



An Exploration of EFL Students' Perceptions of English Critical Reading: A Case of Thai Undergraduate Students in Songkhla Province

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ABSTRACT

Teaching critical reading has posed challenges for Thai educators, but research on this topic in Thailand has been limited, particularly studies examining university students' perceptions of English critical reading. This study provides original knowledge of Thai university students' views on English critical reading and offers recommendations for universities to improve their students' English critical reading skills. The mixed-method approach has been employed and the qualitative data generated provided insights into students' views on their understanding of critical reading and how the university helps students increase their critical reading skills. The revised Bloom's Taxonomy served as a framework for interpreting and examining the issues. The findings demonstrate the students' low perception of English critical reading although positive attitudes concerning its importance were expressed. The students showed uncertainty of reading

	<p>strategies used when they read a text although some strategies were at the lowest level of the revised Bloom's Taxonomy. The study recommends that the university should implement effective teaching methods, utilize suitable materials, and foster a positive learning environment to enhance students' critical reading skills. The findings of this study offer valuable guidance for instructors, curriculum designers, and university administrators to improve students' critical reading skills and cultivate a supportive reading and learning environment.</p> <p>Keywords: critical reading, reading strategies, perception of critical reading, the revised Bloom's taxonomy</p>
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Introduction

English critical reading is challenging for EFL students, especially those who are in a context that focuses on rote-learning, for example, within education settings in Thailand (Ratanaruamkarn et al., 2023). Although Thai students will have been familiar with studying English since they were in primary school, they still have low proficiency in English as shown in the results of English Ordinary National Educational Test (O-NET) scores of Thai secondary and high school students (National Institute of Education Testing Service: NIETS, 2023). This was also found in Khamkong's (2018) study who examined how well Thai university students in Northeastern Thailand scored on English critical reading and thinking tests. The majority did poorly on English reading comprehension, particularly when it came to interpretative and critical questions.

Furthermore, critical reading skills of Thai students have been debated for decades. Although teaching critical reading has been challenging for Thai educators however, the research on critical reading in Thailand has been scant, especially that focusing on university students' perceptions of critical reading. Ratanaruamkarn et al. (2023) identified and reviewed research studies regarding trends of teaching critical reading in Thailand between 2011 and 2022 through the ERIC, Scopus, and TCI databases. They initially searched terms 'critical reading' and 'Thailand' and found 446 studies. In 130 papers across the three databases, the second search terms—"critical reading," "Thailand," and "English language teaching (ELT)"—were found. Finally, only 35 papers—some of which were older than 15 years—were found using the search phrases "critical reading," "Thailand," "English language teaching (ELT)," and "teaching methods." Following a thorough review and removal of studies published more than a decade ago, 13 studies made up the final selection of research publications. Resultantly, it could be

argued that studies on critical reading have been less concentrated in the Thai context. The literature shows that instructors have tried many teaching methods to enhance students' critical reading skills. At the same time however, it is the literature-based instruction itself that has been used as the most frequently teaching method for teaching critical reading to university students, but it cannot be claimed that it is the most effective one (Ratanaruamkarn et al., 2023). Ratanaruamkarn et al. (2023) found that critical reading has been taught in various educational levels from elementary school to university levels, but Thai students have struggled in critical reading since this skill requires critical thinking. Therefore, it is questionable what Thai students perceive in practice about critical reading and its constituent skills.

Critical reading comprises the combined skills of reading and thinking (Arifin, 2020). To develop students' critical reading, the reader should be able to classify the purpose of reading, the position of the author, the validation of the source, and the reflection after reading (Anuar et al., 2023; Ratanaruamkarn et al., 2023). Several studies on critical thinking (Fan, 2023; Din, 2020; Heidari, 2020) have pointed out that limited understanding of the concepts of critical thinking is one of the main problems that affect students' lack of critical reading skills. Din (2020) explored the relationship between students' attitudes towards critical thinking and critical reading and found that students' attitudes of critical thinking and reading did not correspond with their performance on critical reading. Olifant et al. (2020) stated that the university students in their study perceived themselves as having high level of comprehension on critical reading but failed to apply critical reading skills in practice. A study by Shamida et al. (2023) revealed that what affected Chinese students' perception of critical reading were their lack of motivation to read, their limited language proficiency, lack of critical thinking skills, and cultural inhibitions. When considering Thai university students in Thailand, the limited literature shows that not many of them have a clear understanding of critical reading which subsequently affects how they think critically about how they might improve their critical reading skills.

In terms of better understanding Thai university students' perceptions of English critical reading, this study makes an important contribution to the literature that will assist teachers and institutions in dealing with issues related to English critical reading for enhancing Thai students' critical reading skills.

Research purpose

This study aims to explore Thai undergraduate students' perceptions of English critical reading. The research questions (Rqs) are:

Rq1: What are Thai students' perceptions of English critical reading?

Rq2: How can a university help their students increase English critical reading skills?

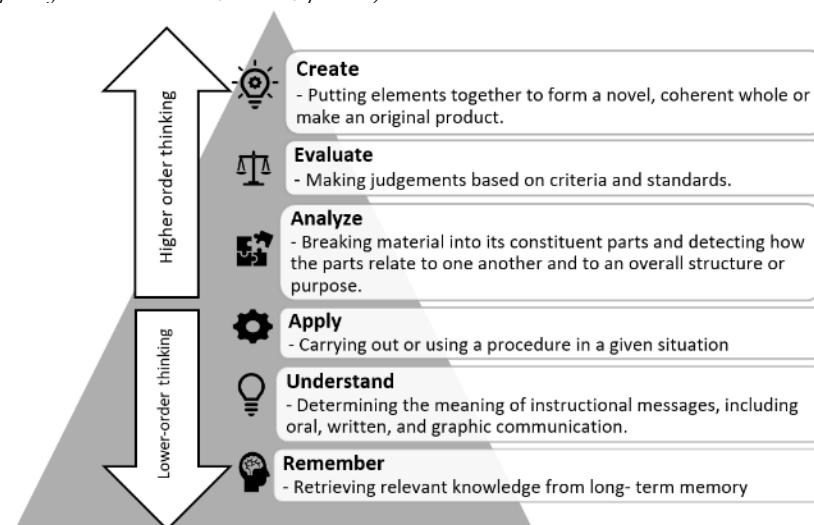
Literature Review

The Revised Bloom's Taxonomy (2002)

Bloom's Taxonomy is very well known and has been applied widely in various educational fields including English language teaching (Zareian et al., 2015). The original concept of Bloom's Taxonomy was initially developed by Bloom and his colleagues in 1956, and included six categories, namely Knowledge, Comprehension, Application, Analysis, Synthesis, and Evaluation (Krathwohl, 2002). Since the framework of Bloom's Taxonomy has been usually structured in terms of the subject matter and the objectives of the course, to make it clearer and easier to design the course, the revision of Bloom's Taxonomy has evolved over time and context. Krathwohl (2002) considered each category of the Taxonomy, grouped, and renamed those six original categories for more emphasis on the Cognitive Process dimension, illustrating a clearer concept of hierarchy of each category (See Figure 1). The categories aligned in the level of higher-order thinking consist of Analyze, Evaluate, and Create, whilst Apply, Understand, and Remember are grouped in the level of lower-order thinking.

Figure 1

*The Cognitive Process Dimension of the Revised Bloom's Taxonomy
(Adapted from Krathwohl, 2002, p.215)*



Mayer (2002) also stated that the original Bloom's Taxonomy focuses on retention, which can be defined as remembering and recalling, whereas the revised Taxonomy relies on transfer, which places more emphasis on being able to use what students have learned or be able to apply in their new knowledge with prior knowledge to make judgement when they encounter new situations. Although the revised Bloom's Taxonomy has not been as rigidly defined as the original one, it helps teachers design the curriculum or course objectives, activities, and assessment more concisely (Krathwohl, 2002), and helps learners increase transfer skills, which lead to meaningful learning (Mayer, 2002). To find out if students possess critical reading, which can be considered as a case of skill transfer when reading, the theory of the revised Bloom's Taxonomy has been applied in this study.

Comprehension-based Reading and Critical Reading

Comprehension-based reading is an interactive process that requires literal reading skills. It comprises three main elements, namely the reader, the text, and the activity that combine to create an interaction between the readers and the texts within the sociocultural context (Butterfuss et al., 2020). Punkasirikul (2020) suggested that the process of reading for comprehension starts from building vocabulary knowledge, understanding sentence structure for comprehension, skimming, scanning, finding organization patterns, and making inference.

Several scholars have recommended strategies to develop a student's reading comprehension skill. Nguyen and Nguyen (2024) stated that comprehension-based reading could be improved when students follow the steps of predicting, scanning, skimming, inferencing, and summarizing, respectively. Juliana and Anggraini (2024) also suggested a three-phase metacognitive reading instructional model, namely planning, monitoring, and evaluating. Planning includes activating prior knowledge with key vocabulary, making prediction, surveying information, and organizing the reading purpose. Monitoring includes thinking aloud, skimming, and taking notes about the key information, and evaluating refers to summarizing.

Scaffolding readers with reading strategies helps readers read more effectively since it relates to the process of decoding the meaning of the message and understanding the idea of the text with reader's prior knowledge. Cromley and Azevedo (as cited in Butterfuss et al., 2020) have claimed that integrating vocabulary and the reader's background knowledge while reading makes the most significant contribution to reading comprehension, followed by inferencing, word reading, and reading strategies. When readers gain more

experiences of comprehension-based reading skills, they may read critically by associating the judgement and unlocking the hidden meaning of the message; thus, their critical reading skills can be increasing gradually.

Critical reading is a crucial academic skill that requires critical thinking and reading. Critical reading is valued in education and professional settings as it promotes critical thinking, problem-solving, and the ability to assess information critically. Critical thinking is furthermore, a skill that leads the readers read more efficiently and effectively. It can be argued that critical reading and critical thinking need to be integrated to help increase the proficiency of critical reading skills (Khamkhong, 2018). Kazazoglu (2022) stated that literature is a medium of critical thinking that students may meet the vision of the authors in the texts and discover new experiences through interpretation, exploration, and comprehension. While reading, readers also need to connect between their past experience with information that appears in a text to better understand what an author tries to convey (Juliana & Anggraini, 2024). Khamkhong (2018) added that “one may think critically without reading, but he cannot read without critical thinking” (p.85). To conclude, critical reading can be created by having a strong practice on reading for comprehension with the use of their critical thinking skills.

Critical reading requires the reader’s prior knowledge and their literal reading comprehension skills. Fraser (2024) indicates that to obtain critical reading skills, a reader must engage with the text, engage with the relevant ideas, determine the accuracy of arguments and the credibility of the sources used in the text in order to understand the concepts or the key points of the text for a better consideration about what is the most important information. The reader’s past experiences need to be employed with their background knowledge while they are reading, and they also need to consider the credibility of the text (Butterfuss et al., 2020; Kazazoglu, 2022). Source credibility shows the trustworthiness of the source used in the text and expertise of the authors (Butterfuss et al., 2020). Fraser (2024) states that critical thinking is grounded in logic, evidence, and an open attitude, acknowledging the biases, assumptions, and motivations of both the author and the audience. Similarly, Khamkhong (2018) emphasizes that critical reading is a process that requires the interpretation, integration, reflection, and evaluation abilities with critical thinking skills.

However, it is arguable whether critical reading skills need to be taught at all (Juliana & Anggraini, 2024; Kazazoglu, 2022; Nguyen & Nguyen, 2024). Nguyen and Nguyen (2024) found that students faced difficulties in applying some reading strategies. Although sometimes they knew how to read and comprehend the texts, they still needed a teacher’s explicit instruction. In accordance with Juliana and Anggraini (2024), the frequent reading strategies

that students used were making prediction, restating ideas, and thinking aloud, and their findings also indicated that those students were aware of their reading strategies at a moderate level, which are considered a lack of understanding. Saidalvi et al. (2022) also found that university students in Malaysia rated their own ability of critical reading as a low level of applying critical reading strategies. Most of them reported that they struggled with evaluating texts when reading, which is the highest order of the thinking skills. In the same vein, Paul and Walsh (as cited in Kazazoglu, 2022, p. 1) believed that this skill cannot be improved automatically. Therefore, reading critically requires scaffolding, interpreting, questioning, and assessing instructions.

In the process of the interpretation and critical reading, critical thinking is necessary and inevitable. Critical reading involves combining critical thinking abilities with reading comprehension, allowing readers to evaluate and decide whether they agree with the authors' viewpoints or not.

Students' Perception of Critical Reading in Thai Higher Education

English is compulsory at all educational levels in Thailand. Despite exposure to English from primary school, Thai students exhibit low proficiency, evident in their English Ordinary National Educational Test (O-NET) scores (National Institute of Education Testing Service: NIETS, 2023). NIETS (2023) reported an average O-NET score of 39.06 out of 100 for Thailand between 2019 and 2021, with Songkhla province averaging 40.05 out of 100, both well below fifty percent. Furthermore, EF Education First (2023), an international language training company, ranked Thailand 101 out of 113 countries worldwide and 21 out of 23 countries in Asia in terms of English proficiency in 2023.

Thai university students have faced the difficulties of using reading strategies and understanding texts since they cannot apply appropriate reading strategies while they are reading texts. Moreover, students' reading abilities relate to their learning environment, especially their previous school policy, lecturers, and their individual behavior (Rungswang & Kosashunhanan, 2021). Since students have limited knowledge on English literature and critical thinking skills, it affects their reading performance and their abilities to read critically, so most of them avoided to enroll in an elective course that relates to extensive reading and critical reading (Khamkong, 2018).

Many researchers have attempted to research various practices to increase Thai EFL students reading performances and their critical reading skills. For example, Namsaeng and Sukying (2021) adapted Group Reading Strategy (GRS), and it revealed that it could foster students' critical thinking

skills, and they also reflected this strategy as peer-assisted learning. Wichanee and Thongrin (2024) studied the development of students' critical reading and their critical consciousness by using critical dialogue-oriented reading instruction, which means using critical questions to develop students' critical consciousness: critical awareness, critical reflection, and critical action. The researchers indicated that the instruction of reading comprehension is insufficient to help students increase their critical consciousness or critical reading skills while reading. Khamkong (2018) studied students' performance on English critical reading and thinking skills of Thai university students in Northeastern Thailand, and it showed that most of them performed poorly on English reading proficiency, especially the interpretative questions and the critical questions.

However, students' limited understanding of critical reading has been frequently found in various research, and several studies have indicated a lack of correlation between students' attitudes and their proficiency in critical reading (Din, 2020; Fan, 2023; Ha Van Le et al., 2024; Olifant et al., 2020; Shamida et al., 2023). Rungswang and Kosashunhanan (2021) surveyed Thai EFL students problems of using English reading strategies and found that the students faced difficulties at a high level in skipping unknown words during the first reading, varying reading speed rates according to the type of the reading passage, guessing the meanings of unknown words by using the context clues, using different reading strategies according to the types of the reading passage, and guessing the meanings of the unknown words through words roots and/or affixes, respectively. Khathayut et al. (2022) also indicated that most Thai students could not summarize a text in their own words, and they had not been trained about citing sources properly. Apairach (2023) reported that Thai students encountered difficulty with their English proficiency, impacting their ability to read between the lines. Therefore, the present study aims to explore Thai university students' perception of English critical reading, which could be beneficial to all teachers, academics, and institutions as a guideline for enhancing Thai students' English critical reading skills.

Methodology

This study adopted mixed-method research. Data from a survey were used to evaluate the students' critical reading perception, and a semi-structured interview provides insightful data that help the researchers better understand the phenomenon in the research context. The findings from qualitative data were utilized to supplement the quantitative ones to show a clearer picture of students' perception of English critical reading. Respondent

validation was used to validate the interview data for checking the accuracy of the data by participants themselves together with researchers to avoid ethical issues and biases of researchers.

Population and Participants

The population of this study was a group of 96 third-year students majoring in English at a university in Songkhla, Thailand, who have registered in the first semester of academic year 2024. This group of students were selected by purposive sampling since they need to enroll in the research course in their fourth year of study. Therefore, it is necessary to investigate their self-perception of English critical reading skills as the results of the study are expected to be used as a guideline to prepare students for doing their research.

Data were collected from 92 third-year undergraduate students who were voluntarily participated in the survey. All participants need to pass at least two compulsory courses: English reading courses and English writing courses, which have been taught at the university, and they are required to have grade point average (GPA) higher than 2.00. According to the registration office of the university (data on 14th June 2024), all of them passed the requirements. An examination of the skewness z-score and kurtosis z-score was measured for the test of normality, and Field (2018) suggested that it should not be greater than 1.96. The results revealed that the z-score of skewness ($-0.173/0.251 = 0.689$) and the z-score of kurtosis ($-0.542/0.498 = 1.088$) are lower than 1.96, which showed the normal distribution ($n = 92$) and means that the participants shared the same experience of critical reading. For the interview, nineteen students voluntarily participated in the semi-structured interview.

Research Instruments

A Questionnaire

A questionnaire was designed in English in the form of an online questionnaire using a Google Form, adapting from previous research related to critical reading in EFL contexts. It consisted of three sections (39 items in total): General information of the respondents (6 items), perceptions towards critical reading (32 items), and additional suggestions to help increase critical reading skills (1 item).

Section 1 was designed as multiple choices regarding age, gender, types of books or articles they have usually read, and how often they read, and their level of English reading skills.

Section 2 was designed to investigate the participants' perceptions of critical reading. This section consists of three parts (32 items in total): students' perception of critical reading (6 items), their self-perceptions of reading skills (21 items), and academic services about reading strategies or critical reading provided at their university (5 items). Part A and B are designed to investigate students' perception of critical reading. A five-point Likert scale is used in this part including strongly agree (5), agree (4), neither agree nor disagree (3), disagree (2), and strongly disagree (1). Part C is designed to investigate if the university provides any academic services about reading strategies or critical reading. A Yes/No question is used in this part.

Section 3 was designed as an open-ended question to find if the participants have any additional suggestions or comments to help increase critical reading skills.

Interview Questions

The interview questions were designed in English to investigate how students perceived themselves in critical reading. The interview outlines were based on related literature about challenges faced in critical reading in higher education, consisting of three main questions: 1) students' views on the importance of critical reading, 2) students' understanding of relevant requirement of critical reading, and 3) the factors affecting teaching and learning of critical reading in English classroom.

Research Instruments Validation

Prior to data collection, the research instruments were validated by applying Index of Item Objective Congruence (IOC) to find if the content of the instruments has been correlated to the objective of the study. They were checked by three experienced researchers who are familiar with English critical reading and have been teaching English reading courses at a university for more than 10 years. The results showed that the average score of IOC of the questionnaire was 0.94, and the mean score of each item was higher than 0.5, meaning that it could be acceptable for data collection. Cronbach's Alpha was also analyzed to measure the reliability of the questionnaire, and it shows that Cronbach's Alpha is 0.824, which means the questionnaire was acceptable. The IOC results of the interview questions were 1.0, meaning that the questions can be used for data collection.

Data Collection

While conducting research, one of the researchers facilitated the participants throughout the process of data collection to ensure that they felt comfortable and understood all the questions in the questionnaire. The participants were informed about their right to withdraw at any time, the objective of this research, and that their identities would be anonymous. They would perceive that the involvement in this project is voluntary. The results from the questionnaires and the interviews would be in confidential and would not affect their grade in any courses. Then they were invited to sign a form of consent. The participants were asked to complete the online questionnaire to investigate their perception of critical reading.

After they completed the questionnaire, they were asked to participate in the in-depth interview voluntarily, which were sound recorded. Each interview took approximately 10 minutes. This research was conducted with Thai undergraduate students majoring in English program, so the interviews would be expected to be in English, but if they preferred to response in Thai, the language of the interview could be switched to Thai. All data were translated and transcribed to English. The transcriptions were approved by the interviewees to ensure clarity of his/her original thoughts.

Data Analysis

Data from the questionnaire were analyzed by SPSS finding the descriptive analysis, i.e. frequency, percentage, mean, standard deviation, and the exploratory factor analysis was also explored. The criteria for the questionnaire analysis are as follows: 4.20-5.00 = strongly agree, 3.40-4.19 = agree, 2.60-3.39 = neither agree nor disagree, 1.80-2.59 = disagree, and 1.00-1.79 = strongly disagree.

The suggestions from the open-ended question and the interview data were coded and analyzed focusing on meaning by adopting thematic analysis. As Clark and Braun (2017, p.297) put it, “thematic analysis can be used to identify patterns within and across data in relation to participants’ live experience, view and perspectives, and behaviour and practices; experiential research which seeks to understand what participants think, feel and do”. It means that the repeated meaning found in the transcription would be linked and grouped under the same themes.

Research Findings

General Information of the Respondents

The participants of this study were 92 third-year English major students. Most of them were between 20 and 25 years old (72.83%), less than 20 years old (25%), and more than 25 years old (2.17%). Most of them (73.91%) are female, male (25%), and one of them (1.09%) prefers not to specify. Their Grade Point Average (GPA) were between 3.01 and 3.50 (35.9%), followed by 2.51-3.00 (33.7%), higher than 3.50 (16.3%), 2.00-2.50 (13%), and lower than 2.00 (1.09%), respectively.

Types of books or articles they like to read are novels (62%), followed by textbooks (21.7%), documentary (9.8%), others such as cartoon (4.3%), and research articles (2.2%). Regarding the frequency with which the participants engage in reading, they spend less than 5 hours a week (64.1%), 5-10 hours a week (29.3%), 10-15 hours a week (3.3%), and more than 15 hours a week (3.3%), respectively. When asked to reflect on their reading skills, most participants (44.6%) indicated that they had good reading skills, followed by fair (43.5%), very good (7.6%), and poor (4.3%).

Thai Students' Perceptions of English Critical Reading

When considering their perception towards critical reading (Part A), 57.6% of the participants agreed that critical reading is beneficial while many of them (37%) strongly agreed and 5.4% of them neither agreed nor disagreed. Over 89 percent of the participants recognized the importance of critical reading skills, and the majority (84.8%) indicated that they found critical reading to be challenging. The results also showed that some of them felt boring (31.6%) and tired (40.2%) when they participated in critical reading. When asked to evaluate their own critical reading skills, most participants (39.1%) disagreed, while a significant portion (37%) neither agreed nor disagreed. Additionally, 17.4% agreed, and 6.5% strongly agreed.

Table 1 reveals the participants' self-rated ability of their critical reading skills. It shows that the overall average was at 3.34 (S.D.=0.781), means the participants neither agreed nor disagreed with their use of reading strategies. The finding clearly shows students' uncertainty of their critical reading skills although some items are in the lower-thinking order or just in the knowledge aspect such as '...remember the information from the text' ($\bar{x}=3.28$, S.D.=0.789), '...identify main ideas in a text' ($\bar{x}=3.29$, S.D.=0.749), '...find specific information in a text' ($\bar{x}=3.41$, S.D.=0.698). Although students reported their uncertainty of their reading performance, the students

showed a positive attitude towards critical reading since 'critical reading can be a path to be successful in their career' ($\bar{x}=3.90$, S.D.=0.902) was at an agree level. When considering into each item, the results show that the participants agreed that students can identify the difference between a fact and an opinion ($\bar{x}=3.75$, S.D.=0.807), decide what is right or wrong after they read the texts ($\bar{x}=3.54$, S.D.=0.804), use their personal experiences to improve their understanding of a text ($\bar{x}=3.54$, S.D.=0.818), and they can summarize what they read in a text ($\bar{x}=3.54$, S.D.=0.732), respectively.

Table 1*Students' Perceptions of Critical Reading Skills (n=92)*

B	What do you think about your critical reading skills?	Mean	S.D.	Level of Agreement
7	I can remember the information from a text.	3.28	.789	neither agree nor disagree
8	I can identify main ideas in a text.	3.29	.749	neither agree nor disagree
9	I can identify supporting details in a text.	3.10	.727	neither agree nor disagree
10	I can find specific information in a text.	3.41	.698	neither agree nor disagree
11	I can predict the outcomes of a text.	3.17	.779	neither agree nor disagree
12	I can connect the idea within a paragraph.	3.11	.748	neither agree nor disagree
13	I can connect the idea between paragraphs.	3.10	.757	neither agree nor disagree
14	I can summarize what I read in a text.	3.54	.732	agree
15	I can discuss the text after reading it.	3.36	.704	neither agree nor disagree
16	I can make a decision on the argument when I read.	3.20	.855	neither agree nor disagree
17	I can identify and explain writer's opinion in a text.	3.08	.774	neither agree nor disagree
18	I can identify and explain the writer's attitude in a text.	3.16	.745	neither agree nor disagree
19	I can identify the similarities and contradictions in a text.	3.14	.806	neither agree nor disagree
20	I can identify the difference between a fact and an opinion.	3.75	.807	agree
21	I can decide what is right or wrong after I read the texts.	3.54	.804	agree
22	I can decide on the reliability of information in a text.	3.37	.780	neither agree nor disagree
23	I can determine the reliability of sources in a text.	3.22	.782	neither agree nor disagree
24	I can use my personal experiences to improve my understanding of a text.	3.54	.818	agree
25	I can adapt an idea in a text to other situations.	3.43	.856	neither agree nor disagree
26	I can use an idea in a text to solve my problems.	3.42	.788	neither agree nor disagree
27	Critical reading can be a path to be successful in my career.	3.90	.902	agree
Overall		3.34	.781	neither agree nor disagree

An exploratory factor analysis was utilized to assess the dimensionality of the dataset comprising multiple indicators in part B, in order to identify the fewest factors needed to explain the relationships among factors affecting the students' perception of English critical reading. The factor analysis of the 21 items revealed five factors with eigenvalues exceeding 1, which together explained 53.66% of the total variance. Additionally, the Kaiser-Meyer-Olkin (KMO) test indicated adequate sampling with a value of 0.758, well above the 0.5 threshold, and the result was statistically significant ($p<0.001$), confirming that the data were suitable for factor analysis. The five factors in the model of the participants' self-rated ability of their English

critical reading are labelled based on the revised Taxonomy as follows: Analyze, Remember, Apply, Understand, and Evaluate.

Table 2

The Factor Structure of the Participants' Self-rated Ability of Their English Critical Reading

	Factor				
	1	2	3	4	5
Analyze (B4)					
b21 I can decide what is right or wrong after I read the texts.	.729				
b25 I can adapt an idea in a text to other situations.	.644				
b20 I can identify the difference between a fact and an opinion.	.609				
b17 I can identify and explain writer's opinion in a text.	.563				
b27 Critical reading can be a path to be successful in my career.	.511				
b22 I can decide on the reliability of information in a text.	.495				
Remember (B1)					
b8 I can identify main ideas in a text.	.766				
b9 I can identify supporting details in a text.	.753				
b7 I can remember the information from a text.	.494				
b19 I can identify the similarities and contradictions in a text.	.494				
b18 I can identify and explain the writer's attitude in a text.	.445				
Apply (B3)					
b26 I can use an idea in a text to solve my problems.	.681				
b13 I can connect the idea between paragraphs.	.621				
b12 I can connect the idea within a paragraph.	.610				
b16 I can make a decision on the argument when I read.	.543				
b23 I can determine the reliability of sources in a text.	.542				
b24 I can use my personal experiences to improve my understanding of a text.	.469				
Understand (B2)					
b11 I can predict the outcomes of a text.	.687				
b10 I can find specific information in a text.	.600				
Evaluate (B5)					
b14 I can summarise what I read in a text.	.783				
b15 I can discuss the text after reading it.	.475				

Note: B refers to the level of skills in the revised Taxonomy: B1 = level 1, B2 = level 2, B3 = level 3, B4 = level 4, B5 = level 5, and B6 = level 6. B1-B3 were placed in lower-order thinking, and B4-B6 were placed in higher-order thinking.

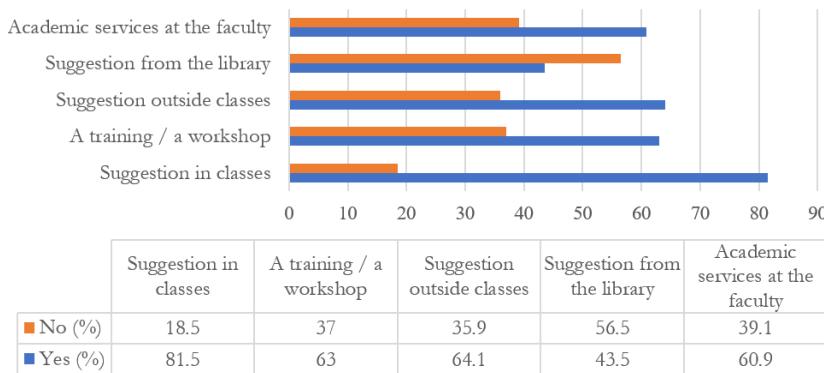
The finding from the factor analysis demonstrated that the students' self-rated perception of critical reading was mostly in lower-thinking order: Remember, Understand, and Apply, whilst two factors in higher-thinking order were also found: Analyze and Evaluate. It could be concluded that students' reading ability are more likely in lower-thinking order.

To examine whether the university provides any academic services about reading strategies or critical reading to students, Figure 2 reports that the university provided suggestion about reading strategies or critical reading in classes (81.5%), outside classes (64.1%), a training or a workshop (63%), and academic services at the faculty (60.9%), whilst many students (56.5%)

have never heard suggestion regarding reading strategies or critical reading from the library (56.5%).

Figure 2

Academic Services Suggesting about Reading Strategies or Critical Reading at the University (n=92)



Out of 92 students, eighty students (86.96%) provided additional suggestions, which could be classified into eight themes as follows.

Support and Resources

Out of 80 students, 25 students (31.25%) reported that the university needs to provide sufficient services and resources for students such as reading activities, tutoring services, a reading club, and resources or equipment that support students' reading practice.

Teaching Methods and Pace

Nineteen students (23.75%) stated that teaching English critical reading should be started from easy stories with many examples. Teaching with slow pace could make students better understand the content of the text, and providing students learning tips for English critical reading could be an ideal.

Practice and Engagement

Out of 80 students, eleven students (13.75%) suggested that they need more reading practice, additional reading texts, and more time for reading.

Content Relevance and Interest

Eight students (10%) suggest that the content of critical reading should be interesting and relevant to their daily life. It helps them engage with their real-life situations.

Giving Feedback

Out of 80 students, seven of them (8.75%) suggested that providing students more feedback or explanation may help them better understand critical reading

Suggestions for Course Structure

Six students (7.50%) give some suggestions for course structure that the course related to English critical reading should be organized with low pressure and the teachers should create a fun learning environment, so these can enhance students reading comprehension and their critical reading skills.

Desire for Improved Reading Skills

Four students (5%) desire for improved reading skills to get better grades, increase their vocabulary, and develop their critical reading skills, as they think that they have low English reading proficiency.

Collaboration and Interaction

Three students (3.75%) mentioned collaboration and interaction in classroom. They prefer collaborative learning over random questioning. Reaching out to students who struggle with their English reading is also preferable. Additionally, a class size also has an impact on students' learning.

Fostering Students' English Critical Reading Skills

Regarding qualitative findings from the students' interviews about challenges faced in critical reading in higher education. Nineteen students voluntarily participated in the interview. The findings of the interviews were represented as follows.

Students' Views on the Importance of Critical Reading

Regarding how students perceived the importance of critical reading, the findings could be grouped into four themes as follows: Understanding and analyzing information, practical application in daily life, development of analytical and cognitive skills, and protection against misinformation and fake news.

Understanding and Analyzing Information

Out of 19 students, seven of them (36.84%) understood that critical reading helps individuals develop the ability to navigate complex information, distinguishing fact from fiction, identifying biases, and evaluating the trustworthiness of sources. The ability to think critically about the information they read is vital not only for academic success but also for participating meaningfully in society, especially in the digital age where misinformation is rampant.

In my opinion, I think critical reading ability is a very important skill because it makes us more discerning in our intake of information, so we will not be a prey of fake news and makes us more careful. Before believing in anything we read, we tend to consider the reasons, the credibility, and evaluate whether we can trust it or not. (SI19)

Practical Application in Daily Life

Four students (21.05%) mentioned that critical reading could be applied in daily life as it relates to the ability to analyze and think critically about information, not just an academic skill. Critical reading is an essential tool for navigating everyday situations. Whether it is evaluating the reliability of news, making personal choices, or interacting with others, critical thinking helps individuals approach situations with greater awareness and discernment.

...I think it is very important because it can be applied in daily life. Moreover, we will inevitably encounter situations where we need to think critically, which helps us analyze things more effectively. (SI13)

Development of Analytical and Cognitive Skills; Four students (21.05%) emphasized that critical reading helps them develop their analytical and cognitive skills. It empowers individuals to engage more effectively with information, enhancing their understanding, decision-making, and ability to communicate ideas clearly.

Analytical reading is very important for work and studying in various subjects because these skills help us read, analyze, and summarize more effectively. (SI4)

Protection against Misinformation and Fake News; Three students (15.79%) understood that defense mechanism against the dangers of misinformation and fake news, encouraging more thoughtful and discerning consumption of information.

Reading skills are important because fake news is so prevalent these days. Critical reading skills will help us to discern whether what we read is true or not. In addition, it also helps us to not fall to fake news. (SI17)

Students' Understanding of Relevant Requirement of Critical Reading

The students described critical reading as a multifaceted skill set that includes understanding and analyzing texts, engaging in critical thinking, and making informed decisions.

Comprehension and Analytical Skills; Six students (31.58%) said that comprehension and analytical skills are fundamental to critical reading. Comprehension allows readers to understand the content, while analytical skills enable them to examine, evaluate, and interpret the information more deeply.

My understanding is that it involves comprehending content that may be complex or difficult, which leads us to think in a structured way and be able to distinguish information effectively. Analytical reading helps us identify important

information, assess the reliability of sources, and use that information correctly to make sound decisions. (SI6)

Critical Thinking and Decision-making; Three students (15.79%) pointed out that critical thinking and decision-making skills are essential components of critical reading. Critical thinking helps readers evaluate the credibility of sources, identify biases, and interpret content more effectively, while decision-making skills guide them in determining the relevance and reliability of the information they encounter.

.... this modern time required a thorough understanding of information for us to function properly. (SI2)

Critical reading can help to improve our reading to become better at analyzing by different perspectives from articles and give us a variety of issues more clearly and apply them to our own life. (SI15)

Summarizing and Synthesizing Information; Three students (15.79%) said summarizing and synthesizing information they read are essential skills for effective critical reading.

The skill that will help us learn and understand critical reading skills better is the ability to identify key points. If we are good at identifying key points, we will be able to analyze the content and write summaries much more easily. (SI4)

We can summarize key points from reading by interpreting and evaluating the content accurately, which helps us understand perspectives and reflect on ideas clearly. (SI9)

Skills for Evaluating and Questioning Content; Two students (10.53%) said that evaluating and questioning content are very important skills for critical reading.

It helps us understand which parts of the content we read are important. Critical reading involves various skills, such as analyzing content, interpreting and understanding, asking questions, critiquing, and applying the information. Understanding and practicing these skills will help students develop their critical reading skills more effectively. (SI8)

Importance of Vocabulary and Language Skills; Two students (10.53%) mentioned that vocabulary and language skills could help them understand the text they encounter.

For me, vocabulary and language skills are necessary because I have to use it when I read something and understand what it is about and what it is trying to convey. (SI14)

Distinguishing Facts from Opinions; Two students (10.53%) said the ability to distinguish facts from opinions.

Students recognize that critical reading involves the ability to differentiate between facts and opinions. (SI1)

Exposure to Diverse Texts and Formats; One student (5.26%) stated that exposure to a wide range of materials helps students understand the format of writing, so they can understand the texts more effectively.

The relevant requirements of critical reading are to be open to read a lot of research papers and articles to fully understand the format of writing. (SI10)

The Factors Affecting Teaching and Learning of Critical Reading in English Classroom

The students reflected various factors that influence teaching and learning of critical reading, which could be presented in four themes: Teaching methods, language barrier, supportive learning environment, and challenges in improving reading and learning skills.

Teaching Methods; Six students (31.58%) said that the main factor affecting students' learning are teachers and how they encourage students to learn in the language classroom.

Teachers play a crucial role in fostering critical thinking by incorporating academic articles and news into their lessons and creating a classroom environment that encourages questions and open-ended discussions. (SI12)

Language Barriers; Five students (26.32%) noted that language barrier influences students' critical reading. If students struggle to understand the texts, their motivation to engage with reading may decrease.

Language barrier is the most important factor that impact our critical reading. (SI10)

Supportive Learning Environment; Five students (26.32%) expressed that a supportive learning environment can enhance students' reading skills. They suggested that organizing a variety of activities—both academic and recreational—focused on improving English critical reading could foster an atmosphere conducive to learning.

..., and universities should have activities related to speaking, reading, and exchanging opinions, such as international exchange activities, recreational activities, critical reading or thinking, and foreign field trips related to news agencies to promote analytical thinking. (SI18)

Challenges in Improving Reading and Learning Skills; Three students (15.79%) noted that teachers' accent or speaking speeds, as well as their regularity of their own reading practice were challenges of their learning.

The teachers' accent or speaking speeds is very important because it can cause learners to mishear or misunderstand the meaning. (SI4)

The qualitative data from the open-ended question and the interview showed similar trends, especially in terms of how the university or the program provided academic services in relation to fostering students' critical reading skills. The findings demonstrated that most students were aware of the importance of critical reading skills and realized that being able to read critically requires many transfer skills that are not only reading for comprehension but also making judgement of the texts they read, being able to consider the fallacies or trustworthiness of the information, having analytical skills, and being able to apply that information they read to new situations. Moreover, the supports from the university could also have a great influence to help students promote their critical reading skills. Many students reported the lack of activities or any supports about critical reading including teaching strategies used in English classrooms to enhance students being to read critically such as organizing reading activities or projects with international students from different universities or reading clubs to encourage students' reading motivation. In addition, students' English proficiency was also mentioned as students suggested that the higher their English proficiency was, the better they believed that their critical reading skills were.

Discussion

Thai Students' Perceptions of English Critical Reading (Rq1)

This study demonstrates a strong reliance on lower-thinking order of critical reading among students, reinforcing earlier research that highlights the common application of various reading strategies in critical reading contexts (Ha Van Le et al., 2024; Maab et al., 2024). The quantitative data clearly demonstrated involvement in the elementary level according to the revised Bloom's Taxonomy, Remember. Students exhibited their uncertainty of their use of reading strategies even though those strategies are in lower-thinking order that only requires the knowledge base or retention (Mayer, 2002). Similarly, Juliana and Anggraini (2024) and Saidalvi et al. (2022), who studied students' awareness of using reading strategies and their critical reading in Vietnam and Malaysia, found that students had low understanding of using reading strategies, and most of them encountered difficulties in evaluating texts when reading. However, this is inconsistent with Maab et al. (2024) who found that Indonesian students expressed their strengths in evaluating and synthesizing information from the text, and they were able to correlate what they have learned and they prior knowledge. It is noticeable that although students are from the southeast Asian countries, students from this study, who are from Thailand, expressed less self-confident in their critical reading. However, the students in this study showed their positive view on critical reading, which is consistent with Maab et al. (2024).

Students in this study revealed their self-rated perception on their use of reading strategies demonstrated that they were not sure about their reading performance, such as remembering the information from a text, identifying main ideas in a text, finding specific information in a text, though these strategies are basic concepts of reading comprehension. Although the findings show that students thought they could summarize a text, differentiate between a fact and an opinion in a text, or recognize what is right or wrong after they read the text, and use their personal experiences to improve their understanding of a text, the question is since these strategies require higher-thinking order: Analyze, Evaluate, and Create (Krathwohl, 2002; Mayer, 2002), how could they judge that whether the information they read are reliable as they stated their uncertain level in the self-rated perception. According to Khamkhong (2018) stated the connection between reading and critical reading that "one may think critically without reading, but he cannot read without critical thinking" (p.85). Maab et al. (2024) noted that students who possess proficient reading skills are also good at critical thinking. It can

be concluded that critical reading skills require interacting with the text, connecting with key ideas, evaluating the validity of the arguments and the reliability of the sources cited (Fraser, 2024).

When considering the results from the exploratory factor analysis, it is also clearly assumed that most students specified their English reading proficiency at a lower-thinking level, and only two aspects in the revised Taxonomy has been recognized in the model: Analyze and Evaluate, whereas Create has not appeared in the analysis, assuming that the students have not reached the highest level of the revised Bloom's Taxonomy. This perspective aligns with several studies (Apairach, 2023; NIETS, 2023; Rungswang & Kosashunhanan, 2021). According to the quantitative findings, the students expressed the notion that they had received important suggestion about reading strategies or critical reading on classes, outside classes, a workshop, and academic services at the faculty. These interventions are clearly necessary for students to help them improve their motivation to read, their reading skills, and their critical reading (Khamkong, 2018; Rungswang & Kosashunhanan, 2021).

Fostering Students' English Critical Reading Skills (Rq2)

The qualitative insights provide additional support to the quantitative findings in terms of the students' challenges encountered in critical reading and students' view on how the university could help them foster English critical reading. They are similar to the quantitative findings regarding students' perceptions of critical reading. The students also expressed their positive attitudes towards English critical reading in their interview. The students pointed out that critical reading is important in daily life. It could enhance their analytical skills and encourage them to carefully consume information. As Butterfuss et al. (2020) and Fraser (2024) put it, critical reading relates to considering the trustworthiness of the information and source credibility that requires an ability to link a reader's prior knowledge to the new one and apply it in a new situation in daily life. Regarding the requirement to participate in critical reading, not only analytical skills, the students also expressed various skills including critical thinking and decision making, summarizing, questioning, vocabulary and language skills, and exposure to diverse texts and formats. This finding aligns with critical reading conceptualized by Kazazoglu (2022). Rungswang and Kosashunhanan (2021) noted that the types of the reading passage affect students' reading speed rates and vocabulary they are familiar with.

Moreover, this study found an alignment of what affect students' critical reading. This study showed that teaching strategies and materials are consider the most vital factors that could affect students learning critical reading. This reflects the work of Paul and Walsh (as cited in Kazazoglu, 2022) in that critical reading skills cannot be enhanced automatically. Many academics have attempted to find effective strategies to enhance students' reading skills and their critical reading for decades, but it was found that none of them can be claimed as the most effective approach (Ratanaruamkarn et al., 2023). However, teaching reading strategies is still a foundational approach to encourage students' basic reading skills to critical reading (Nguyen & Nguyen, 2024; Punkasirikul, 2020; Saidalvi et al., 2022). English language proficiency is also a challenge of the students in this study. This finding is echoed in research by Apairach, (2023), Chinpakdee (2024), Khamkhong (2018), and Rungswang and Kosashunhanan (2021), who found that Thai university students faced difficulties when reading English texts such as having limited vocabulary, skipping unknown words while reading, using context clues, reading between the lines, identifying purposes and audience, which caused students perform poorly in English reading proficiency.

Although various researchers have suggested critical reading strategies to develop students' critical reading skills such as using critical dialogue-oriented reading instruction (Wichanee & Thongrin, 2024) or Group Reading Strategy (Namsaeng & Sukying, 2021), these strategies might be insufficient to improve students' English critical reading. The students suggested that the university could help create the atmosphere of learning by organizing a variety of activities, both academic and recreational, so constructing an emphasis on fostering students' English critical reading. Rungswang and Kosashunhanan (2021) noted that learning environment including school policies, instructors, and students' personal behaviors influence students' reading ability. Specific attention to the learning environment is a potentially significant element of being able to affect students' motivation to read and to learn (Shamida et al., 2023).

Conclusion

This study explored Thai university students' perceptions of English critical reading, alongside the guidelines for a university to enhance their students' English critical reading skills. The quantitative data from the questionnaires indicate a clear understanding of students self-rated perception

of their critical reading skills that the participants showed their uncertainty of their use of reading strategies although some of them are at a basic level, which are considered in the lowest level of the revised Bloom's Taxonomy. The findings reveal that the participants had positive views on English critical reading, and they are aware of an importance of critical reading in daily life. The factor analysis suggests five factors extracted from students' perceptions of critical reading and it could be assumed that students' critical reading skills have not reached to Create, which is the highest level of the revised Taxonomy.

The data from the interviews demonstrated that the vital factors that affect students' critical reading are teaching methods, their language proficiency, and learning environment at the university. The guidelines for fostering students' critical reading are as follows: The teachers should design activities that encourage students' learning and increase their reading motivation including using materials or texts that are interesting and suitable to students' English proficiency level. The curriculum or the program should organize activities to promote students' reading such as a reading club or reading competition. The university should encourage students to read by organizing academic and recreational activities or campaigns regarding English critical reading to create learning atmosphere and motivate students and academic staff to read and to learn.

This study has some limitations. First, students' actual performances on critical reading have not been assessed, and second, this study could not be generalized conclusively since it was investigated only at a university in Songkhla province, Thailand. For further research, the study recommends that, first, the expansion of this study could further explore students' authentic performance on English critical reading to find the correlation between students' perception and their performance. Although some research claimed that there was no relationship between students' actual performance and students' perception of critical reading and critical thinking (Din, 2020; Olifant et al., 2020) because the participants of their research performed poorly on critical reading, but they reported that they had a good understanding of using reading strategies. In contrast, this study found that the students showed their hesitation on reading strategies used while reading a text. It can be inferred that they believe their reading skills are not adequate to assert that their reading performance is strong. In addition, English critical reading should be explored more extensively with students in different majors because all students nowadays must engage with English texts in their daily

life through the Internet, social media, or other channels. This study suggests that the results of this study could be beneficial for instructors, curriculum designers, and the faculty and university administrators to use the findings as a guideline to enhance students' critical reading and create the atmosphere of reading and learning development.

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