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Assessing English L2 reading comprehension in Thai EFL learners: The correlations between literal, interpretative and critical comprehension skills

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Abstract

This paper examined the Thai EFL learners' reading comprehension abilities focusing on their literal, interpretative, and critical comprehension skills to investigate their reading achievement, the relationship between their English L2 proficiency and their reading proficiency, and the relationships among their literal, interpretative and critical comprehension. The sample group consisted of 46 fourth-year undergraduate students majoring in English in a Thai university, selected by the purposive sampling technique. The instrument used was the PISA sample reading test and the data were analyzed descriptively by using percentage, mean, and standard deviation, and Pearson product-moment correlation coefficients. The results revealed that the participants' overall reading proficiency was at the medium level. When examining their literal, interpretative, and critical comprehension abilities separately, it was found that they had high literal comprehension, medium interpretative comprehension, and low critical comprehension. The results also revealed that there was a significant positive correlation between the participants' GAP and their test score. The participants who had higher GPA appeared to have higher reading proficiency. Moreover, the participants' literal, interpretative, and critical comprehension abilities were also highly correlated. The participants who had high literal comprehension ability were likely to have higher interpretative and critical comprehension abilities. The results supported the general assumptions that successful reading requires adequate language proficiency and that literal comprehension skill is the foundation of the interpretative and critical comprehension skills.

Keywords: L2 reading comprehension; Thai EFL learners; reading and language proficiency; literal, interpretative, and critical comprehension.

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1. Introduction

Reading is an important skill for academic achievement in every level of education. At the tertiary level, in particular, apart from L1 reading, the English L2 reading plays an important role for the students' academic success because texts related to new knowledge, innovation, science, and technology are largely written in English. To be successful in class, students are required to read extensively for knowledge and information from textbooks, research articles, and other sources and this is not an easy task. According to Anderson et al. (1985), reading is a complex meaning-construction process that requires the coordination of many interrelated sources of information. In the same way, Greenall and Swan (1986) viewed it as a complex cognitive process in which readers construct meaning through interaction with the text they have read. It is thus undeniable that reading is a complex task even when it is done in the first language (L1). However, when reading is done in a second/foreign language (L2), the task inevitably becomes much more complex and when it comes to such a higher level of reading as critical reading, the difficulty and complexity is doubled or even tripled as the reader requires not only a higher level of L2 language proficiency but also critical thinking ability.

Reading involves several sub-skills. Collins and Cheek (1993) divided reading comprehension into three skill-levels: literal skills, interpretative skills, and critical skills. Literal skills involve word decoding processes—understanding words' meaning, retrieving specific information, and recalling specific details. Interpretative skills include integrating, interpreting, and inferring ideas, concluding and making generalizations. Critical skills refer to evaluating the texts, making judgments, and reflecting personal opinion on the texts using reasoning ability or critical thinking skills. Similarly, most reading literature under the cognitive approach view reading literacy as the readers' abilities to access and retrieve the information from the texts—literal skills, to interpret and integrate the retrieved information—interpretative skills, and to reflect and evaluate the whole texts—critical skills, by using both linguistic and sociological knowledge of the readers (OECD 2013). According to Collins and Cheek (1993) and OECD (2013), the literal, interpretative, and critical skills are interdependent and semi-hierarchical. That is, when reading, critical skills cannot be performed successfully without performing successful interpretative and literal skills, and interpretative skills cannot be done without performing successful literal skills.

Based on the assumption of Collins and Cheek (1993) and OECD (2013) above, this present study investigates the semi-hierarchical nature of the three skill-levels of reading comprehension in Thai EFL learners. The study aims to find out how well Thai EFL learners achieve literal, interpretative, and critical reading comprehension when reading English L2 texts, how the learners' grades and number of years spent in learning English correlated with their reading comprehension achievements, and how their literal, interpretative, and critical reading comprehension are correlated with one another.

2. Literature Review

2.1. Reading Comprehension

Reading involves several sub-skills. Collins and Cheek (1993) divided reading comprehension into three skill-levels: literal, interpretative, and critical comprehension. Literal comprehension involve word decoding processes—understanding words' meaning, retrieving specific information, and recalling specific details. Interpretative comprehension include integrating, interpreting, and inferring ideas, concluding and making generalizations. Critical comprehension refers to evaluating the texts, making judgments, and reflecting personal opinion on the texts using reasoning ability or critical thinking skills. Similarly, most reading literature under the cognitive approach view reading literacy as the readers' abilities to access and retrieve the information from the texts—literal comprehension, to interpret and integrate the retrieved information—interpretative comprehension, and to reflect and evaluate the whole texts—critical comprehension, by using both linguistic and sociological knowledge of the readers (OECD 2013).

2.2. Language proficiency and reading comprehension

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It is true that language skills play an important role in reading comprehension. When reading, the readers have to decode the texts using their morphological, lexical, and syntactic knowledge to make meaning of words and sentences. According to Lems, Miller & Soro (2010) reading cannot be assessed if specific language skills are not learn—“without the nitty gritty skills of language knowledge and language processing, the higher order skills just cannot be used” (p.26). If the readers have limited linguistic knowledge of the language in which the texts is written, it is obvious that they will have difficulties in understanding what they have read.

In terms of L2 reading, L2 language proficiency has also been seen as one of the most important determinants of L2 reading achievement (Anderson, 2000; Yamashita, 2002; Lems, Miller & Soro, 2010; Grabe & Stoller, 2011). It is obvious that before L2 readers can read L2 texts, they need to poses adequate L2 language proficiency. They need to have sufficient L2 vocabulary and syntactic knowledge to decode and construct the meaning of the L2 texts. Without these basic L2 skills, the high level reading processes—evaluating and giving judgments—cannot be performed (Lems, Miller & Soro, 2010). Thus to be a proficient L2 reader, L2 proficiency plays an important role.

Grade point average (GPA) has been used to measure students’ academic achievement in all levels of education in Thailand. Students having a higher GPA tend to be successful in learning. For Thai EFL learners majoring in English, GPA can dictate their levels of English proficiency. The higher GPA they gain, the more proficient in English they are. As this present study investigates English L2 critical reading, the sample group needs to have sufficient level of English proficiency. Thus the sample group was purposively selected due to their adequate level of English L2 proficiency.

2.3. Interrelationship between literal, interpretative, and critical comprehension

According to Collins and Cheek (1993) and OECD (2013), the literal, interpretative, and critical comprehension abilities are interdependent and semi-hierarchical. That is, critical and interpretative comprehension cannot be easily achieved without literal comprehension. That is, readers can hardly interpret the texts without decoding, accessing, and retrieving the information from the texts; they can hardly criticize the texts without first interpreting the information in the texts. In short, to interpret a text, one must first be able to literally comprehend it, and to criticize the text, one must first be able to interpret it. The present study also investigates this interdependent nature of literal, interpretative, and critical comprehension to see if and how these types of comprehension of the participants are also correlated.

3. Method

3.1. The participants

The participants included 46 fourth year English-major students enrolling in the first semester of the 2016 academic year. They were selected by the purposive sampling technique because the study requires that the participants have high English proficiency so that they do not have much difficulties decoding the texts. All participants were Thai (L1) native speakers, learning English as a second/foreign language (L2). They were of mixed English proficiency, but as they are fourth-year English major students, their English ability was above the intermediate level.

3.2. Data collection

The data were collected by using a reading proficiency test. The 27-item reading proficiency test was adapted from the PISA sample reading literacy test (OECD, 2009). The test consisted of 7 reading texts of different types including graphs, announcement, argumentative writing, tables, news articles, receipt and warrantee documents, and personal opinion writing. There were totally 27 questions. The test questions were either in the multiple-choice and written formats aiming to measure the student’s literal comprehension (9 items), interpretative comprehension (9 items), and critical comprehension (9 items).

3.3. Data analysis

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The data were analyzed descriptively by calculating percentage, mean, and standard deviations using SPSS 22 for Windows. The passing score for the reading proficiency test was 14 points (>50%). The reading proficiency was divided into five levels: very low (0-19% of the total score), low (20-39%), medium (40-59%), high (60-79%), and very high (80-100%), respectively. To examine the statistical correlation between GPA and the reading proficiency, and the correlations among the sample group's literal, interpretative and critical comprehension, Pearson product-moment correlation coefficients were calculated.

4. Results

As the present study investigated the participants' reading proficiency level, the relationship between the participants' GPA and their reading proficiency scores, and the relationship among their literal, interpretative, and critical skills, percentage, mean, standard deviation, and Pearson product moment correlation were preformed and the results can be shown as follows:

4.1. The participants' reading proficiency

Percentage, mean, and standard deviation were conducted to investigate the sample group's overall score and scores in three different types of questions: literal, interpretative, and critical questions. The descriptive results revealed that the mean score of the sample group was 12.543 (SD = 4.0205) or 46.45% of the total score. When examining the types of questions separately, it was found that the mean scores of the literal, interpretative, and critical questions were 5.435 (SD = 1.4855), 4.478 (SD = 1.5454), and 2.630 (SD = 1.7173), which were 60.38%, 49.75%, and 29.22%, respectively.

Table 1. Overall reading proficiency and by different types of questions

Overall	N	Total	Mean	Std. Deviation	Std. Error Mean	Percentage
Total reading proficiency score	46	27	12.543	4.0205	.5928	46.45
Literal	46	9	5.435	1.4855	.2190	60.38
Interpretative	46	9	4.478	1.5454	.2279	49.75
Critical	46	9	2.630	1.7173	.2532	29.22

4.2. The relationship between the participants' GPA and their reading score

A Pearson product-moment correlation coefficient was computed to assess the relationship between the participants' GPA and the reading proficiency score. It was found that there was a positive correlation between the two variables, $r = 0.658$, $n = 46$, $p = 0.000$, as seen in Table 2 below.

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Table 2. The Pearson’s correlation between GPA and the total score

		GPA	Total
GPA	Pearson Correlation	1	.658**
	Sig. (2-tailed)		.000
	N	46	46
Total	Pearson Correlation	.658**	1
	Sig. (2-tailed)	.000	
	N	46	46

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

4.3. The relationship among literal, interpretative, and critical comprehension

A Pearson product-moment correlation coefficient was also conducted to examine the relationship among literal comprehension, interpretative comprehension, and critical comprehension. The results revealed that there was a positive correlation between literal and interpretative comprehension, $r = 0.985$, $n = 46$, $p = .000$, literal and critical comprehension, $r = 0.985$, $n = 46$, $p = .000$, and interpretative and critical comprehension, $r = 0.985$, $n = 46$, $p = .000$. All pairs yielded a statistically significant correlation at the value of $p < 0.01$ as shown in Table 3 below.

Table 3. Pearson correlations among literal, interpretative, and critical comprehension

		Literal	Interpretative	Critical
Literal	Pearson Correlation	1	.567**	.494**
	Sig. (2-tailed)		.000	.000
	N	46	46	46
Interpretative	Pearson Correlation	.567**	1	.548**
	Sig. (2-tailed)	.000		.000
	N	46	46	46
Critical	Pearson Correlation	.494**	.548**	1
	Sig. (2-tailed)	.000	.000	
	N	46	46	46

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

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5. Discussion and Interpretation of the Results

The research examined the reading proficiency level of the sample group, the relationship between the sample group's GPA and the reading proficiency and years spent in learning English and the reading proficiency, and the correlations between the literal, interpretative, and critical comprehension skills of the sample group. The average score of the sample group was 12.543 (SD = 4.0205) or 46.45%, which was below the 50% passing score. When comparing the data to the reading proficiency scale (0-19% = very low, 20-39% = low, 40-59% = medium, 60-79% = high, and 80-100% = very high), it was found that their average English reading proficiency was at the medium level. This level is not satisfactory for fourth year English major students who are expected to have higher English reading skills. When examining the types of questions separately, it was found that the participants' literal comprehension was at the high level (60.38%), interpretative comprehension was at the medium level (49.75%), and the critical comprehension was at the low level (29.22%). The results suggested that the participants could decode and understand the meaning of the text quite well and could relate the information in the texts and interpret the texts fairly well. However, they could poorly criticize and evaluate the texts. This implies that their critical thinking skill was quite limited.

For the relationship between the participants' GPA and their reading proficiency, it was found that there was a strong, positive correlation between the two variables ($p < .001$). That is, the participants with higher GPA significantly had higher English reading proficiency. As the GPA is used in this research to indicate the level of the English language proficiency, it can thus be said that the more proficient in English the participants, the more proficient English readers they are. The finding is congruent with the assumption that language proficiency influenced reading achievement. That is, EFL readers will be able to read English texts efficiently only if they have sufficient English language proficiency skills (Anderson, 2000; Yamashita, 2002; Lems, Miller & Soro, 2010; Grabe & Stoller, 2011).

Regarding the relationship among literal, interpretative, and critical comprehension, the research found that there was a significant correlation among them. Literal comprehension had a positive correlation with interpretative comprehension and critical comprehension, and interpretative comprehension had a positive correlation with critical comprehension. Increases in literal comprehension were correlated with increases in interpretative and critical comprehension, and increases in interpretative comprehension were related to increases in critical comprehension. That is, the participants who scored higher for the literal questions were likely to score higher in the interpretative and critical questions, and those who did well in the interpretative questions also did well in the critical questions. This findings are in line with Collins and Cheek (1993) and OEDC (2013)'s assumption that literal, interpretative, and critical comprehension are not mutually exclusive but rather interrelated or "semi-hierarchical". That is, readers may not be able to reach interpretative comprehension without first having literal comprehension; they may not be able to have critical comprehension without possessing interpretative comprehension. In short, to interpret a text, one must first be able to literally comprehend it, and to criticize the text, one must first be able to interpret it. It can thus be said that English proficiency has a positive effect on English reading proficiency, and literal comprehension has a positive effect on interpretative and literal comprehension.

6. Conclusion

The research found that the participants' reading proficiency was at the medium level and the participants who had higher grade point average seemed to have higher reading proficiency. In addition, the participants who had higher literal comprehension skills were likely to have higher interpretative and critical comprehension skills. It thus can be concluded that EFL learners need to have enough English proficiency level to perform successful English reading. They have to have enough vocabulary and syntactic knowledge to decode the words and sentences to construct literal comprehension of the texts. Without these fundamental vocabulary and grammatical knowledge of English, effective English reading cannot be performed (Lems, Miller & Soro, 2010). The effective reading requires sufficient language proficiency skills and critical comprehension requires literal and interpretative comprehension. The

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findings provide initial information for EFL program directors to pay attention to the reading proficiency skills of the EFL learners in their programs. They may consider to add more reading courses to improve learners' reading proficiency. As the English proficiency level plays a very important role in reading comprehension, reading courses should be taught only when the students' grammar and vocabulary knowledge is sufficient. In addition, to improve the EFL learners' reading proficiency sustainably, EFL teachers should keep in mind that interpretative and critical comprehension cannot be achieved without literal comprehension, and literal comprehension cannot be achieved without sufficient vocabulary and grammar knowledge.

7. Limitations and Suggestions

Since this present study investigated reading proficiency of a certain group of students from a single university, the results cannot be fully generalized. Besides, grade point average is used to label the students' English proficiency; it may not truly reflect the English proficiency of the students. For further research, the sample size should cover a large number of students from the EFL programs and the English proficiency should be measured by a standard test. However, the study still provides useful information for EFL program directors when designing courses for teaching the reading skills.

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