



## EXPLORING CRITICAL THINKING SKILLS USED AMONG ENGLISH MAJORS IN READING COMPREHENSION

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### Abstract:

The aim of the research was to find out which skills of critical thinking junior English majors employed most frequently for reading comprehension. There were 49 English major juniors from Tra Vinh University who took part in it. This study was carried out utilizing a quantitative technique, and a questionnaire was employed as a tool for collecting data. The findings of this study suggested that students regularly employed self-regulation of critical thinking ability in reading comprehension. Besides self-regulation, students frequently employed explanation skills in reading comprehension. Based on the previously provided information, some advice was given to participants to help them improve their capacity for critical thinking during reading comprehension.

**Keywords:** critical thinking, reading comprehension, English majors

### 1. Introduction

English is regarded as the worldwide language for exchanging information among various countries. Furthermore, English is a subject that is taught at many levels in Vietnam and is one of the majors taught at universities. Four skills - listening, speaking, reading, and writing - are the main areas of emphasis in the course (Dang *et al.*, 2020). Muslem *et al.* (2017) stated that one of the four English language skills that should be taught at universities is reading. Okasha (2020) asserted that reading is a process of thought, evaluation, judgment, envisioning, reasoning, and problem-solving and that it is a necessary ability for success in real life. Reading also allows a person to develop his or her critical thinking (CT) skills. Students need this competence as it can expand and modernize their knowledge, particularly in English, as well as their critical thinking (Muslem *et al.*, 2017).

CT is a complex cognitive process that requires a wide variety of skills and attitudes. Interpretation, analysis, assessment, inference, and explanation are some of the

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cognitive processes employed in critical thinking, according to Facione (2011). It is crucial to include critical thinking when reading. It helps students acquire comprehension, which is the main objective of reading (Carr, 1988). This type of thinking motivates learners to take an active part in a reading lesson. According to Zabihi and Pordel (2011), some experts feel that teaching students how to think and read critically is a crucial component of all comprehension-focused reading programs. Zubaidah *et al.* (2018) claimed that students must be able to think critically to assess arguments, make informed decisions, and identify errors in what they read. Furthermore, Kamali and Fahim (2011) concluded that critical thinking is essential for responding to reading comprehension questions, particularly those related to the main ideas. Reading with critical thought is, in general, observing the subject or material while engaging the reader's thoughts or thinking for the aim of comprehension.

At Tra Vinh University (TVU), English majors started to take 6 courses in reading comprehension in the first year until the third one. When taking reading comprehension courses, critical thinking is more significant for students. Reading with a critical viewpoint involves examining the subject or material with the reader's mind or thinking activated for understanding. This research intended to determine how frequently students at TVU used critical thinking strategies in reading comprehension classes that concentrated on aspects of interpretation, analysis, assessment, inference, explanation, and self-regulation. Based on the above-mentioned objectives, the following research question is raised:

- What skills of critical thinking are commonly used by English majors when reading comprehension?

## 2. Literature review

### 2.1 Definition and theory of critical thinking and reading comprehension

Critical thinking is a crucial skill in reading comprehension. Researchers have defined critical thinking in a variety of ways. Lipman (1988) affirmed that critical thinking is sophisticated, responsible thinking that enables excellent judgment since it is based on criteria, is self-correcting, and is context-sensitive. Beyer (1995) similarly claimed that CT involves "*making reasoned judgment*" (p. 9). Another researcher, Bean (2011), shared the same viewpoint with Lipman (1988). He stated that the capacity to examine circumstances or texts and come to conclusions as a result is known as critical thinking. In addition, Paul and Elder (2019) stated that "*Critical thinking is the art of analyzing and evaluating thought processes with a view to improving them. Critical thinking is self-directed, self-disciplined, self-monitored and self-corrective thinking*" (p. 9). Butterworth and Thwaites (2013) also said that "*... critical thinking also relates to an attitude, or set of attitudes: a way of thinking and responding*" (p. 8).

There are multiple categories of critical thinking skills created by various researchers in the critical thinking field. Facione (2011) defines critical thinking abilities as interpretation, analysis, evaluation, inference, explanation, and self-regulation.

Students with interpretation skills can comprehend and convey the meaning of any event, technique, etc. Students with analysis skills can recognize the link between statements, questions, concepts, or descriptions in order to express their views, judgements, or reasoning effectively. Students who have mastered the ability of evaluation may successfully judge the credibility of others' claims and arguments. Students who are proficient in inference regularly display the capacity to derive logical inferences from referenced facts. Finally, students who have mastered self-regulation can keep track and engage themselves in a questioning, affirming, and corrective manner.

Reading comprehension is a complicated cognitive process. As a result, in order to perform activities for reading comprehension effectively, a person must be fluent in the language or style of the reading as well as be able to retain the information or content of the text (Neumann *et al.*, 2019). In order to properly comprehend what they are reading, people need to be able to read and comprehend well, in addition to having critical thinking skills.

## 2.2 Related studies

A research by Zhou *et al.* (2015) examined 224 non-English majors from a university in China using questionnaires and interviews to determine the current state of their capacity to engage in critical thought. In particular, it compares students' propensity for critical thought when reading in English across genders, majors, and grade levels. The outcome demonstrates that university students who are not English majors have poor critical thinking skills when reading in English; specifically, most students in reading classes for English as a Foreign Language lack Explanation and Self-regulation, which are the two aspects of critical thinking skills. They also indicated that the students possess strong Inference and Analysis when they read English texts.

Muslem *et al.* (2017) performed a study to look at how often university students used critical thinking techniques such as interpretation, analysis, assessment, inference, explanation, and self-regulation when reading. 100 second-year undergraduate students from Ar-raniry State Islamic University in Banda Aceh served as the study's responders. The findings demonstrated that 54% of students utilized inference as their primary critical thinking strategy for text comprehension. Furthermore, students employed the following categories of critical thinking abilities in the following order: analysis, explanation, evaluation, interpretation, and self-regulation. It showed that college students used their critical thinking abilities more frequently when making inferences about what they were reading.

Sahiruddin *et al.* (2022) made a study that intends to assess how university students improve their critical thinking abilities as well as the link between reading comprehension and critical thinking in an Indonesian EFL environment. Both quantitative and qualitative methods were used to accomplish these goals. 71 undergraduate university students from one of Indonesia's institutions participated in the study. Before participating in semi-structured online interviews, they had to pass a reading comprehension exam and the Watson-Glaser Critical Thinking Appraisal

(WGCTA). The study finds that reading and critical thinking do not have a strong correlation. Students give examples of numerous ways they are enhancing their critical thinking abilities.

To sum up, almost all previous studies investigated the perception of interpretation strategies of both expert interpreters and training interpreters or students. The main purpose of the above researchers is to examine the strategies used in different phases of training with students and in various contexts with professional interpreters. As mentioned in the above papers, their findings reveal the awareness of students' strategy applying and the importance of those strategies.

### 3. Methodology

The study was aimed at discovering which skills of critical thinking are commonly used by TVU junior English majors when they study reading comprehension. The validity and reliability of the study's findings were evaluated using the questionnaire that was adapted from Zhou *et al.* (2017). This research involved 49 English major juniors, including 35 females and 14 males at TVU. These were selected at random. The data were analyzed using reliability statistics as well as descriptive statistics. After gathering enough samples of surveys, the data were gathered using SPSS Version 26 software.

### 4. Findings and discussions

#### 4.1 Findings

##### 4.1.1 The reliability of the questionnaire

Table 4.1: Reliability statistics

Cronbach's Alpha	N of Items
.872	22

All data was collected thoroughly, then computed and analyzed using SPSS Version 26 to get the reliability coefficient. The 22-item questionnaire was designed to find out which skills of critical thinking are used mainly by English juniors when they study reading comprehension. To assess the validity, participants were asked to express their opinions on the meaning of each item on the questionnaire. The reliability of the survey was evaluated using Cronbach's Alpha formula. The questionnaire's internal consistency estimate of reliability was  $\alpha = .872$ .

##### 4.1.2 Critical thinking used among English majors

Table 4.2: Overall mean score of students' critical thinking when reading materials

	Mean	Minimum	Maximum	N of Items
Item Means	3.70	3.20	3.98	22

Table 4.2 shows that students' critical thinking when reading materials received an overall mean score of 3.70. The findings made it clear that the participants often use critical thinking when they study reading comprehension.

**Table 4.3:** Report on key critical thinking abilities

	N	Mean	Std. Deviation
Interpretation	49	3.62	.65
Analysis	49	3.67	.78
Evaluation	49	3.67	.81
Inference	49	3.57	.61
Explanation	49	3.93	.60
Self-regulation	49	3.94	.70

Table 4.3 shows that the average score varied from 3.57 to 3.94, demonstrating consistency in learners' competence for interpretation, analysis, evaluation, inference, and self-regulation. The mean scores for each dimension are as follows: Self-regulation (M = 3.94), Explanation (M = 3.93), Evaluation (M = 3.67), Analysis (M = 3.67), Interpretation (M = 3.62), and Inference (M = 3.57). Self-regulation is the skill that students mostly used (M = 3.94), while inference (M = 3.57) received the lowest scores. A detailed analysis of aspects of critical thinking will be presented in the following sections.

### 4.1.3 Interpretation

**Table 4.4:** Descriptive Statistics of Interpretation

	N	Mean	Std. Deviation
<b>Interpretation</b>	49	3.62	.65
1. In daily reading, I can recognize the type of the reading text.	49	3.71	.87
2. I will pay attention to the figure of speech when reading.	49	3.43	.98
3. I will pay attention to the structure of the reading text.	49	3.76	1.07
4. I know the writing purpose of the reading text.	49	3.61	.95
5. I can summarize the main idea of the text after reading.	49	3.59	.89

In Table 4.4, the descriptive statistics show the overall mean scores of interpretation, which include 5 items (M = 3.62, SD = .65), and it is obvious that the third item has higher overall mean scores than others (M = 3.76, SD = 1.07). This result shows that when students read English materials, they usually pay attention to the structure of the text. In addition, they do not usually concentrate on the figure of speech of the reading text when reading (M = 3.43, SD = .98).

#### 4.1.4 Analysis

**Table 4.5:** Descriptive Statistics of Analysis

	N	Mean	Std. Deviation
<b>Analysis</b>	49	3.67	.77
1. I will pay attention to the implied meaning of the author's mood or attitude.	49	3.39	1.04
2. I can distinguish facts from opinions.	49	3.67	1.05
3. I can refine different views from the text when reading.	49	3.71	.84
4. I can find relevant arguments to support the view of the text.	49	3.90	1.01

The students' use of analysis in their reading comprehension is seen in Table 4.5. The descriptive statistics of analysis in Table 4.5 show that the fourth item has higher overall mean scores than the others ( $M = 3.90$ ,  $SD = 1.01$ ). This demonstrates that when students use their analytical skills, they can mostly discover appropriate arguments to support the text's point of view. Next, they often refine multiple perspectives from the text as they read. When applying the analytical skill of critical thinking, students often do not concentrate on the underlying meaning of the author's mood or attitude.

#### 4.1.5 Evaluation

**Table 4.6:** Descriptive Statistics of Evaluation

	N	Mean	Std. Deviation
<b>Evaluation</b>	49	3.67	.81
1. I will judge the rationality of the view from the previous knowledge.	49	3.57	1.08
2. I have my own choice and judgment of the authenticity of information.	49	3.73	.95
3. I can compare my opinion with that of the author in the text.	49	3.71	.98

It can be seen from Table 4.6 that the mean score of the evaluation skills of the students is 3.67. Table 4.6 presents the descriptive statistics for the evaluation, which consists of three items, and it is obvious that the second item has the highest mean score of all ( $M = 3.73$ ,  $SD = .95$ ). This finding suggests that students regularly make their own decisions and judgements about the accuracy of the material in the reading text. Furthermore, they frequently compare their viewpoint to the author's viewpoint in the text. Finally, students do not appear to frequently evaluate the rationality of a perspective based on previous knowledge ( $M = 3.57$ ,  $SD = 1.08$ ).

#### 4.1.6 Inference

**Table 4.7:** Descriptive Statistic of Inference

	N	Mean	Std. Deviation
<b>Inference</b>	49	3.57	.61
1. I can infer the meaning of the proverb from the reading text.	49	3.41	1.17
2. I can predict the main idea of reading text from title or subtitle.	49	3.73	.97
3. I can speculate from various clues (e.g. context) when I can't understand the text.	49	3.86	1.04
4. I can make reasonable inference without reading the rest of the text.	49	3.20	1.17
5. I can understand the implicit conclusion.	49	3.65	.95

Table 4.7 shows that the overall mean score of inference is  $M = 3.57$ . The descriptive statistic in Table 4.7 shows that the third item has the highest core, which has an overall mean score of  $M = 3.86$  and  $SD = 1.04$ . This demonstrates that when students are unable to grasp the meaning of the reading material, they frequently predict based on numerous clues. The second item has a quite high overall mean score ( $M = 3.73$ ,  $SD = .97$ ), indicating that participants can frequently guess the main topic of the reading text based on the title or subtitle. Furthermore, they seldom draw valid conclusions from the material without reading the remainder of it ( $M = 3.20$ ,  $SD = 1.17$ ).

#### 4.1.7 Explanation

**Table 4.8:** Descriptive Statistics of Explanation

	N	Mean	Std. Deviation
<b>Explanation</b>	49	3.93	.60
1. I can express my own opinion according to the text.	49	3.94	.83
2. I can find reasonable arguments in the text to support my own view.	49	3.96	.87
3. I can write comments on the information in the text.	49	3.88	.86

Table 4.8 shows that the overall mean score of explanation is 3.93, and it is obvious that there are three items; the second item has the highest overall mean score ( $M = 3.96$ ,  $SD = .87$ ), and the lowest is the last item ( $M = 3.88$ ,  $SD = .86$ ), but generally, the overall mean scores of the three items are quite high. It is evident that the participants usually apply explanation skills when they read the text; especially, they can find reasonable arguments in the text to support their point of view as well as express their own opinion according to the text that they read.

#### 4.1.8 Self-regulation

**Table 4.9:** Descriptive statistic of self-regulation

	N	Mean	Std. Deviation
<b>Self-regulation</b>	49	3.94	.70
1. After reading, I can correct my unreasonable inference made in reading.	49	3.98	.88
2. I can verify my own view by searching relevant material.	49	3.90	.94

Table 4.9 shows that the total mean score of self-regulation is 3.94, the highest overall mean score of the six components. This suggests that in reading comprehension, individuals primarily employ self-regulation abilities. Participants, in particular, are able to correct their inaccurate reading conclusions. They may additionally verify their own opinions by looking for relevant material.

#### 4.2. Discussion

From the above statistics, it can be concluded that third-year English majors do not always apply all critical thinking abilities in reading comprehension. The majority of the students regularly employed self-regulation level of critical thinking ability in reading comprehension. Besides self-regulation, students frequently employed explanations in reading comprehension.

The findings are different from those of Zhou *et al.* (2015). Their study indicated that university students who are not English majors have poor CT reading skills, particularly in the skills of self-regulation and explanation. They also concluded that students seldom commented on the reading material, identified possible arguments to support their viewpoints, or shared views on English articles. In addition, students simply agreed with the writer's views, seldom argued or corrected the article's unreasonable conclusion, and infrequently used literature and the internet to support their claims.

The findings also contrast with those of Muslem *et al.* (2017). They concluded that most of the students frequently used the inference level of critical thinking skills in reading comprehension. They also stated that the following types of critical thinking abilities were used by students in that order: analysis, explanation, evaluation, interpretation, and self-regulation. Self-regulation was the least used ability in reading comprehension by students (about 5%). In contrast, this study found that self-regulation is mostly used by the participants, and inference is the least used skill in their reading comprehension.

#### 5. Conclusion

The purpose of the study is to find out how frequently junior English majors use their critical thinking abilities when reading. The results demonstrated that most students



commonly employed self-regulation in their reading comprehension. In addition to self-regulation, students often used explanations in reading comprehension. The students utilized inference the least frequently of all the critical thinking skills.

First of all, the highest overall mean score is for self-correction, and more specifically, participants may correct their illogical assumptions produced while reading. They may also confirm their own opinions by looking for suitable material. Furthermore, the explanation has a high overall mean score following self-regulation, in which students may express their own viewpoint based on the text, discover reasonable explanations in the text to support their perspective, and finally, make comments on the information provided in the text. Second, among the other aspects, inference gets the lowest total mean score. Particularly, participants typically do not focus on drawing logical conclusions without reading the remainder of the text and determining the proverb's meaning from the reading text.

### **Conflict of Interest Statement**

The authors declare no conflicts of interest.

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