor or manage their reading. There are 13 sub-strategies in this category: 1) Setting purpose for reading; 2) Using prior knowledge; 3) Previewing the text before reading; 4) Checking how text content fits purpose; 5) Skimming to note text characteristics; 6) Determining what to read; 7) Using text features e.g. tables, figures; 8) Using context clues; 9) Using typographical aids, e.g. italics; 10) Critically evaluating what is read; 11) Resolving conflicting information; 12) Predicting or guessing text meaning and 13) Confirming predictions.

2. Problem Solving Strategies (PROB) involve the actions and procedures that readers use while working directly with the text. These are localized, focused techniques used when problem develop in understanding textual information. There are 8 sub-strategies in this category: 1) Reading slowly and carefully; 2) Trying to stay focused on reading; 3) Adjusting one's speed of reading; 4) Paying close

attention to reading; 5) Pausing and thinking about reading; 6) Visualizing information read; 7) Re-reading for better understanding and 8) Guessing the meaning of unknown words.

3. Support Strategies (SUP) mean basic support mechanisms intended to aid the reader in comprehending the text. Nine sub-strategies in this category include 1) Taking notes while reading; 2) Reading aloud when text becomes difficult; 3) Underlining or circling information in the text; 4) Using reference materials, e.g. dictionary; 5) Paraphrasing for better understanding; 6) Going back and forth in the text; 7) Asking oneself questions; 8) Translating from English to Thai and 9) Thinking about information both in English and Thai.

Since the main purpose of this study is to investigate reading strategies that English as a Foreign Language (EFL) learners use in reading academic materials. Therefore, the framework of reading strategies proposed by Mokhtari and Sheorey (2002) were employed in this study as a conceptual framework because it fits EFL context best.

3.2 Previous Related Studies

Several studies conducted in Thailand and other countries have investigated English reading strategies by using the framework of Mokhtari & Sheorey (2002). Suebpeng (2017) investigated English reading strategies used by Grade 9 students at Nonkhor School while reading materials in English. The results revealed that on using reference materials (e.g. a dictionary), was used mostly, followed by decoding the meaning and translating the texts into Thai, while transferring information from a text to matrix was least frequently used. Songsiangchai (2010) explored reading strategies used by Thai third-year English major students with high and low English proficiency when they read academic texts. The results revealed that the students used reading strategies at medium level with the prominent use of Support Strategies, followed by Problem Solving strategies and Global Reading Strategies, respectively. Furthermore, high proficient students used more support strategies than low proficient students. Similarly, Suwannaprut & Siriwan (2020) examined reading ability of Thai EFL university students and their reading strategies. It was found that the students had different levels of reading ability. Support Strategies were employed the most at high level, followed by Problem Solving Strategies at medium level, and Global Reading Strategies at medium level, respectively. Rupsong & Saitakham (2020) investigated reading strategies used by first-year English major students from Thai university. The results showed that Problem Solving Strategies were most frequently used, followed by Support Strategies and Global Reading Strategies, respectively.

Karbalaee (2010) compared English reading strategies employed by Indian (ESL) and Iranian (EFL) college students. Overall, it was found that the students mostly used Global Reading Strategies, followed by Problem Solving Strategies and Support Strategies, respectively. Indian students use more reading strategies than Iranian students. Iranian students used Global Reading Strategies at the highest level,

followed by Supportive Reading and Problem Solving Strategies, while Iranian students mostly used Global Reading Strategies, followed by Problem Solving Strategies and Supportive Strategies, respectively. Par (2020) examined the relationship between the use of reading strategies and reading ability among Indonesian students majoring in English. The findings revealed that the students preferred Problem Solving Strategies more than Global and Supporting Strategies. Furthermore, there was a significant correlation between the overall reading strategy use and the students' reading ability. Based on the above related research, most of the participants were university students. However, research conducted with high school students to explore their English reading strategy use by using the framework of Mokhtari & Sheorey (2002) has been rarely found. Therefore, the present study aims to discover English reading strategies of Grade 12 students in Mueang District, Chachoengsao Province. The results of the study would be use as a guideline for enhancing English reading ability of learners by using reading strategies.

4. Research Methodology

4.1 Participants

The participants in this study were Grade 12 students who are studying in public secondary schools in Mueang District, Chachoengsao Province in the second semester of the academic year 2024. They were selected through purposive sampling because the researchers aimed to elicit English reading strategy use from Grade 12 students. Therefore, the participants in this study included 105 Grade 12 students from one classroom of School A (35 students), one classroom from School B (35 students), and one classroom for School C (35 students) in Mueang District, Chachoengsao Province.

4.2 Research Instruments

1. Survey of Reading Strategies (SORS)

The Survey of Reading Strategies (SORS) was developed by adapting the survey designed by Mokhtari & Sheorey (2002). SORS is used to collect information about techniques the participants use when they read academic materials in English. There were 30 closed statements in a 5- point Likert scale format which were further divided into three categories of reading strategies: Global Reading Strategies (Item 1-13), Problem Solving Strategies (Item 14-21) and Support Strategies (Item 22-30). The participants were asked to rank their level of agreement to the given statements ranging from 1 (Never or almost never do this) to 5 (Always or almost always do this). The statements of SORS were validated according to Index of Item - Objective Congruence (IOC) by three experts in the field of English language teaching. The IOC

value of the survey was 0.92 which signified that the statements were acceptably congruent with the objective.

2. Reading Comprehension Test

A reading comprehension test was constructed by the researchers to determine English reading ability of the participants. After examining English reading section of the Ordinary National Educational Test (O-NET) for Grade 12 in the past 5 years (2019-2023), five types of reading texts regularly appear in the O-NET test include news report, letter, research article, advertisement, and weather forecast. Therefore, the researchers chose five reading passages from both printed and online reading materials that fit with the types of reading texts. The test consisted of 30 questions with 4 multiple choices for each question. The questions in the reading test were designed to cover English reading skills in accordance with English language learning indicators for Grade 12 students as stated in Basic Education Core Curriculum (B.E. 2551) which include finding main idea, finding supporting details, using reference word, defining vocabulary, and making inference. The reading test was sent to three experts in the field of English language teaching to check the content validity. The IOC value of the reading test was 0.90 which indicated that the reading passages and questions were acceptably congruent with the objective.

3. Semi-Structured Interview

The researchers used a semi-structured interview as the qualitative data collection method to elicit in-depth information of English reading strategy used by the participants. The interview questions were developed based on past studies conducted by Songsiangchai (2010) and Suraprajit (2019) which aimed to collect data on the use of English reading strategies in academic materials of Thai EFL students who share similar characteristics to the participants in this study. There are seven interview questions which consisted of four aspects. These include the participants' opinions on 1) reading strategies used before reading (Q1: What do you do first when you read English academic texts?); 2) problems in reading academic texts and what reading strategies used to solve the problems (Q2: What are the problems when you read English academic texts? and Q3: What do you do when you have a problem in understanding what you are reading?); 3) the most and the least reading strategies use (Q4: What reading strategies do you usually use when you read English academic texts? and Q5: What reading strategies do you hardly use when you read the academic texts?); and 4) the most and the least beneficial reading strategies (Q6: In your opinion, what are the useful reading strategies when you read English academic texts? and Q7: In your opinion, what are the useless reading strategies when you read English academic texts?). The draft questions of the interview were given to three experts in the field of English language teaching to confirm the content validity according to IOC. The results indicated that all seven questions were rated with an IOC value of 0.86 which means the interview questions were acceptably congruent with the objective. The interviewees were selected based on scores from Reading Comprehension Test. Top five students were chosen as the representative of high proficient readers and bottom five students were selected as the representative of low proficient readers.

4.3 Data Collection

The data collection process was carried out during the second semester of academic year 2024. Since this study deals with human subjects, the researchers took the ethical issues in research into consideration. Therefore, before collecting the data, the participants were informed the research objectives and data collection procedures. The students who willingly volunteered to participate in the study signed their names on a consent form. To preserve anonymity in the data analysis, the participants' names were substituted with codes provided by the researchers. Then they were asked to complete Survey of Reading Strategies or SORS (Mokhtari & Sheorey, 2002) within 30 minutes and took Reading Comprehension Test for 60 minutes. After checking scores from Reading Comprehension Test, five participants who had highest scores and five ones who had lowest scores were included in the semi-structured interview. The interview was carried out in Thai to eliminate any second language problems. All interview sessions were conducted on an individual basis for 10-20 minutes each. The interview was audio- taped and transcribed verbatim.

4.4 Data Analysis

All data were analyzed in accordance with two research objectives.

Research Objective 1: To investigate English reading strategies used by Grade 12 students in Mueang District, Chachoengsao Province.

To analyze quantitative data from SORS, descriptive statistics including frequency, mean, percentage, and standard deviation were used. The ranges of the mean scores from the survey were interpreted based on the criteria used in the study conducted by Suwannaprut & Siriwan (2020) as shown in Table 1.

Table 1

Criteria for the Rating Scale Interpretation of SORS (Suwannaprut & Siriwan, 2020)

Ranges of the Mean Scores	Levels of Reading Strategy Use
4.50-5.00	highest
3.50-4.49	high
2.50-3.49	medium
1.50-2.49	low
1.00-1.49	lowest

For qualitative data, the data gathered from audio recordings of ten semi- structured interviews were transcribed, coded, and analyzed through content analysis to elicit the participants' opinions regarding their reading strategy use.

Research Objective 2: To compare the use of English reading strategies of Grade 12 students with different English reading ability in Mueang District, Chachoengsao Province.

After the participants took the Reading Comprehension Test, the researchers mark the scores of the test. For the scoring criteria, one point was given for each correct answer. The total score was 30 points. The scores of the participants were divided into two groups: the participants who received 0-14 points (low proficient readers) and those who got 15-30 points (high proficient readers). To analyze the difference between the mean scores of Reading Comprehension Test of two groups of participants, descriptive statistics, i.e. frequency, mean, percentage, and standard deviation, and *t*-test were applied.

5. Results

5.1 Reading Strategy Use

The overall results regarding reading strategy use are shown in Table 2.

Table 2

Overall Descriptive Statistics of SORS (Mokhtari & Sheorey, 2002) (N = 105)

Rank	Reading Strategy	$\bar{x}$	S.D.	Level	Percentage
1	Support Strategies	3.69	1.02	High	73.8
2	Problem Solving Strategies	3.51	0.98	High	70.2
3	Global Reading Strategies	3.30	1.30	Medium	66.0
Total		3.50	1.12	High	70.00

The data demonstrated in Table 2 indicates that most of the participants employed English reading strategies at high level (Mean 3.50, account for 70%). Support Strategies were used mostly at high level (Mean 3.69, account for 73.8%), followed by Problem Solving Strategies at high level (Mean 3.51, account for 70.2%), and Global Reading Strategies at medium level (Mean 3.30, account for 66 %), respectively.

Table 3 illustrates descriptive statistics of statements in the survey including mean scores, S.D. value, level of reading strategy use, and rank of the item.

Table 3

Descriptive Statistics of Statements in SORS (Mokhtari & Sheorey, 2002) (N = 105)

Item	Statement	$\bar{x}$	S.D.	Level	Rank
Global Reading Strategies					
1	I have a purpose in mind when I read.	3.24	1.16	Medium	21
2	I think about what I know to help me understand what I read.	3.25	1.15	Medium	20
3	I take overall view of the text to see what it is about before reading it.	3.51	1.23	High	13

Item	Statement	$\bar{x}$	S.D.	Level	Rank
4	I think about whether the content of the text fits my reading purpose.	3.23	1.12	Medium	22
5	I review the text first by noting its characteristics like length and organization.	3.15	1.10	Medium	26
6	When reading, I decide what to read closely and what to ignore.	3.28	1.18	Medium	19
7	I use tables, figures, and pictures in text to increase my understanding.	3.19	1.15	Medium	24
8	I use context clues to help me better understand what I am reading.	3.53	1.16	High	12
9	I use typographical features like bold face and italics to identify key information.	3.61	1.23	Medium	25
10	I critically analyze and evaluate the information presented in the text.	3.28	1.04	Medium	19
11	I check my understanding when I come across new information.	3.21	1.17	Medium	23
12	I try to guess what the content of the text is about when I read.	3.66	1.20	High	7
13	I check to see if my guesses about the text are right or wrong.	3.16	1.21	Medium	25
Total		3.30	1.30	Medium	-
Problem Solving Strategies					
14	I read slowly and carefully to make sure I understand what I am reading.	3.58	1.06	High	10
15	I try to get back on track when I lose concentration.	3.54	1.08	High	11
16	I adjust my reading speed according to what I am reading.	3.37	1.13	Medium	16
17	When text becomes difficult, I pay closer attention to what I am reading.	3.58	1.08	High	10
18	I stop from time to time and think about what I am reading.	3.37	1.14	Medium	16
19	I try to picture or visualize information to help remember what I read.	3.49	0.92	Medium	14
20	When text becomes difficult, I re-read it to increase my understanding.	3.79	1.07	High	4
21	When I read, I guess the meaning of unknown words or phrases.	3.36	1.06	Medium	17
Total		3.51	0.98	High	-
Support Strategies					
22	I take notes while reading to help me understand what I read.	3.40	1.15	Medium	15
23	When text becomes difficult, I read aloud to help me understand what I read.	3.77	1.08	High	5
24	I underline or circle information in the text to help me remember it.	3.86	1.10	High	2
25	I use reference materials (e.g., a dictionary) to help me understand what I read.	4.06	0.92	High	1
26	I paraphrase (restate ideas in my own words) to better understand what I read.	3.35	1.18	Medium	18
27	I go back and forth in the text to find relationship among ideas in it.	3.60	0.94	High	8
28	I ask myself questions I like to have answer in the text.	3.59	1.16	High	9
29	When reading, I translate from English into Thai.	3.85	1.06	High	3
30	When reading, I think about information in both English and Thai.	3.75	1.03	High	6
Total		3.69	1.02	High	-
Overall		3.50	1.12	High	-

According to Table 3, the top three English reading strategies that the participants used were Using reference materials, e.g. dictionary at high level with mean score 4.06 (S.D. 0.92), followed by Underlining or circling information in the text at high level with mean score 3.86 (S.D. 1.10), and Translating from English to Thai at high level with mean score 3.85 (S.D. 1.06), respectively. Moreover, bottom three English reading strategies were Using text features e.g. tables and figures at medium level (Mean 3.19, S.D. 1.15), followed by Using typographical aids, e.g. italics at medium level (Mean 3.16, S.D. 1.26) and Confirming predictions at medium level (Mean 3.16, S.D. 1.21), and Skimming to note text characteristics at medium level (Mean 3.15, S.D. 1.10), respectively.

When focusing on individual category of reading strategies, the students employed Global Reading Strategies at medium level (Mean 3.30, S.D. 1.30). The top three reading strategies in this group were Predicting or guessing text meaning at high level (Mean 3.66, S.D. 1.20), followed by Using context clues at high level (Mean 3.53, S.D. 1.16), and Previewing the text before reading at high level (Mean 3.51, S.D. 1.23), respectively. The findings also indicate that the participants used Problem Solving Strategies at high level (Mean 3.51, S.D. 0.98). The top three strategies included Re-reading for better understanding at high level (Mean 3.79, S.D. 1.07), followed by Reading slowly and carefully at high level (Mean 3.58, S.D. 1.06) and Paying close attention to reading at high level (Mean 3.58, S.D. 1.08), and Trying to stay focused on reading at high level (Mean 3.54, S.D. 1.08), respectively. In terms of Support Strategies, the students employed strategies in this group at high level (Mean 3.69, S.D. 1.02). The top three strategies consisted of Using reference materials, e.g. dictionary at high level (Mean 4.06, S.D. 0.92), followed by Underlining or circling information in the text a high level (Mean 3.86, S.D. 1.10), and Translating from English to Thai at high level (Mean 3.85, S.D. 1.06), respectively.

5.2 Reading Strategy Use and Reading Ability

Table 4 shows descriptive statistics of Reading Comprehension Tests of the students. Mean score was 17.85 (S.D. 5.64). There were 56 students with high reading ability (53.30%, Mean score 20.07, S.D. 5.39) whereas there were 49 students with low reading ability (46.67%, Mean score 12.72, S.D. 5.16).

Table 4

Descriptive Statistics of Reading Comprehension Test

(N = 105)

Student Groups	No. of Ss (N = 105)	Min (0)	Max (30)	%	$\bar{x}$	S.D.
Ss with high reading ability (scores 15-30)	56	15	29	53.33	20.07	5.39
Ss with low reading ability (scores 0-14)	49	8	14	46.67	12.72	5.16
Total	105	8	29	100	17.85	5.64

Table 5

Overall Reading Strategies Use of Students with High and Low Reading Ability

(N = 105)

Reading Strategies	Ss with high reading ability (N = 56)	Ss with low reading ability (N = 49)	$\bar{x}$	t
GLOB	3.60 (High)	2.99 (Medium)	3.30 (Medium)	-1.845*
PROB	3.57 (High)	3.44 (Medium)	3.51 (High)	-4.715*
SUP	3.50 (High)	3.88 (High)	3.69 (High)	-2.857*
Total	3.56 (High)	3.44 (Medium)	3.50 (High)	-3.912*

* $p < .05$

Table 5 presents reading strategies use of students with high and low reading ability. The findings showed that 56 students with high reading ability used overall reading strategies at high level (Mean 3.56). Global Reading Strategies were employed mostly at high level (Mean 3.60), followed by Problem Solving Strategies at high level (Mean 3.57), and Support Strategies at high level (Mean 3.50), respectively. Forty-nine students with low reading ability applied overall reading strategies at medium level (Mean 3.44). They frequently used Support Strategies at high level (Mean 3.88), followed by Problem Solving Strategies at medium level (Mean 3.44), and Global Reading Strategies at medium level (Mean 2.99). In addition, the result from *t*-test analysis reveals that there was a statistically significant difference in Reading Comprehension Test scores of the students with high and low reading ability at 0.05 level.

Table 6

Individual Reading Strategy Use of Students with High and Low Reading Ability

Reading Strategies		Ss with high reading ability (N = 56)		Ss with low reading ability (N = 49)		Total (N=105)	
		$\bar{x}$	S.D.	$\bar{x}$	S.D.	$\bar{x}$	S.D.
GLOB 1	Setting purpose for reading	3.43	1.08	3.04	1.04	3.24	1.16
GLOB 2	Using prior knowledge	3.37	1.25	3.12	1.27	3.25	1.15
GLOB 3	Previewing the text before reading	4.01	1.11	3.01	1.02	3.51	1.23
GLOB 4	Checking how text content fit purpose	3.46	1.18	3.00	1.21	3.23	1.12
GLOB 5	Skimming to note text characteristics	3.25	1.22	3.05	1.05	3.15	1.10
GLOB 6	Determining what to read	3.58	1.15	2.98	1.03	3.28	1.18
GLOB 7	Using text features (e.g. tables, figures)	3.32	1.10	3.05	1.32	3.19	1.15
GLOB 8	Using context clues	4.06	0.97	2.99	1.13	3.53	1.16
GLOB 9	Using typographical aids, e.g. italics	3.44	1.30	2.87	1.45	3.16	1.26
GLOB 10	Critically evaluating what is read	3.55	1.11	3.01	1.32	3.28	1.04
GLOB 11	Resolving conflicting information	3.39	1.57	3.03	1.06	3.21	1.17
GLOB 12	Predicting or guessing text meaning	4.36	1.03	2.95	1.02	3.66	1.20
GLOB 13	Confirming predictions	3.53	1.52	2.79	1.07	3.16	1.21
Total for Global Reading Strategies		3.60	1.23	2.99	1.25	3.30	1.30

Reading Strategies		Ss with high reading ability (N = 56)		Ss with low reading ability (N = 49)		Total (N=105)	
		$\bar{x}$	S.D.	$\bar{x}$	S.D.	$\bar{x}$	S.D.
PROB 1	Reading slowly and carefully	3.76	0.97	3.39	1.14	3.58	1.06
PROB 2	Trying to stay focused on reading	3.51	1.05	3.57	1.23	3.54	1.08
PROB 3	Adjusting reading speed	3.52	1.52	3.21	1.18	3.37	1.13
PROB 4	Paying close attention to reading	3.80	1.55	3.36	1.57	3.58	1.08
PROB 5	Pausing and thinking about reading	3.28	1.08	3.45	1.06	3.37	1.14
PROB 6	Visualizing information read	3.46	1.15	3.52	1.10	3.49	0.92
PROB 7	Re-reading for better understanding	3.68	0.96	3.89	1.16	3.79	1.07
PROB 8	Guessing meaning of unknown words	3.58	1.12	3.13	1.09	3.36	1.06
Total for Problem Solving Strategies		3.57	1.08	3.44	1.26	3.51	0.98
SUP 1	Taking notes while reading	3.35	1.09	3.44	1.19	3.40	1.15
SUP 2	Reading aloud when text becomes difficult	3.50	1.11	4.04	1.23	3.77	1.08
SUP 3	Underlining or circling information in the text	3.69	1.56	4.03	1.45	3.86	1.10
SUP 4	Using reference materials, e.g. dictionary	3.88	1.24	4.23	0.99	4.06	0.92
SUP 5	Paraphrasing for better understanding	3.18	1.03	3.52	1.45	3.35	1.18
SUP 6	Going back and forth in the text	3.31	1.52	3.88	1.04	3.60	0.94
SUP 7	Asking oneself questions	3.56	1.02	3.62	1.15	3.59	1.16
SUP 8	Translating from English to Thai	3.60	1.14	4.10	1.03	3.85	1.06
SUP 9	Thinking about information both in English and Thai	3.47	1.23	4.02	1.01	3.75	1.03
Total for Support Strategies		3.50	1.01	3.88	1.23	3.69	1.02
Total		3.56	1.13	3.44	1.36	3.50	1.12

Table 6 demonstrates descriptive statistics of individual reading strategy use of students with high and low reading ability. The results indicate that the students with high reading ability employed top three reading strategies at high level. The most frequently used strategy was Confirming predictions (Mean 4.36, S.D. 1.03), followed by Using context clues (Mean 4.06, S.D. 0.97), and Previewing the text before reading (Mean 4.01, S.D. 1.11), respectively. The bottom three reading strategies were used at medium level including Pausing and thinking about reading (Mean 3.28, S.D. 1.08), followed by Skimming to note text characteristics (Mean 3.25, S.D. 1.2), and Paraphrasing for better understanding (Mean 3.18, S.D. 1.03), respectively. The findings also show that the students with low reading ability employed top three reading strategies at high level which included Using reference materials, e.g. dictionary (Mean 4.23, S.D. 0.99), followed by Translating from English to Thai (Mean 4.10, S.D. 1.03), and Reading aloud when text becomes difficult (Mean 4.04, S.D. 1.23), respectively. The bottom three reading strategies were employed at medium level, i.e. Predicting or guessing text meaning (Mean 2.95, S.D. 1.02), followed by Using typographical aids, e.g. italics (Mean 2.87, S.D. 1.45), and Confirming predictions (Mean 2.79, S.D. 1.07), respectively.

Based on the scores of Reading Comprehension Test, top and bottom five scorers were invited to participate in the semi-structured interview. To report the findings from content analysis, the letter H is used to stand for High Proficient Readers and L for Low Proficient Readers, followed by the number 1-5 representing each interviewee. The results are presented according to seven interview questions which are divided into four aspects including 1) Reading strategies use before reading; 2) Reading strategies used for solving reading problems; 3) Most and least frequently used reading strategies; and 4) Most and least beneficial reading strategies.

1. Reading Strategies Use before Reading

The findings reveal that the students with high reading ability mostly used Global Reading Strategies including Previewing the text before reading, Using context clues, Predicting or guessing text meaning, Setting purpose for reading, Using prior knowledge, and Using text features. Furthermore, there were two more strategies used by high proficient readers emerged from the content analysis which were not proposed by Mokhtari & Sheorey (2002). These include 1) Previewing text from grammatical structures and 2) Reading questions before text. For the students with low reading ability, the highest used strategies were Support Reading Strategies including Using reference materials, Going back and forth in the text, and Translating from English to Thai.

2. Reading Strategies Used for Solving Reading Problems

The results show that both students with high and low reading ability had similar reading problems, i.e. vocabulary, grammatical structure, comprehension, and prior knowledge. Most students with high reading ability chose Global Reading Strategies when they encounter reading problems including Using context clues, Previewing the text before reading, Using typographical aids and Setting purpose for reading. For the students with low reading ability, Problem Solving Strategies were employed the most including Reading slowly and carefully, Pausing and thinking about reading, Re-reading for better understanding, and Guessing meaning of unknown words.

3. Most and Least Frequently Used Reading Strategies

The findings show that the students with high reading ability used Global Reading Strategies including Setting purpose for reading, Using prior knowledge, and Previewing the text before reading. Support Strategies were reported to use the least which include Reading aloud when text becomes difficult, Asking oneself questions, and Translating from English to Thai. The students with low reading ability more often applied Support Strategies including Translating from English to Thai, Using reference materials, and Going back and forth in the text. The least frequently used strategies were Global Reading Strategies including Setting purpose for reading and Using prior knowledge.

4. Most and Least Beneficial Reading Strategies

The results discover that the students with high reading ability informed that Global Reading Strategies are the most beneficial. The strategies are Setting purpose for reading, Previewing the text

before reading and Predicting or guessing text meaning. Support Reading Strategies were stated to be the least useful strategies which include Translating from English to Thai, Reading aloud when text becomes difficult, and Going back and forth in the text. The students with low reading ability reported that the most beneficial reading strategies for them are Support Strategies including Using reference materials and Translating from English to Thai. They also indicated that Problem Solving Strategies were the least useful strategies including Adjusting reading speed, Visualizing information read, and Guessing meaning of unknown words.

6. Discussion

This section is divided into two issues: overall reading strategies use and reading strategies used by the students with high and low reading ability.

1. Overall Reading Strategies Use

Overall, Grade 12 students in Mueang District, Chachoengsao Province employed various English reading strategies at high level (Mean 3.50). The mostly used reading strategies were Support Strategies (Mean 3.69). This finding is in line with previous studies of Suwannaprut & Siriwan (2020) and Songsiengchai (2010). The consistency of the results can be explained based on the limited English exposure of the students. That is to say, the sample group in this study and previous studies were Thai EFL students who normally learn English in teaching and learning context. English is not used frequently in their everyday situations. Furthermore, they do not have much opportunity in practicing English reading outside the classroom. As a result, the learners possibly reach only a basic to intermediate level of English reading ability. Sheorey & Mokhtari (2001) further explain that when EFL students do not understand the reading passages, they more rely on basic support mechanisms to help them comprehend the text than English native speakers because EFL students normally possess lower English reading ability than ESL students who generally use English in classroom contexts as well as in their daily routines. In terms of individual reading strategy, most of the students frequently employed Using reference materials, e.g. dictionary at high level (Mean 4.06). This stems from the insufficient vocabulary knowledge of the students. According to Tsai & Huang (2023), vocabulary is a principal problem for the students in reading English academic texts. While the students with high reading ability normally guess unknown word meaning from contexts, those who have low reading ability often translate individual word by searching word meaning from a dictionary to increase their comprehension.

2. Reading Strategies Used by the Students with High and Low Reading Ability

The findings of this study from SORS (Mokhtari & Sheorey, 2002) reveal that Grade 12 students with high reading ability in Mueang District, Chachoengsao Province used English reading strategies at high level (Mean 3.56) with the most prominent use of Global Reading Strategies at high level (Mean 3.60).

Predicting or guessing text meaning is mostly applied at high level by the students (Mean 4.36). In addition, content analysis based on the interview shows similar results. Most students frequently utilized Global Reading Strategies and reported that Global Reading Strategies are the most useful for them in reading English academic texts. These outcomes are in line with the results from the study of Tsai & Huang (2023) which indicated that the students with high reading ability usually employ Global Reading Strategies when compared to those with low reading ability. The possible reason might be that the students who are proficient in reading pay closer attention to what they are reading and they have well-planned reading techniques. Moreover, they can monitor or manage their reading themselves. As Nisbet & Huang (2015) state, Global Reading Strategies are proved as a predictor of learners' high reading ability.

The results of the interview also show that there were two additional reading strategies the students with high reading ability used before reading English materials which are not mentioned in the framework of Mokhtari & Sheorey (2002). The first one is Previewing text from grammatical structures. The explanation is that this group of students may have sufficient English grammatical knowledge to assist them in reading. Therefore, they brought their knowledge to survey the text before reading and see whether there are any English grammatical structures that they are familiar with, such as the use of tenses or a form of sentence structure. However, it should be noted that Previewing text from grammatical structures is also illustrated as "Analyzing expressions" in Oxford (1990)'s taxonomy which refers to breaking down a new word, a phrase, a sentence, or even a paragraph into its component parts for better understanding. The second strategy is Reading questions before text which is a technique that the students with high reading ability use when they noticed that the purpose of the text is to read for answering questions. Accordingly, students focused more on the questions before the content. After that, they went back to the text content to gain a better understanding of the whole passage. Reading questions before text is also similar to Question (Q) which is one of the strategies indicated in Survey-Question-Read-Recite-Review or SQ3R Model (Robinson, 1970). This strategy allows the students to read questions at the end of the text before reading.

For the students with low reading ability, Support Strategies were reported to mostly used at high level (Mean 3.88). Regarding the content analysis results, they highly employed Support Strategies and described that these strategies were the most beneficial for them. These findings are supported by the study of Tsai & Huang (2023) which identified that the students with low reading ability normally use Support Strategies such as Translating from English to Thai and Reading aloud when text becomes difficult as well as Problem Solving Strategies such as Reading slowly and carefully and Adjusting reading speed. The reason might be that the majority of the students with low reading ability had inadequate vocabulary and grammatical structure knowledge. As a result, they chose Support Strategies and Problem Solving Strategies to tackle with the problems arose while reading English academic texts.

7. Conclusion

This study aimed to investigate English reading strategies used by 105 Grade 12 students in Mueang District, Chachoengsao Province and compare the way in which those with different English reading ability employed English reading strategies. Research instruments were Survey of Reading Strategies or SORS (Mokhtari & Sheorey, 2002), Reading Comprehension Test and semi-structured interview. The results reveal that the students used English reading strategies at high level with the prominent use of Support Strategies. Furthermore, there was a statistically significant difference between reading strategy used of the students with high and low reading ability at 0.05 level. Overall, the students with high reading ability used English reading strategies at high level with the most frequently use of Global Reading Strategies. However, the students with low reading ability employed English reading strategies at medium level with the highest use of Support Strategies. The findings from content analysis show that there were two more reading strategies that the students with high reading ability used before reading including Previewing text from grammatical structures and Reading questions before text.

8. Pedagogical Implications

Based on the findings of the current study, it can be concluded that Grade 12 students in Mueang District, Chachoengsao Province with high reading ability employed various reading strategies at high level. Moreover, they used some certain strategies in reading English academic texts which were different from those who have low reading ability. Therefore, it is suggested to apply these reading strategies constantly in order to enhance the students' reading comprehension. This new knowledge (as shown in Figure 1) will be beneficial to English teachers, particularly in English reading, as a guideline for developing reading ability of EFL students. The framework is designed to align with three phases of reading process, namely pre-reading, while-reading, and post-reading to facilitate the teacher to develop appropriate learning activities and teaching materials in each reading phase. Before reading, the students use Global Reading Strategies which are well-planned way to monitor and manage their reading. They begin with previewing the text as a whole picture to predict or guess text meaning by using context clues, setting purpose for reading, using prior knowledge, using text features, and grammatical structures to aid their comprehension. If the purpose of reading is to answer a question, they will read the question first and then return to the text. They will then attempt to make connections between their prior knowledge and experiences that relate to the content of the text to enhance their comprehension. During reading, the students employ Problem Solving Strategies which are procedures or steps students use to solve problems while reading directly. They pay close attention to reading, read slowly and carefully. When they find the reading text is unclear, students will pause and think about what they have read, and reread it to gain a better understanding. When encountering unfamiliar vocabulary, they guess meaning of the unknown word. After

reading, the students utilize Support Strategies which are basic strategies they use to support and enhance their comprehension. They ask themselves questions to identify key points, read back and forth to check their understanding, and use reading aids such as a dictionary when they are not sure the meaning of a word they found in the passage. When they reread, they underline or circle important information. When the text is difficult, they read aloud to review their understanding. If they still do not understand the passage, they translate English-to-Thai aiming to help them better understand the text.

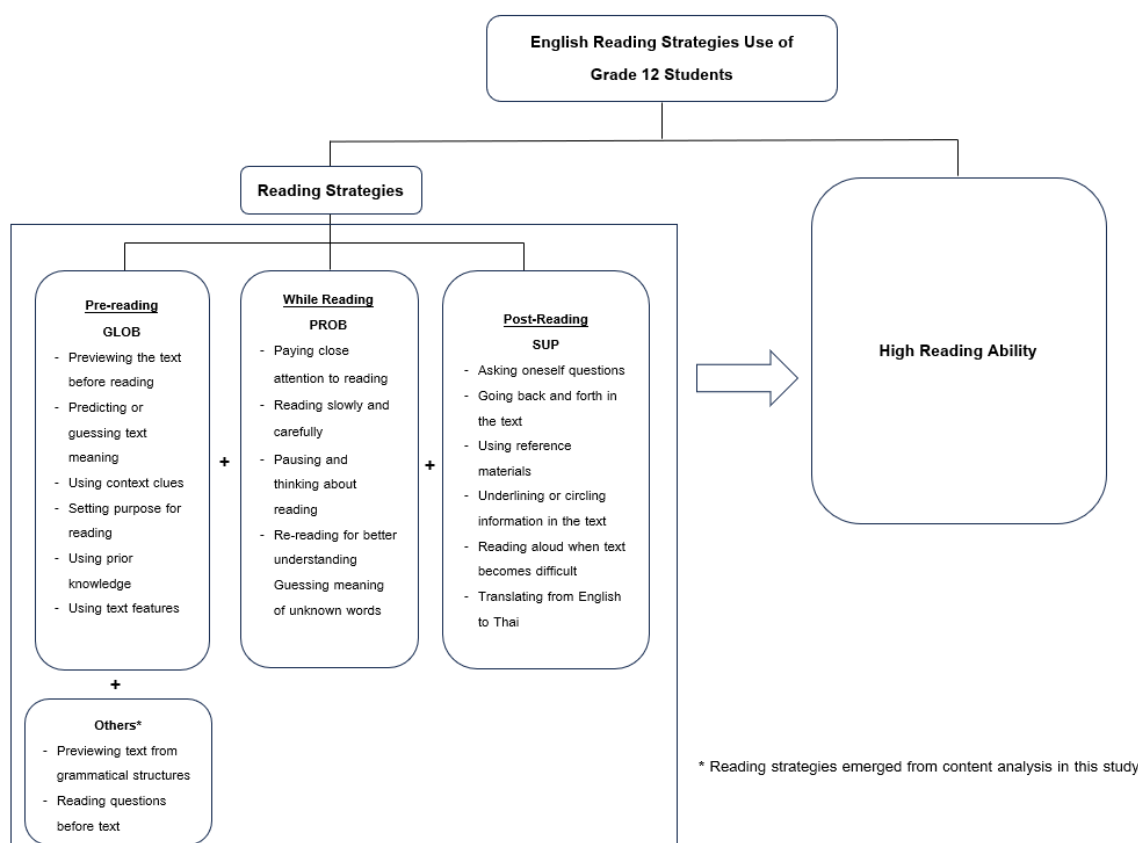


Figure 1. English Reading Strategies Use of Grade 12 Students

9. Recommendations for Further Research

The present study aimed to investigate 105 Grade 12 students in Mueang District, Chachoengsao Province. Further studies should expand the sample size to obtain a clearer picture of reading strategy use and to increase generalizability of the research. Moreover, this study compared reading strategy used by the students with high and low reading ability. The research in the future should explore the relationship between reading strategy use and reading ability to gain more in-depth insights of these two variables. Also, future research should be conducted as experimental research in order to examine the effects of strategy-based reading instruction on students' English reading ability. In addition, the interview conducted in the present study mainly captured on what reading strategy the participants use while reading English texts. Further studies should elicit more information regarding the reasons why they apply those strategies.

References

- Anderson, N. J. (1991). Individual differences in strategy use in second language reading and testing. *Modern Language Journal*, 75(4), 460-472. <https://doi.org/10.2307/329495>
- Anderson, N. J. (1999). *Exploring second language reading: Issues and strategies*. Heinle & Heinle.
- Block, E. (1986). The comprehension strategies of second language readers. *TESOL Quarterly*, 20(3), 463-494. <https://doi.org/10.2307/3586295>
- Karbalaei, A. (2010). Iranian EFL and Indian ESL college students' beliefs about reading strategies in L2. *PROFILE Issues in Teachers' Professional Development*, 12(2), 51-68.
- Krungyut, W. (2019). Development of learning activities by using DR-TA technique with skill training sets to develop reading comprehension ability for Mutthayomsuksa 6 students of Foreign Language Department. *Journal of Educational Technology and Communications, Faculty of Education, Mahasarakham University*, 2(6), 34-44.
- Mokhtari, K., & Sheorey, R. (2002). Measuring ESL students' awareness of reading strategies. *Journal of Development Education*, 25(3), 2-10.
- National Institute of Educational Testing. (2021). *Results of the national basic education test for grade 12 academic year 2021*. <https://www.niets.or.th/th/content/view/25308>
- Nisbet, D. L., & Huang, J. (2015). Reading strategy use and reading proficiency of EFL students in China. *The Asian Journal of Applied Linguistics*, 2(3), 202-212.
- Office of Academic Affairs and Educational Standards. (2017). *Indicators and core curriculum for foreign language learning materials, basic education core curriculum*. https://academic.obec.go.th/images/document/1525235513_d_1.pdf
- Oxford, R. L. (1990). *Language learning strategies. What every teacher should know*. Heinle & Heinle Publishers.
- Par, L. (2020). The relationship between reading strategies and reading achievement of the EFL students. *International Journal of Instruction*, 13(2), 223-237. <https://doi.org/10.29333/iji.2020.13216a>
- Pritchard, R. (1990). The effects of cultural schemata on reading processing strategies. *Reading Research Quarterly*, 25(4), 273-295. <https://doi.org/10.2307/747692>
- Robinson, F. P. (1970). *Effective study* (4th ed.). Harper & Row.
- Rupsong, S., & Saitakham, K. (2020). The reading strategies employed by Thai EFL university students majoring in English. *Southeast Bangkok Journal*, 6(2), 45-55.
- Sheorey, R., & Mokhtari, K. (2001). Differences in the metacognitive awareness of reading strategies among native and non-native readers. *System*, 29(4), 431-449. [https://doi.org/10.1016/S0346-251X\(01\)00039-2](https://doi.org/10.1016/S0346-251X(01)00039-2)
- Songsiengchai, T. (2010). *Strategies in reading online and printed academic texts of English major students of Srinakharinwirot University* [Master's thesis]. Srinakharinwirot University.
- Suebpeng, K. (2017). *Students' use of reading strategies: A survey study of grade 9 EFL students at Nonkhor School* [Master's thesis]. Ubon Ratchathani University.
- Suraprajit, P. (2019). An investigation of academic reading strategies among Thai economics students. *International Journal of Language and Linguistics*, 6(3), 84-94. <https://doi.org/10.30845/ijll.v6n3p12>

- Suwannaprut, T., & Siriwan, A. (2020). Reading abilities and online reading strategies of undergraduates enrolled in English for study skills development course. *Valaya Alongkorn Review (Humanities and Social Science)*, 10(2), 194-210.
- Tsai, R. R., & Huang, S. C. (2023). EFL reading strategies used by high school students with different English proficiency. *Forum for Linguistic Studies (Transferred)*, 5(3), 1-17.
<https://doi.org/10.59400/FLS.v5i3.1855>
- Urquhart, A. H., & Weir, C. J. (1998). *Reading in a second language: Process, product, and practice*. Addison Wesley Longman. <https://doi.org/10.4324/9781315841373>